

**The Effectiveness, Efficiency and
Fairness of Environmental Impact
Assessment in Alberta and
Saskatchewan:
A Case Study of the Oldman
and Rafferty Dams**

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**A Manuscript Report Prepared for the
Canadian Environmental Assessment
Research Council
August 1991**

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1 .0 INTRODUCTION

This paper is a synopsis of a larger study titled, “An Ex-post Evaluation of Environmental Impact Assessment in Alberta and Saskatchewan: A Case Study of the Oldman and Rafferty Dams,” undertaken in partial completion of the requirements for the Degree of Master in Environmental Studies from the Faculty of Environmental Studies at York University. The objectives of the study were:

- to contribute to the understanding of the issues involved with the EIA controversies surrounding the Oldman Dam and Rafferty-Alameda projects;
- to contribute to the understanding of the issues involved with evaluating the effectiveness, efficiency and fairness of EIA processes with respect to these two projects; and
- to make recommendations for improvements to EIA processes in Alberta and Saskatchewan.

The study was initiated in May, 1990, and was conducted by the author with the financial assistance of the Canadian Environmental Assessment Research Council Graduate Research Scholarship Program and the Canadian Water Resources Association Scholarship Committee. The policy research methodology was applied to the study, and during the course of the study an extensive literature review was undertaken. Representative stakeholders and EIA participants were surveyed, and individuals knowledgeable of each project were interviewed. Tours of each dam site were also undertaken.

2.0 BACKGROUND

It has been said that it is a simple fact that environmental policy making is as much about *how* decisions are made as it is about the content and impact of those decisions (Doern, 1990). In Canada, environmental decisions are made largely through administrative, and not legal, channels. **Environmental Impact Assessment (EIA)**, an innovation in the institutionalized decision-making process designed to force proponents to take the environmental impacts of a project into account before decisions are made (United Nations, 1987), is one such administrative channel. Since its adoption in 1973, it has become the most visible and formal component of the decision-making process for development planning and resource management in Canada (Sadler, 1986).

EIA is ideally undertaken for the purpose of allowing the environmental consequences of a proposal to be fully considered and mitigation identified before commitments are made, and approval given. Its role is to ensure that **decision-makers** (primarily politicians and developers) are fully informed about all the environmental consequences of development policies or projects (Kozlowski, 1989). Many authors (Bisset, 1983; Sadler, 1986; Beanlands and Duinker, 1983 to name a few) believe that this ideal is rarely, and perhaps not ever, met. Consequently, EIA has not been the radical force it might have been. Until perhaps now.

In the spring of 1989 a federal court, for the first time in the history of Canadian law, stopped a provincial resource management project (the proposed **Rafferty-Alameda Project** in south-east Saskatchewan) through the application of federal legislation. The Federal Court of Canada ruled that the federal Department of the Environment is required to conduct an environmental assessment pursuant to the **Environmental Assessment and Review Process (EARP)**, on any and all projects where the Federal Government has decision-making authority. As a result, the Court quashed a federal **International Rivers Improvements Act** licence for the Rafferty Dam and ordered the Federal Minister of the Environment to undertake a federal review of a project which had previously been approved under provincial environmental assessment legislation.

By giving the federal EARP Guidelines the force of law, this ruling radically changed the rules through which EIA is undertaken in Canada. As a result, it has raised the spectre of the federal process impacting upon each provincial environmental assessment process, and potentially upon each project approved, or under review, under provincial processes. The so-called hook on which federal review hangs is the broad area of federal decision-making. ***In effect, the courts opened the door to EARP being used when any department of the federal government has the authority to make a decision about a proposal of another organization, including those outside of the federal government, that might have an environmental effect on an area of federal government responsibility.***

Subsequent court decisions, which have become known as “Rafferty Decisions,” arising with regards to court challenges to the Oldman Dam in Alberta have squarely brought the federal government into areas long considered to be entirely provincial in nature. This redistribution of responsibility with respect to the environment delayed efforts to introduce a federal Environmental Assessment Act as many members of Canada’s environmental assessment community felt that the court rulings gave the federal government more power and authority to act than the proposed legislation. The threat of additional court challenges in a number of different provinces, and over a number of different issues -- from James Bay II to

B.C. salmon fishing,' has maintained the high degree of uncertainty between Ottawa and the provinces over the question of environmental jurisdiction. This potential for inter-governmental relations to be in a state of perpetual conflict over jurisdiction brings into question the usefulness of EIA in planning, managing and controlling resource and economic development in Canada.

Many in Alberta, for example, view the proposed Canadian Environmental Assessment Act in much the same way as they viewed the National Energy Program of 1980. That is, as an unwelcome federal intrusion into provincial jurisdiction over resource development and management (*Alberta Report*, 1990). The court decisions over the Rafferty and Oldman dams, which have been opposed by the provinces involved, have set the stage for what has been called the "biggest battle of all in 1991," the battle over Canada's environmental assessment processes (Bueckert, 1990).

On the other hand, many environmental organizations viewed the outcome of the Rafferty court decisions as total victories for the environment and the environmental movement. This view, however, is not universally held in the broader environmental assessment community, and as the projects at the heart of the court decisions are now nearly complete, it is likely not held among a majority of environmental organizations anymore. These major disputes over the adequacy of, and the jurisdiction for, the EIA process have raised serious questions about the usefulness of the EIA process in planning, managing and controlling resource development in Canada. If EIA is to form the basis for a more integrated approach that would deliver socio-economic benefits, minimize environmental and community costs, and conform to prevailing frameworks of administration and government as proposed by Cornford et al (1984), the questions of adequacy and jurisdiction must be answered.

This paper attempts to provide some answers to the questions of adequacy of EIA as a means of planning, managing and controlling resource development in Canada. In particular, it will address the issues of *effectiveness, efficiency and fairness* (CEARC, 1988) with regards to the two provincial environmental assessment processes followed. The question of jurisdiction will be introduced, but answers to this question will have to be found in other papers.

¹ The threat turned into reality on May 16, 1991. A Federal Court of Canada judge ordered a full environmental review of a half built \$1 billion hydroelectric project near Kitimat, B.C., saying the federal government erred in exempting the project from the legally required assessment process. The decision threw out a 1987 federal-provincial agreement with Alcan, the proponent, and a federal order-in-council issued last fall which gave the aluminum company permission to proceed.

Before proceeding further, it is important to note the conceptual framework of this paper (largely taken from Learning from Experience, Munro et al, 1986). Work on this research paper proceeded on the basis of five principles or beliefs.

- Environmental management is a crucial requirement of any society, and public demands for better environmental management will increase over time.
- EIA can be an essential component of environmental management.
- EIA is not meeting expectations, and the process is often limited in terms of time and space and lacking a policy context.
- EIA can be improved at both the technical and administrative levels, but such improvement is meaningless without improvements at the decision-making levels.
- EIA can be used to minimize controversy while maximizing environmental protection and the sustainability of resource use only if its fundamental purpose is realized, decision-making in public.

3.0 DEFINITIONS

This paper is concerned with an ex-post evaluation of EIA in Alberta and Saskatchewan. When discussing follow-up evaluation of EIA one finds many definitions of both environmental impact assessment and the terms used to refer to the reexamination of a project, its impacts, or the EIA process itself.

For the purposes of this paper, ex-post evaluation equates with concepts related to interpretation and testing the value of the results of environmental assessment and management processes (Green et al, 1987).

Environmental impact assessment (EIA) is defined to be:

- a process involving the identification, prediction and evaluation of the environmental effects of proposed activities...
- through systemic and comprehensive analysis...
- which explicitly considers alternatives to proposed activities (and the effect thereof)...

- at a stage in the planning process where serious environmental disturbance, degradation or damage can be avoided or minimized and
- where an alternative may become the preferred solution (Armour, 1989).

4.0 CRITERIA FOR EVALUATING EIA

This study used the following working criteria (in the form of questions to be answered) for conducting its ex-post evaluation of EIA processes, where the evaluation was concerned with fairness (equity), effectiveness and efficiency.

4.1 Fairness

The issues surrounding fairness in environmental assessment processes are many. In addition to defining and deciding what is fair or equitable (the concept of fairness), one must also deal with the issues of to whom we are trying to be fair; and who decides if we have in fact been fair (the practice of fairness)? Proponents, opponents, government administrators, the environment -- all have views on what is or is not fair with respect to the EIA process.

Fortunately, this is not the first, nor will it be the last, time that these issues have been raised. Finkle and Lucas (1983) have already attempted to deal with these issues, and others, as they relate to fairness in environmental and social impact assessment processes. They identified eight basic elements of a fair assessment process, including: openness, no bias or predecision, flexibility and broad scope for proceedings, making policy assumptions explicit, addressing procedural fairness directly, providing costs or funding to public participants, placing time limits on proceedings, and requiring written decisions by assessment agencies.

The author concurs with these basic elements, and believes that if adopted, they would establish many of the requirements for procedural and substantive fairness in EIA processes. However, there are other concerns that need to be addressed which may be seen as arising out of the need to not only be fair, but to be seen to have been fair. Consequently, additional elements can be added to the description of fairness in assessment processes.

The first four criteria deal primarily with issues surrounding the participation of all affected interests, and are based in part on principles of good negotiation (from Walsh et al, 1988):

- are all affected interests perceived to have had an opportunity to participate effectively?

- has access been provided for all affected parties to relevant information and to technical and scientific advice?
- have all parties, including the ultimate decision-makers, participated in good faith? and,
- has the EIA process, and the results thereof, been seen to be fair and equitable by the general public?

This final point is included as it coincides with the author's belief, and that of the courts and others, that the environment is a public good and environmental protection a public concern, and that the responsibility for action is a shared one.

Criteria grounded in the desire to improve public participation in EIA processes include:

- were interested parties (other than the proponent and competent government authority) involved in the scoping process?
- is some system in place to provide various kinds of technical and financial assistance to disadvantaged parties?

Finally, to address concerns over discretionary administration of the EIA process:

- have formal, obligatory procedural arrangements been created?
- do administrators have an obligation to notify affected parties of regulatory decisions in a timely manner?
- are avenues for appeal clearly identified and constructed in such a manner as to be seen to be fair and equitable to all interested parties?

4.2 Effectiveness

The criteria for assessing the effectiveness (that is, did it produce the intended result) of EIA processes are proposed on the basis of the following definition: successful EIA ensures that all relevant impacts associated with a proposed activity are adequately identified, assessed and evaluated and fully taken into account in the decision-making process?

² A modified version of the definition of a successful EIA as applied at the project level of decision-making in the United Nations/Economic Commission for Europe publication Application of EIA to Highways and Dams.

- was the EIA process applied as early in the planning stage as possible?
- can the proponent show appropriate terms of reference and/or steering mechanisms for bringing the relevant disciplines into the EIA process in a timely fashion?
- is there a provision for early scoping of what should be the issues addressed and information gathered?
- does the process contain a mechanism for ensuring that its findings are adequately taken into account in the decision-making process (for example, by requiring that the way in which the findings are taken into account be documented and made public by the decision-making authority)?

As this study was inspired to a great degree by the level of controversy surrounding water control developments, the following questions related to effectiveness were generated:

- do projects for which EIA has been undertaken give rise to fewer and less severe environmental conflicts than similar projects that were not the subject of impact assessment?
- were the EIA and environmental issues an integral part of the development and planning process or were they of marginal consideration or later added-on?

4.3 Efficiency

Issues surrounding efficiency traditionally deal with time and effort, where effort is often linked to cost. No one is against a cost-effective EIA, and few are against speed. However if they are achieved at the expense of giving insufficient weight to other legitimate values, or by ignoring long-term environmental damage or the concerns of affected interests, then such decision-making is not really efficient (Robinson, 1982).

The Rafferty Dam is an excellent case in point. At a public meeting in Estevan in 1987, the person responsible for preparing the EIS on behalf of the proponent (the Souris Basin Development Authority -SBDA) told the largely supportive crowd that the SBDA had accomplished in 18 months what would take the U.S. Army Corps of Engineers 10 years (that is, prepare the EIS for a project of this magnitude). All this was done at an estimated cost of \$4 million (1985), out of a total project cost then estimated to be \$120 million.

Subsequent to the first court decision, and as a result of the first public federal review (an Initial Environmental Evaluation conducted in the spring/summer of 1989), the IRIA licence was expanded to include twenty-two conditions. The Province of Saskatchewan estimated that this would add \$20 - 25 million to the overall project cost. The four month delay in construction was estimated to have cost the province an additional \$4 million.

In late December of 1989, a second court ruling found there to be significant adverse environmental impacts with regards to Rafferty Dam and the **Initial Environmental Evaluation (IEE)** to be inadequate with respect to the EARP Guidelines Order. Consequently the Court ordered the Federal Environment Minister to undertake a full and public environmental review of the project. As a result of the second delay in constructing the Rafferty Dam to allow the panel to undertake its review, Ottawa offered Saskatchewan \$1 million a month to a maximum of \$10 million in compensation for stopping work.

By acting in what was seen as an efficient manner, total project costs to society have climbed by at least 25% and now stand in excess of \$150 million (1985\$). The cost of the federal IEE and subsequent Review Panel, the cost to the province for revision of their EIS and participating in (and fighting) the federal process, as well as the legal costs of two court battles and one appeal are unknown. They are likely to be substantial relative to the original estimated "EIA costs."

From a benefit-cost perspective, the total cost to the project of the delay is not known but may be considerable as the project start up date is almost two years behind schedule. Construction of the dam is nearly complete but, the dam is not yet operational and may not be for some time, therefore no direct benefits have yet materialized. Each year of delay to a project of this nature has the potential to reduce the present value of the project benefits by an amount equal to the discount rate (5 - 10%).

Criteria to be assessed with regards to efficiency therefore include:

- was the EIA integrated with other planning activities as early as possible to avoid delays and keep costs to a minimum?
- were EIA decisions timely relative to economic and other factors?
- are the costs of conducting EIA and managing inputs (such as scoping) known and are they seen to be reasonable (in relation to the decision as well as the significance of the impacts)?

The above criteria for evaluating the EIA process imply that reform is required. This is not a new concept, it has been discussed for as long as EIA has been

practised in Canada and several authors have proposed different ways it may be considered. O'Riordan (1986) suggested a substantial overhaul of the ways in which development decisions are made, including EIA. Sadler (1986) also advocated a major reform amounting to the redeployment of EIA in development planning and resource management. Yet, others have argued that EIA reform is not required. Instead, the need exists to reform the planning process itself and to integrate ecological content into it from the very beginning (Kozlowski, 1988).

The choice as to which way resource management and development planning should evolve depends on the perspective one brings into the debate. For this study, the underlying problem is not with EIA per se, but with the larger process of resource management and development planning of which EIA is part. For the most part, the planning (and policy) frameworks necessary for systematic impact assessments are poorly developed in Canada (Sadler, 1986).

This kind of structural discontinuity (“the policy dilemma”) has important repercussions for decision-making and the role EIA is to play. It is difficult to apply EIA productively when national and provincial policies are seldom sufficiently developed to permit meaningful site- and project-specific evaluation of development proposals. When the policies that frame projects are vague, non-existent or conflicting, or when prior analyses of project justification (need and alternatives) are implicit or suspect, the exact opposite of the intended sequence of events occurs. The EIA implicitly molds policy and planning options, and private development proposals being reviewed drive decision-making.

The intended result of each approach (reform of EIA within a larger policy context or reform of the planning process within a larger policy context) is essentially the same. The key mechanism for both is a larger policy context that is “environmentally sound.” If, however, fairness is indeed the primary criteria by which EIA will be judged the reform of EIA is the preferred approach. One of the innovations resulting from the adoption of EIA methodologies in most jurisdictions is that it recognizes a role for the public, as distinct from experts and bureaucrats, in assessing the kind of environmental quality that is to be preferred or enhanced (Whitney and MacLaren, 1985). This is an innovation that should be protected, and if possible, strengthened.

The opportunity for reform of EIA is greater now than perhaps ever before. The difference now is that the public is doubly armed and capable of backing up their demands for an EIA process that recognizes their right to participate in environmental decision-making. Environmental activist individuals and organizations have proven that they have the expertise and resources to act, and as a result of the Rafferty and Oldman Dam court rulings, have won a very effective and powerful arena in which to take action. They will not easily abandon the ground they have won, and their success is to a degree driving the reform of environmental

assessment legislation and processes now occurring within the Governments of Canada, Alberta and Saskatchewan.

It is best then, for corporate and governmental institutions to reform their internal decision-making processes (Doern, **1990**). But it is also important, and perhaps more so, for the reform to bring the public into the decision-making and for this to be seen to happen. By being sensitive to the issues represented by the criteria above, proponents (be they corporate or government) can make two important contributions. The first would be to **consultative** development, a term which means that within a stated public policy framework, the impact of any activity is evaluated in the broadest possible terms with the effective consultation of those affected. The second would be to environmental **leadership**. The public has an environmental agenda and it is expressed not only in the high value they place on environmental protection, but in the low esteem they hold for both government's and industry's ability to deal effectively with the environmental challenges of today and tomorrow. Traditional decision-makers have no choice but to become responsible for the environment in both the short and long-term. Their only choice is how? Will they act according to their own, a negotiated or a dictated to agenda? Will they change from within or will they be pressured into change from without (Pagan, 1989)?

The Rafferty and Oldman dam controversies may only be the most recent step in the reform of resource management, development planning and decision-making in Canada. Now that the public is really involved in the process, as they have been empowered by the courts, the impetus to change is great.

5.0 THE RAFFERTY-ALAMEDA PROJECT

The Rafferty-Alameda Project consists of four components: two dams and their reservoirs -- the Rafferty Dam and Reservoir on the main branch of the Souris River approximately 6 kilometres northwest of Estevan, the Alameda Dam and Reservoir on Moose Mountain Creek some 8 kilometres north of Oxbow, downstream channelization of the Souris River from the Rafferty Dam site to a location near the Shand Power Station, and a channel connecting Boundary Reservoir (which is located on Long Creek, a tributary of the Souris River) with Rafferty Reservoir. The Boundary Reservoir currently provides cooling water to the 600 megawatt Boundary Generating Station. Figure 1 illustrates the Souris River basin and the location of the two dams.

The Souris Basin Development Authority, the project proponent, identified the following as objectives, potential uses and benefits of the Project:

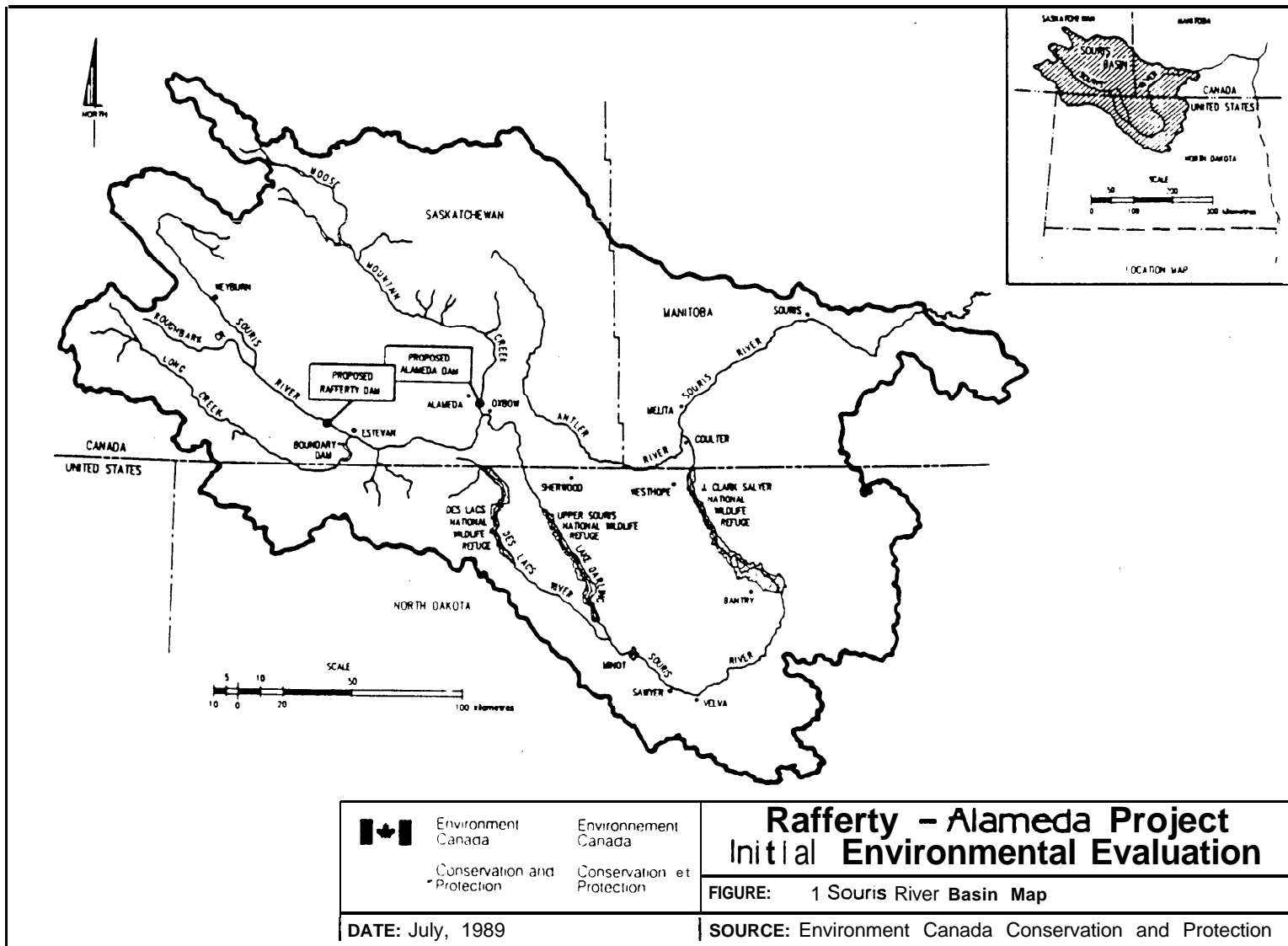


Fig. 1. Map showing the location and components of the Rafferty-Alameda Dam Project.

Source: Environment Canada Initial Environmental Evaluation, 1989

- development of up to 4,800 hectares of land for irrigation;
- flood control with peak flow reductions of up to 45%;
- thermal power plant cooling for two 300 megawatt units;
- lake-based recreation;
- municipal water supply; and,
- increased water management flexibility.

Those opposed believed that the economic benefits of the project were overstated, while the social and environmental costs were understated. In particular, the dams would displace 75 farm families, destroy increasingly rare prairie wildlife and fish habitat, and reduce water quality and quantity downstream. They also believed that the real reason the province was going ahead with the project was political.

The primary reasons related to the provincial EIA that the Rafferty-Alameda project ended up in the federal courts include:

- the EIA started after the project was announced in 1986 and therefore lacked credibility with a number of stakeholders and groups; and
- the EIA did not adequately address the issue of alternatives to the proposed undertaking earlier enough in the process to influence the outcome.

As a result, individuals and groups that felt their concerns were inadequately addressed by the provincial EIA process sought redress in the federal EARP and the courts.

It should be noted that Saskatchewan Environment and Public Safety found the environmental impact statement prepared by the Souris Basin Development Authority to have, on the whole, adequately identified the potential environmental and economic impacts of the proposed project and to have identified adequate mitigation plans which focused on the predicted impacts.

Quantitatively, a low survey response means that the survey in the **Rafferty-Alameda** case cannot be used to determine whether or not the EIA process applied was effective, efficient or fair. Qualitatively, the results support the view that those opposed to the project were not moved by the EIA process or its output (an environmental impact statement). The repeated court challenges, numerous editorials both for and against the project and the process, and other public

manifestations of opinion one way or another also support the observation that the process failed the people of Saskatchewan.

6.0 THE OLDMAN RIVER DAM

6.1 History

The Oldman River Dam Project consists of a main dam structure, concrete spillway, twin diversion tunnels and reservoir. The dam is a earth and **rockfill** structure 76 metres high and 615 metres wide at its base. The spillway, sized to pass a Maximum Probable Flood of 7600 cubic metres per second, has a crest width of 85 metres and is 353 metres long. The twin diversion tunnels are each 900 metres long and 6.5 metres high, and can pass a total flow of 1,000 cubic metres per second. Provisions have been made in tunnel design so that at some future date a hydroelectric generating station can be added.

The reservoir has a F.S.L. of 1,118.6 metres and a live storage volume of 490,000 cubic decametres. At the Three Rivers site, the reservoir will control a drainage area of 4,400 square kilometres, have an area of 2,420 hectares at F.S.L. and be approximately 24 kilometres long. Figure 2 presents the site of the Oldman River Dam project.

The principal purpose of the Oldman River Dam was to allow for the development of an additional 68,850 hectares (170,000 acres) of irrigated land in the Oldman River basin. Other benefits from the project include:

- increased crop and livestock production within the basin;
- the enhancement of downstream fisheries due to flow regulation;
- the development of new recreation facilities compatible with the operation of the reservoir for irrigation (e.g. boating, sailing and fishing);
- a reliable water supply for the downstream municipalities of Lethbridge and Fort McLeod;
- the better management of water resources within the South Saskatchewan River basin in terms of meeting commitments to downstream Provinces; and,
- the development of hydro-electric potential at such time as it became economically feasible.

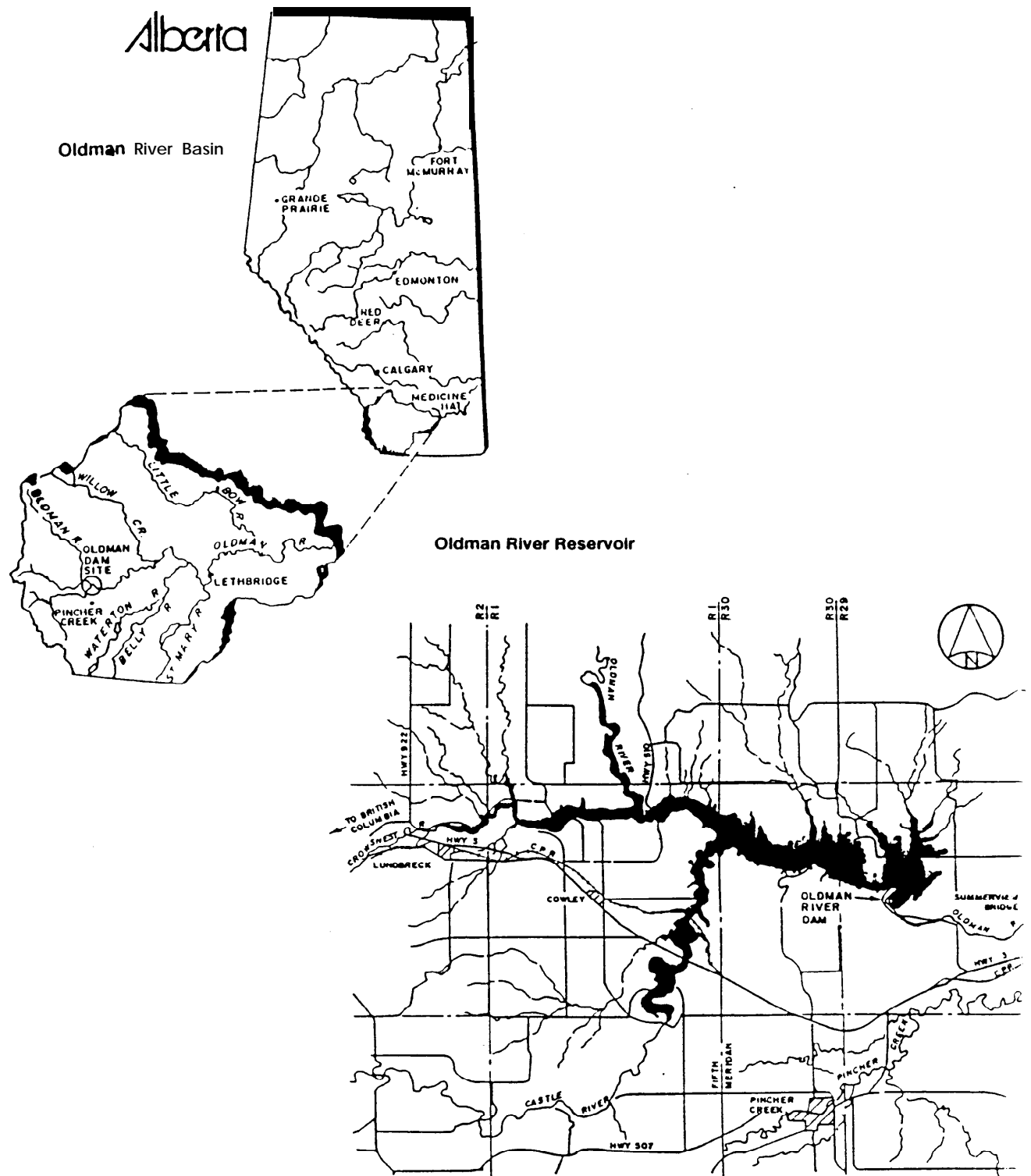


Fig. 2. Map of the Oldman River Basin showing the location of the Oldman River Dam Project.

Source: Canadian Water Resources Journal, Vol. 13, No. 3, 1988.

While the Oldman River Dam controversy initially gained national attention as a result of a Federal Court of Canada ruling in March of 1990 (the first “successful” application of the Rafferty decision of 1989 to another development), the controversy had been ongoing in Alberta since the mid-1970s. The Friends of the Oldman River Society, formed in 1987 to oppose construction of the dam, had launched the Federal Court action in April, 1989 shortly after the first Rafferty decision. They were not, however, the first group to challenge a proposed water management development along this portion of the Oldman River. Nor was the 1984 announcement regarding the Three Rivers site the first time a dam on the Oldman River had been proposed.

From 1958 to 1966, the **Prairie Farm Rehabilitation Administration (PFRA)** investigated the feasibility of constructing a storage reservoir on the Oldman River at locations known as the Livingstone Gap and the Three Rivers site. The results of this original study showed that the Three Rivers reservoir would have about twice the storage and allowable annual draft capabilities of the Livingstone Gap reservoir, but that the creation of the proposed Three Rivers reservoir would seriously disrupt an established rural community and would involve extensive and costly adjustments to existing public utility installations, roads and a railroad.

From 1974 to 1978, planning for the development of the Oldman River basin was taken up again by the Alberta Department of the Environment. Phase I of the Oldman River Flow Regulation Preliminary Planning Studies was released in June, 1976. One of its main conclusions was that of the nine potential damsites investigated throughout the Oldman River basin, the Three Rivers site appeared to be the most attractive based on preliminary studies, but cautioned that its sociological, environmental, economic and technical aspects were yet to be determined in detail.

Phase II studies were completed in August, 1978. This report favoured staged phases of irrigation development and in support thereof recommended among others:

- the development of a multi-purpose flow regulation reservoir on the Oldman River, targeted to become fully operational between 1990 and 1995.

In the month before the Phase II studies were completed, the Government of Alberta, in response to public concern, ordered the **Environment Council of Alberta (ECA)** to hold public hearings on management of water resources within the Oldman River basin. The ECA held ten public meetings to deal with social, economic, environmental and water use (conservation, management and utilization) considerations in making recommendations to the Minister of the Environment with respect to a water management plan for the Oldman River basin. The ECA held its public meetings in late 1978, and submitted its report to the Minister in August of

1979. The ECA made the following recommendations which have are frequently raised in any debate over the need for the **Oldman** River Dam. These include:

- the rehabilitation of the irrigation water delivery system be completed with 'all reasonable speed, with an objective of obtaining 80 percent delivery efficiency;
- to encourage improved efficiency, a wholesale water charge of 50 cents per acre foot be levied; and,
- to meet the immediate needs of the basin, the construction of two smaller reservoirs and the enlargement of a third.

The first and third of these recommendations have since been implemented. While a wholesale water charge has not been implemented in Alberta, there is a reported intention to study the matter with forthcoming revisions to the Water **Resources Act**.

The ECA did not recommend the construction of any of the onstream dams considered by the Management Committee in its 1978 report. It did not believe that an onstream dam was required to provide for the development of irrigation to its maximum economic potential in the basin. It did, however, comment on the three onstream sites and found the proposed Three Rivers site to have the largest and most intense social and environmental damage of the three.

In November of 1983, the Peigan Band presented a proposal to the Minister of the Environment for a dam at a site on the reserve near Brockett, downstream of the present site. The government, believing that the interests of Albertans would best be served by a dam constructed at the Three Rivers site, announced the construction (expected to begin in 1986) of the then \$200 million Oldman River Dam Project in August of 1984. The announcement made no mention of any requirement for an environmental impact assessment.

Once the final announcement about the location of the dam had been made, the province, through the Ministry of the Environment, commenced design work on the dam (completed in 1985) and initiated the development of an Environmental Mitigation/Opportunities Action Plan (1986).

More than one hundred projects have been reviewed since the adoption of the EIA requirement in 1974. The Oldman River Dam project was not one of them. However, in an affidavit sworn in the Federal Court of Canada, the Government of Alberta (through the Oldman River Basin Planner) argued that it had followed an environmental assessment process (Szojka, 1989). This process consisted of the studies introduced above as well as:

- In the early 1980s, environmental studies were undertaken on the **Brocket** site (an alternative to the Three Rivers site) by, or on behalf of, the Peigan Indian Band.
- Also in the early 1980s, environmental-related studies were conducted as part of the ongoing program to collect information on, and manage, the South Saskatchewan River Basin. As related to the decision to proceed with the **Oldman Dam**, this program ended in 1984.

Prior to the formation of the Friends of the Oldman River Society in September, 1987, the Southern Alberta Environmental Group had raised concerns over the proposed Oldman River Dam, including the need for protection of fish habitat and fisheries with the Minister Responsible for the Federal Department of Fisheries and Oceans.

In fact, in August of 1987 the Group had sent a letter to the Minister requesting that FEARO initiate an Initial Environmental Assessment and consider a full environmental assessment and review of the project (Stone et al, 1989). In a reply dated August 25, 1987, the Fisheries Minister said that he did not propose to intervene in this matter (the Oldman River Dam Project) in view of long standing administrative arrangements with regards to the management of fisheries in Alberta and the fact that the potential problems related to fish habitat and fisheries were being addressed.

Actions taken by the Friends of the Oldman River Society in their fight with the Government of Alberta include:

- the launching of a court challenge in the Court of Queen's Bench of Alberta over the validity of the licence granted to Alberta Environment for the Oldman River Dam under the auspices of The **Water Resources Act**.

This action was launched in October of 1987 and the Court ruled in early December of that same year that the Minister of the Environment (Alberta) had exceeded his jurisdiction by granting the licence in light of the clear noncompliance on the part of Alberta Environment with requirements of the Act. Accordingly, the Court quashed the first provincial licence for the Oldman River Dam.

- the Friends of the Oldman River Society wrote the Federal Minister of the Environment in October of 1987 asking that the project be reviewed under the EARP Guidelines Order.

On January 15, 1988, the Minister's office issued a reply similar to that of the Minister of Fisheries and Oceans (i.e. that it is not appropriate for

Environment Canada to intervene), citing that the Project fell primarily within provincial jurisdiction and that the Ministry was confident that Alberta's proposed mitigation plans would remedy any detrimental effects on the fishery resource.

Alberta Environment subsequently applied for and obtained a second Interim Licence on February 5, 1988 and the Water Controller again waived the requirement for public notice under the **Water Resources Act**. This was one of the requirements at issue in the first court challenge that Alberta Environment was found to be in noncompliance with. In response, the Friends of the Oldman River filed a second court challenge seeking to quash this second licence. This application was dismissed in April of 1988.

Also in 1988, the Society sought a public hearing under the **Hydro Electric Energy Act** before the Energy Resources Conservation Board of Alberta, arguing that as the Oldman Dam had hydroelectric potential, it should be reviewed by this Board which had a requirement for the conducting of an environmental impact assessment. The Board refused on the basis that the Oldman River Dam project was only incidentally an energy development and therefore outside of their jurisdiction. The Society appealed the decision of the Energy Resources Conservation Board, but the appeal was dismissed (Memorandum of Argument, 1984).

The year 1989 saw the Friends of the Oldman River Society seek a court decision to quash the approval granted by the Minister of Transport (Canada) to Environment Alberta in September, 1987 to construct the Oldman River Dam pursuant to the **Navigable Waters Protection Act**, R.S.C. 1985. This court challenge also sought an order requiring both the federal Ministers of Transport and Fisheries and Oceans to comply to comply with the EARP Guidelines Order, S.O.R. 84/867. This claim was dismissed on August 11, 1989 by the Federal Court of Canada, Trial Division. The learned judge ruled that:

- the EARP Guidelines Order did not apply to an application to the Minister of Transport for an approval pursuant to the **Navigable Waters Protection Act**; and,
- the EARP Guidelines Order did not apply to the decision making authority of the Minister of Fisheries and Oceans.

At the time of this court action, the Oldman River Dam was already 40% complete. To the Society, this court ruling appeared to be at odds with the ruling of the Federal Court of Canada with respect to the Rafferty-Alameda Project only few months earlier. As a result, they appealed the decision. The arguments were heard in January of 1990, and the judgement was rendered on March 13, 1990, allowing the appeal and quashing the licence granted by the Minister of Transport to the Alberta

Department of the Environment. The judges ruled as well that the Federal Ministers of Transport and Fisheries and Oceans were also bound by the EARP Guidelines Order.

The judges also addressed two other issues. The first being whether or not the application of the Federal EARP would “bring about a needless repetition of a process which has been exhaustively canvassed over the past twenty years.” As with the Rafferty-Alameda court case, the judge found that even though much detailed work and study has been done by and on behalf of the proponent, the provincial and federal processes differed sufficiently so as to not involve undue duplication. ***In particular, the judge noted that unlike the provincial regime, the EARP allowed for the expressing of public concern and the availability of a full opportunity for the public to participate in the environmental assessment and review process.*** Central to this is the opportunity for the public to voice environmental concerns before an independent panel. While public input was received during the course of the various Alberta studies, the law they were carried out under placed much less emphasis on the role of the public in addressing environmental implications.

The Court also found that it indeed had jurisdiction over “Her Majesty the Queen in right of Alberta” and further that Her Majesty (that is, the Provincial Government and its agents) was indeed bound by the ***Navigable Waters Protection Act***. On June 10, 1989, Alberta had returned the approval granted to them by the Minister of Transport and requested that he cancel the approval and return the application based on its conclusion that the Act did not apply to a province. This action, taken so shortly following the Rafferty decision and during the first legal challenge by the Society in the Federal Court, was probably taken to remove the federal EARP hook before it caught the Oldman River Dam project.

While the decision of the Federal Court of Appeal quashed the licence for the Oldman River Dam and ordered the Federal Government to apply the EARP Guidelines Order, it did not, unlike the Rafferty decision, order or threaten to order, the stopping of construction on the project. The Alberta Government immediately indicated that it did not plan to stop construction of the project which was already 70% complete.

This decision led the continuing controversy back into the courts with the Society launching three separate legal challenges in March and April of 1990, none of which were successful. At the same time, the Government of Alberta decided to both appeal the Federal Court of Canada decision to the Supreme Court and seek an application to stay the execution of the judgement of the Federal Court. Leave has since been granted to appeal the decision to the Supreme Court of Canada (Canadian Press, 1990a).

In the meantime, the Federal Government had announced that it would be conducting an environmental impact assessment of the **Oldman River Dam** as a result of the March, 1990 court order. The subsequent announcement as to the terms of reference and make up of the independent environmental review panel was not made until November, 1990, at which time the dam was 80% complete. During this time, construction continued on the project. No stop-work order has been issued in conjunction with the federal review panel as the panel will be investigating:

- the design and safety of the dam;
- the significance of potential environmental and socio-economic effects; and
- mitigation aspects related to federal areas of concern only.

When the panel has completed its work, it will submit its recommendations to the federal Ministers of Environment, Transport, and Fisheries and Oceans.

6.2 Study Results

Questionnaires were sent to representatives of the stakeholders and **decision-makers** involved in the Oldman River Dam dispute. Eighty-five percent of the questionnaires were completed and returned. Findings from the survey in support of the process which approved the Oldman River Dam include:

- Two-thirds of the respondents, by identifying a definition of EIA they believe the Minister applied in his decision making, generally agreed that the Minister was more or less correct in approving the project without a project-specific EIA as he had applied an EIA-like process (Question 1).
- As a majority of respondents believed that an EIA process was applied to the Oldman River Dam project, it is not surprising that a majority also felt that the process was effective (Question 8). Sixty-seven percent of the respondents replied that in their opinion:
 - the EIA process was applied as early in the planning stage as possible,

OLDMAN RIVER DAM PROJECT QUESTIONNAIRE

1. **Alberta's current environmental assessment legislation (*The Land Surface Conservation and Reclamation Act*)** contains guidelines which outline what is required if a proponent must conduct an Environmental Impact Assessment (EIA), but gives the Minister of the Environment discretion to determine if one is required. In the case of the Oldman Dam, the Minister exercised his discretion and ruled that has all previous work completed on the Oldman Dam project essentially equalled an EIA under the Act, no project-specific EIA was required.

Of the brief definitions given below, which comes closest to describing "Environmental Impact Assessment" as determined by the Minister of the Environment?

- 17%** (b) . . .a process by which the likely environmental effects of, and concerns about, a proposed project are clearly, concisely and completely described;
- 50%** (c) . . .a process by which an accurate and comprehensive evaluation occurs so that the positive and negative environmental changes (i.e. main environmental tradeoffs) are identified, and commitments to mitigate adverse and enhance positive impacts are incorporated;

-
- that the proponent can show appropriate terms of reference for the conducting of the EIA,
 - that there was a provision for early scoping of issues and information needs, and
 - that environmental issues were an integral part of the development and planning process for the Oldman River Dam.

OLDMAN RIVER DAM PROJECT QUESTIONNAIRE

8. Turning now to questions of EFFECTIVENESS, which of the following criteria were met in the undertaking of the **Oldman** Dam environmental studies (in your opinion)? Please place a check in the column to the left of the criteria if you believe it was met, if you don't know please mark "D.K."

~~(a)~~ The EIA process was applied as early in the planning stage as possible.

~~(b)~~ The proponent can show appropriate terms of reference and/or steering mechanisms for bringing the relevant disciplines into the EIA process in a timely fashion.

~~(c)~~ There existed a provision for early scoping of what should compromise the issues addressed and information gathered.

16% (d) The process contained a mechanism for ensuring that its findings were adequately taken into account in the **decision-making** process (for example, by requiring that the way in which the findings are taken into account be documented and made public by the decision-making authority).

~~(e)~~ Not, do you believe this to be a weakness in the process?

Survey findings opposing the process include:

- 33% of the respondents believe the Minister failed to apply anything resembling an EIA process in making his decision.
- When asked whether or not all of the steps commonly associated with EIA were followed (Question 3), 67% stated that the proponent did not follow all of the ten steps in the study's ideal EIA process. Of these,

all agreed that the proponent failed to evaluate the risks and tradeoffs associated with the project (Question 3.9). Seventy-five percent of also agreed that the proponent did not adequately describe the affected environment (3.4) and that it did not reassess impacts nor reprioritize and reaggregate total impacts once possible mitigation measures were identified and assessed (3.8). The latter could not have been completed prior to the decision to proceed being made as the mitigation plan was not developed until after construction had begun.

OLDMAN RIVER DAM PROJECT QUESTIONNAIRE

- 3. A number of Canadian jurisdictions have identified a logical sequence of events or steps to follow in conducting an EIA.**

Do you believe that all of the following steps were followed by the Oldman Dam proponent when assessing the project?

- .1 Design the study process
- .2 Identify the objectives of the proposed project
- .3 Identify feasible alternatives for meeting those objectives
- .4 Describe affected environment
- .5 Identify and predict environmental impacts
- .6 Evaluate the environmental effects (assess significance and priority) and compile an aggregation of total impacts
- .7 Identify and assess mitigation measures
- .8 Reassess impacts (i.e. net effects) and reprioritize and reaggregate total impacts
- .9 Evaluate risks and tradeoffs
- .10 Present findings and recommendations (preferred action/alternative)

Yes 33% **No** 67% **Don't Know** ____

One-third of the respondents believed that a provincial EIA process was never applied to the project, and as a result the proponent cannot show appropriate terms of reference for conducting an EIA and that there was no provision for the scoping of issues.

Eighty-three percent of respondents disagreed with the statement that there was a mechanism for ensuring that the EIA findings were adequately taken into account in the decision-making process. Fifty percent found this to be a weakness in the process.

Of the issues listed under effectiveness in this study, this may very well be one of the most important with regards to the acceptance of the process and its results, for it may also be considered an issue under both efficiency and equity. All permutations of the definition of EIA either explicitly or implicitly state that the purpose of EIA is to provide information to decision-makers. If the relationship between the EIA and the ultimate decision is not explicit, can going through the entire process really be efficient? And if it is neither effective or efficient, can it, in the final analysis, be fair to any of the participants ?

Turning finally to the issues around fairness or equity in the process (Questions 11 and 12), the responses generally show that the process failed those interested in participating in the process. They could obtain access to information, but not access to the decision-makers. This lack of consultation was particularly evident with respect to the original decision of the Ministry of the Environment and the Minister of the Environment not to require an EIA of the Oldman River Dam project.

OLDMAN RIVER DAM PROJECT QUESTIONNAIRE

11. Questions of FAIRNESS or EQUITY focus **not only on issues** surrounding broad public consultation, but also on those related to meaningful stakeholder involvement. Please mark those comments with which you agree.
- 33% (a) All affected interests have been perceived to have had an opportunity to participate effectively in the decision-making process as impacts on the environment.
- 67% (b) Access has been provided for all affected parties to relevant information and to technical and scientific advice.
- 33% (c) All parties, including the ultimate decision-makers, participated in good faith.
- 50% (d) The environmental decision-making process, and the results thereof, have been seen to be fair and equitable by the general public.
12. I now turn your attention to issues surrounding participation of the general public. Check those statements with which you agree
- 0 (a) Interested parties (other than the proponent and competent government authority) were involved in the decision to exempt the project from the EIA guidelines.
- 67% (b) Interested parties had the opportunity to inform the Minister that an environmental review was in the public interest.
- 0 (c) The Minister adequately informed the public as to his reasons for not requiring an EIA.
- 0 (d) The Minister involved the public in making the decision to exempt the **Oldman Dam Project** from an EIA.
-

- This lack of knowledge about the original decision is a concern that the respondents carried forward into the questions around the discretionary nature of Alberta's legislation and guidelines (Question 13). There was a majority view that proponents and opponents alike do not know what is expected or required of them in the EIA process. The experience shared by both sides in the **Oldman River Dam** controversy seems to have impacted equally on both opponents and proponents alike, as five respondents felt that they would prefer to have formal and obligatory procedural arrangements backed up by the force of law. There is also substantial agreement on the need for avenues of appeal of administrative decisions.

To conclude the questionnaire, those surveyed were asked for their views on the application of the EARP to the Oldman River Dam project. Their responses suggest a cool reception for the federal environmental review panel currently at work in Alberta. Only 33% thought the application of EARP would help resolve the controversy. None of the respondents thought that it would be effective, efficient or fair, and all six agreed with the statement that it comes too late to qualify as proper environmental impact assessment.

6.3 Observations

The primary reasons related to the Alberta EIA process that led to the Oldman River Dam being challenged in the courts include:

- the project was never formally assessed under Alberta's environmental assessment legislation;
- interested/concerned members of the public and stakeholders were not involved in the above decision; and
- the reasons the project was not subjected to a formal EIA were never made adequately and publicly known.

OLDMAN RIVER DAM PROJECT QUESTIONNAIRE

13. To address the concerns over discretionary administration of the provincial EIA process, please answer these last questions on fairness.

(a) Have formal, obligatory procedural arrangements been created such that proponents and opponents alike know what is expected and required?

Y e s 16% No 67% Don't Know **1796**

(b) In light of your experience with the Oldman River Dam Project, would you prefer that formal and obligatory procedural arrangements be established in regulation and therefore have the force of law?

Yes 83% No Don't Know **1796**

(c) Do administrators (i.e. Alberta Environment's Environmental Assessment Division) have an obligation to notify affected parties of regulatory decisions in a timely manner?

Yes 50% No 33% Don't Know 17%

(d) In the case of the Oldman River Dam Project, do you feel that this had in fact occurred?

Yes 50% No 50% Don't Know

(e) Are avenues for appeal clearly identified and constructed in such a manner as to be seen to be fair and equitable to all interested parties?

Yes No 84% Don't Know 16%

(f) From your experience, are new avenues for appeal required in the Alberta's EIA process?

Yes 67% No Don't Know 33%

Some have argued that the Oldman dispute was largely as a result of the adversarial approach taken by some who opposed the dam. Notwithstanding this, the role of over-zealous proponents who saw the need as being so great as to override any negative environmental impacts was equally raised as an issue. Others saw the length of time spent in studying the project as the source of the controversy. That is, the application of work done in the 1970s and early 1980s to the “green” times of the mid- and late-1980s led to difficulties as legislation, EIA standards and especially societal values changed dramatically from when the project was first conceived.

An indication of the coming controversy may have been foreshadowed in a “minority statement” made by one of the Oldman River Study Management Committee members back in 1978. The member found the conclusions of the Committee to be sound, but flagged an issue that they had been unable to answer: Do the people of Alberta think the price that must be paid for maximum development (of the irrigation potential) is justified (Pharis, 1978)?

Reaction to the announcement was generally split along river basin boundaries. Residents within the Oldman River basin tended to support the project, while people from outside of the basin tend to question the economics of the project, and its environmental costs. And, there were skeptics of both the project and the rationale for it. An editorial in the *Edmonton Journal* two days after the announcement called the Oldman Dam “a political pawn” and its timing as “the most cynical, opportunistic kind of politicking.” The editorial also raised two questions with respect to the dam: was it the forerunner of massive water diversions from northern river basins to the parched south; and would increased irrigation in the dry south mean further loss of farmland because of salinization? The editorial closed by calling for the dam, but cautioning Albertans to maintain the utmost vigilance as it proceeded.

Two weeks after the announcement, the *Edmonton Journal* ran a second story in which they disputed the claim made by then Premier Lougheed that the Oldman Dam would do little in the way of significant environmental damage. The basis for the dispute lay with a number of the earlier studies, and the story quoted heavily from the independent consultant reports done for both the 1976 and 1978 Oldman River Basin studies, and from the 1979 ECA report (Chalmers, 1984). Much of the opposition today remains rooted in these earlier studies.

There was as well, as there is with most dam projects, opposition from local landowners who would be affected by the development of the reservoir. Of particular concern was the government's plan to negotiate individual agreements with landowners, as they had tried with the now completed but controversial Dickson Dam (Masterman, 1984).

The legacy of the Dickson Dam also impacted on the Oldman River Dam project in one other area, cost. In November of 1984, questions were already being raised as to the final cost of the project as the Dickson Dam had escalated from an original estimate of \$61 million to a final cost of \$161 million.

With the release in 1986 of a revised and higher cost estimate, the controversy over irrigation expansion and dam construction was renewed. The cost of the Oldman Dam had increased by 75 percent, to \$350 million, from its original estimate of \$200 million. For some in Alberta, the combination of rising engineering costs with declining prices for agricultural products called into question the original benefit/cost ratios as well. These two points were reported to have been kept from the public until after the 1986 Alberta General Election. Also causing concern was the additional \$440 million that had been expended since 1980 on rehabilitating existing irrigation works. The economic cost of the dam, not the environmental cost, was capturing the public's attention (Mayer, 1984).

7.0 CONCLUSIONS AND RECOMMENDATIONS

7.1 Cross Case Analysis

The Oldman River Dam project shares a number of similarities with the Rafferty-Alameda project in regards to the historical development and common roots of their controversy. Both were the subject of, or included in, a variety of water basin planning studies prior to their subsequent announcement in the mid-1980s. Both are purported to serve a multiple number of uses and provide benefits in excess of their associated costs. Both projects changed proponent at sometime in their planning period, and both faced an organized and willing opponent. Both projects were announced prior to the conducting of formal environmental impact studies. As a result,

project opponents of both dams contend that the work done by each province does not satisfy the requirements of a “proper” EIA.

They differ in that the Rafferty-Alameda Project had obtained provincial approval in part as a result of having completed an environmental impact assessment. The Oldman River Dam was not subjected to Alberta’s environmental assessment and review process. However, project proponents contend that all of the work completed before and after the 1984 announcement essentially equal an EIA under the Land ***Surface Conservation and Reclamation Act***,

7.2 Lessons

The provincial EIA and decision-making processes failed in each case to allow the environmental consequences to be fully considered and mitigation identified before commitments to the projects were made, and approval given. The problem, however, lies not with the EIA processes themselves, but with the larger process of resource management and development planning of which EIA is part. The problem is that fairness is becoming the most important criteria by which EIA will be judged, and existing decision-making processes are not fair to most stakeholders.

The Rafferty-Alameda and Oldman River Dam projects demonstrate clearly that the prevailing systems fail to require that good EIA be undertaken. This does not necessarily mean that as a consequence, the integrated consideration of all aspects of the environment (natural, social and built) is not undertaken, but certainly implies that it is rarely so. It is the absence of such integration that places the stresses on EIA processes seen today as the process is asked to perform not only a “regional planning function” (Emond, 1983), but also a “public consultation function.” The underlying problem, therefore, is not with EIA itself, but with the larger process of resource management and development planning of which EIA is part (Sadler, 1986). Changes are obviously required.

The potential for EIA to be a solution to the problem of how to force government agencies to consider environmental factors in decision-making seems to require:

- a solid legislative base for EIA;

- **whose** legislative/policy/administrative provisions clearly bring out, spell out and keep EIA out, in the open the process to be followed alongside the rights of the public to know about, request and challenge environmental assessments (including court action); and
- where information concerning activities requiring environmental assessment is accessible to the public; and
- where a watchdog agency oversees the EIA process, ensuring governmental compliance to its provisions and regularly monitoring and annually reporting on its outcomes (Lang, 1979).

7.3 Recommendations

In response to the lessons above, the following are offered as general recommendations upon which environmental assessment legislation in Alberta and Saskatchewan should be built:

- EIA must operate within a larger policy framework which understands not only the interrelationships between environmental quality and social equity.
- Once set in a larger framework, environmental assessment must occur as early in the planning process as possible.
- EIA must apply to policies as well as projects.
- There must be a watchdog for the EIA process that is independent of all participants.
- The legislative base for EIA must include a definition of what EIA is, and what is required to qualify as successful EIA.
- A methodology for EIA should be set out in the regulations, as should a testing mechanism for the adequacy of EIA.
- Public consultation and participation in the EIA process should be mandatory.

- There should be a list of activities which automatically require an EIA.
- Avenues for appeal should be clearly identified and constructed in such a manner as to be seen to be fair and equitable to all interested parties.
- Some form of financial assurance should be collected to ensure that post-project monitoring and evaluation occur.

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