

FEDERAL WATER POLICY:
PRODUCT OF LONG-TERM
PLANNING?

BY

BERNADINE VIOLA RESTALL

A Thesis
Submitted to the Faculty of Graduate Studies
in Partial Fulfillment of the Requirements
for the Degree of

MASTER OF PUBLIC ADMINISTRATION

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ABSTRACT

The formulation of Federal Water Policy involving the damming of rivers is the product of reactions to various interest groups, tribunals and courts and shows little evidence of carefully thought out, future oriented, coherent planning. In addressing this problem, reference will be made to three water development projects in Canada whose various construction periods span approximately the last half of the 20th century.

The paper contends that government policy respecting water historically viewed the resource as a means to develop the national economy. From the mid-1960's onward, however, the government's policy with respect to water development projects appears to broaden in scope taking into account matters beyond simply economic growth. One may interpret this broadening of policy as an attempt by the government to address emerging environmental and societal concerns over the damming of rivers and the flooding of large tracts of land. While social and environmental interests have emerged they have not been integrated into an overall coherent Federal Water Policy as the government continues to place development over environmental concerns.

INTRODUCTION

The Canadian federal government's policy with respect to this nation's water resource has been and is of recurring interest given the critical importance of water to Canada's history and its future. Federal water policy is an area of study that has prompted comments from a varied audience, including environmentalists, economists, sociologists and, of course, politicians.

Due to the vast and varied uses of Canada's water resource, it necessarily follows that the federal government's activities in this area are of an equally sweeping breadth. It is therefore necessary for the writer to focus her enquiry upon a narrow area, namely, Canadian federal water policy as it pertains to the damming of rivers. The thesis of this paper is: federal water policy formulation, regarding the damming of rivers, is the product of reactions to interest groups, tribunals and courts and shows little evidence of carefully thought out, future oriented, coherent planning.

During the course of this paper reference will be made to three of the most controversial water development projects in Canada: The Columbia River Project in British Columbia, the Churchill River Diversion and Lake Winnipeg Regulation Project in Manitoba, and the Rafferty-Alameda Project in Saskatchewan.

It is the writer's contention that the federal government initially utilized a policy of dealing with water as a means to develop this country's economy. This aim of economic development was achieved, in part, through the use of such things as the development of hydro-electric projects to

advance industrial growth and the undertaking of irrigation projects to promote agricultural pursuits. It is noteworthy that the federal government did not view water as being a "resource"; but rather both society and government regarded it as a vehicle to facilitate resource development in various regions of Canada.

From the mid-1960's, however, the federal government's water policy with respect to river development projects began to broaden its scope to include concerns beyond simply economic growth. One may interpret this broadening of policy as an attempt by the government to address emerging environmental and social concerns of the Canadian public over such things as the damming of rivers and flooding of large tracts of land. However, this broadening of policy did not occur in any coherent manner. The traditional policy emphasizing economic development continued as a dominant theme within the federal system. Social and environmental interests have emerged, but have yet to be integrated into an overall coherent federal water policy and as a result water continues to be placed second to such things as economic development as policy makers consider various initiatives and development options. Government continues in its attempt to appease Canadian environmentalists, yet such actions appear to be reactionary rather than the result of a planned and coherent policy.

As a result of social and environmental concerns on the part of society at large, a new relationship may be seen as evolving between the government and its citizens. The Canadian government began to react to the views of society, or at least, to the more organized groups of society. It is here that the concept of a policy community may be brought forward. In his book, Group Politics and Public Policy, A. Paul Pross defined this community in the following way:

A policy community is that part of a political system that -- by virtue of its functional responsibilities, its vested interests, and its specialized knowledge -- acquires a dominant voice in determining government decisions in a specified field of public activity, and is generally permitted by society at large and the public authorities in particular to determine public policy in that field.¹

This policy community is made up of 'actors' which may include government agencies, pressure groups, media, and individuals. These actors tend to express an interest in a certain area of policy development and are, therefore, able to become active in attempts to influence the outcome of a decision in a particular policy field.²

Two other authors, W. Coleman and G. Skogstad, have written that a policy community may be further divided into two parts: the sub-government and the attentive public.³ The sub-government consists of government agencies and various organizations which make the policy in a given area. "In effect, the sub-government is the policy making body in the field. It processes most routine policy issues and is seldom successfully challenged by dissident members of the policy community."⁴ In essence, sub-governments are considered to be the center of the policy community.

On the other hand, the attentive public:

...includes any government agencies, private institutions, pressure groups, specific interests, and individuals -- including academics, consultants and journalists -- who are affected by, or interested in the policies of specific agencies and who follow, and attempt to influence, these policies, but do not participate in policy making on a regular basis.⁵

Although the attentive public lacks the power to influence the direct outcome of a policy decision, it does offer a way for policy issues to be examined. It is through this part of the policy community that issues are brought forward, heard, debated, and perhaps adapted to the changing needs of the community.⁶ As Pross notes, it is the attentive public that maintains a policy review process for the policy community: "It introduces into the policy community an element of diversity inhibited at the sub-government level by the need to maintain consensus."⁷ Again, the attentive public attempts to influence policy, but it is not directly involved in the formulation of policy.

As will be seen as this study progresses, the policy community began as a very small unit. This may be illustrated with reference to the history chapter of this paper, where the policy community is seen to be quite small. With the advent of environmentalism, however, the policy community expanded rapidly. Today, with respect to water issues (as well as other environmental concerns) the policy community may be perceived as being very large. This expansion in the size of the policy community also allows for an increase in the number of actors involved at the sub-government level. Currently in Canada, the number of 'groups' listed in the environmental network numbers approximately 2400, 169 of which are found in the province of Manitoba. Indeed, a directory entitled, "The Green List" has been published and includes diverse environmental organizations such as: Academics For Disarmament; Allergy And Environmental Health Association Of Canada; Earth Friendship Center Foundation; Manitoba Eco-Network; and the Christian Development Council to name only a few.⁸ Depending on the particular policy being examined, it is currently quite easy for a group in the attentive public to become involved at the sub-government level, therefore increasing its size further. Interestingly, today the policy community itself

has expanded to include the courts, where actors in the policy community have increasingly had the opportunity to have their concerns examined.

Considerations with respect to Canada's water resource also reflect the increasing social interest in environmentalism, as well as the increasing jurisdictional conflict between the Canadian federal government and provincial governments. The provinces have maintained that water, as a resource, falls under their authority; the federal government has maintained that water is under its control as it has jurisdiction over such things as fisheries, navigation and international waterways.

This conflict has existed since the enactment of the British North America Act in 1867,⁹ when there was a strong federal government that maintained a high degree of control over the provinces. However, over the last several decades, a more pronounced struggle has become evident as the provinces attempt to maintain control over their water resource. Such a struggle for control is not one that is easily solved and remains an area of conflict between the two levels of government that is still ongoing today.

In this paper's examination of federal water policy as it pertains to the damming of rivers, the writer has identified five components and will, accordingly, present the subject matter in five sections:

- 1) The history of the role of water in Canada
- 2) Water resource exploitation for economic advancement:
The Columbia River Project
- 3) Social/ Environmental concerns associated with economic gain:
The Churchill River Diversion and Lake Winnipeg Regulation

- 4) Environmental concerns versus economic development:
The Rafferty-Alameda Project
- 5) Water resources today – is there a coherent policy?

1) THE HISTORY OF THE ROLE OF WATER IN CANADA

Throughout the history of Canada, the importance of the role of water in the development of the nation emerges repeatedly. This should come as no surprise given the geography of Canada and its abundant water resources. As Canada evolved as a nation, water was to become viewed as a means to facilitate the development of interior regions and industry.

In the early years of the seventeenth century, settlements in Canada were to be found primarily along the banks of the St. Lawrence River. In what was then known as New France, the St. Lawrence River provided the primary means of transportation within the country and facilitated communication with the European continent.¹⁰ The river also provided settlers with food, and assisted in the development of farming and timber harvesting. Finally, it should be noted that the river facilitated the exploration and the expansion of settlement into the interior of the continent from the settlements of New France, as individuals pursued the trapping of fur bearing animals for the shipment of pelts to Europe.¹¹

The fur trade fueled the exploration of interior regions of the country as many believed that the larger the territory explored and secured for trapping, the more available fur would be secured for demanding markets. In the context of the fur trade, water assumed an important role:

Water routes to the interior had strategic importance for trade and territorial control. In the competition for furs, England granted a charter in 1670 to a "Company of Adventurers" to all territories drained by rivers flowing into Hudson Bay.¹²

It was as a result of the fur trade (and the associated competition for territories between English and French interests) that the settlement of remote areas in Canada was initiated. The fur trade routes followed the water ways and from such explorations, settlement of interior regions was facilitated. These explorations included both the northward and westward expansion of trade and the discovery of yet further lands and new waterways.¹³ As Harold Innis wrote when discussing the economic history of Canada:

The expansion of trade...began in the Maritime Provinces, extended rapidly by the Saguenay and later by the St. Lawrence and the Ottawa to the Great Lakes, and northwesterly across the headwaters of the rivers of Hudson Bay drainage basin from Lake Superior to Lake Winnipeg, the Saskatchewan, the Churchill, across the headwaters of the Mackenzie River drainage basin to Mackenzie and Peace rivers, and finally to the headwaters of rivers of the Pacific coast to New Caledonia and the Columbia. The waterways along the edge of the Canadian Shield tapped the rich furlands of that area and in the smaller headwaters of the four drainage basins provided an environment to which the canoe could be adapted.¹⁴

In the latter part of the eighteenth century, with the utilization of large boats, transport to remote locations became even more efficient and, consequently, trade expanded rapidly. Water routes were one of the primary means by which trade could be expanded and, simultaneously, more territory discovered, claimed and settled by explorers.

Traditionally, therefore, water has played a critical role in Canada's continuing development as a nation. As one author has observed:

...closely connected rivers and lakes became the basis of an evolving communication and transportation network and for securing

dominion over the northern half of the continent.¹⁵

Water aided in the development of Canada's interior and its use for transport and industry led to the development of canals, dams and dyke systems at a rapid pace in the country.¹⁶

While water assisted in the exploration and early settlement of Canada, its value as a resource was not fully appreciated until the industrial revolution. To describe the impact of the industrial revolution upon western societies as 'significant' would be an understatement given the massive and far reaching consequences of this event which remain evident through to the present day. The technological developments resulting from the industrial revolution had the effect of altering both social structures and social values. As one author observed:

By 1840, the steam engine alone had transformed England's industries into sprawling, whirling, beehives, and no part of her culture was free from the dizzying influence of a leaping technology. The telephone was invented; then came mechanical refrigeration. Faraday's electrical dynamo, then Edison's electric light permitted factories to stay open all night long, swelling production to a hitherto unimaginable degree. The turbine and internal combustion engines appeared. In time, the sorcery of Marconi's wireless telegraphy. As Winston Churchill recalled, " Every morning when the world woke up, some new machinery had started running. Every night while the world had supper, it was running still." ¹⁷

The industrial revolution, in the simplest terms, resulted in 'growth.' For example, populations began a dramatic increase in numbers as public health emerged as both a technological and social issue. " The war on disease could not by itself have doubled the population of the world in a century; this

triumph of the modern age was also due to the reduction of famine."¹⁸ Industrial production rose dramatically with the industrial revolution. " The technological advances of the nineteenth and twentieth centuries multiplied prodigiously the power available for human needs among the Western nations."¹⁹ The immediate consequence of this rise in industrial productivity was the emergence of western nations as world powers in what developed to be an age of imperialism.

Technological changes also had a number of detractors among individuals and classes within the western nations. For example, according to one writer, the rise of socialism may be attributed to the industrial revolution:

The individualist system of capitalist production based on the private ownership and competitive administration of land and capital, with its reckless 'profiteering' and wage-slavery; with its glorification of the unhampered struggle for the means of life and its hypocritical pretence of the 'survival of the fittest': with the monstrous inequality of circumstances which it produces and the degradation and brutalization, both moral and spiritual, resulting therefrom, may, we hope, indeed have received its death-blow. With it must go the political system and ideas, in which it naturally found expression.²⁰

Whatever may have been its drawbacks, society as a whole appears to have regarded the increase in technology and industrial production as a positive step forward. " The military superiority achieved by western nations over undeveloped third world countries, the consequence of technologically advanced weaponry, served to reinforce the view that industrial expansion and growth in productivity were beneficial and that western society was superior."²¹

It was as exhilarating as only the experience of seemingly limitless growth can be. The feeling at a mass level spawned an optimism childlike in its determination. It was a consuming optimism, oblivious to the complications that would ensue once the natural limits of growth appeared. Furthermore, the breadth and immediate consequences of the growth were so unprecedented that people could no longer rely on past solutions for their problems. Instead, novel solutions had to be invented almost on a daily basis. In time, the need to keep eyes affixed on the future buoyed optimism even further, for the future had become tautly intertwined with the Victorian Dream.²²

Inevitably, the optimism and faith in limitless industrial growth would influence North American society. The conservative American John C. Calhoun observed in 1817: " We are greatly and rapidly – I was about to say fearfully – growing. This is our pride and our danger, our weakness and our strength...."²³ In both Canada and the United States the vision of limitless industrial growth was to influence the course of development of these countries. The Victorian goals, however, were to become integrated into the uniquely North American view that resources were limitless and subject only to the speed with which the frontier could be expanded and the resources exploited.

In the Canadian context, as the country moved into the present century one may discern a pride in technological achievement and in the development of resources to advance industrial progress. An example of this may be found in the following quotation taken from a school text book originally published in 1959: " To water-power as much as to anything else Canada owes the great expansion of her industry which has taken place during the last half century. Canadian factories are no longer dependent upon coal shipped to them from

great distances. The development of cheap electrical power has made Canada a great manufacturing nation."²⁴

The impact of the industrial revolution upon North American society was obvious. The industrial revolution allowed for the continuous development and promotion of industry within the nation. This was achieved primarily through the use of resources such as water. Indeed, as previously noted, water was utilized to assist in the expansion of other areas of industry and development.

The nineteenth century view of water as a tool for the exploitation of other resources is illustrated in the British North America Act of 1867 (hereinafter referred to as the BNA Act) . The BNA Act did not describe water as being a natural resource.²⁵ Pursuant to the terms of the BNA Act, fisheries and navigation fell under the jurisdiction of the federal government; while the provincial powers consisted of the provinces being allowed to manage natural resources within provincial boundaries, "...without restriction except within those areas subject to federal legislative control."²⁶ From the time of Confederation, federal government policies that dealt with water were initiated and pursued primarily to assist in the management of water with respect to such activities as fishing, agriculture and industry.²⁷ Canadian water policy to the extent it was developed, was simply that of a policy geared toward development and industry.

Given Confederation's intent to create a dominant federal government and subservient provincial governments, the very fact that navigation was assigned to federal jurisdiction is indicative of the importance attached to water as a medium for transportation in this country. During the nineteenth century, Canadian waterways were crucial to the expansion of the country's industrial base. By maintaining control over navigation, federal authorities

were, in a very real sense, able to keep the fledgling country together. Only with the advent of a transcontinental railroad was water's role of linking the country diminished. As a medium for cheap and efficient transport, however, waterways continue today to be utilized; the St. Lawrence Seaway and St. Andrews Locks in Manitoba being two such examples.

The emphasis upon transportation and fisheries exploitation of Canada's water resources clearly suggests a societal view of water as an aid to industrial growth. As well, by placing "water" in the federal government's jurisdiction, the framers of the BNA Act appear to have been attempting to ensure both its security and its prominence in Canadian life (even if this was an unconscious action by the government of that time).

As is the case with many legal documents, including federal constitutions, the provisions of the BNA Act dealing with water have over the years been the subject of numerous arguments between the provinces and the federal government as each level sought to safeguard and expand its areas of jurisdiction. For example, while fisheries and navigation were specifically set out in the BNA Act, this fundamental piece of legislation failed to deal with other uses of 'water.' The provincial position was simply that water is a natural resource and as such, falls strictly under provincial jurisdiction; the federal government, in contrast, maintained that as 'water' had not been specifically assigned to the provinces pursuant to the terms of the BNA Act, then it remained solely within federal jurisdiction by virtue of the residual power contained in Section 91 of the BNA Act.²⁸

Another example of what may be described as the constitutional uncertainty (if not confusion) surrounding water may be seen in the way provincial and federal governments have handled questions respecting Inland Fisheries. The fisheries are a significant source of revenue and this

fact led to increasing levels of friction between the provinces and the federal government. The contest was ultimately resolved in the following manner:

The federal government retained the right of regulation of inland fisheries, but the provinces were granted administrative jurisdiction over them.²⁹

This resolution may best be described as confusing. It is, however, a fact that such a confusing situation continues through to the present day as the federal government retains control over such areas as fisheries and navigation while provincial governments exercise administrative control over inland fisheries.

In addition, and of importance to the understanding of this paper, is the issue of boundary waters. Boundary waters refer to any waters which flow along or across the common border of Canada and the United States.³⁰ Conflicts in this area began to emerge by the turn of the century, as concerns were raised over issues such as water levels on the Lake of the Woods and power development on the Niagara River.³¹ Investigations into such matters were initiated by the governments of both Canada and the United States, but, mutual goals were not immediately agreed upon or achieved. By 1905, however, an International Waterways Commission was established with representation from both countries.³²

The Commission recommended general principles to be followed in resolving disputes. The resulting Boundary Waters Treaty was signed by Great Britain and the United States in 1909.³³

Ultimately this Boundary Waters Treaty was to have far-reaching effects which were to include the creation of an International Joint

Commission, made up of an equal number of representatives from Canada and the United States.³⁴ The Treaty

...also provided for joint studies through references to the Commission, established rules for approval of works and uses, and prohibited transboundary pollution which would result in injury to health or property.³⁵

For Canada, such assertions in the Treaty were (and are) of great importance. The fact of equal representation of both Canada and the United States on the International Joint Commission also meant that both countries had to approve solutions to any issues involving boundary waters. During this same period the government of Canada passed the International Boundary Waters Treaty Act,³⁶ which enabled the federal government to implement some of its responsibilities under the Treaty.

As the question of boundary waters illustrates, the significance of water in Canada's development cannot be underestimated or overlooked. The government may have been protecting its resources, but society as a whole (or at least parts of society) was actively promoting resource exploitation and development through the use of water.

While Canadian officials were negotiating with their American counterparts over issues involving boundary waters, rapid development had been initiated in the Canadian prairie regions. In 1870, Canada utilized a survey to assess the agricultural potential of the prairies. The results of this survey, known as the Macoun Report, showed that only 53% of the Canadian Prairies were unsuitable for farming.³⁷ On the basis of this report, the Dominion Lands Act was passed in 1872 with the aim of actively encouraging and promoting settlement in the Canadian Prairie region. It was aided in this

by the Canadian Pacific Railway, which were wanting to expand its customer base and transportation of goods, as well as increase the value of their substantial land holdings.³⁸

While the Macoun Report found vast tracts of land to be quite suitable as agricultural land, it ignored a fundamental problem in the Prairie region, namely, that vast areas are subject to periods of drought. However, neither the government of Canada nor the Canadian Pacific Railway wanted to acknowledge this and the need for irrigation on the prairies for fear that it would discourage potential settlers.³⁹ This initial position of inaction by the federal government, however, soon gave way to a search for solutions in the face of continuous prairie droughts. Inevitably, this led to the consideration of irrigation for the Prairie region. The result was the federal government's implementation of the Northwest Irrigation Act of 1894: 40

This Act established the concept of publicly administered irrigation districts, which were realized in the next century when private enterprise abandoned its unprofitable investments.⁴¹

By 1927, the prairie provinces were insisting on the control of their natural resources, and this objective was finally achieved in 1930, with the Natural Resource Transfer Agreements.⁴² Even though this transfer of natural resources took place, the federal government still had to subsidize the prairie provinces and provide assistance through the continuing drought years. The creation of the Prairie Farm Rehabilitation Act, which subsequently became the Prairie Farm Rehabilitation Administration, is an example of federal government assistance.⁴³

The Prairie Farm Rehabilitation Administration immediately established a visible federal presence at the farm, community and regional level by participating in thousands of small dams and dugouts, community water supplies and later in major irrigation projects.⁴⁴

The Northwest Irrigation Act and the Prairie Farm Rehabilitation Act clearly illustrate, yet again, the early Canadian linkage of development to water. Whereas in eastern Canada waterways facilitated development by easing the transport of goods, in western Canada water was utilized to assist in regional development by allowing for the placement of settlements in arid areas. In all cases, however, the notion that 'development' was beneficial went unchallenged in both government and Canadian society at large. Federal water policy, as it was implemented during the early twentieth century, contained a total pro-development orientation reflecting both governmental and public sentiments as Canada moved into the early decades of the twentieth century.

Water's role as a vehicle of Canadian economic development continued to be of importance both during and after World War II. Indeed, the war-time economy seems to have emphasized traditional pro-development views of water use. During this period, the federal government actively pursued a policy goal of initiating and assisting in regional economic and social expansion. These policy initiatives led to the creation of certain programs, such as the continuing elaboration and extension of irrigation systems in the Prairie regions. Such initiatives appeared to be one of the ideal methods for the federal government to achieve its goals of development.

The nation, as a consequence of World War II, had undergone a number of rapid and far-reaching transformations. As a result of such transformations, the federal government was faced with a series of significant challenges, among them such things as "...conversion to a peacetime economy, resettling veterans, absorbing immigrants and enlarging social programs."⁴⁵

With the return of the veterans of World War II, the government had to take immediate action in order to accommodate them. Veterans had to be re-absorbed into Canadian society at large after years of being absent and removed from it. One author has observed:

Veterans were the government's first concern. Legislation in 1944 and 1945 established a framework of demobilization grants based on time served in the armed forces and time served overseas. Incapacitated veterans received full medical care, and invalids were pensioned to the full extent of their individual disability. Those veterans who wished to go on to university or technical schools received free tuition and a living allowance that corresponded, month for month, with the time they had spent in the armed services. Veterans wishing to take up farming or to buy land for small businesses were assisted under the Veterans' Land Act. Those who wished to return to their pre-war jobs were handed their old jobs back....⁴⁶

This was just one of the many tasks that the federal government attempted to accomplish. Having just come through the War, the federal government had to attempt to accommodate not only returning veterans but also the arrival of numerous immigrants, including displaced persons and war brides. Because of such developments, the federal government believed it to be very important and necessary to shift its sights away from the military demands that the war had placed on Canada's economy. The time had once again arrived

for the federal government to actively pursue economic growth and further emphasize areas such as industrial and regional development. This was accomplished through the utilization of natural resources. One commentator has described the Canadian post-war economy as follows:

When World War II ended, there existed in Canada a widespread concern about the future - the possibility of rising levels of unemployment and economic adversity of the type experienced after World War I and in the 1930's.

But instead, Canadians achieved the task of converting their wartime industrial structure to one geared to meet rising civilian demand with remarkable alacrity and comparatively little dislocation. Instead of experiencing significant increases in unemployment, the Canadian economy faced substantial demands for most of the goods and services it could produce and the problem was one of inflation rather than one of recession. The conversion to a peacetime footing was fully completed by the end of 1947 and Canadian industry was ready to tackle its next task -- to push back new technological and economic frontiers.⁴⁷

It is not surprising that the federal government, in an effort to meet these challenges, tried to initiate the first coordinated water policy in Canada. Water related initiatives by the federal government after the War were primarily regional. Such initiatives were developed through management boards that had specific interest and jurisdiction in certain defined regions of the country. As one author has observed of this time period in Canada:

After World War II, water resources continued to be viewed as a means of nation-building; projects often of a huge scale were undertaken to develop hydro-electric power, agriculture, and seaway transportation. But, in response to growing pressures and conflicts in some waterways, attention began to be directed to the need for coordination in resource development. Federal and provincial governments established joint arrangements... to enable co-operative

development of major projects and integration of water developments within regional economic plans.⁴⁸

Some of the regional boards that were established included: The Maritime Marshlands Rehabilitation Administration, the North Canada Power Commission, and the Prairie Provinces Water Board.⁴⁹ The Prairie Provinces Water Board was established in 1948 and involved Alberta, Saskatchewan and Manitoba. Its purpose was to recommend how inter-provincial waters should be used and allocated through their respective provinces.⁵⁰ By 1953, Parliament enacted the Canada Water Conservation Act.⁵¹ The intention behind this Act was to provide financial assistance to major provincial water storage projects which would assist flood control and irrigation.

During this time, resource managers continued to view Canada's natural resources as a potential vehicle for development. Although resources were the primary focus of their concerns, the underlying purpose was simply to utilize natural resources, to the fullest extent possible, in order to encourage economic growth, development and employment opportunities throughout Canada. As one such manager stated:

...our concern is not just with resources alone, but with resources in relation to capital and labour, and our complex institutions as they all, in turn, relate to the objectives of growth.... We must be able to turn resources into income and employment opportunities.⁵²

Concomitant to such events as World War II, and the development of legislation as previously described, was the rapid expansion of various initiatives including hydro-electric power development. Hydro-electric power development, it was believed, not only had the capability to increase industrial development within Canada, but also to increase the country's

overall economic growth. Of importance to understanding the continuing role that water played in Canada at this time is the fact that:

...the federal government substantially conceded provincial claims to ownership and control of waters for power generation, whether or not they were navigable.⁵³

The provinces were thus able to develop their own hydro-electric power potential without interference from the federal government. The provincial governments, looking towards future development opportunities, began to recognize the many advantages that could result from encouraging industrial growth through hydro-electric power development in their regions.⁵⁴ Various initiatives led the provinces to perceive endless development opportunities with regard to water and hydro-electric power.

At the same time, however, contracts for international power exports began to raise societal concerns as substantial proportions of the public perceived that provincial governments were being negligent. The provinces, it would seem, failed to act or regulate their power export activities and in fact, seemed to promote the export of a resource that might be of great and longterm use to Canada in the future.⁵⁵ In response to such public unrest, the federal government quickly implemented policy and legislation which prohibited long-term electric exports by the provinces.⁵⁶ Noteworthy, this exercise of federal jurisdiction was legally substantiated and justified on the basis of the BNA Act's provisions respecting federal government jurisdiction over trade and commerce rather than upon specific and exclusive jurisdiction over water, which as related earlier, was a matter of confusion and dispute.

It should be readily apparent that the underlying theme being pursued by governments and society was economic growth through the utilization of natural resources such as water. As one commentator has written on this issue:

One of the major areas of expansion in the postwar period has been in the utilities sector. It became clear shortly after the War that the facilities in this field were inadequate to support the level of activity to which the economy was moving.... Within the utilities sector, the major share of expenditures has gone into the construction of electric power facilities, particularly new hydro facilities.⁵⁷

As has been and will be further demonstrated, water was not regarded by the federal government as a discrete resource. This is consistent to its treatment under the BNA Act wherein the powers of the federal and provincial governments are enumerated and distributed. Instead water was viewed as an element involved in the development of other resources or areas of activity, holding therefore, an undefined subservient or secondary status for economic development.

This historical review of the role of water in Canada allows one to perceive a policy community that was quite small in nature. Indeed, it was not until the industrial revolution that a pro-development policy became evident as a goal in relation to the utilization of water. As well, the BNA Act's handling of water allows one to see this resource as simply a tool for the expansion of other areas of governmental interest such as fisheries and navigation. Over the decades, the sub-government actors initiated various policies to assist in the development of this nation: the Dominion Lands Act; the Northwest Irrigation Act; and the Prairie Farmers Rehabilitation Act.

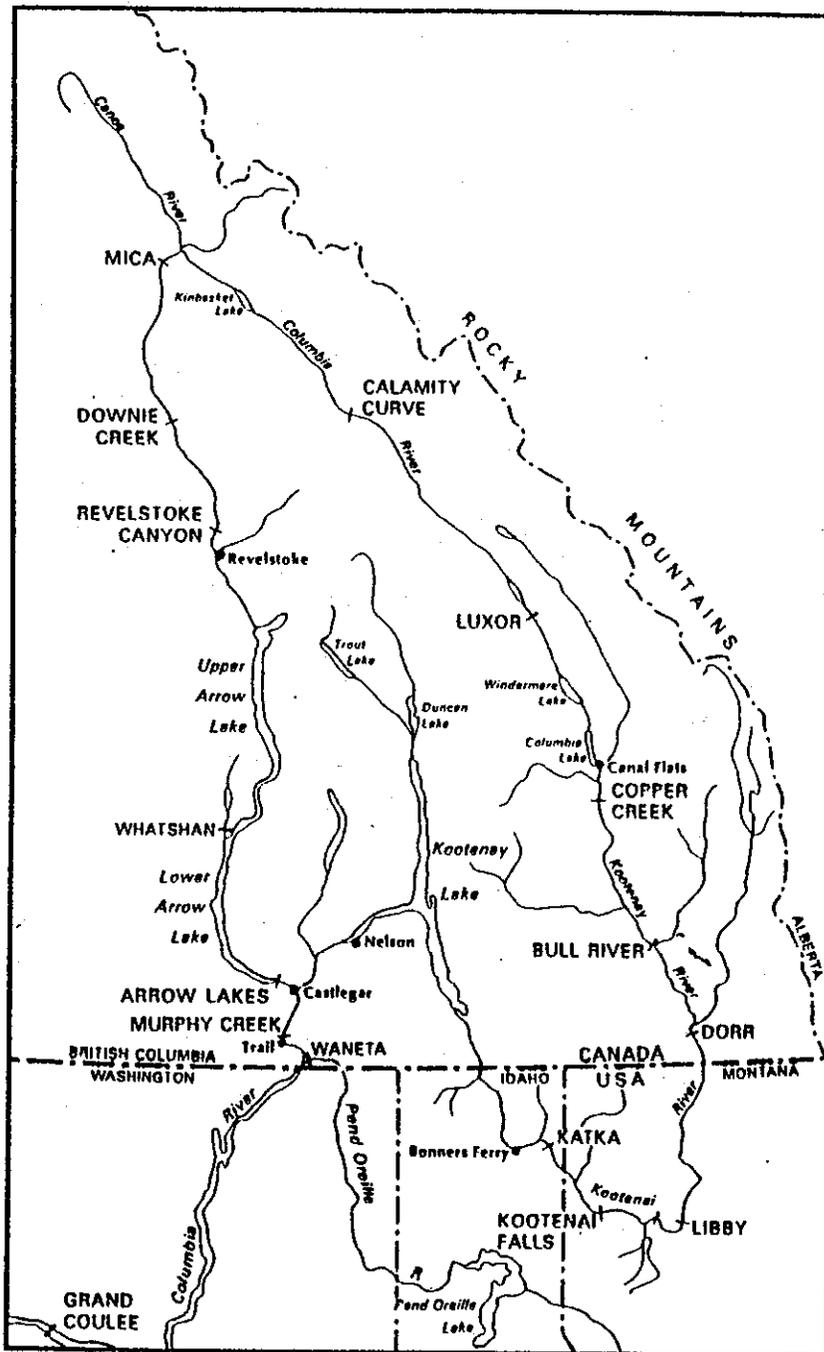
After World War Two, the expansion of the development of this nation continued through such things as the various regional boards, which as noted previously, were set up in different regions of Canada. The policy community itself was apparently in favour of economic development through the utilization of water.

The only instance of opposition arising within the attentive public was in the sale of export power to the United States by the provinces, which resulted in a federal policy that prohibited long-term hydro-electric power exports. Other than this, if any policy actors were in opposition to the policies put in place at this time, they were minimal in visibility and effect.

2) WATER RESOURCE EXPLOITATION FOR ECONOMIC ADVANCEMENT: THE COLUMBIA RIVER PROJECT

Simultaneous to the federal government addressing regional problems and projects as described previously, attention was also being directed towards cooperative projects with the United States. With economic growth as the omnipresent underlying theme, ideas continued to spring forward for projects such as hydro-electric power development on the Columbia River in British Columbia.⁵⁸ Interest was evident, on the part of Canadians and Americans alike, in support of the potential development of this great river. The Columbia River Treaty (1964),⁵⁹ which facilitated the Columbia River power development, is one of the key illustrations of the view that federal policies in relation to water reflected primarily economic concerns. When policies were being formulated at this time, it would appear that economic gains and power generation were the two key issues considered by the federal government. Economic development, it was believed, simply followed upon the development of water as a resource for hydro-electric power generation. The federal government's participation and apparent policies, with regard to the Treaty, make it worth examination.

The Columbia River is located in the province of British Columbia (B.C.), where it travels in a south easterly direction until it flows into Columbia Lake. From this lake, the river continues in a southerly direction for approximately 480 miles in B.C. before it crosses the international border between Canada and the United States and flows into the State of Washington.⁶⁰ (See figure 1, p. 25) From a hydro-electric power development perspective, this river was



The Northern Portion of the Columbia River Basin.

Figure 1
(Swainson, 1979)

ideally suited towards the development of power generation. As one commentator, Donald Waterfield, has observed:

The Columbia... was a huge river in summer when snows were melting in the high mountains but was, relatively speaking, a mere trickle in the winter. It was in the winter that power requirements for domestic needs were at their peak, especially for heating. Industry too, required constant power, summer and winter... Coulee Dam might be imposing -- the largest structure ever built by man and capable of generating two million kilowatts of electric energy -- but, in engineering and economic terms, it was not efficient, for in winter it was starved of fuel (water) to drive the gigantic wheels which turned the generating motors. With adequate storage, obtainable economically only in our province, the power from Coulee's generators could be 'firmed up' to operate at maximum efficiency throughout the year, and other dynamos could be added to make still more power for a rapidly expanding market.⁶¹

As a result of the need for water storage, the governments of Canada and the United States began to focus their attention on the Columbia River, which was considered as very suitable to the achievement of their goals.

John Krutilla, an American economist, has examined the Columbia River Basin and events leading up to the Columbia River Treaty. In his review of this subject, which is a straightforward factual account of both the positive and negative impacts of the Columbia River development project, Krutilla offered the following viewpoint as to the potential for the development of hydro-electric power on the Columbia River:

...The Columbia and its tributaries rise at high elevations in mountainous terrain with numerous sites along the stream course where the fall of the river can be utilized effectively for the generation of hydro-electricity.⁶²

The Columbia River Treaty between Canada and the United States was a complex exercise in the engineering and economics of both power development and flood control. This project affects an area that consists of more than 250,000 square miles and also affects major economic activities on both sides of the international border.⁶³ The overall purpose of the development of the Columbia River was found by the various study teams to be quite simple and straightforward. In essence, British Columbia was to store fifteen and a half million acre feet of water which was to be released in such a way as to maximize power generation downstream in American plants, ⁶⁴ in exchange for which Canada would receive a share of the power produced by the American power plants.

The Columbia River Treaty ultimately provided for the construction of three dams in Canada, and one in the United States,⁶⁵ that would assist in impounding water north across the border and "...forty miles into the Rocky Mountain Trench of British Columbia."⁶⁶ Under the terms of the Treaty, the Americans would simply advise Canadian authorities as to the amount of water that was needed to be released at any given moment, and Canada would comply with American instructions.⁶⁷ As one author has commented:

The Columbia River Treaty is held to be an admirable example of international cooperation by many export supporters. In that case, operational cooperation simply amounts to the United States stating how much water it wants to cross the border in the Columbia River at a given time, and the Canadian authorities turn the taps accordingly.⁶⁸

It should be noted that the proposed development of the Columbia River at this time was neither a new nor a unique idea. Indeed, investigations relating to the economic development of this river basin had been pursued for

many years, by both Americans and Canadians as they looked towards increasing the economic development of their various industries.

In the late 1940's Canadian engineers began a long series of investigations of possible damsites in the Columbia River basin in Canada. These investigations continued throughout the 1950's as the results of earlier site investigations and associated regulation studies of the river pointed out new and more economical possibilities of development.⁶⁹

From such studies and investigations, over one hundred different combinations of potential projects were brought forward. These proposals were then examined by the Water Resources Branch of the federal government of Canada. This department attempted to examine and narrow down the potential choices available for the development of the Columbia River. Concomitant to such independent investigations by Canada, both the United States and Canada jointly demonstrated an active interest in the development of cooperative projects on the Columbia River.

As the investigations continued the process of elimination resulted in the adoption of sites on the Columbia at Luxor, Calamity Curve, Mica Creek, Downie Creek, Revelstoke Canyon and Murphy Creek. Together, projects at these sites could develop over 90 percent of the total head of 1350 feet available between the headwaters at Columbia Lake and the International boundary. A further 44 feet of head could be developed by a dam at the outlet of Arrow Lakes, but it was apparent even in these early studies by both government and consulting engineering firms that the great value of the Arrow Lakes site was the important role it would play in a plan of cooperative river development with the United States and particularly in promoting the effective use of Canadian storage farther upstream for production of power in Canada within such a cooperative arrangement.⁷⁰

In 1944, the two countries approached the International Joint Commission (which as noted earlier, was formed under the Boundary Waters Treaty) to assess the possibility of developing the Columbia River under a joint venture.⁷¹ On March 9, 1945, Prime Minister Mackenzie King announced in Parliament that the International Joint Commission's Columbia River Engineering Board had been approached to conduct a survey of the hydro-electric and flood control potential of the Columbia River.⁷² The Columbia River Engineering Board, established by the International Joint Commission, was to spend the next fifteen years investigating the Columbia River before a final report of its findings was submitted.

Further to this end, negotiations themselves between Canada and the United States on the development of the Columbia River were conducted in privacy and, as a result, very little information was available to the public aside from the rumoured agreement to build certain dams such as Mica, Arrow and Duncan.⁷³ This lack of information resulted in local newspapers running stories on the potential rumoured dams, their sites and associated impacts.⁷⁴ It became evident, partly because of reactions to media reports, that the citizens of British Columbia were concerned and curious about such a project and its potential impacts. The government, however, chose to exclude the public from its preliminary investigations. With respect to this situation, one writer has commented:

In looking over accounts of the evolution of the Columbia project one is struck by the extent to which the people affected by it lived for years in a fog of ignorance, purely technical information, and rumour.... But it must be remembered that almost all action took place at the administrative level within the confines of the federal and provincial governments of the day.⁷⁵

Public concern and participation were not considered to be an important aspect of development requiring examination in the early stages of the Project's planning; economic development remained the theme pursued by the federal government.

Concomitant to the early investigations for the development of the Columbia River, a second issue prompted the federal government to outline and initiate additional policies in relation to water resource development. These new initiatives also focussed upon the Columbia River. The province of British Columbia had announced plans for hydro-electric power development to assist the Kaiser Aluminum Company.⁷⁶ In March of 1954, "...Kaiser Aluminum Company of the United States, had offered to build a low-level dam on the Arrow Lakes to store three million acre feet of water. Kaiser would pay all construction costs... and the British Columbia government approved the offer."⁷⁷ However, a conflict emerged as this project was to be developed at Arrow Lakes, which was being considered as a potential dam site to be incorporated in the Columbia River Treaty. It was believed that such a project would directly interfere with the flow of the Columbia River.⁷⁸ Further, it was strongly believed by the federal government that such a development on the Columbia River by the government of British Columbia would interfere with, and perhaps even prevent, any large scale hydro-electric power developments with the United States on the river. In reaction to this potential interference by the province, the federal government implemented a new initiative:

...federal authorities drafted quickly the International Improvements Act. The Act, requiring federal approval for the construction of a facility in Canada that would alter flows, was sufficient to block the

province's plans.⁷⁹

British Columbia was, therefore, not able to follow through with its plans for the independent development of parts of the Columbia River. Donald Waterfield, when commenting on this action on the part of the federal government, asserted: " We applauded our national government when it asserted its sovereignty of international and navigable rivers by slapping down Kaiser, telling them to pack up and go home."⁸⁰

In 1959, the International Columbia River Engineering Board submitted a report of its findings. The Board concluded that the most valuable benefit to be gained from this water resource development would be the production of hydro-electric power.⁸¹ The federal government of Canada concurred with this Board's findings and conclusions:

The largest and most tangible use of water resources of the basin, either existing or in the foreseeable future, is for hydro-electric power production. Therefore, the full development of the hydro-electric potential is a primary goal.⁸²

In view of these findings, it then became necessary for the International Joint Commission to prepare an outline in order for the two countries to commence with the full development of the Columbia River project. As John Krutilla noted:

Within the year the International Joint Commission, at the request of the two governments, began to formulate a set of principles by which to determine the benefits to be realized from the co-operative undertaking and to guide their division between the two countries.⁸³

Further to the Columbia River Treaty, during these negotiations the Canadian government introduced a proposal to the United States authorities that Canada should be entitled to half the power generation and flood control benefits from the Treaty as Canada was storing the water.⁸⁴ This claim by the federal government was actually transformed by the International Joint Commission into an abiding international principle of the Boundary Waters Treaty. As such, it was to be considered in all future developments and in the resolution of international water disputes.⁸⁵

After nearly a year of negotiations between Canada and the United States, the final agreement, known as the Columbia River Treaty, was signed on January 17, 1961, by Prime Minister Diefenbaker and President Eisenhower.⁸⁶ Shortly after this signing, the Treaty was approved in the United States. However, the Treaty's implementation was not initiated immediately as an agreement could not be reached between the province of British Columbia and the Canadian federal government.⁸⁷ B.C. Premier Bennett had previously notified the federal government of his reservations with respect to the Treaty, but this had not stopped the federal government from signing the Treaty. It became evident that the province of British Columbia was pursuing different goals which were not compatible with the Treaty signed by Canada and the United States. The province's goals were in relation to the repatriation of Canada's share of power and declined acceptance of American money to both support and construct the dams.⁸⁸ Premier Bennett raised a concern which involved the feasibility of returning electric power from the United States and back into B.C.:

British Columbia is anxious that the Columbia proceed at the earliest possible moment – assuming of course that it is proved feasible from engineering and financial standpoints. In that

connection I must tell you that British Columbia entertains serious doubts that power returned from the United States as the Canadian share of the downstream benefits can in fact be delivered in Vancouver at a cost of 3.77 mills...⁸⁹

B.C. doubted the ability of power to be returned at such a fixed cost. With the government of Canada signing the Columbia River Treaty, Premier Bennett was left with the last say over events involving the Columbia River. If there was ever to be a hope of getting the Treaty ratified by B.C. and Canada his concerns would have to be addressed. As one author has written:

Once Ottawa had signed the treaty, Bennett was in control; he could, ... extort almost any financial terms from Ottawa; he no longer needed (if he ever did) Columbia power, but could dump the whole issue at any time, leaving Ottawa and the Prime Minister embarrassed, having to admit to the Americans that they could not persuade the Premier of British Columbia to build the dams and use the downstream benefits returned from the United States.⁹⁰

Again, because of such circumstances, the provincial level of government was able to secure decision making power (if not control) over federal authorities. The province had certain demands that had to be agreed upon and met.⁹¹

Because of several concerns and demands on the part of British Columbia, the federal government did suffer the embarrassment of not being able to immediately implement the terms of the Treaty. Indeed, it would take many months for the province and the federal government to reach an agreement. One commentator has observed:

In Canada, one of the significant matters left unsettled involved arrangements for financing the Canadian-based Treaty projects and definition of the respective roles and responsibilities of the

provincial and federal governments. Even when the Treaty was signed, an early resolution of the issues was not very promising and, in point of fact, the complex issues were not ultimately resolved before July of 1963, more than two years after the Treaty had been signed by the two countries and ratified by the United States.⁹²

Part of the difficulty surrounding the ratification of the Treaty was to be found in the degree of control which the federal government exercised over the Columbia River. For example, being an international river, the Columbia was subject to federal jurisdiction (as previously noted). The other part of the difficulty which delayed an agreement was to be found in the province of B.C. itself and its promotion of independent plans:

... the government of British Columbia took over ownership of the Peace River Power Development Company, and the B.C. Electric Company... This turn of events complicated the problem of reaching a mutual understanding between the province and the federal government of Canada. Two years were to elapse, during which Canada saw a change in government in Ottawa, before an accord between the province and the federal government could be reached. Among other matters covered by the agreement was the intent to sell in the United States Canada's entitlement of downstream power benefits and to use the proceeds of such sale for financing the Treaty storage projects.⁹³

As noted, British Columbia had refused to abide by the terms of the Treaty which dealt with the recovery of half of the downstream power benefits.⁹⁴ Instead, British Columbia insisted on being able to sell their share of hydro-electric power to the United States entities.⁹⁵ The position taken by British Columbia was a direct infringement on the long-standing, and previously delineated, federal policy that electrical power should be exported only for short terms.⁹⁶ The federal government eventually accepted the idea of long term exports of electricity, as it perceived it to be "...without risk of

permanent commitments."⁹⁷ In 1963, during the Columbia River Treaty discussions in Canada, the Canadian Minister of Trade and Commerce announced a National Power Policy that encouraged the construction of major hydro-electric development projects in Canada.⁹⁸ It was believed that financing and markets in the United States would make such projects worthwhile. Included in this policy statement as one of its objectives was the encouragement of:

... power exports and interconnection between Canada and the United States power systems where such might induce early development of Canadian power resources.⁹⁹

Having had its demands met, the government of British Columbia succeeded in its dispute with the federal government when Canada allowed the province to sell its share of hydro-electric power to the United States. Such a policy turned out to be crucial to the ratification of the Columbia River Treaty. With the inclusion of such a policy, an agreement was finally signed between Canada and British Columbia in July of 1963, and in January 1964, the Columbia River Treaty was ratified in Canada.¹⁰⁰

Formal approval of the Columbia River Treaty in 1964 brought to a conclusion two decades of study and negotiation by the United States and Canada for the joint development of the Columbia River Basin. The Treaty provides the framework for one of the most far-reaching water development efforts in North America.¹⁰¹

Public hearings were held during discussion leading to the Columbia River Treaty. The hearings, held in British Columbia, were not so much the result of the Columbia River Treaty as a whole as they stemmed from B.C. Hydro needing a licence to pursue this development.

Under Sections 9 and 29 of the British Columbia Water Act the British Columbia Power Commission was applying for a licence to store 7,100,000 acre feet of water per annum in the Columbia River between Castlegar and Revelstoke.¹⁰²

The public's involvement was focused upon the environmental effects and social implications of the Columbia River Project. These concerns included flooding of lands and the relocation of some individuals. As John Krutilla commented: " The Columbia River does more than simply have the attributes for hydro-electric power. It also supports fishing and supplies water to more arid areas in the Columbia River basin..."¹⁰³ It is of interest to note that the High Arrow dam alone would cause land to be abandoned and flooded that equaled twice the entire area now planted to fruit trees in the Okanagan Valley.¹⁰⁴ This was equivalent to 23,000 acres of land. One citizen, Mr. Spicer, voiced his concerns in the following way on this issue:

And we know at least 40,000 acres is going to be flooded, and a lot more is going to be cut off. Everybody thinks that the Okanagan tree fruit is something terrific, yet we are going to put out of action twice that amount of land, and it makes one think.¹⁰⁵

Donald Waterfield was one person who actively crusaded against such things as the Arrow Dam. He noted the following people who gave endless advice and support to the residents that were going to be affected by the project:

With a Bartholomew [an engineer opposed to the project] analysis to substantiate our otherwise unauthoritative and pathetic letters, we found friends: General McNaughton [a Canadian member of the International Joint Commission's Study Board for the Columbia River] wrote us many letters; one of the technical advisors

to Canada's Treaty negotiators, Larrat Higgins, was contacted, editors of engineering magazines including Mr. Ripley of the Engineering and Construction Record came in on our side. The C.B.C. put us on the national network....¹⁰⁶

After ratification of the Treaty, meetings and hearings were also held in Ottawa in front of the Standing Committee on External Affairs (April 7- May 27, 1964). It was here that the Treaty and Protocol were reviewed in detail.

One of the recommendations of the committee was that:

Following the presentation of the Secretary of State for External Affairs, witnesses will be heard in the following order:

- a) Federal government experts in the fields;
- b) British Columbia government representatives;
- c) General A.G.L. McNaughton;
- d) Leading engineering firms which have made studies relevant to the question;
- e) Expert witnesses on specific points;
- f) Local points of view.¹⁰⁷

Interestingly, local points of view, which could include concerned citizens and groups, were the last on the list of people to be heard in Ottawa. Also of interest to note is the positive point of view that federal government members on this committee held with regard to the Columbia River Treaty. As the Honourable Paul Martin stated:

In my judgement the Treaty and protocol represent the best possible arrangement for Canada's point of view. I believe that this agreement – this arrangement – will serve well the national interest. At the same time I think it is important to emphasize that it reflects the wishes of the province of British Columbia where the river is located. It is also far better for Canada than anything we could do on our own without United States co-operation. In fact, one engineering report after another has indicated that without co-operation from the United States, the economics of developing the Canadian stretch of the Columbia would be doubtful indeed.¹⁰⁸

It was into such an environment that the various local points of view were introduced. Local points of view not only had to deal with the already formed decision of most committee members, but they were, as noted, the last to be heard on the agenda of this Standing Committee.

Such public hearings, (which took place after ratification in Ottawa) appear to have had little if any impact on the plans for the development of the Columbia River. Indeed, the panel that was hearing the various citizens and groups continued to enthusiastically promote the Columbia River Treaty and its development.

The value of the land to be flooded has also been discussed previously, and while the Government fully recognizes the personal problems inherent in any such flooding and sympathizes with those affected who may not wish to be relocated, the essential and immense economic benefit made possible... cannot be denied. To view it otherwise would mean that the benefits of Columbia River development to the province of British Columbia and to the nation as a whole, should risk being lost.¹⁰⁹

At the end of the hearings in Ottawa, in general brief terms, the Columbia River Treaty:

...provides for the construction in Canada of storage projects to provide 15.5 million acre-feet of Canadian storage to be used largely for power and flood control objectives in the downstream reaches in the United States. In exchange, Canada received a share of the increase in power produced by United States generating plants benefitting from Canadian stream regulations, and also a sum intended to represent one-half the value of the flood damage reduction the reservoirs would achieve for the critical floodplain area in the United States. In addition, a transboundary storage project was agreed to, with the dam site

in the United States and the reservoir headwaters extending 42 miles into the province of British Columbia in Canada. For the latter project, each country agreed to bear the cost associated with the construction of the facility in its own country in exchange for the benefits which accrued within its own reaches of the river.¹¹⁰

The Columbia River Treaty provides an illustration of federal involvement in water resources for hydro-electric power development, strictly motivated by economic factors. Although other concerns were voiced at the provincial and national level, it was the federal government's policy decision to promote and promulgate the Treaty as it was perceived that development would create great economic benefits for the country. The federal government simply decided that water resource management should not stand in the way of the country's economic growth.

The Columbia River Treaty allows one to perceive that the policy community in relation to this federal decision, was indeed growing in its number of actors in both the sub-government and the attentive public. The federal government's policy decision to promote the Columbia River Treaty led to the involvement of the following actors: the Cabinet, with its decision to promote the Treaty and Acts such as the National Power Policy, the province of British Columbia, B.C. Hydro, the International Joint Commission and study board, the United States engineers, and the United States government. The attentive public was made up of a group of people who were voicing their concerns in the public hearings and through the media in the hopes of altering the policy direction of the government. These included concerned citizens from areas such as Arrow Lakes, the media, and individuals with expertise in certain areas who provided the attentive public with guidance. At one point during the Columbia River Treaty discussions, British Columbia was

at odds with the federal government over the right to sell power to the United States. A form of bargaining took place and a compromise was reached, namely the National Power Act. This provision put both levels of government on the same side, in opposition to the attentive public. Another indication of the growing size of the attentive public is the notion that public hearings were held in Ottawa. Although the attentive public were able to voice their concerns through the utilization of public hearings, the policy goal of the federal government won out, and the Columbia River Treaty went ahead. Note however, that for the first time in federal water policy evolution there was a clearly apparent attentive public determined to try to influence outcomes. This was the first clear indication of what was to come in the area of water policy, foreshadowing the Manitoba and Saskatchewan experiences.

3) SOCIAL/ENVIRONMENTAL CONCERNS ASSOCIATED WITH ECONOMIC GAIN: THE CHURCHILL RIVER DIVERSION AND LAKE WINNIPEG REGULATION

Along with developments such as the Columbia River Treaty, it becomes possible to perceive a new trend emerging in society. Both the attentive public (as evidenced by such things as the public hearings for the Columbia River Treaty) and the sub- government itself became increasingly concerned about the environmental effects and social implications of resource development. As one environmentalist has stated:

Not only are we growing faster and using things up more swiftly, say the prophets, but we are crowding other species out of their niches. We are slashing down forests, flooding river valleys, putting every possible bit of land into cultivation, and inadvertently creating deserts. Furthermore, we are poisoning our environment with our wastes; in many areas the air is unhealthy to breathe, the water is unhealthy to drink, and our food may be contaminated....At the same time that humans rejoice and feel proud of their ability to dominate nature, there are nagging doubts that we may not be on the right road to high quality life.¹¹¹

In response to such concerns, society began to question the environmental effects resulting from the utilization of water for purposes such as irrigation and hydro-electric power development. These concerns began to escalate and as a result, people began to form environmental groups (interest groups) in order to have their concerns heard by the government. Beginning in the mid-1960's, "...environmentalists have urged people to question proposed technological 'advances.' Technology can bring evil as well as good."¹¹²

As a result of such concerns on the part of Canadian citizens, provincial and federal governments began to initiate co-operative programs concerning the environment.¹¹³ It would appear that for the first time, resources such as water were recognized as being essential and in dire need of proper management. As Peter Pearse has observed:

A new relationship of Canadians and their environment was coming and, for better or worse, through conflict and compromise, water management was to be profoundly affected by it.¹¹⁴

Such recognition and the knowledge of still further water developments, coupled with the inevitable conflicts amongst water-users and government authorities, allowed the federal government to become more actively involved in water management. This active role was finally reflected in certain federal policies that were aimed specifically toward improved water management and use. One such piece of legislation appeared in 1970: the Canada Water Act. This Act, "...provides for federal-provincial consultation and agreements for comprehensive water basin planning and for the designation of water quality management areas."¹¹⁵ However, jurisdictional conflicts were still evident.

Concern over the Canada Water Act also tended to be concentrated on the legitimacy of federal jurisdiction. Expressed very simply it was argued that water is a resource, that resources are matters within provincial jurisdiction, and that the Canada Water Act therefore represents an invasion of provincial jurisdiction by the federal government.¹¹⁶

In 1971, the federal government created the department of Environment Canada. This department was created in what may be called a reaction to society's need to have the government ensure the proper

management and development of the country's renewable and non-renewable resources. Part of this department's responsibility was to develop and coordinate programs geared towards environmental protection.¹¹⁷

Environment Canada started with many initiatives on which to base its operations:

Assess and control the environmental impact of large scale development. The focus will be on major changes in land and water use related to industrial enterprises, river diversions, construction of dams....¹¹⁸

Such policy innovations as these reflected both the general public's and the federal government's perception of water as being a significant part of the environment, as distinct from being only a resource facilitating development. It is of interest to note that despite the emergence of this view within the federal government, investigations continued by both the provincial and federal governments with respect to potential water power developments.¹¹⁹ These investigations, however, neglected to take environmental and associated social concerns into account; rather they continued to focus upon economic development through the exploitation of such things as cheap hydro-electric power.¹²⁰ One of the key illustrations of this dual approach by the federal government is the Churchill-Nelson River Diversion and Lake Winnipeg Regulation Project in northern Manitoba.

During the 1960's, the future energy demands of the province of Manitoba led the provincial energy utility, Manitoba Hydro, to examine methods of power generation capable of meeting what were expected to be ever-increasing rates of energy consumption by Manitobans. " By the early

1960's, Hydro was faced with the basic policy decision of whether to proceed with thermal-generation facilities in the southern part of the province, or to base its long term future on the exploitation of hydro-electric potential of its northern rivers."¹²¹ By the end of the decade the decision would be made to exploit water resources in the north to provide for provincial power requirements.

The earliest surveys of northern hydraulic power potential occurred in 1947 when Manitoba's Water Resources Branch assessed the power potential of waterways north of Lake Winnipeg.¹²² This survey was then followed by both the federal and provincial governments jointly financing "...the Lakes Winnipeg and Manitoba Board studies which considered appropriate measures for controlling the waters of Lakes Winnipeg and Manitoba."¹²³ It should be noted that:

While the terms of reference of this Board emphasized the flood control aspects of lake regulation, the studies included a review of Nelson River power potentials and suggested that the regulation of outflows from Lake Winnipeg for power benefit purposes would become economic within the following decades.¹²⁴

The Board provided its report in June, 1958.

In 1963 the federal and provincial governments again initiated a joint study "...under the auspices of the Nelson River Programming Board (NRPB). The NRPB investigated the power potential of the Nelson River and considered the merits of diverting a substantial portion of the flows from the Churchill River via the Rat and Burntwood Rivers into the Lower Nelson River to augment the power potential of sites at Kettle Rapids, and downstream."¹²⁵ (See figure 2, p.45) Ultimately, in 1965 the NRPB recommended the following proposals: an 855 megawatt hydro-electric development to be built on the

Lower Nelson River at Kettle Rapids; a flow diversion channel be constructed for water from the Churchill River via the Rat and Burntwood rivers into Split Lake; a control structure to be located at the outflow point of Lake Winnipeg; and that a high voltage direct current transmission line be constructed to take power from Kettle Rapids to southern Manitoba.¹²⁶

By 1966, the federal government agreed to finance and construct "...the first stage of a high voltage transmission link between the Lower and the Kettle Generating Station."¹²⁷ Further federal activity followed this agreement when in 1967 " Atomic Energy of Canada, on behalf of the Government of Canada, initiated design and construction of the first bipole of the 450 kV D.C. transmission line."¹²⁸ The direct current (D.C.) transmission line was the first long distance high voltage D.C. transmission line in Canada, following a 900 km route south towards Winnipeg. The experimental nature and possibilities associated with it, such as inexpensive transportation of electric power over long distances, were considered to be of great importance and benefit to the whole of Canada.¹²⁹ This federal activity closely paralleled, if not initiated, a decision by Manitoba Hydro to proceed with the construction of the Kettle generating station.¹³⁰

In terms of the entire northern Manitoba power development, the Final Report (December, 1979) of the Commission of Inquiry into Manitoba Hydro captured the extent of that development when it observed:

The decade from 1969-70 to the present has been a period of rapid expansion for Hydro involving investments and commitments to generating facilities and regulation works totalling some \$1.7 billion. When on-going construction is completed in 1980, installed capacity will have increased by some 140 percent to nearly 4000 MW capability available in 1970.¹³¹

Ultimately, hydro-electric power development in northern Manitoba would involve two related projects: the Churchill River Diversion and the Lake Winnipeg Regulation Project. (For the balance of this paper, the two projects will be referred to as the 'project', as many writers have tended to combine them together when writing about northern Manitoba hydro-electric power development.) The focus of both of these developments was to increase and control water flows in the Nelson River to facilitate increased economic viability of power plants on that river. The recommendations promoted by the NRPB in 1965 were, to a large part, followed during the 1970's.

To appreciate the focus upon and reasons for hydro-electric development upon the Nelson River, one must bear in mind that "...the Nelson River basin, covering an area of 1,070,000 square kilometers (km²), is one of the major drainage areas in North America. It stretches from the foothills of the Rockies to within 19 km of Lake Superior."¹³² All of the water draining from this basin empties into Lake Winnipeg, which is the "...13th largest lake in the world and seventh largest in North America, [it] collects all the runoff water from this vast territory."¹³³ The Nelson River is the longest river in Manitoba and flows approximately 400 miles before emptying into Hudson Bay.¹³⁴ The logic inherent in regulating flows from Lake Winnipeg is inescapable in terms of providing waters for hydro-electric power generating plants on the Nelson River.

As for the Churchill River, the motive inherent in diverting its flows into the Nelson River system may be found in the following statistic: "...the basin drained by the Churchill River has an area of 284,000 km² and also has its headwaters in Alberta."¹³⁵ The size of this river alone, and the amount of water travelling along its path, made it a prime candidate for river diversion to increase hydro-electric power capabilities. As well as Lake Winnipeg

waters, the flows from the Churchill River were to be diverted to service the demands of hydro-electric power plants on the Nelson River.

Initially, development in northern Manitoba focussed primarily upon a diversion of the Churchill River waters with the regulation of Lake Winnipeg to follow at a later date. " In 1968/69 Hydro recommended, and the Weir Government accepted, a scheme for a high level, high capacity diversion of the Churchill River via the Rat-Burntwood River system into the Nelson River. Because of public perceptions of the social and environmental effects, opposition and controversy resulted."¹³⁶ With the attentive public growing, society was slowly becoming aware of the negative impacts of hydro-electric development, which included such things as the diverting of waters and massive flooding of lands. As a result of such public concerns, it was necessary for the planners to return to their drawing boards. By 1970, both the Schreyer Government and Manitoba Hydro promoted a plan to regulate the flows of Lake Winnipeg by 1974. This undertaking was to be followed by a low level diversion of the Churchill River. Again, controversy arose and public opposition still remained on matters involving the environmental and social implications of this project. As well, the economics of the project were being questioned:

The crux of the latter issue was that a low level CRD [Churchill River Diversion] which afforded opportunities for developing generating stations on the Burntwood River route, would enable Manitoba to defer Lake Winnipeg Regulation indefinitely. The cost of the LWR [Lake Winnipeg Regulation] project including the Jenpeg Generating Station added in 1971, is now expected to total at least \$315 million as against the original estimate of \$50 million for regulation works and \$55 million for the power facilities.

Development of a modified CRD project was commenced in 1973 and completed in 1977. Against

the 1972 estimate of \$109 million, final costs have totalled about \$226 million. The prolonged negotiations over mitigation requirements and compensation leading to settlements with individuals and communities at Southern Indian Lake (SIL) and along the Burntwood River have been a matter of widespread public concern.

No generating stations were built on the Burntwood River but large sums were spent on generation facilities at Jenpeg and at Long Spruce. The latter station, located on the Lower Nelson River was committed in 1972 at an estimated cost of \$448 million and had recently been completed at a cost of \$505 million.

Controversy continued throughout the development of these projects: the critics asserted and the proponents denied that the sequence followed has resulted in large losses to Hydro and to the people of Manitoba.¹³⁷

As construction of the project proceeded, two control structures were set in place: one at the outlet of South Indian Lake and the other on the Rat River.¹³⁸ Each dam was to aid in the control of the amount of water being diverted from the Churchill River. As for the Lake Winnipeg Regulation project, it was expected to flood approximately 528,000 acres of land in northern Manitoba.¹³⁹

Underlying and fueling hydro-electric power development in northern Manitoba were the recommendations of the federal-provincial NRPB. Development in the north satisfied the requirements and goals of both levels of government and the power utility. From the perspective of the power utility, support for such development arose from a concern that provincial power supplies would not keep pace with the demands of a growing population. The Province's interest in such development seems to have involved utilizing hydro projects as a means of "opening-up" northern Manitoba. The federal

government's interest in the project centered upon the national economic benefits to be gained from power sales.¹⁴⁰

With respect to such development initiatives, one author has observed:

The governments of both Manitoba and Canada saw the valuable contribution that extensive developments would have. The sale of export power was paramount in the minds of many, not only to offset the costs but also to improve Canada's position in the balance of trade with the United States. Furthermore it was widely believed that the product of development would be cheap electricity for all Manitobans...industry and consumers alike would benefit.¹⁴¹

Manitoba Hydro was also forthright with respect to its objective to promote hydro-electric projects:

Hydro's mandate is to provide power and energy to the Province's consumers in terms of economically efficient objectives.¹⁴²

With both levels of government focusing upon the economic benefits of the project, federal involvement in a high-voltage direct current (HVDC) transmission line is understandable in the context of a traditional pro-development policy. The transmission line was to, and does, "...provide for the transmission of Lower Nelson power to southern Manitoba....DC transmission was selected over AC, because power losses over long distances are less and the cost of a DC line is about two-thirds that of an AC line."¹⁴³ In actively assisting in improving the viability of northern power generation by increasing transmission technology and infrastructure, federal authorities assisted Manitoba Hydro in carrying out its development plans. It should be noted that with respect to the HVDC developments, "Hydro now operates this facility and makes annual payments to amortize its cost over a period of 45 years."¹⁴⁴

The momentum towards "opening-up" northern Manitoba for resource development remained an unquestioned objective of all the levels of government during the 1960's. As one commentator has noted:

...our concern is not just with resources alone, but with resources in relation to capital and labour, and our complex institutions as they all, in turn, relate to the objectives of growth.... We must be able to turn resources into income and employment opportunities.¹⁴⁵

In many ways the activities of governments in responding to the initiatives of Manitoba Hydro reflected earlier activities in the settlement of the Canadian west. Government involvement was necessary in terms of the capital required to initiate developments which would ultimately cost taxpayers billions of dollars.¹⁴⁶ The logic behind such involvement on the part of the federal government was simply that the benefits of development projects in terms of jobs and economics would outweigh the debt burden placed upon the country.

The "northern" vision of Canada which captured the public imagination and support in the 1950's and which was reflected in reshaping government structure was linked closely with northern resource development. ...Development was seen as important in offsetting some of the increasing government expenditures in the North, and also in providing employment opportunities for northerners.¹⁴⁷

Additionally, the appeal of the North as something akin to a 'frontier' appears to have influenced policy initiatives.¹⁴⁸ In much the same way as the Canadian government promoted prairie development as a means of ensuring continuing Canadian sovereignty over the west, in the 1960's Canada focussed upon developing and populating the north as a means of ensuring its jurisdiction in this region. It is noteworthy that in the 1990's, concerns over

northern sovereignty have continued in the federal government. Over the intervening decades all that has changed is the definition of 'the North.' During the 1960's 'the North' involved the upper areas of the provinces. By the closing decade of the twentieth century, it was placed in the minds of bureaucrats as being in the arctic regions.¹⁴⁹

These pro-development policies of the federal government, however, did not reflect nor keep pace with changing social values respecting the environment. These changing social values became increasingly evident during the late 1960's and early 1970's. As a reflection of a general societal reconsideration of traditional values, society began to consider the darker side of progress and its potential negative impacts upon the environment and social groups. The simple fact was that while human intervention in the environment may have had economic spin offs which benefited the monetary interests of the country; in the view of an ever increasing number of individuals, the benefits of such intervention were short-lived and insufficient in that certain forms of development irreparably harmed the environment. Such general societal concerns about the negative environmental and social impacts of development inevitably focused upon the proposed hydro-electric power development in northern Manitoba.

Reflecting this increasing societal unease over the proposed power development is the 1973 publication The Destruction of Manitoba's Last Great River, by R. Newbury and G. Malaher. The authors observe:

Whether or not this enormous proposed scheme should become fact is a question that has beleaguered the present government as well as former governments of Manitoba. These governments have doggedly backed Manitoba Hydro's diversion plans, even though there is no doubt that the scheme could create a

nightmare for many other human and resource values in the region. The essential question is: Is the power that would be generated really worth more to Manitobans and to Canada than the many values that would be compromised or destroyed? The utilization of an entire river by diversion rather than in steps or stages along its own channel has never been done before in Manitoba, or anywhere else in Canada.¹⁵⁰

In terms of regional resource and human values, a view developed that the project would have many diverse and unforeseen consequences. Initial plans for a high level diversion of the Churchill River, and corresponding high water levels to Southern Indian Lake, led to controversy. As a result of this controversy, and the potential impacts on the community of South Indian Lake, the levels of flow were ultimately reduced by the completion of the Churchill River Diversion Project. Note, however, that once the diversion was implemented, water levels on Southern Indian Lake were raised over three meters.¹⁵¹ This increase in water levels necessitated "...the relocation of only half of the community of South Indian Lake. Nonetheless, over 1,500 square kilometers of boreal forest was flooded in an area of recognized ecological fragility."¹⁵² The actual relocation of half of a community was in itself a significant undertaking and was achieved at a significant cost to the community.

During the early stages of the project, however, great uncertainty over what was being planned and over potential project impacts fueled northern concerns, especially at South Indian Lake. "Inevitably, rumours of the hydro scheme reached South Indian Lake, where the people formed an ad hoc flood committee to begin discussions amongst themselves. But virtually nothing was known about the project, and the committee was largely inactive until the spring of 1968."¹⁵³

The environmental consequences of the river diversion and water impoundment were not entirely unknown when the project was being refined and developed at its planning stage. However, the extent of impacts and their effect upon local economies and social structures were not clearly understood or appreciated. Prior to hydro-electric development, the Churchill River provided local residents with "...a stable local economy based on fish, fur, and game animals, the Churchill provides a habitat for a significant portion of the northern Manitoba waterfowl population."¹⁵⁴ As to pre-project social stability, Newbury and Malaher observe:

That residents do not want the hydro project, spurn the idea of "compensation," and have pride in the existing community is evidenced by statements of two oldtimers quoted in the Winnipeg Free Press and the Winnipeg Tribune.

...the manager of the Hudson Bay store went on a fishing trip and forgot to lock the door. In fact it was wide open. Yet during the three days he was gone not one person walked into that store. You can leave a boat and motor anywhere and be certain no one will touch it.

A year ago, the R.C.M.P. built a jail at South Indian Lake. So far it has yet to have a single inmate and no one wants the distinction of being the first person in the community to be locked up.

The reason I am writing this letter is that I hope you will print it so that the people down south will realize what is about to take place at South Indian Lake; and why we, the residents, are one hundred percent against it.¹⁵⁵

As the power development was launched in the late 1960's, environmental concerns and issues respecting the rights of local residents in northern Manitoba were to merge as an issue in the attentive public and form the basis of opposition to this development. One of Manitoba Hydro's Assistant

General Managers captured the core of what fueled the opposition movement when he observed that "...the people of South Indian Lake would be making a sacrifice for the rest of the people of Manitoba."¹⁵⁶ The necessity of this sacrifice was to be economic gain in the southern portion of the province; the need for any development and sacrifices by local residents were questions that were left unanswered by the power utility and governments.

Initially, the focal point for opposition to the development was the community of South Indian Lake. South Indian Lake was deemed to be one of the most potentially environmentally harmed areas of the diversion.¹⁵⁷ These potential impacts were related to the effects of flooding, such as: "...the loss of forested areas and marshes (wild animal habitat and trapping grounds) and changes in the pattern of commercial fishing."¹⁵⁸ The community's flood committee retained legal counsel who began preparation of the case opposing this development. Such an endeavor was made difficult by a lack of information from the power utility.¹⁵⁹ During 1968, the efforts of the community's legal counsel were "...greatly facilitated by the federal Indian Affairs Development Officer, Oscar Blackburn....Indeed, in his active support for the community, he frequently risked reprimand from his superiors."¹⁶⁰

By 1969 public hearings were taking place as part of the project's approval process pursuant to The Water Power Act.¹⁶¹ At this time " Manitoba Hydro officially tabled their compensation package for the community.... Among other things, the Manitoba government through Manitoba Hydro, agreed to provide: new docking facilities, replacement of fish camps; reimbursement for the cost of relocation...."¹⁶² The community's position, as set down by legal counsel was simply:

We are irrevocably committed to the proposition that the fundamental requirements and protection of the human resources represented by the people of South Indian Lake and Pickerel Narrows-as individuals, families, and as communities-must at all times remain paramount and never be sacrificed to the expediency of electric power requirements.¹⁶³

The hearings did not go well for Manitoba Hydro's application. The hearings, which were held in Winnipeg, did succeed in generating public interest and support for South Indian Lake's position.¹⁶⁴ To further complicate matters, legal proceedings were commenced to prevent a licence from being issued to Manitoba Hydro. Yet "...despite the tremendous opposition to the project, and the threat of an injunction, Manitoba Hydro began to call for tenders for construction. Furthermore, Hydro chairman Bill Fallis made it clear that, having already spent more than \$4 million on design, Hydro was beyond the point of no return."¹⁶⁵ There simply was no choice from the perspective of Manitoba Hydro except to go forward in the pursuit of its development projects in northern Manitoba.¹⁶⁶

A change in government as a result of a June, 1969 election brought some hope that the opposition to the project would succeed. Unfortunately for the opposition, "...the government announced that, rather than reject the whole concept of diverting the Churchill River, they would go ahead with a new 'low-level diversion' of Southern Indian Lake that would flood the lake only three to five meters instead of ten."¹⁶⁷ From 1969 to 1972, when an official decision was made by the government to proceed with the diversion, little activity by the opposition was evident as "...in the absence of the official decision and public hearings or similar forums, their input was not

accommodated."¹⁶⁸ Even with the attentive public growing in size, it still was not possible for them to force their way into the sub-government.

By 1972, however, the diversion issue reemerged into the public domain. The community sought additional allies in its cause and indicated to provincial authorities that they would seek federal intervention.

On 14 June 1972, Premier Schreyer responded by letter to the community's lawyers. He stated that his government had acted responsibly by rejecting the high-level diversion in favour of low-level diversion and a new plan for the regulation of Lake Winnipeg. Further, he warned the lawyers that they should not expect any assistance from the federal Minister of the Environment, Jack Davis:

" In that connection, I note that there is a hydro-electric project that has been approved by the government of Quebec relative to James Bay which involves the flooding of a territory many times larger in area and involving the dislocation of community and of hunting, trapping and fishing for several thousand people indigenous to the area, a problem which in terms of scope and number is dramatically much greater than what is involved here. Inasmuch as Mr. Davis has not seen fit to intervene in the project, it is difficult to understand how he would regard it as possible or fair to do so in the case of the Nelson River—a project which, when entered upon, was carried forward under the aegis of a Canada-Manitoba agreement which postulated, among other things, regulation of Lake Winnipeg and the diversion of waters of the Churchill River."¹⁶⁹

Mr. Schreyer's forecast of the federal position was correct given the pro-development policies being pursued by all levels of government at this time. While the federal government proved to be aware of the circumstances surrounding the project, it was not prepared to address the concerns of the residents of the South Indian Lake area. The Minister of the Environment, Jack Davis simply responded:

Perhaps in the view of these effects, consideration should be given to altering the construction time-table to enable our important joint studies under the Manitoba-Canada Agreement to be completed before the diversion of the Churchill River is made.¹⁷⁰

Such comments could be considered as an indication of the lack of significance that the federal government attached to the project's environmental effects.

Both the provincial and federal governments, however, had to react positively to the growing opposition to the development scheme.

" In an effort to stem the tide of criticism against the project, the Manitoba government announced the signing of an agreement with the federal government to establish a study board to examine the likely effect of the diversion of the Churchill River and the regulation of Lake Winnipeg."¹⁷¹ This was named the Lake Winnipeg, Churchill and Nelson Rivers Study Board. Ironically, by the time the Study Board completed its investigations of the development, a great deal of the project would be complete or nearing completion.

While community requests to the federal Environment Minister were not to result in any positive action on behalf of community residents, the presence of a large Native population virtually ensured the involvement of the Department of Indian Affairs and Northern Development. The Department of Indian Affairs and Northern Development (hereinafter referred to as simply the Department of Indian Affairs or DIAND) became involved in the Southern Indian Lake controversy as "...many of the residents of South Indian Lake were treaty Indians with status under the Indian Act, and therefore the responsibility of the federal government."¹⁷² Following initial requests for intervention by the community's legal counsel, however, the Minister of

Indian Affairs did not immediately react to their concerns. This prompted the following response from the community's lawyer:

It is absolutely beyond my comprehension as to why the people in Ottawa are taking such a namby-pamby attitude towards this matter. There is no doubt in my mind whatsoever that the issuance of the Licence by the Province of Manitoba to Hydro was in absolute contravention of the letter and spirit of the Canada-Manitoba Study Agreement entered into on the 24th of August, 1971.... Not only is there an unwarranted, unbelievable rape of our resources, but a horrible rape of the principles of democracy. I hope that you will do everything you possibly can to have the federal government immediately exercise its responsibilities on this matter.¹⁷³

Whether the Department of Indian Affairs should intervene in the controversy surrounding the Churchill River Diversion was the subject of what one author has described as "wavering" on the part of the federal government.¹⁷⁴ For while the community of South Indian Lake was populated by status Indians who fell under the definition of Indians in the federal Indian Act, these persons did not reside on Indian reserves and the legal obligation of the federal government to them was not at all clear.¹⁷⁵ " It became clear that, for Indian Affairs, intervention on behalf of any northern Manitoba Indians was contingent upon the project threatening reserves; Indian 'rights,' it seemed, were only in effect on reserves. And, of course, South Indian Lake was not a reserve."¹⁷⁶

The nature of the intervention sought by the South Indian Lake community was funding for its court challenge to the project. Despite a lack of funding, an injunction was sought in Queen's Bench and was not successful.¹⁷⁷ As the author James B. Waldram observed: " Without Jean

Chretien's help, the legal case seemed to be spinning its wheels."¹⁷⁸ In the end, the community's court challenge would collapse.

The challenge mounted by the community of South Indian Lake proved to be of value to other northern communities in that it highlighted potentially damaging environmental consequences of the project. Certain Native communities in the north had come to realize that they too were likely to be affected by the project. As a result of such concerns, the Indian Reserves of Nelson House, Split lake, York Landing, Norway House and Cross Lake, all situated near bodies of water to be affected by the operation of the project, began to assemble together as one group and by April of 1974, created a corporation to represent their collective interests and concerns: The Northern Flood Committee.¹⁷⁹ This helps to illustrate that the attentive public was starting to become organized. As a single entity representing five Indian Bands, the Northern Flood Committee demanded compensation and protection from the activities of both Manitoba Hydro and the Province of Manitoba. A statement of the objectives of the Northern Flood Committee was issued in 1974:

Our major aim... is to fight for justice in the areas of Treaty rights and to fight for northerners in areas which do not fall into this category but who will face disruptive and negative effects due to the Project. Our aim is to try and keep these people united in their stand against Government and Hydro encroachments because it is only through strong, uncompromising unity that gains can be made by us. We believe that our people in the North have a very real right to participate in decision-making that affects them. The purpose of the Flood Committee is to inform these people in the North as to what is happening so that they can be better prepared to take part in some of the decision-making.¹⁸⁰

With the formation of the Northern Flood Committee, the federal Department of Indian Affairs finally opted to become involved in the issue of hydro-electric power development in northern Manitoba.¹⁸¹ The federal government provided financial assistance to the Northern Flood Committee to actively question and oppose these projects. The Northern Flood Committee and the Department of Indian Affairs began to feel so strongly about this issue that in 1975 a court injunction was threatened against the project. Federal Indian Affairs Minister, Judd Buchanan, stated that:

...court action could be undertaken by the federal government to stop the hydro project if the Manitoba government doesn't forward specific information on the impact of flooding in reserve areas and compensation plans.¹⁸²

The provincial government and Manitoba Hydro had yet to release any pertinent information about the project's impacts.

The threat of federal intervention in terms of financing and participating in any potential litigation involving the project was not lost upon either Manitoba Hydro or the provincial government. Representatives of Canada, Manitoba, Manitoba Hydro and the Northern Flood Committee convened a series of meetings which attempted to negotiate a method of resolving native concerns respecting the impact of the project upon their lifestyles.

During these negotiations, the parties were unable to reach an agreement upon monetary compensation. Instead, a compromise was reached, namely the Northern Flood Agreement.¹⁸³ This Agreement is a unique document in that it is not a settlement of a claim or dispute, but rather a series of initiatives, together with an arbitration mechanism to help resolve

disputes. As well, the Agreement was the vehicle by which Manitoba Hydro and the Province of Manitoba were able to avoid a federal injunction restricting or completely stopping development of the project. The Northern Flood Agreement was signed by the Northern Flood Committee, Canada, the Province of Manitoba and Manitoba Hydro in 1977.¹⁸⁴

The course which culminated with the signing of the Northern Flood Agreement demonstrated an end to 'wavering' by the Department of Indian Affairs on the Churchill River Diversion and Lake Winnipeg Regulation Project. The fact that federal lands (Indian Reserves) would be affected, if not permanently flooded, by the development seems to have prompted action by the Department. This action, when compared to the inaction of the same Department to the numerous requests for assistance from South Indian Lake, was dramatic.

To begin with, the Department of Indian Affairs "...moved quickly to support the fledgling NFC. Some resentment must have been felt by the South Indian Lake representatives when \$65,000 was quickly made available to the NFC, along with the promise of technical expertise where possible."¹⁸⁵ The Department also appointed "...a flood information coordinator to act as a resource person for the NFC. The battle lines were clearly drawn."¹⁸⁶

During the course of discussions, the Department of Indian Affairs had to grapple with the argument advanced by Manitoba that the province had the right to proceed with the project by virtue of the 1966 Federal-Provincial Agreement. During public hearings in 1975, representatives of the Department of Indian Affairs had an opportunity to go on public record to address the provincial argument and attempt to rationalize what may best be described as inconsistent policy directions by Canada:

The federal Department of Indian Affairs also offered a submission in which they refuted the province's argument that the 1966 Canada-Manitoba agreement implied federal support for the flooding of Indian lands. Under this agreement, Canada was to absorb the costs of building long-distance electrical transmission lines, while Manitoba was to construct the generating plants and related facilities. However, according to the federal government, this did not constitute federal permission to flood Indian lands, and the province was warned they " must seek and obtain prior approval from the federal government before any flooding of such lands is legally permissible."¹⁸⁷

While the Department's submission was correct in that the 1966 Agreement did not constitute a permit to inundate Indian lands, the submission failed to address the simple fact that the policies being pursued by the Department in opposing the project were inconsistent with federal policies supporting its initiation and completion.

Despite these inconsistencies, the Department of Indian Affairs worked closely with the Northern Flood Committee in a series of negotiations with Manitoba and Manitoba Hydro. Ultimately, the Northern Flood Agreement was achieved only after a mediator was appointed by the parties.¹⁸⁸ James Waldram described his role:

The task of the mediator, Leon Mitchell, was not an easy one. The two sides had become firmly entrenched in their positions and had developed a genuine distaste for each other. Neither side was in the mood for congenial discussion. Since all objectivity had long since been lost, Mitchell was compelled to investigate the Hydro issues thoroughly on his own. This he did through small-group meetings with the various parties involved, and through the commissioning of a study by a Winnipeg consulting firm. However, Manitoba Hydro, disagreeing with the retention of an external agency, refused to cooperate or provide any funding for the research. Hydro Chairman Leonard Bateman directed his staff as follows: " The Government's position is not to be involved with the ...study. Hence, no

staff are to provide information to this group without clearance from your office. The guideline to cover this is to give only that information which you would give to an ordinary citizen and that which we have available for the public." Clearly and deliberately impeding Mitchell's attempts to obtain an accurate picture of the dispute, Hydro and the government may have been stalling in hopes that the mediation process would not be finalized until after the project had been completed. The NFC itself, and in particular the individual bands, also had difficulty providing input into the mediation process, particularly in response to the mediator's request for submission of community-based compensation proposals. The NFC's apparent lack of progress had even been criticized by the other Indian bands and members of the Manitoba Indian Brotherhood. Inexperience plagued all of the Native role players. Nevertheless, Mitchell persevered.¹⁸⁹

The mediator, after a great deal of effort, was able to submit a draft "...to the federal government in September 1976, but it inexplicably failed to act even though it was a federal government proposal to mediate which led to the draft agreement. The delay caused the NFC to threaten to terminate the mediation process and resume legal action."¹⁹⁰ Eventually, a new draft was developed and put forward by the mediator. The reason for the failure of the federal government to react to the initial draft is not clear in the context of federal activities during the course of negotiations, as they were active in this area at the time.

The government of Manitoba "...remained unrepentant to the end...[it] maintained that Canada was in breach of the 1966 agreement, and that the federal government's funding of the NFC was delaying the project at great expense....The province was a reluctant and embittered partner to the agreement."¹⁹¹ The inconsistencies of federal policies appear to have embittered provincial representatives.

The Northern Flood Agreement, which was signed in 1977, has been described by some observers as a modern-day treaty.¹⁹² In many ways it

reflects a compromise and an inability by the negotiators to reach any clear agreements on a diverse number of topics. Given the presence of arbitration provisions, one may reasonably conclude that the Agreement provides a method of dispute resolution by an arbitrator and that it does not, in and of itself, resolve matters in dispute.

The Northern Flood Agreement is divided into 25 articles dealing with diverse issues. Each article may be likened to a chapter in a book and each is divided into a number of sub-articles. The preamble to the Agreement reflects the proactive policy of the Department of Indian Affairs during negotiations. Of particular significance are preamble paragraphs (G) and (H) :

- G. Canada, by virtue of its jurisdiction and responsibility for Indians and lands reserved for Indians, is committed to playing an active role in providing opportunity for the continued viability of the communities and, in particular but without limitation, in making available resources and expertise to the communities in planning and improving the social and economic conditions of the communities, and in ensuring that the special rights of Indians, including those arising from Treaty 5, are adequately protected.
- H. Canada agrees that it is necessary to coordinate its normal program responsibilities for the Bands or the members thereof with the benefits and measures provided by and/or pursuant to this Agreement.¹⁹³

As general policy statements, these preamble paragraphs signify a new and, arguably, more aggressive approach by the Government of Canada to the problems confronting Indians and their Reserve lands. In the overall context of the Northern Flood Agreement, these preamble clauses set out Canada's policy of protecting Indian peoples from unrestrained development. As such, this policy is dramatic as a departure from traditional pro-development federal

initiatives and is inconsistent with the federal policies which support such initiatives.

The simple signing of the Northern Flood Agreement, however, did not end the role of the Northern Flood Committee or that of the participation of Canada in issues related to the hydro-electric development projects of the 1970's. The disagreements and animosities encountered by the various parties to the Agreement have not diminished. By the 1980's, over 100 arbitration claims would be filed under the terms of the Northern Flood Agreement. The resolution of these claims would prove to be a very slow and tedious process which is still ongoing.¹⁹⁴

One final consequence of the Churchill River Diversion and Lake Winnipeg Regulation project was the appointment of a Commission of Inquiry into Manitoba Hydro whose final report was issued in December, 1979. This Commission, known as the Tritschler Commission, was a direct result of the prolonged public debate over the merits of the project.¹⁹⁵ The ultimate report provides a series of findings and recommendations very adverse to Manitoba Hydro. To illustrate this point, consider the first recommendation:

The Commission finds that, in terms of the specific project and sequence adopted in its generation expansion program since 1970, Hydro has not followed its mandate to promote economy and efficiency in the supply and use of electrical power.¹⁹⁶

In its lengthy Report, the Commission criticized the manner in which the project was planned, implemented and carried out by Manitoba Hydro. With the value of hindsight, the Commission was able to provide many answers to a variety of questions raised in the late 1960's and early 1970's. Whether these answers would have altered the pro-development momentum of

provincial and federal government policies is at best a matter of conjecture.

' Change' in any form may prove traumatic to individuals, organizations and, of course, government. In the case of government, changes in social values will ultimately result in alterations to policy directions and policy itself. The alterations to policy, however, are not always adjustments which may be carried out over a short period of time and with few disruptions. The very size and complexity of the federal government bureaucracy serves to delay change as various agencies and departments seek to translate a shift in policy direction into meaningful and workable policies. It necessarily follows that third parties dealing with the federal bureaucracy will detect inconsistencies in policy as one department adjusts more efficiently to change than another. Of course, they were, for example, reacting to different constituencies: the federal government to the Indians to a large extent and the province of Manitoba to Manitoba interests. This chapter leads one to see a further increase in the number of actors taking place within the policy community. At this time, the policy community has grown to include even more actors, all of whom interact. The federal government's underlying policy was still in favour of development; and in the sub-government one can identify the following actors: Atomic Energy of Canada, the province of Manitoba, Manitoba Hydro, the Northern Flood Committee, the federal department of the Environment (by remaining silent during the Project), and the Department of Indian Affairs and Northern Development opposed to the policy decision to promote the project due to pressure from the attentive public. The attentive public had also expanded to include the media, South Indian Lake, academics and environmentalists in general. At many times one can see these actors at odds with each other. Interestingly, the federal government had opposing sides in the same policy community, which

reinforces the notion of a lack of a coherent policy on the part of the federal government towards water. The Churchill River Diversion and Lake Winnipeg Regulation Project allow one to see an even larger policy community than was evident with the Columbia River Project. However, even though the attentive public had its concerns listened to, the decision on the part of the federal government was still to promote development in northern Manitoba, and the Project was not altered to accommodate their concerns. What is clear, however, is that the pro-development sub-government and attentive public were strongly challenged. This is even more apparent, and more success is seen, in the Rafferty-Alameda dispute.

4) ENVIRONMENTAL CONCERNS VERSUS ECONOMIC DEVELOPMENT: THE RAFFERTY-ALAMEDA PROJECT

It is readily apparent that during the Churchill River Diversion and Lake Winnipeg Regulation Project, environmental concerns were indeed becoming an issue within the federal government. Interestingly, a major federal initiative established through an Order in Council in 1973 and amended in 1977 was the federal Environmental Assessment and Review Process (EARP)¹⁹⁷ This process was to provide a means of determining the potential environmental impacts of all federal projects and activities. In 1984, a new Order in Council replaced the earlier 1973 and 1977 decisions. This new Order in Council took the form of a guideline and, as such, was therefore recognized within the federal system as being a federal government policy.¹⁹⁸

The new guidelines order describes EARP as a self-assessment process, under which an initiating department shall as early in the planning stages as possible and before irrevocable decisions are taken, ensure that the environmental implications of all proposals for which it is the decision-making authority are fully considered.¹⁹⁹

Some examples of activities for which these guidelines were to be applied include "...water management projects involving dams, dykes, diversions or related activities."²⁰⁰

At the time of the original promulgation of EARP, little attention was paid to it within the government. However, EARP is, with hindsight, an important policy innovation initiated by the federal government. Under

EARP, Environment Canada has identified six areas to be of major concern when development projects are being considered:

- transboundary water issues arising from Canada's obligations under Canada/U.S. treaties and/or related to the protection of the interests of downstream users;
- protection of migratory birds and their habitats;
- protection of fish and fish habitat;
- federal lands;
- protection of rare and endangered species and their habitat; and
- protection of navigable waters.²⁰¹

EARP is, therefore, in existence to ensure that any projects, either federal or in areas of federal responsibility, that may have environmental consequences "...undergo assessment early in their planning stages to ensure that environmental effects and implications are taken into account."²⁰²

Interestingly, the federal position with respect to EARP in 1984 was that the EARP process was not regarded as a firm federal law that had to be adhered to with respect to the environment, but merely a guideline to be followed.

Further to and of importance in demonstrating an apparent shift on the part of the federal government towards environmental concerns was a federal inquiry into water management. In 1985, a federal report entitled Currents of Change,²⁰³ was published by the Inquiry on Federal Water Policy which was appointed in January, 1984 by the Minister of the Environment. This report investigated the various aspects that should be considered in an up to date, coherent federal water policy. The overall purpose of the report was to help clarify the role of the federal government in water management.²⁰⁴ As the report asserts, "...present arrangements appear to many observers as incoherent, confusing and vague."²⁰⁵ This federal investigation attempted to gain insight into the various responsibilities of the federal government with

respect to water. It concluded that there was a need for the federal government to establish principles upon which policies could be built.²⁰⁶ It also pointed out that there was a need for the federal government to be an active participant in water management, and not to leave such responsibilities with the provincial governments.²⁰⁷

Our ultimate objective was to provide for a federal water policy that will ensure Canadians sufficient safe water to sustain their physical, economic, and social well-being.²⁰⁸

Although the Inquiry recognized that potential economic and environmental conflicts exist in water development, a satisfactory solution to this situation could not be reached.

...evidence is accumulating that water developments are providing benefits that are something less than promised, that those benefits are temporary, usually very expensive, and are achieved at a cost of social and environmental repercussions far beyond what was expected.²⁰⁹

More co-operative joint participation between the federal government and the provinces was also called for by the Inquiry.

Also of interest is the report, "Water: 2020"²¹⁰ published in 1987, which promoted the use of environmental assessments to be utilized "...so that potential adverse environmental and socio-economic consequences can be identified before implementation."²¹¹ It did not state, however, what would be done if any adverse effects were found.

By observing the last three decades, it becomes possible to perceive a shift occurring in federal government policies on water and the environment. As noted previously, the early 1960's saw the attentive public increase greatly,

expressing concern about the environment and the beginnings of a government response to this concern. Presumably, this shift was an indication that the federal government had finally decided to depart from a solely economic development policy, and instead, had begun to consider environmental concerns associated with development.

This is evident from the policies put forward during this time period. Such policy innovations and changes in relation to environmental concerns associated with development, however, did not deter the federal government from pursuing development strictly for economic gains. The environment, it would appear, was not a priority on the list of federal governmental concerns and objectives. Although earlier investigations into proposed water projects took place within the federal government administration, such studies still neglected to take environmental concerns into account. More accurately, investigations into potential environmental impacts of development were being undertaken at the same time as a project was being developed and constructed. Thus, any environmental impacts were in fact occurring as they were being forecast in studies. Even with the policy shift towards an environmental emphasis, it would appear that the federal government was still placing economic development ahead of environmental concerns. The environmental policies that were implemented in relation to such resources as water may be deemed to be "window-dressing." It was simply a process that was utilized to appease the public and its concerns. This is illustrated by an examination of the Rafferty-Alameda Project. What is important to realize in relation to this Project is the role that the courts, at the behest of various parties, mainly those in the attentive public, played as conflicts arose between societal objectives and the federal government's seemingly contradictory goals.

In democratic societies the courts play a role in altering societal trends and assisting in the disposition of contentious issues. The nature of the Canadian court system is such that it may be characterized as an adversarial process involving two competing parties advancing conflicting objectives for resolution by a third party. The merits of an adversarial court system have traditionally been the subject of intense debate. Whether 'justice' is served by our court system is, in the writer's opinion, a subjective assessment. Objectively, however, the impact of court decisions upon the country cannot be denied. Whether court decisions are seen as right or wrong, they inevitably affect all aspects of Canadian life.

The courts provide one avenue for citizens, who are dissatisfied with the course set by an incumbent government, to confront the objectives of that government and its various policy makers. From the advent of the 1982 Constitution Act, Canadians (in a manner, in this writer's opinion, remarkably similar to Americans) have become increasingly sensitized to the rights that they possess by law. Further, there has emerged a realization on the part of Canadians of their ability to use the courts to bring about restrictions of government activities in those areas in which the views of citizens run counter to government aims. As such, the Canadian court system has become a major policy actor by providing citizens with both a forum for their views and, in cases where citizens are successful litigants, theoretically a mechanism for the enforcement of successful decisions. It was, with the aid of hindsight, inevitable that the courts would have an impact upon federal policy in matters involving the environment and, significantly in the context of modern-day Canada, water resource exploitation. The

Rafferty-Alameda Project in Saskatchewan clearly demonstrates this point.

(See figure 3, p.75)

The focus of the Rafferty-Alameda Project is the Souris River Basin.

The Souris River Basin consists of a number of inter-related rivers which generally rise in Saskatchewan, flow into North Dakota, then back into Manitoba and ultimately into Lake Winnipeg. In particular, the Souris River follows this pattern having its source in Saskatchewan, flowing into North Dakota and back into Manitoba where it enters the Assiniboine River.²¹²

The importance of the Souris River Basin's water to local agricultural, industrial and residential development is best appreciated by understanding the climate predominant in the area. In describing the Project setting, Volume One of the Initial Environmental Evaluation observes that the climate "...in the Souris River Valley is semi-arid continental, typified by extreme variations in both temperatures and precipitation....Precipitation at Estevan during the period 1951 to 1980 varied from a monthly mean low of 17 to 20 mm during the winter months, November to March, to a monthly mean high of 77.6 mm in June."²¹³

In a primarily agricultural province such as Saskatchewan, the importance of a constant supply of water cannot be underestimated. The very basis of prairie agriculture necessitates that farming operations have access to a water source. Unfortunately for those resident in the Souris River Basin, "...the area has a net deficiency in precipitation with the evaporation and transpiration exceeding the amount of precipitation."²¹⁴ To make matters even worse for this region, after the spring runoff most water has simply flowed out of prairie river basins. The following is perhaps the best

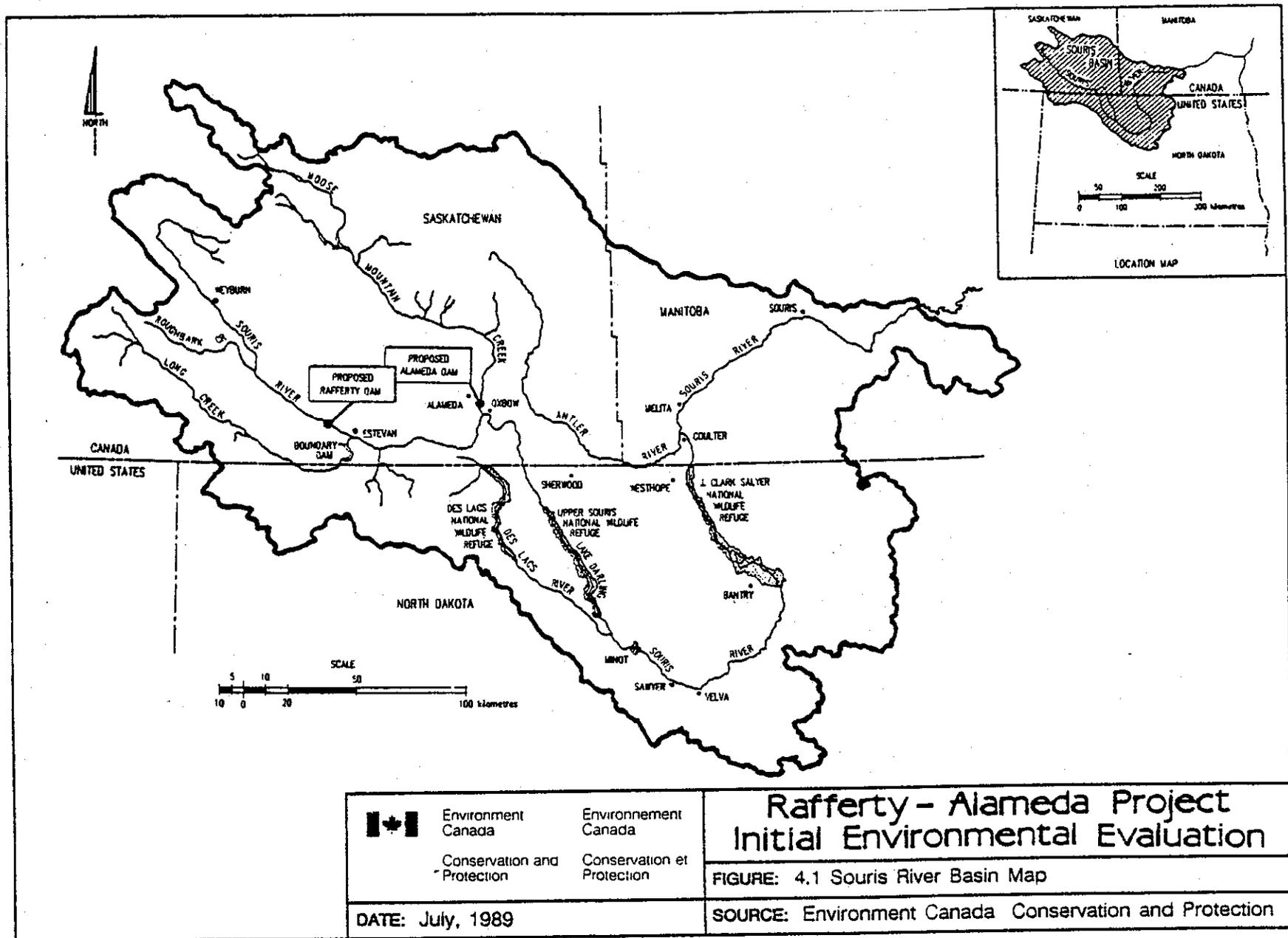


Figure 3
(Draft Summary, 1989)

description of the Souris River Basin water system: " It can be likened to a sink-full of water that collects over the winter. In the spring, the plug is pulled and all the water leaves."²¹⁵ Inevitably, such climatic conditions had an impact upon both the development of agriculture in Saskatchewan and its ongoing viability.

To assist in the development of agriculture in the Souris River Basin, government and a number of social groups began to actively promote the regulation of the waterway by means of what would ultimately be called the Rafferty-Alameda Project. To those factions of society with vested interests in the growth of agriculture in the Souris River Basin or simply promoting the general economic enhancement of the area, the benefits of such an endeavor were obvious. Given the magnitude of the scheme, however, the support of the provincial government was not only preferable but a necessity.

On February 12, 1986, the Premier of Saskatchewan, the Honourable Grant Devine, announced that Saskatchewan would construct the Project. Included in the Project was the building of two dams: the Rafferty dam on the Souris River near the town of Estevan, and the Alameda dam on Moose Mountain Creek, which flows into the Souris near Alameda. The objectives of the Projects include flood control for Saskatchewan, North Dakota and Manitoba, improved water based recreation facilities and irrigation facilities, greater regional and municipal water supply security, and the provision of cooling water for the Shand Thermal Electric Generating Station being constructed near Estevan.²¹⁶

The 1986 initiative by the Saskatchewan government was by no means the first initiative aimed at regulating the Souris River Basin waterways. Records of discussions respecting water supply regulation for this area date from 1907.²¹⁷ Some of the ideas included: 1932 discussions respecting the

Rafferty dam, a 1974 Study of the River Basin involving extensive public involvement, and an International Joint Commission Hearing.²¹⁸

In 1940, the International Joint Commission held public hearings and there were over 100 representations from the public and industry throughout the Souris Basin concerning the effect of drought. Some of those representations also pointed to the threat of floods, but having just come through the drought of the 1930's, most public input to the Commission concerned water supply for the future.²¹⁹

Of importance in any discussion of the Souris River Basin area is the occurrence of droughts. As noted, Saskatchewan is in a semi-arid location with highly variable temperatures and precipitation. Such variations have been recorded over many years and as a result it is possible to observe cycles occurring between wet and dry years for this province. If one understands this geographical/climatic influence, one discovers a relationship between the establishment of study boards to review potential irrigation projects and the occurrence of droughts.²²⁰

In an historical context of repeated initiatives aimed at carrying out components of the Rafferty-Alameda Project, the 1986 announcement by the Premier of Saskatchewan may be viewed as the culmination of almost a century of review and discussion which focused upon the benefits to local economies of regulating the water system. As such, the Project was very much the product of pro-development government policies reflecting the pro-development social values and attitudes of the earlier part of the twentieth century. As has been noted earlier in this paper, however, by the mid-1960's and even more so by the 1980's, Canadian social values were changing in such a fashion as to view 'progress' with some suspicion and to adopt more pro-

environmental positions over more traditional pro-development sentiments. It was into such a social scenario that the Rafferty-Alameda Project was introduced by Mr. Devine.

After the 1986 announcement, " The Government of Saskatchewan created the Souris Basin Development Authority (SBDA) as a Crown Corporation to plan, implement, and manage the Project as agent for Saskatchewan Water, another Crown Corporation."²²¹ The management framework being in place, SBDA went to work and produced an environmental impact statement to satisfy provincial legal requirements.²²²

Subsequently, a Board of Inquiry was constituted, to review the Project and to make recommendations to the Saskatchewan Minister of the Environment and Public Safety who eventually granted authority to proceed with the Project....On February 23, 1988, Sask Water granted SBDA approval to start construction of the Rafferty Dam.²²³

Somewhat complicating the development of the Project was the simple fact that the waterways to be regulated were both inter-provincial and international. As an international and inter-provincial river, the Souris River clearly fell under federal jurisdiction and responsibility in accordance with Canadian constitutional law. Additionally, as noted previously, the creation of the International Joint Commission meant that both the governments of Canada and the United States would have to jointly approve the Project as it involved boundary waters. Accordingly, various approvals had to be secured from governments outside of Saskatchewan. This clearly enlarged the sub-government.

With respect to American approval, the Project was viewed as beneficial to North Dakota to the point where the United States offered financial support toward construction of the Project:

The \$41.1 million contribution (57.7 million, 1985 Canadian dollars) to Saskatchewan is equivalent to the total benefit to the United States minus the cost for United States features and minus a net benefit of \$3.5 million (equivalent to the level of net benefits for the one to two-metre raise of Lake Darling option).

The benefits to the United States were calculated as the difference in flood damages with and without the project. Flood damage reduction benefits are estimated to be 94 percent urban and 6 percent rural. The major benefits (83 percent) are for the City of Minot.²²⁴

American involvement in the Rafferty-Alameda Project was not confined to simple financial contributions, indeed, construction activities and works were proposed for the State of North Dakota.

While Saskatchewan is proposing to build the Rafferty and Alameda dams and the diversion channel primarily for water-supply and water-management purposes, United States has offered \$41.1 million (1985 U.S. dollars) to increase the size of the dams and the flood storage capacity of the two reservoirs. The U.S. Army Corps of Engineers is currently finalizing its Environmental Impact Statement for the portion of the Souris River that will be affected by other additional works that will be required in North Dakota. The works in North Dakota constituted the third phase of an overall, long-term flood control plan for the Souris Valley in North Dakota. These works will be:

- Lake Darling Operation Plan
- Lake Darling Outlet Works
- Refuge Structures.²²⁵

With respect to the Province of Manitoba, proponents of the Project saw benefits in that "...in certain years, it [Manitoba] will receive reduced flood

flows that would have occurred without the dams in place.... Manitoba is part of the Canadian delegation that will negotiate the Canada/United States Agreement and has been consulted on water-quantity and water-quality studies...."²²⁶ The primary focus of the two Manitoba government departments dealing with the Project (Natural Resources and Environment and Safety and Health) was water quality. The examinations of the Project by these departments did not result in Manitoba raising formal objections. The concerns of various Manitoba environmental groups did not translate into action by the Manitoba government.

With respect to the Canadian federal government, its involvement in approving the Project was, as noted earlier, required due to the fact that the waterway crossed both international and provincial boundaries.²²⁷ " On June 17, 1988, the [Federal] Minister [of the Environment] issued a licence to Sask Water pursuant to the International River Improvements Act with respect to the Project...."²²⁸ Significantly, the licence was issued as the Minister had "...determined that the review by Environment Canada of the Saskatchewan environment impact statement together with the conditions attached to the Saskatchewan licence were sufficient to protect the interests of the Federal Government in connection with the Project."²²⁹

In the environmentally conscious Canada of the 1980's, however, not everyone was pleased when the various approvals were secured for the Project. Concern respecting the potential impacts of the Rafferty-Alameda Project on the environment in, and adjacent to, the Souris River Basin continued to mount steadily. Even the anticipated increase in irrigation, a benefit touted by project proponents, led to concerns involving the salinization of agricultural lands.²³⁰ The impact of flooding on wildlife and plant life was, in its most basic terms, unknown.²³¹ The concerns of those

individuals and groups respecting the development arose from a lack of information.

The concern over the future of both plant and wildlife in the locality of the Rafferty-Alameda Project led to an interest in the Project by the Canadian Wildlife Federation Inc. who "...on several occasions requested the respondent Minister of the Environment to conduct an assessment and review under the Environmental Assessment and Review Process Guidelines Order SOR/84-467 [EARP Guidelines Order] in considering the licence application."²³² Motivating the Canadian Wildlife Federation was a fear that " the impact of the Project on wildlife and wildlife habitat will be adverse and substantial. Evaporation from the reservoirs created behind the Rafferty Dam and the Alameda Dam will account for large declines in water flows in the Souris River to North Dakota and Manitoba. The reduced flows will decrease water quality downstream of the dam..."²³³ As well, " Riparian habitat critical to numerous rare and threatened animal and plant species will be destroyed by flooding or other activities associated with the construction of the Rafferty Dam."²³⁴ The necessity for information to address such concerns was critical according to the Canadian Wildlife Federation Inc.

The requests of the Canadian Wildlife Federation were ignored by federal authorities and no assessment and review was carried out at the behest of the Minister of the Environment under the EARP guidelines. Additionally, it should also be noted that:

The environmental impact assessment prepared in Saskatchewan did not contain an environmental assessment and review of the environmental impact of the Project in North Dakota, or in Manitoba. Also, no assessment and review of the environmental impact of the project in Manitoba was prepared in Manitoba.²³⁵

The information necessary to consider the development was not only unavailable, in many cases it simply did not exist and no attempts were underway to secure such data. The only course left for the Canadian Wildlife Federation Inc., to ensure that their concerns would be examined, investigated and considered was to litigate the matter and ask the court to order that the government's legislative provisions on environmental studies requirements and approvals be met.

In the case of Canadian Wildlife Federation Inc., Gordon Geske and Joseph Dolecki v. Minister of the Environment and Saskatchewan Water Corporation, heard in the Trial Division of the Federal Court of Canada on March 30, 1989, an attempt was made to delay if not stop the Project.²³⁶ The applicant in the action sought:

1. an order in the nature of certiorari quashing and setting aside a licence issued by the respondent Saskatchewan Water Corporation for permission to carry out works and undertakings in connection with the Rafferty-Alameda Project on the Souris River Basin, pursuant to the International River Improvements Act; and
2. for an order in the nature of mandamus requiring the respondent Minister to comply with the Environmental Assessment and Review Process Guidelines Order SOR/84-467 in considering the application of the respondent Saskatchewan Water Corporation for a licence under the International River Improvements Act.²³⁷

The position of the applicants was summed up by Justice Cullen who observed that their position is essentially "...that the respondent [federal] Minister, before granting a licence... must comply with the provisions in the EARP Guidelines Order. By not complying with a statutory prerequisite, the respondent Minister has exceeded his jurisdiction...."²³⁸ The Canadian Wildlife

Federation Inc. was, in fact, maintaining that the EARP Guidelines were the law and that the law must be obeyed. After all, if the Guidelines were not the law why had the Governor in Council approved them?

The Governor in Council approved the EARP Guidelines Order on June 21, 1984 for use by departments, boards and agencies in the exercise of their powers and the carrying out of their duties and functions. The applicants submit that the EARP Guidelines Order is both a regulation and an enactment within the meaning of section 2 of the Interpretation Act R.S.C. 1985, c. I-21 and must be followed by the respondent Minister in exercising his functions under the International River Improvement Regulations. The applicants further argue that the EARP Guidelines Order applies to proposals that are undertaken by an initiating department or that may have an environmental effect on an area of federal responsibility and that the Project is just such a proposal.²³⁹

Perhaps predictably, given over a century of pro-development initiatives, the federal government opposed the Canadian Wildlife Federation Inc.'s argument. The federal position at the trial division, at its most fundamental level, was that the Minister "...is not required to comply with the EARP Guidelines Order when issuing a licence under the International River Improvements Act and Regulations."²⁴⁰ Federal lawyers sought to narrow the applicability of the EARP Guidelines "...to proposals undertaken by a federal agency, funded by the federal government, located on federal land or having an environmental effect on an area of federal responsibility."²⁴¹ In the case of the Rafferty-Alameda Project, it was, according to the position forwarded by federal officials, "...a provincial initiative funded by the province of Saskatchewan, located on provincial land and has been subjected to a formal review and board of inquiry by the provincial Department of Environment

and Public Safety. Therefore, to undertake a federal environmental assessment review of the project... would be unwarranted duplication.²⁴² Simply put, EARP was, in the federal view, not applicable to a development as significant as the Rafferty-Alameda Project.

At the conclusion of the hearing, the trial judge found that:

"...therefore, EARP Guidelines Order is not a mere description of a policy of the programme; it may create rights which may be enforceable by way of mandamus."²⁴³ While agreeing that unwarranted duplication of environmental studies and data collection should be avoided, it was found "...that a number of federal concerns were not dealt with by the provincial Environment Impact Statement including a review of the impact of the Project in North Dakota and Manitoba."²⁴⁴ The result of the case was a finding by the trial judge that before issuing the licence the federal Environment Minister had not applied EARP provisions and had, therefore, failed to comply with a statutory duty to apply such provisions and exceeded his jurisdiction by issuing the licence.²⁴⁵ The effect of the decision was to remove federal approval of the Rafferty-Alameda Project, thereby quashing the Project's International River Improvements Act licence. A subsequent appeal by the respondents was rejected by the Federal Court of Appeal. At this time, the EARP Guidelines became recognized and entrenched as a federal law for developments potentially having an impact upon the environment.

The impact of the loss of the federal approval of the Rafferty-Alameda Project appears to have created an element of confusion within the federal system and amongst various federal officials. Likely under pressure from the Saskatchewan government, the federal government responded to the court ruling with what the writer would characterize as a half-hearted attempt to comply with the EARP Guidelines.

The Minister then initiated a procedure to comply with EARPGO by having:

1. A draft Initial Environmental Evaluation prepared and released to the public in June of 1989;
2. A public consultation process chaired by an independent Moderator and designed to receive public opinion on the draft Initial Environmental Evaluation, and
3. The preparation of the final Initial Environmental Evaluation ("IEE") in August of 1989.

The purpose of the IEE was to provide the Minister with certain information which together with submissions from the public could be used by the Minister to decide whether to issue a second licence in conformity with EARPGO. Public meetings were held in Saskatchewan, Manitoba and North Dakota and written submissions were received.²⁴⁶

The Initial Environmental Evaluation concluded that some unknown environmental effects could result from the Rafferty-Alameda Project. Not surprisingly, when one considers the federal pro-development tradition, "...on August 31, 1989, a second licence for the Project was granted by the Minister under the [International River Improvements Act] permitting construction to proceed subject to the implementation of specified mitigation measures."²⁴⁷ Rather than fully implement the EARP process by convening a panel and, consequently, delaying the Project's approval and construction, the federal authorities attempted to skirt the legally mandated process by developing and utilizing what is best described as a 'quick and dirty' response. The minister explained his decision at a press conference: " I am persuaded by the advice of the federal government's most senior environmental experts, as well as by Mr. Millard's [the Moderator's] report that those [environmental] impacts can be almost entirely mitigated."²⁴⁸

The newest licence issued by federal authorities resulted in two new proceedings in the Federal Court Trial Division: Canadian Wildlife Federation,

Inc., Gordon Geske & Joseph Dolecki v. Minister of the Environment and Saskatchewan Water Corporation, and Edelbert Tetzlaff & Harold Tetzlaff v. The Minister of the Environment and Saskatchewan Water Corporation. In these two cases the plaintiffs sought "...quashing the licence issued by the [Federal] Minister to Sask. Water pursuant to IRIA [International Rivers Improvements Act], and mandamus requiring the Minister to comply with EARPGO by appointing a Panel and referring the Project to it, and otherwise complying with the EARPGO."²⁴⁹ Mister Justice Muldoon of the Federal Trial Court issued one set of reasons for both applications, effectively combining both actions and bringing all parties into the same courtroom.

Mister Justice Muldoon stated "...the question before him was whether the Minister had complied with the EARPGO in deciding to issue the licence...or more specifically, whether the Minister, in failing to appoint a Panel pursuant to sections 20 through 32 of the EARPGO, had acted unlawfully."²⁵⁰ The question was not, as earlier in that year, does EARP apply? ; rather, the issue before Mister Justice Muldoon was to what extent does EARP apply? The Judge focused upon the Initial Environmental Evaluation (IEE) which the Minister had stated had been used in his decision.²⁵¹ The Trial Judge found deficiencies in the IEE and doubtful conclusions:

In summary, the Trial Judge reviewed the material that was before the Minister which formed the basis for his decision to issue the licence; identified " significant adverse environmental effects" as specified in the EARPGO and described in the IEE and related documentation, and discussed information deficiencies that made certain conclusions doubtful, and discussed as well the mitigation measures available; interpreted the EARPGO provisions dealing with public review in a certain way and applied that interpretation to the material before him, and found the decision of the Minister not to appoint a Panel to be

unlawful; and ordered mandamus requiring the Minister to comply with the EARPGO Panel appointment provisions, and in exercising his discretion ordered certiorari to quash the license unless a Panel was appointed prior to a specific time.²⁵²

The Minister, subsequent to Mister Justice Muldoon's decision, appointed a Panel and the licence was not quashed. This led to an appeal by the Tetzlaff brothers, owners of some of the property to be flooded by the Project, who maintained that the licence should have been quashed by Mr. Justice Muldoon and that no option should have been left open to federal authorities to salvage a poorly developed and implemented process. The Tetzlaffs' appeal was dismissed. Likewise, an appeal launched by the Saskatchewan Water Corporation of a technical nature was dismissed.

This did not end the litigation surrounding the Rafferty-Alameda Project. During 1991 the Tetzlaffs returned to Federal Court as "...on October 12, 1990, the five-member Review Panel appointed pursuant to that order resigned because the intervenor proposed to proceed with the construction of the Alameda Dam and the Boundary Rafferty diversion channel. They, the panel members, believed that the construction should cease while the panel did its work."²⁵³ In what for environmentalists may be deemed as something of a blow, Mister Justice Muldoon found that: "...it is apparent that the review panel members, who all resigned last October, misunderstood the law as it is clearly expressed in the December judgment of the Appeal Division. The initiating department or Minister, is not obliged to suspend the project or, as here, the project licence until the panel assessment is complete...."²⁵⁴ However, in rather blunt language the Judge went on:

The important principle is that, as stated by the Federal Court of Appeal, *what is required is that a panel must be appointed*. Here the previous panel perceived bad faith on the intervener's part and resigned their office in protest. That is not the Minister's fault or anything of his doing insofar as the evidence shows. However, while the construction does not need to be halted while the panel works or holds its public hearings or formulates its report, what is required is that, for this project to remain licensed to continue, a panel must be appointed. That is what the law requires in this case. No panel - no licence - no construction.

The law places a heavy burden on the Minister to assemble an environmental review panel. He was not helped by the abrupt resignation of the previous panel, for what is *required* is that a panel *must* be appointed. If it be unlawful for the Minister to decline to appoint a panel in these circumstances, and it surely is, the Minister's tardiness or even genuine inability to assemble a panel must carry the same consequence as his or her refusal, but without blame.²⁵⁵

In any event, by the time of this hearing of the matter by Mister Justice Muldoon, as is intimated in the above quotation, a new panel was in place and the judgment was therefore unable to focus upon a scenario where a complete breakdown of the process had occurred by reason of the resignation of the panel.

What is interesting about the February decision is that the Federal authorities appeared to be no longer resisting the merits of EARP but were actually attempting to pursue the aims of EARP. " At the hearing of this matter on January 23, 1991, in Winnipeg, the Minister's counsel informed the Court that the Minister was making energetic efforts to assemble the required panel, and that he had already persuaded some qualified persons to serve."²⁵⁶ Indeed, three days before the Judgment, the federal lawyer reported to the court that, on that very day, "...a panel has been appointed under the Rafferty-Alameda Dam Project to complete the work of the original panel

which had resigned in October of 1990."²⁵⁷ Whether the aforementioned indicates a fundamental shift in federal policy is open to debate and question. What is significant, though, is the absence of arguments from the federal counsel with respect to the applicability of the EARP Guidelines. This may have been motivated by a pro-development mentality of 'let's get the job done,' which may have included the EARP guidelines; alternatively, the federal authorities, for whatever reason, may have resigned themselves to the applicability of EARP. The February Order allowed the Federal Court Trial Division to retain jurisdiction in the matter and actually added to the panel's mandate several duties which increased the task. One may discern what is best characterized as an active interest by Mister Justice Muldoon in the results of the panel's endeavors and in the EARP process as a whole.

The Tetzlaffs returned to the Federal Court Trial Division on September 11 and 12, 1991 with yet another initiative, "...seeking detailed directions with respect to the manner in which the panel should carryout its mandate."²⁵⁸ On September 10, 1991, however, "...the panel filed its report with the Minister, with the result that the latter [Minister] and Saskatchewan Water Corporation both moved at the opening of the hearing on September 11, that the Court should decline jurisdiction since the subject matter of the proceedings before it was now exhausted."²⁵⁹ On September 30, 1991, Mister Justice Muldoon ordered that "...the panel's report to be 'not any report at all' and dismissed the objection to jurisdiction."²⁶⁰

On appeal to the Federal Court Appeal Division, the Minister of the Environment and the Saskatchewan Water Corporation succeeded in limiting Mister Justice Muldoon's order. The interventions of the Federal Court Trial Division into the very workings of the EARP process were curtailed by the Appeal Court ruling. Nonetheless, it is significant to note that at the Appeal

Court level, the various court cases were described as: "... a long and continuing odyssey, only a part of which has been in the Federal Court."²⁶¹

In reviewing the series of cases involving the Rafferty-Alameda Project, one may discern a shift in the direction of federal policy away from a complete rejection of the federal EARP guidelines towards attempts to rationalize their implementation. Should the court cases continue, opponents of the Project may focus their attacks upon particular aspects of implementation of the EARP process. For example, whether in the panel's reports, and the Minister's decisions, legitimate and proper weight was given to substantive environmental requirements outlined in the EARP process and whether it has been strictly adhered to, may form grounds for an appeal. The writer believes this perceived trend shall further sensitize the federal government water policy to environmental considerations. The federal defence will, in this scenario, be one of defending the EARP process and not a position of rejecting its very applicability. In essence, it is possible for one to conclude that the intervention of the courts has brought about a shift in federal policy as it pertains to water.

In any discussion of this sort, one other 'odyssey' of litigation should be mentioned, namely: Re Friends of the Old Man River Society and Minister of Transport et. al. This case involved a project within the province of Alberta:

Alberta is in the course of constructing a dam at Three Rivers site on the Oldman River at a budgeted cost of some \$353 million. By March 31, 1989, the dam was already 40% complete. The object of the work is to provide a secure supply of water within the South Saskatchewan River Basin in Southern Alberta. The Oldman River has its source in the Rocky Mountains to the west of the dam site. Its flows fluctuate, being heaviest during spring run-off. The dam would make it possible to impound river waters within a reservoir for later use by farmers, ranchers,

municipalities and industries, among others.²⁶²

Unlike the Rafferty-Alameda Project however, the waterway being questioned in the case of the Old Man River Project was not an international waterway and the impact of the Old Man River Project was to be confined to the Province of Alberta. All that was required of federal authorities, in the case of the Old Man River Project, was an approval pursuant to the federal Navigable Waters Protection Act.

On March 10, 1986, the Department of the Environment (Alberta) approached the Minister of Transport for an approval under s. 5 of the *Navigable Waters Protection Act*. The Deputy Minister of Transport published notice of this application in local newspapers advising that a description of the site and plans of the Oldman River Dam Project had been deposited with the department and that, after expiration of one month from the date of publication, the Department of the Environment (Alberta) would apply under the Act "for approval of the said site and plans." In due course, on September 18, 1987, the approval was granted but upon a number of conditions all of which pertain to marine navigation. Prior to granting this approval, the Minister of Transport did not subject the matter to any environmental screening or initial assessment under the *Guidelines Order*. Nor was it referred to the Minister of the Environment (Canada) for public review under that order.²⁶³

The issuance of the licence was, in a manner similar to the challenges mounted against the Rafferty-Alameda Project, challenged and on August 11, 1989, the Federal Court Trial Division rejected the initiative of the Friends of the Old Man River Society.²⁶⁴ The decision was appealed and the Federal Court of Appeal found that the Minister of Transport was not restricted to considering marine navigation in determining whether to issue a licence and

overruled the argument advanced by Canada to the effect that EARP did not apply. In the words of the court:

The respondents argue for a much narrower reading of the *Guidelines Order*. They say it is not applicable to a case where the provisions of a specialized statute require consideration of statutory criteria not directly related to environmental concerns and that such is the case here because the language of the *Navigable Waters Protection Act* restricts the Minister to considering "navigation" only. In my view, to accept this contention would require us to ignore the true nature of the *Guidelines Order* which, as was held in *Canadian Wildlife*, is a law of general application. By virtue of s. 6 of the *Department of the Environment Act*, any guidelines established are to be used "by departments... in the exercise of their powers and the carrying out of their duties and functions" in furtherance of those duties and functions of the Minister of the Environment (Canada) himself which are "related to environmental quality." I conclude that the *Guidelines Order* was intended to bind the Minister in the performance of his duties and functions.²⁶⁵

The judgment at the Federal Court of Appeal level, which has by no means been exhaustively canvassed in this paper, had the impact of extending EARP to what may be termed to be local projects which may impact upon federal interests. Not surprisingly, this trend towards expanding EARP's applicability was originally resisted by federal authorities due to the pro-development legacy at both the trial level and the court of appeal.

With the decision from the Federal Court of Appeal, the case went on to the Supreme Court of Canada. That court rendered its decision on January 23, 1992. The Supreme Court upheld the decision of the Court of Appeal though it did place limits upon the applicability of the EARP Guidelines.²⁶⁶ Given the ruling by the Supreme Court, one may now anticipate additional shifts to start occurring in federal policy as the government and its bureaucracy move to

implement EARP in all cases (local, inter-provincial and/or international) where federal decisions are required. Again, it is the writer's view that the federal government's water policy may evolve to be more environmentally sensitive. Further, and ironically in light of the federal government's resistance to the broadened EARP applicability, the recent decisions may provide the federal government with justification for expanding, through environmental legislation, its constitutional jurisdiction and control into areas formerly believed to be in the provincial domain.²⁶⁷

The Rafferty-Alameda Project demonstrates the evolving policy community as it pertains to federal water policy. The ever increasing number of actors is apparent in both the sub-government and the attentive public. The actors may be identified as follows: Cabinet and Cabinet decisions such as EARP; federal departments such as the department of the Environment; the province of Saskatchewan and agencies such as the Sask. Water Corporation; U.S. Army Corps of Engineers; International Joint Commission; the province of Manitoba and associated departments; and the state of North Dakota. Such a project as the Rafferty-Alameda also led to an increase in the number of actors participating in the attentive public: concerned citizens either to be affected by the Project or simply concerned about the environmental effects, included Gordon Geske, Joseph Dolecki, the Tetzlaff brothers, the Canadian Wildlife Federation, Inc., and the media.

As interest increases in environmental issues such as the damming of rivers and their environmental and social consequences, so increases the media coverage surrounding the event. This brings even more people into the policy community. Such involvement on the part of the attentive public led to the introduction of a new actor into the policy community: the courts. Indeed, various levels of the judicial system were involved all the way up to the

Supreme Court of Canada. While this increase in the number of actors , especially in the attentive public, did not succeed in altering the policy goal that had already been set out by the sub- government – the Rafferty-Alameda Project continued to be constructed – it suggested clearly that future similar developments may fail.

5) WATER RESOURCES TODAY-- IS THERE A COHERENT POLICY?

At present, environmental issues continue to occupy public attention in both a broad sense and, in particular, in the context of individual development initiatives. In terms of the former, issues such as global warming and the hazards of the depletion of the ozone layer surrounding the planet have received extensive press and generated public anxiety.²⁶⁸ With the effective conclusion of the cold war, one may reasonably anticipate an increase in the attention paid to issues of broad environmental concern.

The public is confronted with economic arguments favoring development as opposed to environmental arguments questioning the long term benefits of development by assessing environmental impacts. The environmental lobby, in simple terms, argues that the consequences of certain developments far outweigh any short-term benefits to the economy. A clear indicator of the increasing influence of the environmental lobby is the fact that in the middle of a recession the general public listens with sympathy to a line of argument which would restrict economic development and, in essence, frustrate any attempt to increase the number of jobs available in the economy. Indeed, in the context of the logging industry, in the United States, British Columbia and Manitoba, the environmental lobby actually threatens existing jobs in that industry as it seeks to restrict the access of logging companies to timber reserves.²⁶⁹

Reflecting the general public's increasing preoccupation with environmental issues, the federal government has recently taken on the appearance of being environmentally conscious in its public statements and initiatives. This has entailed an apparent commitment to 'sustainable

development,' which may best be characterized as a compromise between pro-development advocates and the aims of the environmental lobby. In the words of Jean J. Charest, Minister of the Environment, " In 1990: Canada; Green Plan for a Healthy Environment committed us to a path toward sustainable development. The achievement of sustainable development- a strong and prosperous economy and vibrant natural environment- is a long journey that will involve many changes in how Canadians think and act with respect to the natural environment."²⁷⁰

' Sustainable Development' has recently become something of a symbol for environmentalists in Canada in that it appears to represent a logical common ground between market oriented forces within society and the concerns of environmentalists. However, the definition of ' sustainable development' does not lend itself to easy analysis. Gary Filmon, in an article in the first edition of Sustainable Development in Manitoba, observed:

We are presented with a unique opportunity to learn, to manage, and even to profit as we evolve ways to manage our growth so that it sustains and reinvigorates our ecosystem. At the same time we must take action to clean up the errors of the past.... Manitoba, like the rest of the world, must learn to balance the needs of an environment necessary to survival, with our yearning to maintain and improve lifestyles through economic development.²⁷¹

The concept of balancing the demands of development with the preservation of the environment is central to the definition of sustainable development. What is the proper balance, however, continues to divide environmentalists and those favouring development. In an article entitled " Sustainable Development - A World Bank Economist's View," B. Stimpson observed that at a public lecture on sustainable development, "...it is clear that

there are limits to growth, so the problem of economics is not only one of the optimum allocation of resources but also one of scale. What is needed [is an indicator showing] the optimum loading of economic activity beyond which the system is in increasing danger of collapse."²⁷² Inherent in such a statement is the notion that development can take place, and that it should only be restrained if it 'threatens' the environment to the point of collapse. This position may be contrasted with a variety of environmental positions. K.A. Buhr, in an article entitled, " Greening of the Profession" observed: " Never before have Canadians been so aware of their environment. Never before have engineers been reminded so often of their responsibility in terms of protecting the environment. The buzz word of the 90's is ' sustainable development.'"²⁷³ In contrast with the view that development may proceed to the point of environmental collapse, is the notion that environmental protection is a primary goal and that development should be limited so as to preserve the natural environment. This is particularly true in the development of Canada's water resource.

Ultimately, sustainable development is "...a concept around which many gather but whose definition has not yet been universally agreed upon."²⁷⁴ Between extreme pro-development views and extreme environmentalist positions is a spectrum of opinions and, accordingly, a variety of definitions of sustainable development. Given the variety of potential developments and the diversity of their potential impacts upon the environment, it is highly unlikely that a universally accepted definition of sustainable development will ever be achieved. It also follows that individuals and groups in favour of sustainable development may, in fact, be advocates of development and not environmentalists in the traditionally accepted sense of the word.

Where on the spectrum of possible definitions of sustainable development the federal government plans on situating the future of Canada is not particularly clear. The Minister of the Environment's remarks, noted earlier, suggest an appreciation of the concept of 'balancing' competing interests. The remarks do not, however, allow one to define what the federal government means by sustainable development and how it will view future development initiatives.

Indicative of federal activity in matters involving the environment is the recent publication of The State of Canada's Environment (1991). Motivating this publication is a desire for data and information. As the preface to the report notes:

The Government of Canada underscored its commitment 'to secure for current and future generations a safe and healthy environment and a sound and prosperous economy' in the Green Plan announced in December 1990. It recognizes that access to credible, balanced information is the best foundation for environmental awareness and decision making, if Canada's natural, economic, and cultural heritage is to be sustained.²⁷⁵

The State of Canada's Environment (1991), is "...Canada's second national state of environment (SOE) report. The first, published in 1986...."²⁷⁶ The 1991 publication is a large and detailed presentation of data and commentary on the Canadian environment. The Report admits to gaps in data, but notes that "...infallibility was never the purpose. Rather, the aim has been to help concerned nonspecialists to become better-informed participants in the ongoing public process of evaluation and decision-making that will determine future environmental conditions."²⁷⁷ The Report also notes:

The idea of sustainability recurs throughout this book, sometimes as an implied subtext. The remaining years of the 20th century will be vitally important to the health of the planet. Centuries of human activities have set in motion consumptive trends that cannot readily be revised, and whose outcome cannot easily be predicted. Nevertheless, if we give it the opportunity, the Ecosphere has an enormous capability for self-healing and recovery. The importance of adopting and applying values that will sustain the Earth and its resources is the ultimate message of this report.²⁷⁸

The Report is intended to be informative and understandable to the general public. However, its practical application and value to the scientific community is not addressed in the Report nor is it the subject of speculation.

The December 11, 1990 Green Plan is described as more than simply a report card on the state of the nation's environment. " The Green Plan marks a fundamental shift in the way the Government of Canada acts on environmental problems. Environmental protection and economic development are seen as mutually supporting rather than mutually exclusive."²⁷⁹ In a report entitled " Canada's Green Plan: The First Year,"...an attempt is made to summarize positive federal initiatives towards implementing the Green Plan. It observes:

Substantial progress has been made on the Green Plan's first year program targets and its longer-term priorities. By the end of the fiscal year, more than 80 percent of the first year program targets will be met; the rest will receive action in 1992/93. With these initiatives, federal expenditures on the environment will increase by \$250 million, or almost 20 percent, in the 1991/1992 fiscal year.²⁸⁰

The number of initiatives contemplated by federal authorities is impressive given their range and scope. From a \$250 million initiative for the program of sewer and water systems on northern Indian Reserves to the

announcement of a \$100 million program aimed at cleaning up the Fraser River,²⁸¹ federal authorities appear to be aggressively pursuing targets set in place by the Green Plan.

At the present time, however, the federal move towards sustainable development lacks precision in that implementation is in its early stages and, as noted earlier, the very definition of sustainable development is elusive. Broadly, the Green Plan " [continues] action on a wide range of specific issues from toxic chemicals to climate change, the Green Plan attacks the cause of environmental problems and environmentally unsustainable development: poor decision-making at all levels of society."²⁸² Whether this signifies a shift in government policies away from traditional pro-development leanings towards a more environmentally conscious role remains to be seen over time and in the specific context of individual development initiatives.

In Manitoba, the proposed Conawapa Hydro-Electric Development (See figure 4, p.101) may afford an opportunity to test the federal government's commitment to sustainable development and to assess whether there has been a shift in federal policy orientation. To be situated on the Nelson River, the Conawapa dam will be yet another component of the massive Churchill River Diversion/ Lake Winnipeg Regulation Project. According to Manitoba Hydro:

In order to meet Manitoba's future electricity requirements and to take advantage of the benefits of a 1000 megawatt (MW) sale to Ontario, Manitoba Hydro is proceeding with plans to construct the Conawapa Generating Station on the lower Nelson River. Located 25 km downstream from the Limestone Generating Station and 795 km north of Winnipeg, the scheduled in-service date for Conawapa's first units is 2001. The present estimate for the total cost of the Conawapa Generating Station is approximately \$4 billion.²⁸³

Traditional economic arguments are propelling the construction of Conawapa. On a provincial scale, " A significant factor in Manitoba Hydro's

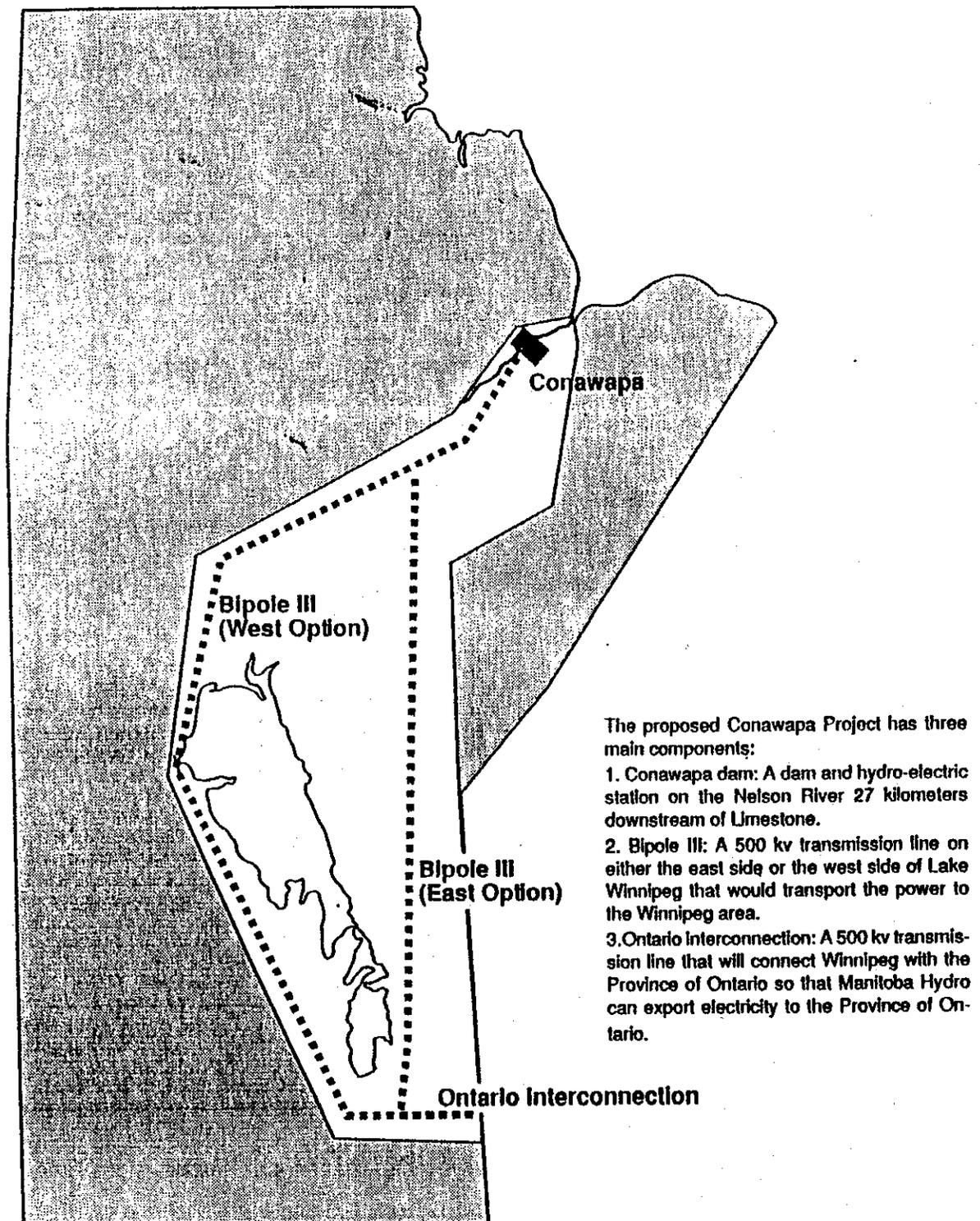


Figure 4

(Conawapa Environmental Review Panel, 1991)

decision to proceed with Conawapa was the sale of 1000 MW of firm power to Ontario Hydro, negotiated and signed in 1989. The 22-year sale will become effective in the year 2000 and is expected to bring revenues of \$12 billion to Manitoba Hydro."²⁸⁴ As it relates to individual Manitobans, the Conawapa development is being sold by Manitoba Hydro as having direct benefits. One pamphlet observes " Plans are now being developed to make sure individuals and businesses will have the time they need to take advantage of these opportunities, if the projects proceed."²⁸⁵ The arguments in support of development bears a similarity to those advanced in the late 1960's and early 1970's with respect to northern Manitoba power developments. The primary focus of the initiative is economic development and provincial authorities are attempting to focus debate upon the benefits of construction. An April 1992 information brochure published by Manitoba Hydro clearly sets this out under the title: Conawapa and the Ontario Hydro Sale: A Good Deal for Manitoba:

Recently there has been much public discussion concerning the merits of a major electricity sale to Ontario and the need for the proposed Conawapa Generating Station. Manitoba Hydro wants its customers to be aware of the following facts regarding these plans:

- the 1000 megawatt sale to Ontario Hydro will bring in \$12 billion in revenue to Manitoba between 2000 and 2022
- the 1390 megawatt Conawapa Generating Station and its associated transmission system are estimated to cost \$6 billion when completed in 2003
- in today's dollars, the net benefits to Manitoba from the Ontario Hydro sale are almost \$1 billion
- your electricity rates in future will be lower with the sale than without the sale
- overall, the environmental impacts from the project are minimal; the new flooding at Conawapa will be less than four square kilometres.²⁸⁶

As is the case with all major hydro-electric developments, planning for the Conawapa development commenced years before its announcement. " The Conawapa site was identified in the 1950's as a possible generating station location and geophysical, hydraulic and environmental investigations have been undertaken since that time."²⁸⁷ Unlike earlier developments, however, the Conawapa development is taking place in a social environment that is more conscious of the development's potential impacts upon the natural environment. In a utility publication, Manitoba Hydro observes that "...before construction begins on any Manitoba Hydro generation or transmission project, environmental reviews are undertaken and approvals obtained in compliance with relevant legislation."²⁸⁸ The Utility also notes that "...consultation with government agencies and the public, particularly affected parties and special interest groups, is an important part of the environmental review and approval process."²⁸⁹

Despite its professed 'environmental sensibility,' the utility appears to be proceeding as if the development is a virtual certainty and that environmental studies and initiatives are merely a ritual of passage. The environmental review and approval process alluded to in Manitoba Hydro publications does not, in the utility's view, call into question the necessity of the development but rather the manner in which the development will be carried out.²⁹⁰ The utility, for example, has proposed a number of routes for a power line to move electricity from Conawapa to Ontario. One may anticipate that public debate will not focus upon the necessity of such a power line but upon where such a power line will go.²⁹¹ In proposing a number of alternative power line routes, Manitoba Hydro has observed: " Careful route selection is an effective way of avoiding or minimizing the potential adverse effects of transmission line development."²⁹² While the merits of such a

statement may go unchallenged, the very necessity of such considerations does not appear to have emerged as a major impetus for public debate.

The role of federal authorities in reviewing the proposed Conawapa development is clear in light of legislation and recent court decisions.²⁹³ Given that the dam will cross a navigable waterway, the provincial authorities will require a federal licence.²⁹⁴ The issuance of such a licence will, inevitably, be governed by the principles set in place by the recent Rafferty federal court decisions. The disposition of federal authorities, however, is at best unclear.

The fundamental role of federal authorities in assessing the merits of the proposed Conawapa initiative lies in an environmental review of the project.

In June 1991, the federal and Manitoba Ministers of Environment appointed a six person Environmental Assessment Panel to conduct a public review of Manitoba Hydro's proposed Conawapa generating station, BiPole III transmission line complex and interconnection to Ontario. The public review is being conducted in accordance with the Manitoba Environment Act and the federal Environmental Assessment and Review Process.²⁹⁵

The merits of a joint federal/provincial panel in terms of eliminating redundant investigations of the development are unquestioned. The possibility, however, that a joint panel may dilute the federal government's ability to objectively assess the Conawapa initiative has not been assessed.

At present, the joint panel has focused upon procedural matters. The professed aim of the panel is simply stated:

The goal of the Panel is to conduct an effective and fair review. To be effective all interested persons must have an adequate opportunity to

participate. Fairness implies an equal opportunity to present views and opinions, without undue pressure from lawyers and others with technical expertise.²⁹⁶

In formulating its procedural rules, however, the panel observes: " The balance that must be struck is between the need for order and efficiency and the desire for an informal and supportive atmosphere to encourage public participation."²⁹⁷ The breadth of any discussion and review is at present the subject of speculation. While in a May 7, 1992 News Release dealing with procedural matters it was observed that " This is an excellent start for the panel's environmental review process,"²⁹⁸ one is left with the impression that the panel's focus is caught up in details and not concentrated upon the merits of the development initiative.

Given that a joint review is being conducted, the role and disposition of federal representatives is unclear. Statements issuing from the panel are, in all likelihood, compromises between a variety of views. The fact of a joint panel, however, is cause for concern amongst environmental lobbyists ²⁹⁹ in that it may be interpreted as a federal endorsement of a pro-development initiative. How the federal authorities reconcile the Conawapa initiative with concepts of sustainable development is an issue that may require years to answer.

Today, it is indeed possible to see the continuing evolution of the policy community in relation to this nation's water resource. With the federal government, as part of the sub-government, taking into account the concerns of previous developments and groups in the attentive public, it is possible that the federal government (sub-government) may now become more than simply reactionary in its policy objectives. This of course, in relation to such projects as Conawapa is not yet known. As it stands now, the

federal government is still without a coherent, well thought out plan in relation to water policy, and perhaps is still resembling its reactionary nature.

CONCLUSION

As a function of geography, Canada possesses vast holdings of water. Water has facilitated both the exploration and industrialization of the country. As has been noted earlier, from the fur trade through to the development of agriculture upon the prairies, water has played a crucial role in the evolution of the Canadian nation.

Given that European settlement of Canada has taken place over hundreds of years, one may reasonably anticipate that the views of settlers in Canada have altered with the passage of time. Indeed radical social changes, such as those that occurred during the industrial revolution, serve to illustrate the evolution of societal concerns and priorities.

Initially, Europeans viewed Canada's water as a vehicle to facilitate exploration. During the period of industrialization, water facilitated the expansion of the nation's economy. A common feature throughout most of Canada's history has been the view that water was a vehicle to assist in national development.

Recently, however, society has become aware of environmental limitations upon development. Concern over matters such as the ozone layer have translated into a general societal anxiety over the environment. (It also holds that concern over the environment has translated into societal anxiety over the ozone layer.) It necessarily follows that initiatives related to expanding the industrial/ economic base of the country may run into general social concerns respecting sustainability of Canada's environment.

The Canadian government, as an actor in the sub-government and as a reflection of the society that elected it, is to be expected to mirror the

concerns and priorities of the Canadian nation, as seen through the attentive public. Historically, the Canadian government has pursued policies which favour the development of the country's industrial base. In terms of "water," the Canadian government has pursued policies which favour its exploitation to facilitate industrial growth. From the development of the Columbia River through to the Conawapa Generating Station, one detects within the federal government a pro-development orientation towards various initiatives.

Recently, however, the Canadian federal government has encountered opposition to development both in society at large and with respect to specific development initiatives. As is evidenced by the recent federal "Green Plan," the federal government has attempted to accommodate shifts in public values. Nonetheless, one is left with the distinct impression that the traditional policy of emphasizing economic development continues to be balanced against more contemporary environmental concerns. Ultimately, the Canadian federal government's water policy during the 1990's with respect to this nation's water resource may be viewed as being inconsistent, if not schizophrenic. Whether pro-development policies shall continue will be determined over the course of the next decade.

This examination of the federal government's policy with respect to water has attempted to track what may be described as the emergence of a new relationship between government and its citizens. These shifts in policy noted previously are a reaction to shifts in societal views, or more organized groups within society. The exchange of ideas and information in this policy community between "the people," the attentive public, and their government, the sub-government, continues to the present. The evolution of federal water policy, one may reasonably anticipate, will lag behind but nonetheless follow societal trends.

ENDNOTES

- 1 A. Paul Pross, Group Politics and Public Policy. (Toronto: Oxford University Press, 1986), p.98.
- 2 Pross, Group Politics and Public Policy, p.98.
Policy Communities and Public Policy in Canada: A Structural Approach. ed. William D. Coleman and Grace Skogstad (Mississauga: Copp Clark Pitman Ltd., 1990), p.26.
- 3 Pross, Group Politics and Public Policy, p.98.
- 4 Pross, Group Politics and Public Policy, p.98
Policy Communities and Public Policy, Coleman and Skogstad, Pp.25-26.
- 5 Pross, Group Politics and Public Policy, p.98
- 6 Ibid.
- 7 Ibid., p.99.
- 8 The Green List: A Guide To Canadian Environmental Organizations and Agencies. 1st. edition (Ottawa: Canadian Environmental Network, 1991).
- 9 This becomes evident upon a closer examination of the BNA Act and will be expanded in chapter one.
- 10 Approaches to Canadian Economic History, ed. W.T. Easterbrook and M.H. Watkins (Toronto: McClelland and Stewart Limited, 1967), p.19.
- 11 Ibid., p.20. It should also be noted that this expansion of territorial claims by New France led to a struggle with English interests within what is now the United States. Both England and France attempted to gain control over what was then described as the 'New World.'
- 12 Canada, Inquiry On Federal Water Policy, Currents of Change (Ottawa: M.O.M. Printing, 1985), p.11.
- 13 Canada, Inquiry on Federal Water Policy, Peter Gossage, "Water In Canadian History: An Overview," p.3.
- 14 Approaches to Canadian Economic History, p. 23.
- 15 F. Quinn, "The Evolution Of Federal Water Policy," Canadian Water Resources Journal, 10,4 (1985) 22.
- 16 Ibid.
- 17 Wyn Craig Wade, The Titanic: End Of A Dream. (New York: Penguin Books Ltd., 1979), Pp.18-19.
- 18 G. Bruun and V. Mamatey, The World In The Twentieth Century. (Boston: D.C. Heath and Company, 1967), p.17.
- 19 Ibid., p.16.
- 20 Lord Sydenham Of Combe, Studies Of An Imperialist. (London: Butler and Tanner Ltd., 1927), p.297.
- 21 Ibid.
- 22 Wade, The Titanic, p.19.
- 23 Winston S. Churchill, The Great Democracies. IV (New York: Dodd, Mead and Company Inc., 1958), p.105.

-
- 24 Aileen Garland, Canada: Then And Now. (Toronto: The Macmillan Company Of Canada Limited, 1959) , p.419.
- 25 R. I. Cheffins and R. N. Tucker, The Constitutional Process In Canada. (Toronto: McGraw Hill Ryerson Limited, 1976) , p.25.
- 26 Ibid.
- 27 P. H. Pearse, "Developments In Canada's Water Policy," The Management Of Water Resources: Proceedings Of An International Seminar. (Toronto: The Institute For Research On Public Policy, 1986) , p.2.
- 28 Cheffins and Tucker, The Constitutional Process In Canada, p.25.
- 29 Quinn, "The Evolution Of Federal Water Policy," 23.
- 30 Ibid., p.25. The writer also recognizes the importance of inter-provincial boundaries with regard to waterways.
- 31 Ibid.
- 32 Canada, Currents Of Change, p.14.
- 33 Ibid.
- 34 Ibid.
- 35 Ibid.
- 36 Quinn, "The Evolution Of Federal Water Policy," p.25.
- 37 Weather and Climate, ed. J. G. Nelson (Toronto: Methuen Publications, 1979) , p.53.
- 38 Ibid.
- 39 George Spence, Survival Of A Vision. (Ottawa: Queen's Printer, 1967) , p.74.
- 40 Canada, Currents Of Change, p.13.
- 41 Ibid.
- 42 Pearse, " Developments in Canada's Water Policy," p.4.
- 43 " Prairie Farm Rehabilitation Administration: 50th Anniversary Seminar." Agriculture Canada, 1985,
- 44 Canada, Currents Of Change, p.13.
- 45 Quinn, "The Evolution Of Federal Water Policy," p.26.
- 46 Robert Bothwell et. al., Canada Since 1945: Power, Politics And Provincialism. (Toronto: University Of Toronto Press, 1981) , p.99.
- 47 O. J. Firestone, Industry And Education: A Century Of Canadian Development. (Ottawa: University Of Ottawa Press, 1969) , p.37.
- 48 Pearse, "Developments In Canada's Water Policy," p.27.
- 49 Canada, Currents Of Change, p.14.
- 50 Ibid.
- 51 Ibid., p.15.
- 52 Quinn, "The Evolution Of Federal Water Policy," p.27.
- 53 Ibid., p.25.
- 54 Ibid.
- 55 Pearse, "Developments In Canada's Water Policy," p.3.
- 56 Ibid.
- 57 Canada, Canada One Hundred: 1867-1967. (Ottawa: Queen's Printer, 1967) , p.199.

- 58 Canada, Department Of External Affairs, The Columbia River Treaty And Protocol: A Presentation. (Ottawa: Queen's Printer, 1964) , p.20.
J. Krutilla, The Columbia River Treaty. (Baltimore: Johns Hopkins Press, 1967) , p.8.
- 59 Canada, The Columbia River Treaty And Protocol: A Presentation, p.15.
Donald Waterfield, Continental Waterboy. (Toronto: Clarke, Irwin and Company Limited, 1970) , p.3.
- 60 Ibid.
- 61 Waterfield, Continental Waterboy, p.11.
- 62 Krutilla, The Columbia River Treaty, p.15.
- 63 Ibid., p.9.
- 64 Canada, The Columbia River Treaty And Protocol: A Presentation, p.36.
- 65 Ibid.
- 66 Canada, The Columbia River Treaty And Protocol: A Presentation, p.18.
- 67 Krutilla, The Columbia River Treaty, p.9.
- 68 Richard Bocking, Canada's Water: For Sale? (Toronto: James Lewis and Samuel, Publishers, 1972) , p.42.
- 69 Canada, The Columbia River Treaty And Protocol: A Presentation, p.19.
- 70 Ibid.
- 71 Krutilla, The Columbia River Treaty, p.8.
- 72 Waterfield, Continental Waterboy, p.10.
- 73 Ibid., p.20.
- 74 Krutilla, The Columbia River Treaty, p.13.
- 75 J.W. Wilson, People in the Way: The Human Aspects of the Columbia River Project. (Toronto: University of Toronto Press, 1973) , p.15.
- 76 Waterfield, Continental Waterboy, p.12.
Neil Swainson, Conflict over the Columbia. (Montreal: McGill-Queen's University Press, 1979) , Pp.57-58.
- 77 Waterfield, Continental Waterboy, p.12.
- 78 Ibid.
- 79 Canada, The Columbia River Treaty And Protocol: A Presentation, p.19.
- 80 Waterfield, Continental Waterboy, p.13.
- 81 Canada, The Columbia River Treaty And Protocol: A Presentation, p.26.
- 82 Ibid., p.95.
- 83 Krutilla, The Columbia River Treaty, p.8. The role of the IJC can also be substantiated in Swainson's book, Conflict over the Columbia, p.19.
- 84 Canada, The Columbia River Treaty And Protocol: A Presentation, p.14.
- 85 Quinn, "The Evolution Of Federal Water Policy," p.28.
- 86 Canada, The Columbia River Treaty And Protocol: A Presentation, p.19.
Krutilla, The Columbia River Treaty, p.9.
- 87 Krutilla, The Columbia River Treaty, p.9.
"Columbia Treaty Now A Fact," Winnipeg Free Press, January 17, 1961, p.1.
"Historic Hydro Pact Sealed By Dief/ Ike," Winnipeg Free Press, January 17, 1961, p.2.

-
- 88 Krutilla, The Columbia River Treaty, p.13.
- 89 Waterfield, Continental Waterboy, p.34.
- 90 Ibid., p.36.
- 91 Swainson, Conflict over the Columbia, p.125.
- 92 Krutilla, The Columbia River Treaty, p.153.
- 93 Ibid., p.156.
- 94 Canada, The Columbia River Treaty And Protocol: A Presentation, p.32.
- 95 Ibid.
- 96 Ibid.
- 97 Ibid., p.33.
- 98 Canada, The Columbia River Treaty And Protocol: A Presentation, p.19.
Krutilla, The Columbia River Treaty, p.10.
- 99 Krutilla, The Columbia River Treaty, p.9.
- 100 " Years Of Dickering May Finally Be Completed As Accord On The Columbia Nears," Winnipeg Free Press, January 10, 1964, p.6.
- " Agreement On Columbia," Winnipeg Free Press, January 14, 1964, p.1.
- 101 Krutilla, The Columbia River Treaty, p. v.
- 102 Waterfield, Continental Waterboy, p.43.
- 103 Krutilla, The Columbia River Treaty, p.15.
- 104 Waterfield, Continental Waterboy, p.43.
- 105 Ibid., p.68.
- 106 Ibid., p.36.
- 107 Canada, House of Commons, 2nd Session - 26th Parliament: Standing Committee on External Affairs. 1964, p.8..
- 108 Ibid., Pp. 29-30.
- 109 Canada, The Columbia River Treaty And Protocol: A Presentation, p.19.
- 110 Waterfield, Continental Waterboy,
- 111 Lester W. Milbrath, Environmentalists: Vanguard For A New Society. (Albany: State University Of New York Press, 1984) , p.5.
- 112 Ibid., p.69.
- 113 Canada's Natural Environment. ed. G.R. McBoyle and E. Somerville (Toronto: Methuen Publications, Ltd., 1976) , p.246.
- 114 Canada, Currents Of Change, p.16.
- 115 Canada, " A Summary Of Environmental Jurisdiction And Recent Federal Anti-Pollution Legislation In Canada," (Ottawa: Information Branch, 1972) , p.6.
- 116 Canada's Natural Environment, Pp. 251-252.
- 117 Canada, " A Summary Of Environmental Jurisdiction And Recent Federal Anti-Pollution Legislation In Canada," p.3.
- 118 Ibid., p.5.
- 119 Quinn, " The Evolution Of Federal Water Policy," p.30.
- 120 Ibid.
- 121 Manitoba, " Commission of Inquiry Into Manitoba Hydro, (December, 1979) , p.35.

- 122 Ibid.
- 123 Ibid.
- 124 Ibid.
- 125 Manitoba, " Commission Of Inquiry Into Manitoba Hydro," p.35.
This was also substantiated by the Nelson River Investigations, " Final Report of the Nelson River Programming Board to the Government of Canada and the Government of Manitoba," February, 1967.
- 126 Manitoba, " Commission Of Inquiry Into Manitoba Hydro," p.36.
- 127 Ibid., p.37.
- 128 Ibid.
- 129 " Nelson River Test Line," (Atomic Energy of Canada Limited/Manitoba Hydro, n.d.) , p.2.
- 130 " Kettle Project," (Winnipeg: Manitoba Hydro, 1970) , p.5.
- 131 Manitoba, " Commission Of Inquiry Into Manitoba Hydro," p.42.
- 132 " Power From The North," (Winnipeg: Manitoba Hydro, 1988) , p.3.
- 133 Ibid.
- 134 " Manitoba: The Hydro Province," (Winnipeg: Manitoba Hydro, August, 1988).
- 135 " Power From The North," p.3.
- 136 Manitoba, " Commission Of Inquiry Into Manitoba Hydro," Pp.5-6.
- 137 Manitoba, " Commission Of Inquiry Into Manitoba Hydro," p.6.
- 138 " Power From The North," p.13.
- 139 James B. Waldram, As Long As The Rivers Run: Hydro Electric Development And Native Communities In Western Canada. (Winnipeg: University of Manitoba Press, 1988) , p.119.
- 140 Ibid.
- 141 Ibid.
- 142 Canada, Summary Report, " Lake Winnipeg, Churchill and Nelson Rivers Study Board."
- 143 " Power From The North," p.5.
- 144 Manitoba, " Commission Of Inquiry Into Manitoba Hydro," p.37.
- 145 Quinn, " The Evolution Of Federal Water Policy," p.27.
- 146 Manitoba, " Commission Of Inquiry Into Manitoba Hydro,"
- 147 Canadian Resource Policies: Problems and Prospects. ed. B. Mitchell and W.R. Derrick Sewell (Toronto: Methuen Publications, 1981) , p.71.
- 148 Thomas L. Burton, Natural Resource Policy in Canada. (Toronto: McClelland and Stewart Limited, 1972) , p.75.
- 149 Canadian Resource Policies, ed. Mitchell an Sewell, p.69. As well, the more radar facilities illustrates recognition that Canada possessed territory north, for example, of Gympsumville.
- 150 R. Newbury and G. Malaher, The Destruction of Manitoba's Last Great River. (Ottawa: Canadian Nature Federation, 1973) , Pp.3-4.
- 151 Waldram, As Long As The Rivers Run, p.119.
- L. Krotz, " Dammed And Diverted," Canadian Geographic. (Feb/March, 1991) , p.41.
- 152 Waldram, As Long As The Rivers Run, p.119.

-
- 153 Ibid., Pp.121-122.
- 154 Newbury and Malaher, The Destruction of Manitoba's Last Great River, p.19.
- 155 Ibid., p.20.
- 156 Waldram, As Long As The Rivers Run, p.122.
- 157 Ibid., p.119. This can also be substantiated by the Tritschler Commission and the article by Larry Krotz.
- 158 "Churchill River Diversion," (Winnipeg: Manitoba Hydro, Information Sheet, 1989), p.2.
- 159 Manitoba, Department of Northern Affairs, "Social and Economic Impact of the Nelson River Hydro Development," (1975), p.11.
- 160 Waldram, As Long As The Rivers Run, Pp. 124-125.
- 161 Ibid., p.126.
- 162 Ibid. This can also be substantiated by the article by Larry Krotz.
- 163 Ibid., p.129.
- 164 Newbury and Malaher, The Destruction of Manitoba's Last Great River, p.11.
- 165 Waldram, As Long As The Rivers Run, p.131.
- 166 A lawsuit filed by the Metis two months ago against Manitoba Hydro, Manitoba and Canada insisted that the hearings into this matter were indeed a sham.
- 167 Ibid. This was also substantiated by Newbury and Malaher, The Destruction of Manitoba's Last Great River.
- 168 Waldram, As Long As The Rivers Run, p.133.
- 169 Ibid., p.134. This can also be substantiated by the Tritschler Commission.
- 170 Ibid., p.139.
- 171 Waldram, As Long As The Rivers Run, p.135.
Canada, Summary Report, "Lake Winnipeg, Churchill and Nelson Rivers Study Board."
- 172 Waldram, As Long As The Rivers Run, p.137.
- 173 Ibid., p.138.
- 174 Ibid., p.139.
- 175 It is still not clear.
- 176 Waldram, As Long As The Rivers Run, p.139.
- 177 Drew Bodaly, "Floodgate: Economics Overrides Environment In Hydro Diversion," Springtide, Vol. 1, No. 1 (June 1990), p.14.
Waldram, As Long As The Rivers Run, p.143.
- 178 Waldram, As Long As The Rivers Run, p.146.
- 179 Bodaly, "Floodgate: Economics Overrides Environment In Hydro Diversion," p.14.
- 180 Waldram, As Long As The Rivers Run, p.149.
- 181 "Government Lawsuit Could Create Hydro Squeeze," Winnipeg Tribune, July 26, 1975.
Waldram, As Long As The Rivers Run, p.158.

-
- 182 " Action Shocks Premier," Winnipeg Free Press, July 23, 1975, p.1.
- 183 Canada, Department of Indian and Northern Affairs, The Northern Flood Agreement, (Ottawa: 1977).
- 184 Bodaly, " Floodgate: Economics Overrides Environment In Hydro Diversion," p.14.
Canada, The Northern Flood Agreement, 1977.
- 185 Waldram, As Long As The Rivers Run, p.149.
- 186 Ibid., p.150.
- 187 Ibid., p.158. This may also be substantiated by the Tritschler Commission.
- 188 Ibid., p.159.
- 189 Ibid.
- 190 Ibid., p.160.
- 191 Ibid.
- 192 This came up recently during an argument before Master L. Ring who supported the notion that the Northern Flood Agreement is a Treaty. This arose in the case of Webteck Control Inc. v. The Cross Lake Band of Indians (Man. Q.B.) 1991.
- 193 Canada, The Northern Flood Agreement; Preamble.
- 194 Winnipeg Free Press, March 26, 1992; An advertisement appeared announcing a community meeting at Split Lake to discuss the implementation agreement (agreement in principle) about the Northern Flood Agreement. Also: " Hydro Suits Switched On Cashed Flow: Part One," Winnipeg Free Press, August 3, 1991. The most recent resolution took place in June, 1992, when Split Lake signed a major settlement of its Northern Flood Agreement claims.
- 195 Manitoba, " Commission Of Inquiry Into Manitoba Hydro."
- 196 Ibid., p.18.
- 197 Canada, Environment Canada, " Environmental Conservation Service: Environmental Screening Guidelines, Environmental Assessment," (1985) , p.1.
- 198 Ibid., p.4.
- 199 Ibid.
- 200 Ibid.
- 201 Canada, " Rafferty-Alameda Project, Initial Environmental Evaluation: Draft Summary," (Saskatchewan: Environment Canada, 1989) , p.21.
- 202 Ibid., p.2.
- 203 Canada, Currents Of Change.
- 204 Ibid., p.3.
- 205 Ibid., p.182.
- 206 Ibid., p.19.
- 207 Ibid., p.16.
- 208 Ibid.
- 209 Bocking, Canada's Water: For Sale?, p.51.
- 210 " Water: 2020: Sustainable Use For Water In The 21st Century." (Ottawa: Science Council Of Canada, 1988).

-
- 211 Ibid., p.24.
- 212 " Edelbert Tetzlaff and Harold Tetzlaff Vs, The Minister of the Environment and Saskatchewan Water Corporation," Federal Court of Appeal, (November 22 and 23, 1990) , Pp. 2-3.
- 213 Canada, Rafferty-Alameda Project: Initial Environmental Evaluation, Volume 1, Technical Report. (Saskatchewan: Environment Canada, 1989) , p.4-1.
- 214 " Rafferty-Alameda-Shand: Questions And Answers," (Saskatchewan: Souris Basin Development Authority, n.d.) , p.10.
- 215 Ibid.
- 216 " Edelbert Tetzlaff and Harold Tetzlaff Vs. The Minister of the Environment and Saskatchewan Water Corporation," Federal Court of Appeal, (November 22 and 23, 1990) , p.3.
- 217 " Rafferty-Alameda-Shand: Questions And Answers," p.32.
- 218 Ibid.
- 219 Ibid.
- 220 " Prairie Farm Rehabilitation Administration: 50th Anniversary Seminar," p.93.
- 221 " Edelbert Tetzlaff and Harold Tetzlaff Vs. The Minister of the Environment and Saskatchewan Water Corporation," Federal Court of Appeal (November 22 and 23, 1990) , p.3.
- 222 Ibid.
- 223 Ibid., Pp.3-4.
- 224 " Rafferty-Alameda-Shand: Questions And Answers," p.41.
- 225 Ibid., p.40.
- 226 Ibid., Pp.45-46.
- 227 Noteworthy, the federal government was also partially due to their jurisdiction over such areas as fisheries and navigation.
- 228 " Edelbert Tetzlaff and Harold Tetzlaff Vs. The Minister of the Environment and Saskatchewan Water Corporation," Federal Court of Appeal (November 22 and 23, 1990) , p.4.
- 229 Ibid.
- 230 " Rafferty-Alameda-Shand: Questions And Answers," p.80.
- 231 Canada, Rafferty-Alameda Project: Initial Environmental Evaluation, Volume 3, Moderator's Report. (Saskatchewan: Environment Canada, 1989) , p.17.
- 232 " Canadian Wildlife Federation, Inc., Gordon Geske and Joseph Dolecki V. Minister of the Environment and Saskatchewan Water Corporation," Federal Court Reports [1989] , p.313.
- 233 Ibid., Pp.313-314.
- 234 Ibid., p.314.
- 235 Ibid., p.313.
- 236 Gordon Geske is a local farmer from the area to be affected by the Project. Joseph Dolecki is a professor at the University of Brandon.
- 237 " Canadian Wildlife Federation, Inc., Gordon Geske and Joseph Dolecki V. Minister of the Environment and Saskatchewan Water Corporatin," Federal Court reports [1989] , p.312.

-
- 238 ibid., p.314.
- 239 ibid., Pp.314-315.
- 240 ibid., p.315.
- 241 ibid.
- 242 ibid., Pp. 315-316.
- 243 ibid., p.322.
- 244 ibid., p.325.
- 245 ibid., p.327.
- 246 " Edelbert Tetzlaff and Harold Tetzlaff Vs. The Minister of the Environment and Saskatchewan Water Corporation," Federal Court of Appeal (November 22 and 23, 1990) , Pp.4-5.
- 247 ibid., p.5.
- 248 ibid., Pp.5-6.
- 249 ibid., p.6.
- 250 ibid., p.7.
- 251 ibid.
- 252 ibid., Pp.9-10.
- 253 " Edelbert tetzlaff and Harold Tetzlaff, V. Minister of the Environment, and Saskatchewan Water Corporation," Federal Court of Canada: Trial Division [February 1991] , p.3.
- 254 " Edelbert tetzlaff and Harold Tetzlaff, V. Minister of the Environment, and Saskatchewan Water Corporation," Federal Court of Canada: Trial Division, Reasons For Order. [February 1991] , p.8.
- 255 ibid., p.9.
- 256 ibid.
- 257 ibid.
- 258 " Saskatchewan Water Corporation and Edelbert and Harold Tetzlaff and the Minister of the Environment," Federal Court of Appeal (December 1991) , p.8.
- 259 ibid.
- 260 ibid., p.1.
- 261 ibid., p.8.
- 262 " Friends of the Old Man River Society V. Canada [Minister of Transport]" Federal Court of Appeal [March 1990] , Pp.378-379.
- 263 ibid., p.382.
- 264 ibid., p.377.
- 265 ibid., p.392.
- 266 " Her Majesty The Queen In Right Of Alberta and Minister Of Transport and Minister Of Fisheries And Oceans V. Friends Of The Oldman River society and Attorney General Of Quebec, et. al." Supreme Court Of Canada (January 23, 1992).
- 267 Currently, one may only speculate on the effect that certain proposed Constitutional ammendments may have on such resources as water.
- 268 One need only view the Weather Channel on Cable T.V. to secure a feeling for the public's increasing interest in ozone levels.

- 269 In the American North West a "showdown" has emerged between the logging industry and environmentalists. One of the tactics employed by environmentalists to prevent, or hinder, logging operations is the practice known as tree spiking. The conflict between these groups is ongoing and may be characterized, by those involved in the logging industry, as economic.
- 270 Canada, Department of the Environment, The State of Canada's Environment. (Ottawa: 1991), p.iii.
- 271 "A Message from the Premier," Agenda For Sustainable Development In Manitoba. Premier Issue, (December, 1989) , p.8. Interestingly, this same government insists on pursuing, among other things, the RePap deal and Conawapa with minimal, if any , environmental assessment.
- 272 K. A. Buhr, " Greening of the Profession," The Manitoba Professional Engineer. (October, 1990) , p.3.
- 273 Ibid. p.1.
- 274 Ibid. p.15
- 275 Canada, The State of Canada's Environment, p.vi.
- 276 Ibid., p.vii.
- 277 Ibid., p.ix.
- 278 Ibid.
- 279 Canada, " Canada's Green Plan: The First Year," (Ottawa: Minister of Supply and Services, 1991) , p.1.
- 280 Ibid.
- 281 Ibid. Pp.1-2.
- 282 Ibid. p.1.
- 283 " The Conawapa Project," (Winnipeg: Manitoba Hydro, Information Sheet, 1992) , p.1.
- 284 Ibid.
- 285 " Conawapa and Bipole 3: Some Answers," (Winnipeg: The Conawapa Coordination Unit, 1992) , p.1.
- 286 " Conawapa and the Ontario Hydro Sale: A good deal for Manitobans," (Winnipeg: Manitoba Hydro, Information Sheet, April 1992) , p.1.
- 287 Ibid.
- 288 Ibid. p.2.
- 289 Ibid.
- 290 It is assumed that jobs and energy are the primary motivation for development. A balanced debate between pro and anti development views does not occur in utility publications.
- 291 The writer is assuming that individual property owners along the route of the proposed power line will focus any debate into a local analysis of the line route selection.
- 292 " Bipole III Transmission Line, Henday - Riel: Alternative Corridors Status Report," (Winnipeg: Manitoba Hydro, 1991) , p.2.
- 293 Reference to EARP has been made previously in the Rafferty-Alameda chapter.
- 294 Thereby requiring a federal licence.

295 Conawapa Environmental Review Panel, " Stage 1 Review Procedures," (Winnipeg: Conawapa Environmental Assessment Review Panel, May, 1992) , p.1. This was also greatly affected by the Great Whale Project, as was the earlier Churchill River Diversion.

296 Ibid.

297 Ibid.

298 Conawapa Environmental Review Panel, " News Release," (Winnipeg: Conawapa Environmental Assessment Review Panel, May, 1992).

299 To date, the writer is unaware of any court challenge as to the validity of joint environmental panels.

Bibliography

- " A History of Hydro-Electric Power in Manitoba." Winnipeg: Manitoba Hydro, 1986
- " A Message From The Premier." Agenda For Sustainable Development In Manitoba. Premier Issue, December 1989
- "Action Shocks Premier," Winnipeg Free Press, (July 23, 1975), 1
- " Agreement On Columbia," Winnipeg Free Press, (January 14, 1964), 1
- Approaches To Canadian Economic History, ed. W.T. Easterbrook and M.H. Watkins, Toronto: McClelland and Stewart Limited, 1967
- Atomic Energy of Canada Limited/ Manitoba Hydro, " Nelson River Test Line." n.d.
- " Bipole III Transmission Line, Henday - Riel: Alternative Corridors Status Report," Winnipeg: Manitoba Hydro, 1991
- Bocking, Richard Canada's Water: For Sale? Toronto: James, Lewis & Samuel, Publishers, 1972
- Bodaly, Drew "Floodgate: Economics Overrides Environment In Hydro Diversion," Springtide, 1,1 (June 1990) 12-14
- Bothwell, Robert et. al. Canada Since 1945: Power, Politics, And Provincialism. Toronto: University Of Toronto Press, 1981
- Bruun, G. and Mamatey, V. The World In The Twentieth Century. Boston: D.C. Heath And Company, 1967
- Buhr, K. A. " Greening of the Profession," The Manitoba Professional Engineer. October, 1990
- Burton, Thomas L. Natural Resource Policy In Canada, Toronto: McClelland and Stewart Limited, 1972
- Canada, Atomic Energy Of Canada Limited, "The Nelson River Transmission System," n.d.
- Canada, "A Summary Of Environmental Jurisdiction And Recent Federal Anti-Pollution Legislation In Canada." Ottawa: Information Branch, 1972
- Canada, Canada: One Hundred: 1867-1967. Ottawa: Queen's Printer, 1967

Canada, "Canada's Green Plan: The First Year," Ottawa: Minister of Supply and Services, 1991

Canada, Department of the Environment, The State of Canada's Environment, Ottawa: 1991

Canada, Department Of External Affairs, The Columbia River Treaty And Protocol: A Presentation. Ottawa: Queen's Printer, 1964

Canada, Department Of External Affairs, The Columbia River Treaty: Protocol and Related Documents, Ottawa: Queen's Printer, 1964

Canada, Department of Indian and Northern Affairs, "Northern Flood Agreement: Issues and Obligations." Ottawa: 1984

Canada, Department of Indian and Northern Affairs, The Northern Flood Agreement. Ottawa: 1977

Canada, Environment Canada, "Environmental Conservation Service: Environmental Screening Guidelines, Environmental Assessment." 1985

Canada, Government Organization Act, "Environmental Assessment and Review Process Guidelines Order." Registration SOR/84-467, 22 June, 1984

Canada, House of Commons, 2nd Session - 26th Parliament: Standing Committee on External Affairs, April 7 - May 27, 1964

Canada, Inquiry On Federal Water Policy, Currents of Change Ottawa: M.O.M. Printing, 1985

Canada, Inquiry on Federal Water Policy, Peter Gossage, "Water in Canadian History: An Overview." March, 1985

Canada, "Rafferty-Alameda Project, Initial Environmental Evaluation: Draft Summary." Saskatchewan: Environment Canada, 1989

Canada, Rafferty-Alameda Project: Initial Environmental Evaluation, Volume I, Technical Report. Saskatchewan: Environment Canada, 1989

Canada, Rafferty-Alameda Project: Initial Environmental Evaluation, Volume III, Moderator's Report. Saskatchewan: Environment Canada, 1989

Canada, " Summary Report: Lake Winnipeg, Churchill and Nelson Rivers Study Board." 1975

Canada's Natural Environment, ed. G.R. McBoyle and E. Sommerville, Toronto: Methuen Publications, Ltd., 1976

Canadian Environmental Policy: Ecosystems, Politics, and Process, ed. Robert Boardman, Toronto: Oxford University Press, 1992

Canadian Resource Policies: Problems and Prospects, ed. B. Mitchell and W.R. Sewell, Toronto: Methuen Publications, 1981

"Canadian Wildlife Federation, Inc., Gordon Geske and Joseph Dolecki Vs. Minister of the Environment and Saskatchewan Water Corporation." Ottawa: Federal Court of Canada, Trial Division. April 10, 1989

Cheffins, R.I. and Tucker, R.N. The Constitutional Process In Canada. Toronto: McGraw-Hill Ryerson Limited, 1976

"Churchill River Diversion." Winnipeg: Manitoba Hydro, Information Sheet, 1989

Churchill, Winston S. The Great Democracies, IV. New York: Dodd, Mead and Company, Inc., 1958

"Columbia Treaty Now A Fact," Winnipeg Free Press, (January 17, 1961),1

"Conawapa and Bipole 3: Some Answers," Winnipeg: The Conawapa Coordination Unit, 1992

"Conawapa and the Ontario Hydro Sale: A Good Deal For Manitobans," Winnipeg: Manitoba Hydro, Information Sheet, April 1992

Conawapa Environmental Review Panel, "News Release," Winnipeg: Conawapa Environmental Assessment Review Panel, May 1992

Conawapa Environmental Review Panel, "Operational Procedures," Winnipeg: 1991

Conawapa Environmental Review Panel, "Stage 1 Review Procedures," Winnipeg: Conawapa Environmental Assessment Review Panel, May 1992

"Edelbert Tetzlaff and Harold Tetzlaff Vs. The Minister of the Environment and Saskatchewan Water Corporation." Federal Court of Appeal, November 22 and 23, 1990

"Edelbert Tetzlaff and Harold Tetzlaff, V. Minister of the Environment, and Saskatchewan Water Corporation." Federal Court of Canada: Trial Division, February, 1991

"Edelbert Tetzlaff and Harold Tetzlaff V. Minister of the Environment, and Saskatchewan Water Corporation." Federal Court of Canada: Trial Division, Reasons for Order. February 1991

Firestone, O. J. Industry and Education: A Century of Canadian Development. Ottawa: University of Ottawa Press, 1969

"Friends of the Old Man River Society V. Canada [Minister of Transport] " Federal Court of Appeal, March 1990

Garland, Aileen Canada: Then And Now. Toronto: The Macmillan Company of Canada Limited, 1959

"Government Lawsuit Could Create Hydro Squeeze," Winnipeg Tribune, July, 26, 1975

"Her Majesty The Queen In Right Of Alberta and Minister Of Transport and Minister of Fisheries and Oceans V. Friends of the Oldman River Society and Attorney General of Quebec, et. al. " Supreme Court of Canada, January 23, 1992

"Historic Hydro Pact Sealed By Dief/ Ike," Winnipeg Free Press, (January 17, 1961) ,2

"Hydro Suits Switched On Cash Flow: Part One," Winnipeg Free Press, August 3, 1991

Into The Future: Environmental Law and Policy For The 1990's. ed. Donna Tingley, Edmonton: Environmental Law Centre, 1990

" Kettle Project," Winnipeg: Manitoba Hydro, 1970

Krotz, Larry " Dammed And Diverted," Canadian Geographic, 3, 1 (Feb/March 1991) 36-44

Krutilla, John The Columbia River Treaty. Baltimore: Johns Hopkins Press, 1967

Man and water. ed. L. Douglas James, Kentucky: The University Press of Kentucky, 1974

Manitoba, "Commission of Inquiry Into Manitoba Hydro," December, 1979

Manitoba, Department of Northern Affairs, " Social and Economic Impacts of the Nelson River Hydro Development." 1975

Manitoba, Manitoba Environmental Council, " Topics: Southern Indian Lake and Hydro Development." 1984

" Manitoba: The Hydro Province." Winnipeg: Manitoba Hydro, August, 1988

Milbrath, Lester W. Environmentalists: Vanguard For A New Society. Albany: State University of New York Press, 1984

Mitchell, B. and McBean, E. "Water Resource Research in Canada: Constraints, Opportunities and Strategies." Canadian Water Resources Journal, 10,4(1985)1-11

Nelson River Investigations, " Final Report of the Nelson River Programming Board to the Government of Canada and the Government of Manitoba." February, 1967

Newbury, R. and G. Malaher, The Destruction of Manitoba's Last Great River. Ottawa: Canadian Nature Federation, 1973

Pearse, P. H. "Developments in Canada's Water Policy," The Management of Water Resources: Proceedings of an International Seminar, Toronto: The Institute for Research on Public Policy, 1986

Policy Communities and Public Policy in Canada: A Structural Approach. ed. William D. Coleman and Grace Skogstad, Mississauga, Ont: Copp Clark Pitman Ltd., 1990

"Power From The North." Winnipeg: Manitoba Hydro, 1988

"Prairie Farm Rehabilitation Administration: 50th Anniversary Seminar." Agriculture Canada, 1985

Pross, A. Paul, Group Politics and Public Policy, Toronto: Oxford University Press, 1986

Quinn, Frank "The Evolution of Federal Water Policy." Canadian Water Resources Journal 10, 4 (1985) 21-33

"Rafferty-Alameda-Shand: Questions and Answers." Saskatchewan: Souris Basin Development Authority, n.d.

" Review Could Delay Dam," Winnipeg Free Press, (June 9,1992) ,1

"Saskatchewan Water Corporation and Edelbert and Harold Tetzlaff and the Minister of the Environment." Federal Court of Appeal, December 1991

Spence, George Survival of a Vision. Ottawa: Queen's Printer, 1967

Swainson, Neil Conflict over the Columbia. Montreal: McGill-Queen's University Press, 1979

Sydenham, Lord, of Combe. Studies of an Imperialist. London: Butler and Tanner Ltd., 1927

"The Conawapa Project," Winnipeg: Manitoba Hydro, Information Sheet, 1992

The Green List: A Guide To Canadian Environmental Organization And Agencies. 1st. edition, Ottawa: Canadian Environmental Network, 1991

The Lower Nelson Overview Study. Winnipeg: Manitoba Hydro, March 1981

Wade, Wyn Craig The Titanic: End Of A Dream. New York: Penguin Books Ltd., 1979

Waldram, James B. As Long As The Rivers Run: Hydroelectric Development And Native Communities In Western Canada. Winnipeg: University of Manitoba Press, 1988

"Water 2020: Sustainable Use for Water in the 21st Century." Ottawa: Science Council of Canada, 1988

Waterfield, Donald Continental Waterboy. Toronto: Clarke, Irwin & Company Limited, 1970

Weather and Climate, ed. J.G. Nelson, Toronto; Methuen Publications, 1979

Wilson, J. W. People In The Way: The Human Aspects Of The Columbia River Project. Toronto: University of Toronto Press, 1973

"Years Of Dickering May Finally Be Completed As Accord On The Columbia Nears," Winnipeg Free Press, (January 10, 1964) 6