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INTEGRATED RESOURCE MANAGEMENT IN CANADA:
ENHANCING THE FEDERAL ROLE IN WATER MANAGEMENT

by

Edward J. Will

A thesis
presented to the University of Ottawa
in partial fulfillment of the
thesis requirement for the degree of
Doctor of Philosophy
in
Geography

 Edward John Will, Ottawa, Canada, 1993



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ABSTRACT

Water management by government is becoming a more difficult and complex task, as increased natural resource development and other industrial and municipal pressures impact cumulatively on the very resources that centrally support each of these needs.

Coming to grips with this cumulative attack on the ecosystem has frustrated the public, as well as the leaders of both public and private sectors, as resource development proposals seemingly get hung up in public reviews in which the proponent, the public and the scientific community are not able to agree on what form of development is both desirable, from a socio-economic standpoint, and reasonable, given environmental limits.

The capacity of current institutional arrangements for resource management is not providing the opportunity for the kind of integrated decision-making needed. Consequently, such conflicts are being settled in the courts, rather than within the institutional arrangements established for the purposes of resource management.

Previous research has indicated that current institutional arrangements for resource management are designed for a past era when water issues were dealt with on a sectoral basis in relation to emerging crises. This had made it difficult for any integrated effort to be made by interested parties involved when focused in a particular geographical area. Reinforcing this difficulty is the constitutional division of responsibility for resource management between federal and provincial governments.

As a microcosm of this general circumstance, the Alberta-Pacific (AL-PAC) pulp mill proposal assessment and review is used as a case study and entry point for assessing current weaknesses in institutional arrangements for resource management.

Through the development and application of an evaluation framework, contextual factors and weaknesses in legislation, policies, processes and mechanisms that had a bearing on the case were identified and described. These weaknesses served as leverage points for prescribing recommended actions to achieve integration in resource management and for gaining an enhanced federal role in water management.

Data collected were derived from three main sources: correspondence/newsclippings; official documentation, such as legislation, policies, reports, etc.; and interviews conducted with persons representing key stakeholder groups. The latter source provided perspectives on both weaknesses and needed changes.

The study concludes that current barriers to integration are found in inadequate linkages among institutional arrangements, within each stage of the resource management process (e.g., lack of cohesiveness), and similarly within individual components of the institutional arrangements. By way of example, in the former instance, institutional arrangements are not designed to require the completion of regional land-use planning in a given geographical area prior to the consideration of a major project. In the latter instance, individual statutes and policies are vague and, at best, only implicit in directing attention to any interests other than respective sectoral interests.

The implications of the study are considerable. If ecosystem health, and thus water management, are to be treated seriously by governments, a political commitment to embodying a capability for integration in resource management is essential.

Requirements for integration should be built into all resource-related institutional arrangements within the management process. While all governments are responsible for bringing this about, the federal government should provide the leadership for developing, with the provinces, new approaches for achieving integrated resource management. A number of such approaches are recommended.

RÉSUMÉ

La gestion des eaux par les gouvernements est une tâche de plus en plus complexe alors que l'accroissement du nombre des projets de mise en valeur des ressources naturelles et des pressions exercées par les municipalités et l'industrie ont des effets cumulatifs sur les ressources mêmes qui répondent à chacun de ces besoins.

La fait d'être confrontés à ces effets cumulatifs sur l'écosystème a frustré le public ainsi que les dirigeants des secteurs public et privé. En effet, les propositions de mise en valeur des ressources semblent restées bloquées dans des examens publics où le promoteur, le public et le milieu scientifique sont incapables de s'entendre sur le type de développement qui est à la fois souhaitable, du point de vue socio-économique, et raisonnable, compte tenu des limites de l'environnement.

À l'heure actuelle, les mesures institutionnelles visant la gestion des ressources ne permettent pas le genre requis de prise de décisions, soit la prise de décisions intégrée. Par conséquent, les conflits sont réglés en recourant aux tribunaux plutôt qu'aux mesures institutionnelles établies pour la gestion des ressources.

Selon les résultats de recherches antérieures, les mesures institutionnelles actuelles sont conçues pour une autre époque où les problèmes relatifs à l'eau étaient réglés sur une base sectorielle en rapport avec de nouvelles crises. C'est pourquoi il est devenu difficile pour les parties intéressées de faire un effort intégré lorsqu'ils se trouvent dans une région géographique en particulier. Pour la gestion des ressources, le partage constitutionnel des responsabilités entre le gouvernement fédéral et celui des provinces ajoute à cette difficulté.

En tant que microcosme de cet état général des choses, le processus d'évaluation et d'examen de la proposition d'usine de pâtes de l'Alberta-Pacific (AL-PAC) sert d'étude de cas et de point d'entrée à l'évaluation des faiblesses actuelles des mesures institutionnelles en matière de gestion des ressources.

Au moyen de l'établissement et de l'application d'un cadre d'évaluation, les facteurs contextuels et les faiblesses relevées dans les lois, politiques, procédés et mécanismes pertinents sont identifiés et décrits. Ces faiblesses servent de leviers pour recommander des mesures devant servir à réaliser l'intégration de la gestion des ressources et à accroître le rôle du gouvernement dans ce domaine.

Les données recueillies proviennent de trois grandes sources: correspondance et coupures de journaux; documentation officielle (p. ex., lois, politiques et rapports); entrevues réalisés avec les représentants des principaux groupes d'intérêt. Des perspectives sur les faiblesses et sur les changements requis ont été obtenues auprès de cette dernière source.

L'étude conclut que les barrières actuelles à l'intégration sont les liens inadéquats qui existent entre les mesures institutionnelles, tant dans chacune des étapes du processus de gestion des ressources (p. ex., manque de cohésion) que dans les différents composantes de ces mesures. Par exemple, dans le premier cas, les mesures institutionnelles ne sont pas conçues pour exiger l'achèvement de la planification de l'utilisation des terres pour une région géographique donnée avant l'examen d'un projet d'envergure. Dans le second, les différentes lois et politiques sont vagues et, au mieux, servent seulement à diriger l'attention sur tous les intérêts autres que ceux du secteur visé.

Les conséquences de l'étude sont énormes. Si les gouvernements ont l'intention de traiter sérieusement la santé des écosystèmes, donc la gestion des eaux, ils doivent s'engager politiquement à inclure la capacité d'intégration dans la gestion des ressources.

Les exigences en matière d'intégration devraient être inscrites dans tous les mesures institutionnelles reliées aux ressources dans le cadre du processus de gestion. Même si la responsabilité en cette matière incombe à tous les gouvernements, le gouvernement fédéral devrait prendre l'initiative d'élaborer, en collaboration avec les provinces, de nouvelles méthodes de gestion intégrées des ressources. On trouvera dans le présent document plusieurs recommandations à cet égard.

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LIST OF ACRONYMS

AIP	= Agreement-in-Principle
AL-PAC	= Alberta-Pacific Forest Products, Ltd.
CCME	= Canadian Council of Ministers of the Environment
CCREM	= Canadian Council of Resource and Environment Ministers
CCRM	= Canadian Council of Resource Ministers
EARP	= Environment Assessment and Review Process
EIA	= Environmental Impact Assessment
EIS	= Environmental Impact Statement
FEARO	= Federal Environmental Assessment Review Office
FMA	= Forest Management Agreement
FOTA	= Friends of the Athabasca Environmental Association
GIS	= Geographical Information System
GNWT	= Government of the Northwest Territories
ICW	= Interdepartmental Committee on Water
IRM	= Integrated Resource Management
IRP	= Integrated Resource Plan(s) [IRPs]; also, Integrated Resource Planning
IRPS	= Integrated Resource Planning System
IUCNNR	= International Union for Conservation of Nature and Natural Resources
MPMMMPS	= Multiple-Purpose, Multiple-Means, Multiple-Participant Strategies

- NGO = Non-Governmental Organization
- NWT = Northwest Territories
- OECD = Organisation for Economic Cooperation and Development
- PAMB = Peace-Athabasca-Mackenzie Basin
- POGG = "Peace, Order and Good Government", Constitution Acts, 1867-1982 (R.S.C., s. 91)
- SIA = Social Impact Assessment
- TOR = Terms of Reference
- TVA = Tennessee Valley Authority
- UNCED = United Nations Conference on Environment and Development
- UNDTCD = United Nations Department of Technical Cooperation for Development
- UNEP = United Nations Environment Programme
- WCED = World Commission on Environment and Development

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CHAPTER 1

DEFINING THE STUDY

... [P]aradigms of the relationship between environmental management and development are in a period of flux. The defensive (remedial) agenda is breaking down, in no small part because of its ineffectiveness in dealing with the negative consequences of unmodified frontier economics and development. The serious push at the more neutral (resource management, systems analysis) agenda very recently has begun to get under way politically. The widespread perception at this time is still one of tradeoffs between environment and development. However, this is a pernicious and unnecessary assumption. There are great economic and social benefits to be obtained from fully integrated approaches to environmental management.
(Colby, 1990: 34)

1.0 INTRODUCTION

1.1 PURPOSE OF THE RESEARCH

The primary purposes of this research are twofold. First, the research presents a critical evaluation of Canadian federal and provincial institutional arrangements in the natural resources management domain. Specific attention is afforded to water resources management within this larger purview. The evaluation itself is developed from a conceptual model that has, nested within

it, evaluation criteria related to the qualitative measurement of institutional integration. The conceptual model is applied as an analytical template to the AL-PAC environmental impact assessment case in Alberta - an experience widely considered the most representative of water resource management process breakdown.

Second, the research presents a set of recommendations to improve the level and kind of integration in federal water resources management. The recommendations are related to leverage or opportunity points identified during the evaluative research phase. In essence, the research represents a strong call for public and private managers, politicians, scientists, non-governmental organizations and other stakeholders to re-think and re-cast their traditional roles and responsibilities.

The secondary research purpose is the validity testing of a conceptual model, elements of which were advanced by previous research, but never knowingly applied within an integrated framework of components and criteria in Canada.

1.2 GEOGRAPHICAL FOCUS OF STUDY

The evaluation exercise focused on a particular and unique case study: the environmental impact assessment and review of the Alberta-Pacific (AL-PAC) pulp mill in northern Alberta near the town of Athabasca (Figure 1.1). This case is unique in the sense that:

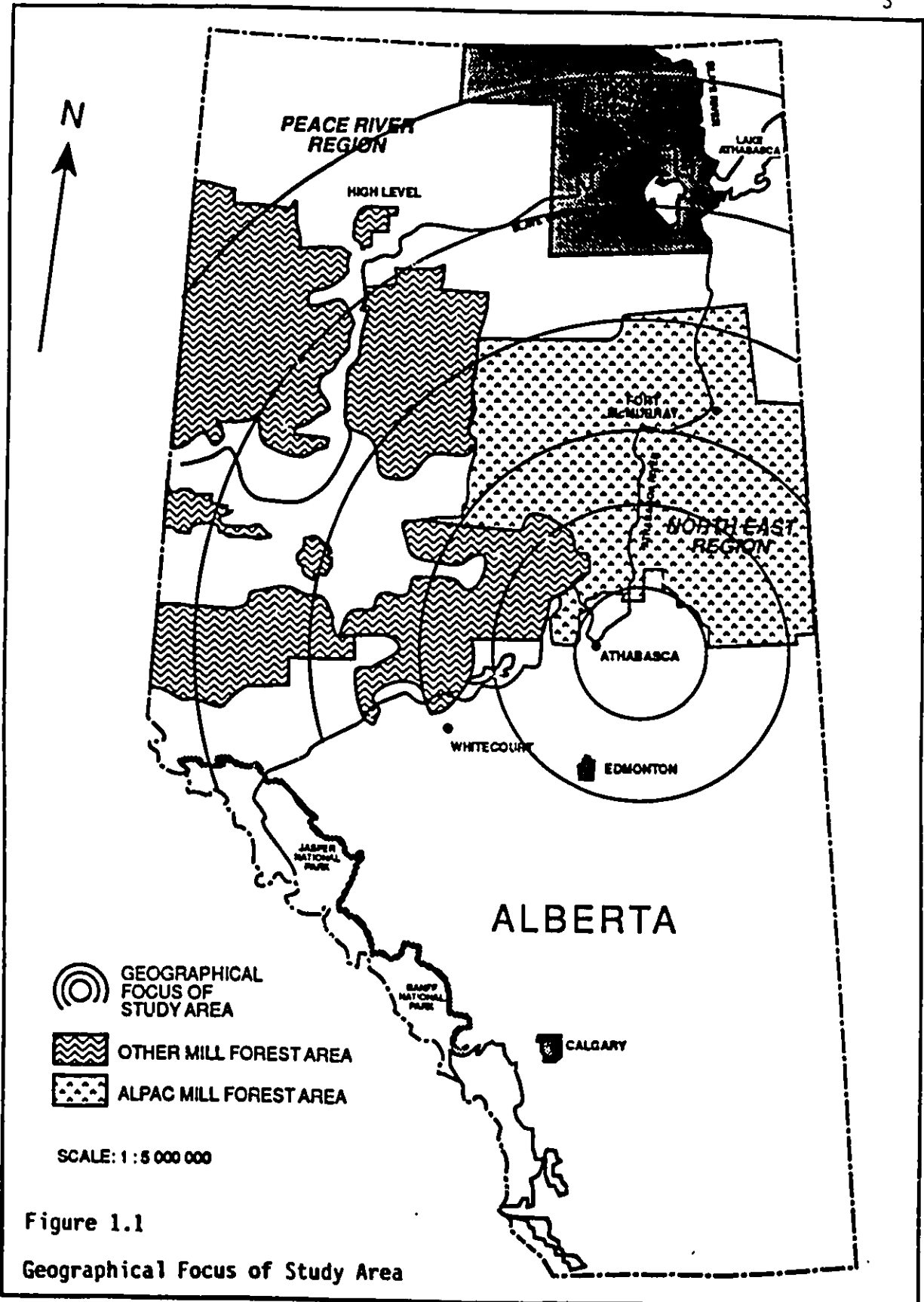


Figure 1.1
Geographical Focus of Study Area

- 1) it epitomizes, in a timely manner, how institutional arrangements in support of resource management decision-making are breaking down as attempts are made to deal with the integration of regional and project-specific environmental/economic considerations in vast and relatively undeveloped areas of Canada;
- 2) it served as a 'lightning rod' to galvanize Canada-wide concerns over inadequacies in the legislation, policies, processes and mechanisms that are currently being strained to provide the powers and direction for resource management decision-making; and
- 3) the key players in the resource management drama opted for enough of a compromise that the decision-making process (and the supportive institutional arrangements) evolved over a two-year period to a final conclusion, thus providing an opportunity to obtain the players' insights regarding the entire management process and how it could be improved.

1.3 SCOPE OF THE RESEARCH IN EXAMINING THE RESOURCE MANAGEMENT PROCESS

The specific research focus within the resource management process is illustrated by a Resource Management Model (Figure 1.2). This model primarily identifies the general stages (planning, implementation and operation), and the activities within each stage,

that are currently carried out in most Canadian provinces with regard to resource management. The model makes reference to the fact that these stages and activities are legitimized or given authority through such instruments as legislation, policies and guidelines. The model is used here to indicate which major aspects of management are the specific research focus of this work, how they relate to adjacent activities in the management continuum, and how they relate to the overall concept of management itself. As indicated in Figure 1.2, this research focuses on federal, provincial and local agencies; their legitimization; and their planning and implementation activities up to the final decision stage of project approval.

1.4 THE PROBLEM

The following subsections describe the inadequacies which currently exist in the institutional arrangements which support decision-making in resource management. The ways in which these weaknesses are manifested and being dealt with, in relation to the institutional arrangements which provide for the federal role in water management, are also outlined.

This overview of both the problem and the related need for integration provides the basic (problem-solution) construct upon which the recommendations contained in Chapters 9 and 10 are founded. These recommendations, therefore, put forth specific

actions which should be taken in order to improve decision-making in resource management, and to enhance the federal role in water management.

1.4.1 Problem Overview: The Need for Integration in Natural Resource Management

Institutional arrangements related to natural resource management have evolved over time in response to varying economic, social and political pressures (Mitchell, 1986). The nature of natural resource management has evolved from a single-purpose approach, dominated by an economic perspective, at the turn of the century (White, 1969: 11-14), to dealing with the complexities of the ecosystem (Odum, 1974: 31-42), the sustainable development goal (WCED, 1987: 1-400), and the growing need for related scientific information and public involvement (Koudstaal et al., 1992: 7-14; Colby, 1990: 19-22). Rising public environmental awareness of the declining resource base and concern for human health have also helped to bring about a major shift in perspective within resource management towards a more integrative approach. "A comprehensive, unified or integrated approach [that] should be taken to resource management has arisen from concerns that resource managers too frequently adopt a sectoral approach in which specific resources are managed or regulated in isolation of each other" (Mitchell, 1989: 304-305).

In spite of this shift towards acceptance of an 'integrated' approach, real difficulties are being encountered in its implementation (Koudstaal et al., 1992: 9.7). With respect to water management, **constitutional arrangements** are seen as serious barriers to integration.

Much of the problem lies in the fragmentation of authority. Not only is there a division of jurisdiction between federal and provincial levels of administration, but there are divisions within each level as well ... In many cases too there is uncertainty as to who is responsible or who should take the lead in initiating action.

(Foster & Sewell, 1981: 78)

Who should take the lead to overcome these institutional resistances to moving forward? In 1981, Foster and Sewell (1981: 88, 95) stated:

The problem of tensions between the federal and provincial governments must be overcome if water management is to avoid crisis situations. Equally important is the need for the federal government to assume a much more vigorous leadership role in these matters for which it has a clear responsibility and where action on a province-by-province basis would be ineffectual or inefficient. Beyond this the federal government should create a milieu in which the provinces themselves can perceive the need for action more clearly ...

It is evident from a review of existing issues and emerging problems that there are many ways in which the federal authority can play a much more effective role in water management ... programs are reactive and long range planning is virtually ignored.

The **constitutional division of power** over resources and a seemingly **inadequate federal role** in water management are, therefore, serving as barriers to integrated decision-making and placing considerable stress on those involved in the decision-making process. As well as a sharing of jurisdictional responsibilities for resource management

between the federal and provincial governments, sectoral perspectives emanating from past single-purpose approaches are hindering integration across industrial sectors. Accordingly, resource managers have been working within their own limited jurisdictional and sectoral spheres of activity. Thus, their developed perspectives reflect the values of their own individual compartmentalized responsibilities, rather than a view which considers a broader, more holistic view of resource management (Sadler, 1986: 40-43).

It is also suggested that the above situation could be ameliorated if federal leadership was to become more proactive, particularly with regard to long-range planning. To this end, the following section discusses the adequacy of the federal role and the Federal Water Policy in relation to its capacity to overcome the types of barriers described.

1.4.2 The Federal Role and Policy in Water Management: Inadequate Institutional Arrangements for Integration

With regard to the perceived need to examine water issues, a federal enquiry on water was undertaken in 1985 (Pearse et al., 1985: 183). Subsequently, in 1987, the Federal Water Policy was established (Environment Canada, 1987). The document sets out five strategies to reach its stated policy goals, besides providing 25 policy statements related to a wide range of water issues. These

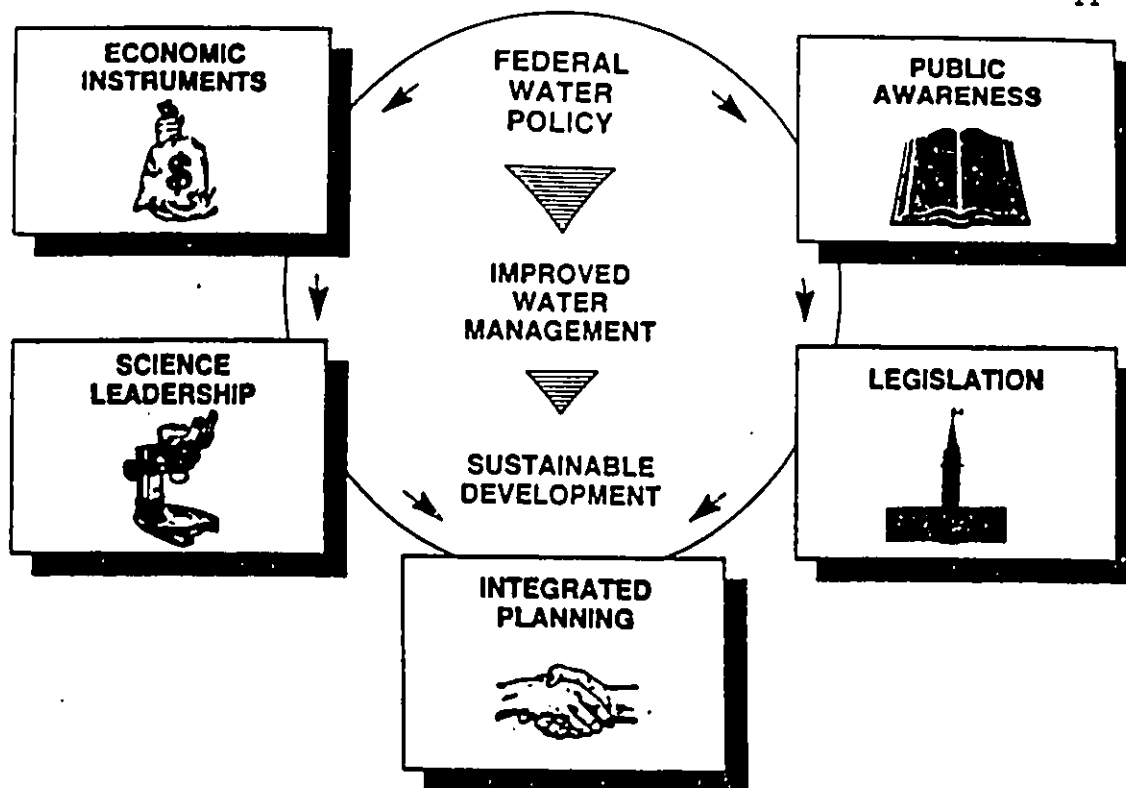
strategies are termed "... broad courses of action which define a supportive, yet flexible, role for the federal government, one that enables the various agencies, other levels of government and industry to respond to their particular circumstances and challenges" (Environment Canada, 1987: 7). In addition, it is indicated that "... most important of all, the federal government counts on a continuing high degree of cooperation with provincial and territorial governments, as well as with multilateral institutions and other nations in all water resource matters" (Environment Canada, 1987: 7).

Within the list of five strategies is 'Strategy 3' or 'Integrated Planning'. This strategy, which is represented by a handshake (Figure 1.3), symbolizes the need to bring together through institutional relationships: leadership in science, public awareness and legislation - three of the remaining federal water policy strategies.* The recommendations presented in Chapters 9 and 10 of this thesis indicate **HOW** this can be done.

Strategy 3, 'Integrated Planning', endorses the need to meet increasing demands, recognizes the many values to be considered, ensures productivity of the resource and ecosystem dependent on it, and, above all, provides a **commitment to the strategy of integrated long-term planning for water and related resources**. The federal role within this 'strategy' is described as follows:

- . adhere to integrated water resource planning in areas of federal jurisdiction ...;

* The fourth strategy - 'Use of Economic Instruments' - was not considered within the scope of this dissertation.



**POLICY STATEMENTS TO WHICH THE
5 STRATEGIES ARE BEING
APPLIED:**

- | | |
|--|---|
| 1. Management of Toxic Substances | 14. Management of Northern Water Resources |
| 2. Water Quality Management | 15. Native Water Rights |
| 3. Ground Water Contamination | 16. Canada-U.S. Boundary and Transboundary Water Management |
| 4. Fish Habitat Management | 17. Potential Interjurisdictional Water Conflicts within Canada |
| 5. Provision of Municipal Water and Sewer Infrastructure | 18. International Water Relations |
| 6. Safe Drinking Water | 19. Drought |
| 7. Water Use Conflicts | 20. Flooding |
| 8. Interbasin Transfers | 21. Shoreline Erosion |
| 9. Water Use in Irrigation | 22. Climate Change |
| 10. Wetlands Preservation | 23. Water Data and Information Needs |
| 11. Hydroelectric Energy Development | 24. Research Leadership |
| 12. Navigation | 25. Technological Needs |
| 13. Heritage River Preservation | |

Figure 1.3

The Federal Water Policy: Strategies and Policy Statements

SOURCE: Canada. 1992. The Canada Water Act Annual Report, 1990-91. Ottawa: Supply & Services Canada.

- . encourage...the integration of water management plans and objectives with those of other natural resource interests ...;
- . establish and apply evaluation criteria to all federally sponsored projects ...;
- . ensure that all significant national and international water-related development projects, which are supported or initiated by the federal government or for which federal property is required, are subject to the Federal Environment Assess and Review Process ...;
- . ensure the participation or co-operation of all relevant co-ordinating and regulatory agencies; and
- . encourage and support opportunities for public consultation and participation in the integrated planning process.

(Environment Canada, 1987: 10)

What the policies do **NOT** do is identify new explicit forms of institutional arrangements which should be put in place to overcome fragmentation of jurisdictional authority and boundary problems related to resource management. Mention is only made of federal-provincial-territorial agreements in areas of federal jurisdiction and the application of the Federal Environmental Assessment and Review Process (EARP, 1984) for "all significant national and international water-related development projects."

Existing institutional arrangements, therefore, must be examined, and new approaches must be established which have the capacity for integrated resource management and which embody the principles or requirements that are specified in the federal water policy.

1.4.3 Related Developments

Two related developments have been taking place which may impact on, if not significantly shape, any future federal approach to integrated resource management. First, a number of provinces, such as Ontario (in 1973), Alberta (in 1977) and British Columbia (in 1980), have established their own forms of integrated resource management. These approaches to resource management generally attempt effective integration with an emphasis on dealing with identified priority issues for immediate action with funding and implementation as part of the plan. It is likely that in the development of any future federal management and planning model, such provincial approaches would have to be taken into account.

Second, a major area of development which is impacting on resource planning and management in Canada is environmental impact assessment (EIA). Both the federal and provincial governments have developed procedures for carrying out environmental impact assessments (Couch, 1989: 55). Sadler (1986: 79) describes EIA as:

... one of the most visible and formal components of decision-making processes for development planning and resource management in Canada. It is usually applied at the site and project specific level although proposals which are subject to assessment vary considerably in scale and type. Federal and provincial assessments, for example, provide an important vehicle for the public review of major energy transportation and industrial projects.

Recently, more attention is being focused on EIA's relationship to the larger system for development planning and resource management. Serious reservations remain about the impact of EIA:

The fundamental worry is that impact assessment is a pro-forma exercise which occupies a marginal place and is of peripheral influence within the development process ... EIA is often characterized more by a capacity to delay and frustrate rather than to shape positively the course of the proposed action ... This is the opposite of what major actors in the process - government agencies, private proponents and interest groups - want to achieve. A building of consensus is evident in the need for a more purposeful, collaborative and integrated approach.

(Sadler, 1985: 104)

Basic questions appear to emerge at this point: Should impact assessment remain as an independent process that plugs into the community level? Alternatively, should impact assessment become an integrative planning tool for decision-making within an overall integrated resource management process?

Central to responding to the above questions are the needs and perspectives of government, industry and the public, as well as weaknesses in present procedures. A range of concerns is apparent. Sadler (1986: 107) points out that "the paramount concern of government and industry at present is the time and cost of underwriting EIA public hearings". As well, EIA is considered to be reactive - i.e., it becomes operational typically when a project has been defined. An appropriate policy-planning context for focusing analysis is often missing, as is any follow-up monitoring activity with management feedback. As Sadler (1986: 109) aptly states, more often than not, the result is "that impact assessment implicitly wields policy and planning options, and the private sector development proposals being reviewed drive decision making - the exact opposite of the intended sequence of events".

It is apparent, therefore, that while EIA has traditionally been recognized as a process in itself, it does not successfully stand on its own at the project level. **EIA should be addressed as related to, if not as a component of, an IRM process which includes such steps as policy, program/project evaluation and feedback (Figure 1.3).**

Opportunities to examine EIA as part of a resource management process are found in several projects in western Canada which are currently in various stages of development. The Rafferty-Alameda and Oldman River Dam controversies, and the debate over forestry development on the Peace and Athabasca rivers, are good examples. In each of these cases, questions of project justification and feasibility have lingered on unsettled, after the proposal has been through various stages of planning and, in the case of the Rafferty-Alameda and Oldman River Dam, after much of the construction has taken place.

Thus, basic questions of program and project need and rationale, which should be settled at the outset, often go unreviewed until EIA occurs, relatively late in the process of decision-making (Sadler, 1986: 109). In the cases identified, apparent inadequacies in the institutional arrangements with regard to overcoming conflicting points of view and a failure to properly recognize and/or carry out assigned roles within these arrangements, have resulted in court decisions to halt these projects until thorough environmental assessments are carried out (Cullen, 1989; Muldoon, 1989).

The historic Rafferty-Alameda Dam decision (Cullen, 1989) exemplifies the apparent inadequacies in EIA and related resource management steps such as planning prior to project consideration. Construction, in this case, was halted by Justice Cullen of the Supreme Court in his decision that the Environmental Assessment and Review Process (EARP, 1984) requirements had not been satisfied and that meeting them was required by law. This decision was reaffirmed by a later federal Court decision (Muldoon, 1989). The implications of these decisions appear to indicate that federal EIAs will be mandatory in all future cases where federal jurisdiction will be directly or indirectly involved or impacted (e.g., in the context of inland fisheries, health, safety, agriculture, transborder activities, native lands and navigation). Thus, these court decisions appear to be forcing a stronger federal role in resource management which must be accommodated by the provinces, although they have held the bulk of jurisdiction for natural resources under the Constitution Acts, 1867-1982 (Canada, 1982) until this time.

1.4.4 Summary of the Problem

Since the reduction of activity in joint federal/provincial comprehensive water basin planning under the Canada Water Act (R.S.C. 1970, c. 5), the provinces appear to have worked to strengthen their own resource management approaches, and recent federal cooperation has been pursued largely on the basis of

agreements to deal with issues such as flood damage reduction, water quality/quantity monitoring and, to a lesser degree, water resource management (Environment Canada, 1989: 6-38).

A Federal Water Policy enquiry has been conducted, which recognized the need for a more integrated approach to resource management, and a new resultant Federal Water Policy has endorsed a number of principles/requirements for integrated water planning (Pearse et al., 1985: 97). At present, in the absence of any overall integrated federal/provincial approach to planning and/or management, federal court decisions are enforcing federal environmental impact assessment guidelines to ensure that federal requirements are being met within provincial resource development processes. Thus, the courts are bringing together federal and provincial perspectives on resource management in the absence of any adequate institutional arrangements to perform this task. **The basic problem is clearly that the needed institutional arrangements for integrated resource management between the federal and provincial governments do not exist at the present time, and should be developed so that both short-term projects and long-term sustainable development policies/ programs/activities can move ahead simultaneously.** Respective roles must be clarified and negotiated within an overall IRM approach which is acceptable to the jurisdictions involved. Chapters 9 and 10 of this thesis recommend what institutional arrangements are needed to achieve integration.

1.5 SPECIFIC RESEARCH OBJECTIVES

Given the barriers to integration in natural resource management and the inadequacies in institutional arrangements with respect to the federal role and the Federal Water Policy, the specific research objectives are as follows:

- 1) The Evaluative Phase - using institutional arrangements analysis to critically evaluate the adequacy of institutional arrangements in natural resource management by qualitatively measuring the degree to which integration was provided for and present in the AL-PAC case. This objective is attained by:
 - . describing and assessing the types of institutional analyses most suitable for the AL-PAC case study;
 - . describing the evaluation framework and associated criteria used in this institutional analysis, and implementing the evaluative exercise; and
 - . identifying and describing weaknesses in the institutional arrangements relevant to decision-making in the AL-PAC case through the use of the evaluation framework.

- 2) The Prescriptive Phase - to provide specific recommendations for improving the level and kind of integration in Canada's water management through an enhanced federal role by:

- . identifying and describing leverage points for improving integration among institutional arrangements;
- . describing and recommending specific actions which could be taken to endorse and institutionalize integrated resource management requirements within federal institutional arrangements.

1.6 ORGANIZATION

The format of this dissertation is as follows. Chapter 2 provides a discussion of the appropriateness and importance of institutional arrangements research to decision-making in resource management and to geography as a discipline.

Chapter 3 outlines general research directions and specifically the design of the research, describing how and why: environmental impact assessment provides a desirable entry point for examining other related stages in the resource management process; the AL-PAC mill proposal was chosen as the case study; the evaluation framework, with its components and criteria, was developed; and the source material and methodologies were applied.

Chapter 4 describes the context within which the AL-PAC mill was considered. Related economic factors and natural resource conditions are given. The nature and extent of resource management planning in the area prior to consideration of the mill are described as the results of applying the evaluation framework.

Chapter 5 documents the evolution of decision-making during consideration of the AL-PAC mill proposal, based on the correspondence and news-clippings review. Events, stakeholders and actions are described, as well as the perceived weaknesses of the institutional arrangements that were operative at the time.

Chapters 6 and 7, respectively, identify and describe (using the evaluation framework) the weaknesses apparent in the legislation and policy instruments, and the processes and mechanisms directly applicable to the AL-PAC case, while Chapter 8 provides a description of the weaknesses in the latter institutional arrangements, as perceived by stakeholder groups having an interest in the proposal (i.e., their perspectives).

Chapter 9 provides the first of two major sets of recommendations resulting from the research. Based on a summary of identified weaknesses in institutional arrangements, corresponding explicit recommendations are described which will foster and require integration in resource management decision-making.

Within the broader perspective of resource management described in Chapter 9, Chapter 10 outlines what institutional arrangements should have been in place in the AL-PAC case to achieve integration in water management in an ideal world, and what actions should be pursued, given the division of powers under The Constitution Act.

Chapter 11 provides a critical overview of how well the research design served (or did not serve) its intended purpose, and suggests avenues where additional research is required.

CHAPTER 2

INSTITUTIONAL ARRANGEMENTS RESEARCH AND RESOURCE MANAGEMENT

The objective of sustainable development and the nature of the global environment/development challenges pose problems for institutions, national and international, that were established on the basis of narrow preoccupations and compartmentalized concerns -- Those responsible for managing natural resources and protecting the environment are institutionally separated from those responsible for managing the economy. The real world of interlocked economic and ecological systems will not change; the policies and institutions concerned must.
(WCED, 1987: 9)

2.0 INTRODUCTION

Society's valuation of the health of the earth's natural resources is receiving widespread attention (WCED, 1987; IUCNNR, 1980; OECD, 1985). The negative impacts of this misuse on the environment are seen as a possible threat to the survival of humankind itself (Goldsmith & Hilyard, 1988: 1-240). The long-held belief that new technology can always be developed to counter problems associated with natural resource development is waning: "We are living in a period of rapid change, faced with an unstable

economic situation and an increasingly complex society. Scientific and technological developments have opened up unprecedented opportunities, as well as new dangers and problems" (Ahmad & Müller, 1982: ix). Resolving these dangers and problems has, as never before, become a focus for attention, not only in local areas where we live, but at the regional, national and international levels of decision-making.

The report of the World Commission on Environment and Development (WCED, 1987: 1-2) captures the essence of the challenge:

The Commission's hope for the future is conditional on decisive political action now to begin managing environmental resources to ensure both sustainable human progress and human survival. We are not forecasting a future; we are serving a notice - an urgent notice based on the latest and best scientific evidence - that the time has come to take the decisions needed to secure the resources to sustain this and coming generations.

In serving notice, this "precedent-breaking report" begs some questions: Why have past approaches failed to manage our natural resources properly (Dobell & McLaren, 1988: vii)? What new approaches to decision-making within resource management are needed to integrate the perspectives of resource users and the public so that both development and the environment are sustainable? These questions clearly bring into focus the need for institutional arrangements research in resource management. This chapter has several purposes: to identify and define key terms associated with this research; to describe the importance of institutional arrangements research in natural resource management; and to discuss and assess factors to be considered in the research design.

2.1 RESOURCE MANAGEMENT AND INSTITUTIONAL ARRANGEMENTS RESEARCH

2.1.1 Resource Management

Emphasis has been given to viewing natural resource management as a decision-making process (Krueger & Mitchell, 1977: 6). O'Riordan (1971) indicates that it should be visualized as being a conscious process in nature, and not a haphazard one, thus implying the need for its foundation in explicit policy. Natural resources management may be defined as:

... a process of decision-making whereby resources are allocated over space and time, according to the needs, operations and desires of man within the framework of his technological inventiveness, his political and social institutions, and his legal and administrative arrangements. Resource management should be visualized as a conscious process of decision involving judgement, preference and commitment, whereby certain desired resource outputs are sought from certain perceived resource combinations through the choice among various managerial, technical and administrative alternatives.

(O'Riordan, 1971: 19)

Recognition of the need for integration in resource management has been a response to the belief that resource managers have often taken sectoral approaches to resource use, neglecting to consider the perspectives and needs of other users and the public interest. Integration suggests a more holistic approach which "should lead to more effective allocation and management of resources" (Mitchell, 1989: 305). The term 'holistic', however, suggests a 'comprehensive' approach which implies that "all elements and their interaction are considered equally" (Mitchell, 1989: 305).

Integration, in contrast, based on apparent difficulties already encountered with a 'comprehensive' type of approach, suggests "considering a selected number of elements and their interactions" (Brulé et al., 1981). Integration is, then:

... a more focused approach which considers related perspectives/needs. With selectivity in mind, the notion of integrated resource management could be described as the sharing and coordination of the values and inputs of a broad range of agencies, publics and other interests, when conceiving, designing and implementing policies, programs or projects [related to prioritized public policy goals].
(Mitchell, 1986: 13)

While a standard set of procedures for IRM has not yet emerged, certain components are consistently emphasized, such as strategic planning; quantitative, scientific methods; consultative procedures; and analysis of dynamic processes, flows and linkages (Gardner, 1989: 356). Other needs which appear to be dealt with are uncertainty and cumulative affects (Sadler, 1986; Cornford et al., 1985). These requirements for IRM make it particularly amenable to satisfying sustainable development principles (Gardner, 1989: 357).

What is implied by the concept of sustainable development is undergoing considerable scrutiny at the present time. The Report of the WCED, Our Common Future (1987), has helped substantially to raise global awareness of the planet's declining environment and, in doing so, has placed the concept of 'sustainable development' as an objective for society. This concept is described in some general terms within the Report:

Humanity has the ability to make development sustainable - to ensure that it meets the needs of the present without compromising the ability of future generations to meet their own needs ... sustainable development is not a fixed state of harmony, but rather a process of change in which

the exploitation of resources, the direction of investments, the orientation of technological development, and institutional change are made consistent with future needs.

(WCED, 1987: 8-9)

Integrated resource management is deemed to be a management approach which can assist in supporting sustainable development - that is, by addressing broader social, economic and environmental goals.

Although the responsibility for the political administration, use, management, ownership, and exploitation and abuse of lands and water is fragmented between various governments, and between land and water itself, the relationship of what happens with water on land is now being recognized as an essential consideration within integrated resource management.

It is being perceived with growing clarity that a river or lake system, its waters, the living things they support, the lands beside them, the living things the land supports and the ways in which the land is used - all these, including human communities, comprise a system with all the complex interrelatedness the word implies.

(Richardson, 1989: 27)

"What we do on land affects our water resources. Therefore, it is vital that we manage land and water together with an integrated approach" (Manitoba, undated: 2). **Integrated water management, therefore, is defined here as a process within integrated resource management that reflects all of the pluralistic attributes of the larger decision-making process.**

In this decision-making domain, however, it is suggested that incrementalism (Lindblom, 1959: 79-88) is not enough for sound management of sustainable resources; instead, the planning component must emphasize a more selective focus (Sadler, 1986: 30).

What is sought is a tool that is more refined than comprehensive planning (concentrating on key parameters and levels of social and economic policy rather than on indiscriminate collection of data and issues) and more flexible than coordinated planning (no rigid frameworks are sought to be imposed).

(Ahmad & Müller, 1982: x)

While integrated water management bears the above characteristics, its task is to provide an approach

... to the planning and development of water resources in order that increasing demands upon the quality and quantity of the resource are met efficiently and equitably, and in a manner that ensures that the many values of water and related resources are recognized, and ensures the continued productivity of the resource and the ecosystems dependent on it.

(Environment Canada, 1987: 10)

Therefore, for the purposes of this research, integrated water management has, as its primary focus, the integration of land and water issues within an ecosystem perspective; for its secondary focus, it takes into account broader socio-economic considerations.

2.1.2 Institutional Arrangements Research

2.1.2.1 Definition

While institutional factors such as jurisdictional fragmentation are recognized as formidable barriers to successful resource management (Ingram et al., 1984: 323; Fernie & Pitkethly, 1985; Zimmerman, 1982: 37; Mitchell, 1989: 242) and as an important research focus (Fernie & Pitkethly, 1985: vii), research on institutional arrangements is at an early stage of development (Mitchell, 1989: 260) and there appears to be a lack of agreement on

exactly what should be included in the term 'institutional arrangements'. "Little consensus has emerged regarding what is meant by institutional arrangements" (Mitchell, 1989: 243), and researchers "... are not at all clear about just what needs to be taken into account" in institutional arrangements research (Ingram et al., 1984: 323). What constitutes institutional arrangements research, therefore, requires research attention, and this research addresses this need. For the purposes of this dissertation, the current division of powers over natural resource management between the federal and provincial governments (Burton, 1972: 108) has been accepted as an overriding factor which has imposed limitations on the scope of the recommendations presented in Chapters 9 and 10.

To provide a foundation for the general methodology discussed and proposed in the following sections, the definitions of institutional arrangements and institutional analysis given by Ingram and her colleagues are suggested as generally acceptable for this research at this discussion point. These definitions provide a basis for understanding scope and intent, while not being restricted to the needs of the case study.

The term 'institutional [arrangements]' is meant to include those legal, political and administrative structures and processes through which decisions are made with respect to public policy. These structures and processes consist of laws and regulations that govern the distribution of benefits and costs and set the ground rules for conflict resolution. They include also the informal procedures by which conflicts are regularly resolved when laws are unclear or are not consistent with the actual distribution of influences in the policy network. Institutional arrangements rest upon the distribution of political support for a given allocation of costs and benefits and are affected by public opinion, the attitudes and preferences of interest groups, and the

orientation of public officials. The process by which analysts can improve their competence to recognize how institutional factors affect water [natural] resource planning and evaluation and can manage the opportunities and barriers presented by institutional factors is termed institutional analysis.

(Ingram et al., 1984: 323)

Elements of the above definition are later discussed in Section 3.2.2 with respect to the requirements of the case study approach. The relative importance of these elements is substantiated for inclusion in an evaluation framework as part of the research design.

2.1.2.2 Importance of institutional arrangements research

The importance of research into institutional arrangements within resource management has been widely documented. O'Riordan (1971: 135) emphasizes the need to understand how institutional arrangements evolve in response to societal needs: "One of the least touched upon, but possibly one of the most fundamental, research needs in resource management is the analysis of how institutional arrangements are formed, and how they evolve in response to changing needs and the existence of internal and external stress"

The importance of satisfactory institutional arrangements to effective resource planning and management is noted by Kindler (1985: 279): "Even the best planning schemes often fail if there are no adequate institutional arrangements governing land and water use."

The need to give attention to institutional arrangements research has not just been discovered in the last decade. In discussing the next 25 years in 1976, Sewell (1976: 802) made the

need clear: "While there have been important advances in the technology of harnessing and utilizing water resources, and techniques of analysis, institutional innovation has tended to lag behind."

More recently, the growing awareness and commitment to a sustainable development approach to resource management has placed an even greater stress on the need for research and innovation to formulate institutional arrangements which meet this new challenge.

Designing and influencing policies to reflect the evolving ethics of sustainable development will require institutional arrangements with a capability for unprecedented integration in water resource management. What are the reforms in institutional arrangements of governance that are necessitated by the evolving ethics (e.g., increased utilization of market mechanisms, revision of substantive and procedural rights, greater relevance on self determination, redefinition of the role of senior governments, etc.)? In this context what are the institutional arrangements that must facilitate the varied tasks of management

(Dorcey, 1990: 24)

It has thus become clear that the institutional arrangements of today are designed to meet the needs of the past. Research is needed to put forth the new approaches required for integrated resource management.

2.1.2.3 Geography and institutional arrangements research

Institutional arrangements research is not new to geographers. "Many geographers, along with members of other disciplines, have studied the effects of institutions on various aspects of society, the economy and the environment, and this approach has led to significant insights ..." (Manion & Flowerdew, 1982: 1).

Manion and Flowerdew (1982) indicate that while urban geographers have given substantial effort to an institutional approach, other geographers have not. In the resource management domain, Birch (1973: 3) believes that "... geographers have shown, and in the nature of their subject are likely to show a particular interest in the (a) spatial, (b) ecological, and (c) institutional relationships of resource systems."

With regard to (a) and (b) above, Birch (1973) sees a major role for geography in resource management to ensure the appropriate spatial dimensions and accuracy in ecological analysis to achieve understanding at a regional scale and to pursue measures that would indicate adequate measures of resource capacity. Concerning (c), he argues that regional scale implications of resource management decisions will continue to draw geographer's interest in institutional relationships which derive from the policies of central and local governments. While the prime focus of this study is on institutions and their arrangements, both spatial and ecological aspects of geographic interest are considerations, either directly or indirectly.

In terms of outcome, institutional arrangements research by geographers can result in significant contributions both to understanding and to knowledge, as well as improved decision-making.

For the geographer interested in resource management, studies of institutional arrangements offer several rewards. By describing, accounting for and predicting such arrangements, the analyst may be able to suggest how existing situations could be improved or else how future arrangements could be designed to take advantage of observed strengths but avoid identified weaknesses. Understanding the way in which arrangements function also

provides appreciation as to how they may act as constraints upon or create opportunities for management decisions. A third reward is perhaps the most important for the geographer. By treating analysis of institutional arrangements as a means to an end rather than an end in itself, new insights may be gained about spatial allocations of natural resources, man-environment relationships or the nature of the regional character and complexity. The practical value from improving institutional arrangements should be to facilitate co-ordination of various interests and perspectives during resource allocation decisions.

(Mitchell, 1989: 259-60)

For geographers to give their attention to variables associated with the decision-making process of resource management is, therefore, both timely and of significance. This is the direction taken in this thesis.

2.1.2.4 Considerations for institutional analysis

What, then, are key considerations in the design of suitable institutional research? Ingram and her colleagues (1984: 323) have described past research on institutional arrangements as generally being:

... brief and unilluminating, involving little more than an annotated listing of public agencies, statutes, regulations, compacts, and judicial decisions. Such a list creates the image of a lifeless maze of check stations, passageways, and barriers. Form prevails over substance in such presentations, and little understanding of the dynamics of institutional operations or change is presented.

To counter such weaknesses, the authors suggest that study of current institutions be directed towards:

1. Identifying actors and their stakes (analysis of group interests, resources, membership and practices)
2. Identifying the resources actors have to advance their interests (e.g., legal rules and arrangements, economic power, prevailing values and public opinion,

technical expertise and control of information, control of organizational and administrative mechanisms, and political resources)

3. Identifying biases of alternative decision-making (understanding the institutional structures through which decision-making on resources occurs - e.g., policy orientation, responsiveness to particular interests, capacity to generate suitable information and tendency for types of preferred problem solutions)

(Ingram et al., 1984: 342-328)

The directions suggested for studying institutional arrangements appear to be particularly appropriate to this research. The authors suggest that considerable effort be given to more than just identifying key actors and their official mandates and functions. They highlight the need to identify biased interests, powers and responsiveness in actual situations.

As Ingram and her colleagues (1984: 331-333) point out, the analysis of institutional arrangements should not stop with just the identification and understanding of barriers and resistances to integration, but should take the additional step towards assessing how these constraints might be altered or overcome. The authors indicate that such an analysis can be enhanced by consideration of possible strategies and techniques or responses. These include the operation of market mechanisms; changes in legal definitions, rights and relations; changes in government resource management practices; creation of new institutions; negotiated settlements and conditions; newly developed or disseminated information, and technical solutions.

The guidelines provided by Ingram and her colleagues (1984) for improved institutional analysis focus mainly on water resource

planning, although it appears that because of the centrality of water in resource development, the same guidelines could likely apply to resource development in general. Mitchell (1979: 280-292) argues similarly for a defined framework for analysis in discussing basic considerations for integrated resource management. The essence of the message is that in any investigation, judgements about the adequacy or inadequacy of institutional arrangements must use certain criteria, and it must be made clear which resource management elements are being appraised.

Numerous frameworks, which include guidelines, criteria, etc., have been developed and applied in a variety of resource sectors to examine the adequacy of existing institutional arrangements and to suggest new approaches. In the area of water management, a study of the Great Lakes Basin, carried out by a team of university and college faculty members from Canada and the United States, identified the most fundamental barrier to successful resource management: the lack of satisfactory institutional structure (Canada-United States University Seminar, 1973). In order to determine what kinds of organizations and relationships would be most effective, an analytical framework was developed (Mitchell, 1989: 247). It provided a systematic approach for analysis, including resource problems, criteria and management functions. The approach used in this Canada-United States study has been held up as a benchmark because of its enduring contributions in identifying functions and criteria, a baseline for future work (Mitchell, 1989: 246).

Another contribution to the development of frameworks for institutional analysis comes from the area of hazards research. Schrecker (1984) studied what he terms the political economy of environmental hazards. His examination of the formulation and application of environmental hazard law and policy was carried out through the use of a conceptual framework which some believe to be "pertinent to many different resource management sectors or situations ... legislation, agency resources, political and administrative context, and constituency base" (Mitchell, 1989: 256). Schrecker (1984: 10) came to the conclusion that the style of agency behaviour is influenced by each of the above elements within his analytical framework.

In his analysis of environmental policies in Canada, Sweden and the United States, Lundqvist (1974: 7) examined influences on policy processes and content. Elements within the analytical framework used to examine institutional arrangements included ideologies, values and structures of political systems; historical evolution, habit and routine in policy formulation; power interactions between groups affected by problems and policies; and utility. Through the use of this framework, he was able to "... consider the character and distribution of values, control of government and behavior of participants in the political system" (Mitchell, 1989: 258). At a more local level, Musolf (1975) used much the same approach to study the impact of government upon legislative structure and environmental policy-making in California and British Columbia.

In studying interagency cooperation in water resource management, Dorcey (1987: 19) notes, with regard to bargaining and negotiation, that there are "three types of institutional mechanisms ... used in resolving disputes over resource allocation: political, judicial and market." However, in discussing Dorcey's views, Mitchell (1989: 258-259) emphasizes Dorcey's conclusion that whether legislative mechanisms (the courts) or resource-use prices are used,

... there will always be constraints on their effectiveness ... [and that] regardless of the potential effectiveness of the institutions, the success in handling problems will ultimately depend on the people in the process, and particularly on the manner in which they are able to interact with others. This point is an important one, because it is possible to spend too much time in attempting to design the 'perfect' institutional arrangements.

Participants and their perspectives should, therefore, be taken into account.

With respect to the level of formalization of institutional arrangements that fosters integration, Mulford and Rogers (1982: 9-17) indicate, in their discussion of definitions and models of coordination, that more commitment to interaction between agencies is likely when the rules are explicitly set out. Implicit arrangements are less likely to result in satisfactory integrative-type effort being made.

2.2 SUMMARY

This chapter has discussed the nature and importance of institutional arrangements research to decision-making in the resource management domain. Without adequate institutional arrangements, even the best of efforts in planning can fail (Kindler, 1985: 279). Innovation to resolve this inadequacy has been lagging (Sewell, 1976: 802). Commitment to a future of sustainable development places an even greater stress on the need for unprecedented integration in water resource management (Dorcey, 1990: 24). Research is required that will examine and suggest new approaches for institutional arrangements, meeting this need for integration.

Geographers have made significant contributions to resource management research in the past, and shown a particular interest in such areas as the institutional relationships of resource systems (Manion & Flowerdew, 1982; Birch, 1973). Studies of this nature can result in improved knowledge and understanding of institutional strengths and weaknesses, as well as in improved decision-making for facilitating the coordination of the various interests in resource management (Mitchell, 1989: 259-60).

A number of points for consideration in institutional arrangements research have also been discussed in this chapter. From a general standpoint, Mitchell (1989: 258) noted, in reviewing a number of studies, a similarity in the elements which need to be integrated. Ingram and her colleagues (1984: 323), Mitchell (1975:

267-275) and others cited have illustrated that a framework for analysis, with specific components and criteria, is necessary if judgements are to be made about the adequacy or inadequacy of institutional arrangements. Schrecker (1984: 10) noted that agency behaviour influenced each of the elements within his framework. Lundqvist (1974) found that a relatively similar framework allowed him to "consider the character and distribution of values, control of government and behavior of participants in the political systems" (Mitchell, 1989: 258). Dorsey (1987: 1-2) concluded that in spite of the potential effectiveness of the institutions, success in dealing with resource problems depended largely on the perspectives of people within institutions and their ability to interact.

Concerning institutional analysis, Mitchell (1989: 258) points out that:

... whether such studies [of institutional arrangements] are at local, regional, national or international scale, the approach is similar. Jurisdictions are selected either because of their common features or because of extreme differences. Library based data sources are perused, drawing heavily upon legislation, parliamentary or legislative debates, major policy pronouncements, government reports and budgets, newspapers and other studies which have critiqued actual programs or projects. In some instances field work is carried out which varies from interviews of key officials to interviews with and observations of those responsible for ongoing management programs. The overall aim is to determine the way in which institutional arrangements influence the resource management process.

The following chapter outlines how these lessons from the past are taken into account in the design of the methodology for this dissertation.

CHAPTER 3

THE RESEARCH DESIGN

Crisis often plays an important role in stimulating change in resources management institutions. Sometimes it brings attention to problems which have been previously ignored, as is typically the case with floods or water pollution. Occasionally, it also provides the popular support required for modification of laws, policies, or administrative arrangements. Crisis, however, does not always result in change; it may merely produce an intensification of a previous approach.

(Sewell & Barr, 1977: 395)

Ongoing research on institutional arrangements may be summarized in the following words. Descriptive rather than predictive. Exploratory rather than theory-based. Process rather than structure orientated. One-shot case studies or pretest-post-test designs rather than experimental designs. Nominal and ordinal rather than interval levels of measurement. All of these characteristics suggest an emerging area of inquiry which is struggling in a new hole rather than sticking to the comfortable familiarity of an old one.

(De Bono, 1967, cited in Mitchell, 1989: 261)

3.0 INTRODUCTION

This chapter describes why and how the research design was constructed. It commences with a discussion of the rationale for using the environmental impact assessment stage in the resource management process (Figure 1.2) as the entry point for institutional

arrangements research. The reasons why the AL-PAC mill was selected as the case study follow. The chapter then discusses the general research direction, indicating why and how an evaluation framework, consisting of research components and criteria, was developed (Figure 3.1).

EVALUATION FRAMEWORK

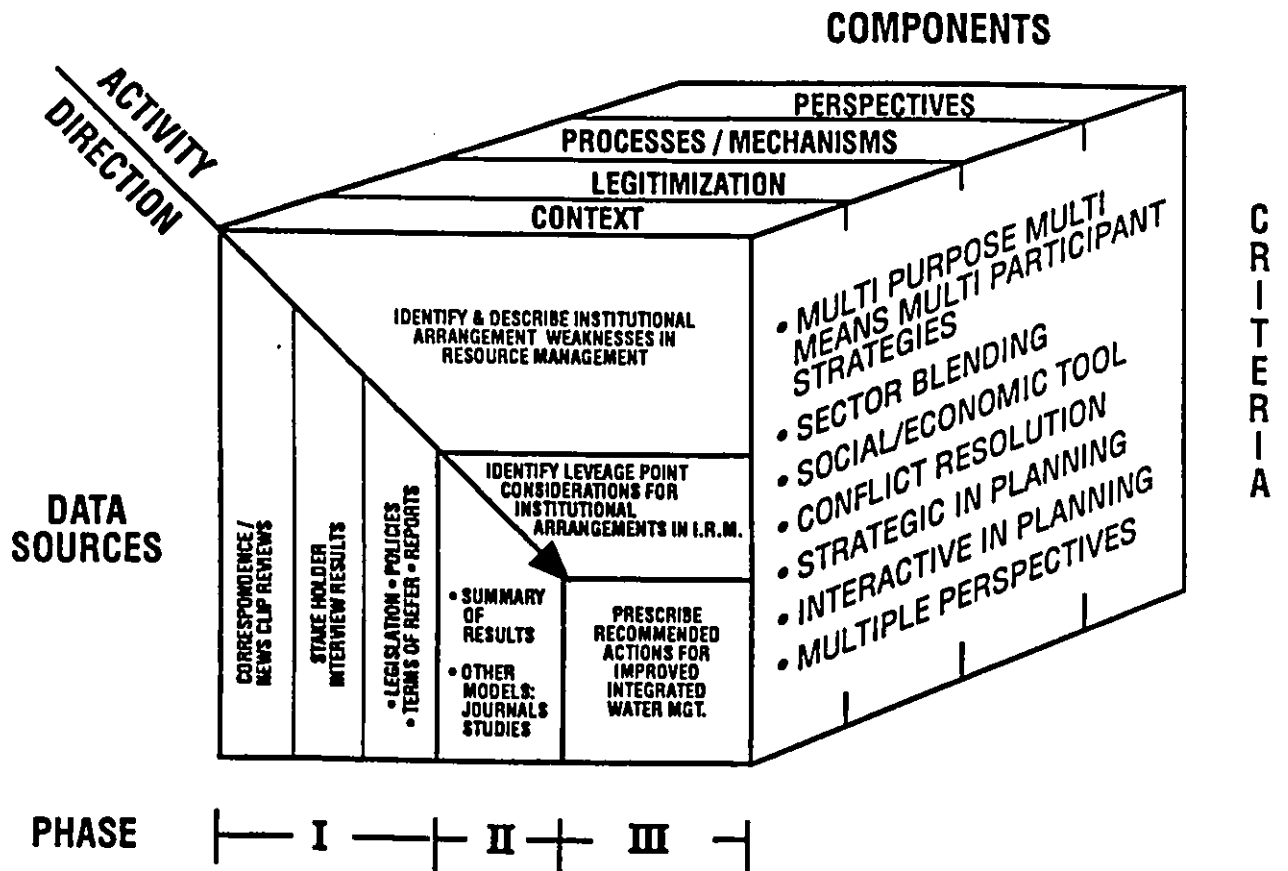


Figure 3.1

Overview of Research Design

The chapter concludes with an explanation of how the evaluation framework was used in relation to the identified data sources, moving through three basic phases of analysis to: a) identify and describe institutional arrangements weaknesses in resource management; b) identify leverage point considerations for institutional arrangements in IRM; and c) prescribe institutional arrangement actions that should be taken to establish integrated water resource management (Figure 3.1).

3.1 ENVIRONMENTAL IMPACT ASSESSMENT: A STIMULUS AND ENTRY POINT FOR INSTITUTIONAL ARRANGEMENTS RESEARCH

3.1.1 Evolving Dissonance: The Need for Change in EIA

As Sewell and Barr (1977: 395) have noted with regard to drought in Britain, crisis situations often focus enough attention and support on an issue in resource management to bring about institutional change. Central to the design of the methodology for this dissertation is the belief that dissonance concerning satisfaction with environmental impact assessment in Canada is presently approaching a crisis level. Given the attention being generated by this dissonance, and the strategic position and importance of EIA within the resource management process (Figure 1.2), EIA has been accepted as the entry point in the research design for evaluative research. The following paragraphs outline the basis for this acceptance.

Mitchell (1979: 229) provides a synthesis of the various viewpoints on what EIA represents: "It represents a legislative or policy-based concern for possible positive/negative short/long term effects on our total environment attributable to proposed or existing projects, programs or policies of a public or private origin." This synthesis definition reflects an accumulation of aspects which have developed during the evolution of EIA since its inception. The following paragraphs outline this evolution in order to provide a better understanding of its nature, its purpose, and the circumstances which have evolved.

The main factors which stand out in the evolution of EIA (Table 3.1) include the most notable: the continued expansion of its role and scope. Socio-economic issues now extend well beyond the resource-related impacts. Prediction is increasingly complemented by impact monitoring and management by emerging audit and evaluation (Sadler, 1986: 103). These changes establish clearly the marked advances that have taken place in methods for assessing resource development projects. As well, these changes have been accompanied by new techniques of analysis.

The rapid development of Social Impact Assessment (SIA) (Wolf) and more recently risk analysis (Ricci et al., 1984) as fields of research and practice illustrate the transition which has occurred. SIA is directed at the systematic examination of the distributional effects of projects on communities and, increasingly, at the management of change. It involves, among other things, an attempt to determine more clearly the significance of impacts and to integrate directly the values and concerns of affected publics into analysis and decision making.
(Sadler, 1986: 103-104)

Table 3.1
Trends in Project Assessment and Review

Approximate Date	Innovations in Technique and Procedure
1. Pre-1970	Analytical techniques; largely confined to economic and engineering feasibility studies; narrow emphasis on efficiency criteria and safety of life and property; no real opportunity for public review.
2. c.1970	Multiple objective benefit-cost analysis; emphasis on systematic accounting of gains and losses and their distribution; reinforced through planning, programming and budgeting review; environmental and social consequences not incorporated.
3. 1970-1975	Environmental impact assessment (E.I.A.), primarily focused on description and "prediction" of ecological/land use change; formal opportunities for public scrutiny and review established; emphasis on accountability and control of project design and mitigation.
4. 1975-1980	Multi-dimensional (E.I.A.), incorporating social impact assessment (S.I.A.) of changes in community infrastructure, services and life-style; public participation becomes integral part of project planning; increasing emphasis on project justification in review process; risk analysis of hazardous facilities and unproven technology in frontier areas.
5. 1980-1985	Attention given to establishing better linkages between impact assessment and policy-planning and implementation-management phases; research focus on effects monitoring, post-project audit and process evaluation; search begins for more disciplined scoping and focusing procedures and less protected forms of consultation based on negotiation and mediator.

SOURCE: Sadler. 1986: 102.

At present, EIA appears to be at an impasse between its perceived limited capabilities, and the need to address larger and more complex problems associated not just with project development, but also with the impact of government policy and, perhaps, more global problems (Marsollier, 1987). EIA has been "characterized more by a capacity to delay and frustrate than to shape positively the course of proposed action ... A building of consensus is evident in the need for a more purposeful and integrated approach" (Sadler, 1986: 104).

Smith (1987) provides a useful approach for measuring the dissatisfaction level in "A Performance Rating for Canadian EIA." Very briefly, the findings on provisions indicated that only two provinces had satisfactory legislative bases to achieve the desired environmental planning goals. At the federal level, the lack of any legislated base placed national EIA (EARP) in a continuing weak position. In terms of practice, a sample of over 30 EIA applications between the mid-seventies and 1987, covering a wide range of sectoral proposals from waste disposal to offshore hydrocarbon development, indicated that **little progress had been made over the time period in terms of suitable documentation for decision-making - i.e., good science.**

Another measure of dissonance with EIA in the community is found in the work of Needham and Swerdfager (1989). It was found that problems confronting EIA have been persistent and are difficult to resolve, making reforms of a minor nature of little value in terms of likely issues. "It would seem that significant changes in

programmes, such as EARP, are required if the difficulties identified are to be alleviated or resolved" (Needham & Swerdfager, 1989: 4). This suggests that a major change has become essential.

It is apparent, then, after considering the evolution and shortcomings of EIA (Sadler, 1985), the results of Smith's (1987) study, and the concerns expressed by experts in the community (Needham & Swerdfager, 1989), that the level of dissatisfaction (or dissonance) with the present concept of EIA is very high and deserves research attention. This research addresses this need.

3.1.2 EIA: Entry Point for Research

Central to the nature of the resource management process is EIA. Sadler (1986: 99) argues that EIA is one of the most visible and formal components of the resource management decision-making process and, as such, it tends to focus the interests of stakeholders through the opportunity it provides for public review. In doing so, **EIA tests the adequacy of these arrangements and their enabling legislation/policy through its strategic linkages with the policy and implementation processes which precede and succeed it** (Figure 1.2). EIA, then, is "both a reference and entry point for analysis of the problems encountered in designing integrated approaches to resource and environmental management" (Sadler, 1986: 99).

This feature, then, provides an opportunity for a case study approach to examine both the adequacy of overall contemporary resource management approaches, and the capability of these approaches to deal with difficult policy and project decision-making situations which require EIA as part of the entire process. As responsibility for resource management, including EIA, is shared by all levels of government in Canada, the integrative aspects of a case study centering on a resource development project also provides a focus for studying intergovernmental responsibilities and interactions. Figure 3.2 illustrates this process.

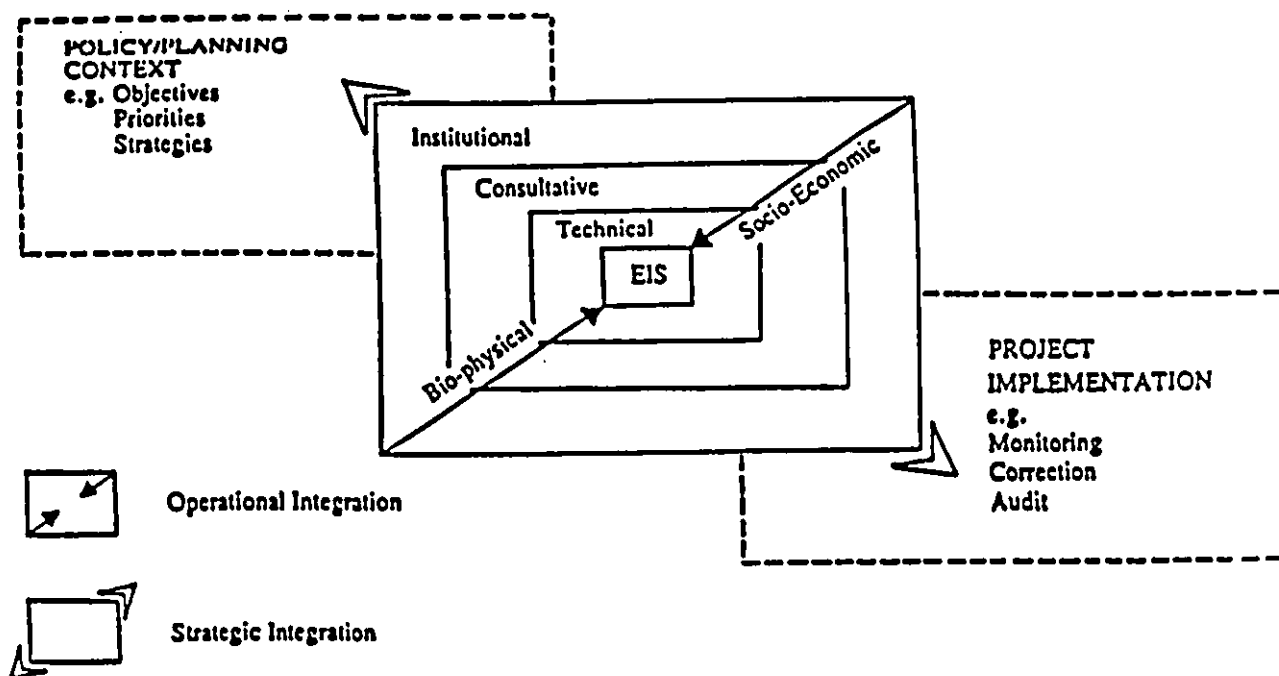


Figure 3.2

Impact Assessment as an Integrative Process

SOURCE: Sadler, 1986: 101.

3.1.3 Case Study Selection

As noted earlier in Section 1.2 ("Geographical Focus of Study"), the AL-PAC pulp mill proposal and the institutional arrangements related to it were selected for the case study in this dissertation. Reasons for the selection were mainly that the case was unique - unique in the sense that it epitomized system breakdown by serving as an ideal example of how current institutional arrangements are failing to provide for integrated decision-making in resource management.

Institutional arrangements bearing on the case were strained to the point that their weaknesses were exposed, thus providing an opportunity for insightful evaluative research. The decision-making process itself evolved over time as adjustments in institutional arrangements were made in response to perceived weaknesses. This evolution allowed those responsible to reach a final decision to proceed with the project, rather than ending in deadlock and possible settlement by the Courts.

Also unique was the fact that the resource management issues which emerged during consideration of the proposal focused on a vast area or ecosystem within Canada, typically demonstrating the difficulty that decision-makers are having with the integration of environmental and economic factors within water basins. These features of the case thus provided a unique opportunity for evaluative research.

Specific case study requirements were to exhibit or have the following characteristics:

- . **have a Canadian context** - i.e., provide the opportunity to assess Canadian resource management institutional arrangements in which federal/provincial/local government, industry and public cooperation was required to reach a decision;
- . **reflect a recent resource management situation** within a regional planning context and be centered on EIA where the management system in place has experienced major difficulty in the integration of stakeholder perspectives;
- . **include stakeholder concerns** which span a number of sectoral interests (e.g., forestry, fisheries, manufacturing, municipal water supply, etc.) and the jurisdictions responsible;
- . provide the opportunity to **research a decision-making process** which reaches a compromise decision by taking into consideration the viewpoints of the interested parties;
- . **have adequate (written) source information available** to conduct the research; and
- . provide an opportunity to **obtain the perspectives of representative stakeholders** on the adequacy of the institutional arrangements in the above.

3.2 DEVELOPMENT OF THE CASE STUDY EVALUATION FRAMEWORK

This section discusses how components and criteria were selected and then amalgamated to form the case study evaluation framework used in this dissertation. Considerations for institutional analysis identified in Chapter 2 were taken into account in this process of framework development. While the components used to serve as the main areas for analysis had been previously identified and tested, they had never been employed in conjunction with the defined criteria. Application of these criteria within this framework provided an opportunity for testing another research approach for institutional arrangements analysis, as well as providing the resultant new knowledge required for improving integration in institutional arrangements.

3.2.1 Selection of Evaluation Framework Components

An analytical framework for institutional arrangements research, which provides the capability for taking into account the requirements for integrated land and water management, was proposed by Mitchell (1987), and by Mitchell and Pigram (1989). This six-part framework (Figure 3.3) can be applied at different levels of government, can be used to examine that part of the management process described in Chapter 1, and can be used in both descriptive and prescriptive modes, making it compatible with the research objectives of this dissertation as described in Chapter 1.

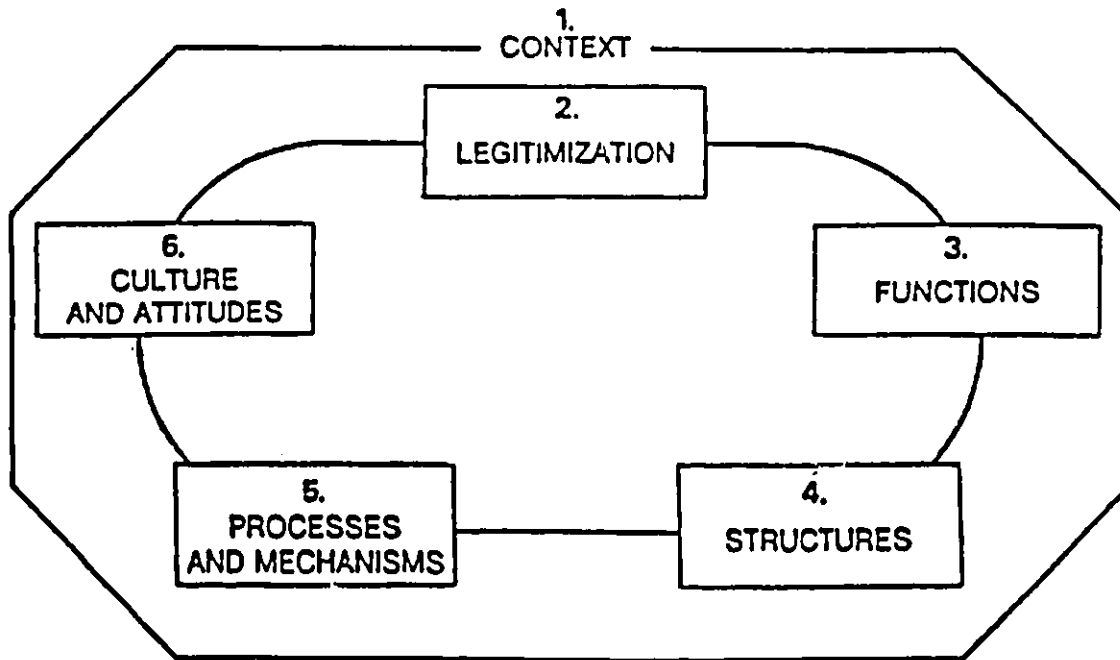


Figure 3.3

Key Components for Integration of Land and Water Management

SOURCE: Mitchell, 1987: 10.

Each component in the framework provides both a potential area for weakness and an opportunity for improvement. Arrangement in the form of a circle helps to stress the fact that these components interact in a dynamic way, making them mutually supportive in varying degrees. As such, they can provide opportunities for integration. The six components are summarized in Table 3.2. Depending on the case study research context, the importance of a particular element can and would likely vary (Mitchell, 1987: 9).

Table 3.2
Summary of Key Components for Land and Water Management

COMPONENTS	CONSIDERATIONS
Context	state of the natural environment, economic conditions, ideologies, etc., can be basis for issues and strategies which can hinder or stimulate integration
Legitimization	pertinent agency objectives, powers, responsibilities, authorities and rules/mechanisms for intervention/arbitration for conflict resolution (explicit and implicit)
Functions	relationships between general and substantive functions to hierarchies of government
Structures	adequacy of structure and its use to needs and functions (accountability and flexibility)
Processes and Mechanisms	nature and use of processes and mechanisms to coordinate decision-making, obtain diverse viewpoints of stakeholders, and resolve differences, both political and administrative
Organizational Culture & Participant Attitudes	perspectives of stakeholders, positions and interests

SOURCE: Adapted from Mitchell, 1987.

In this particular research, context, legitimization, processes and mechanisms, and organizational culture and participant attitudes, as expressed in the perspectives of the stakeholders, were recognized as being of greater importance to the case study. It became clearly evident in the literature search carried out for

the thesis proposal that structural deficiencies were not at issue in this case. Functions, on the other hand, were clearly recognized as being important in relation to the roles carried out within processes and mechanisms, and therefore were included as such in the design. From a prescriptive standpoint, other factors from previous research influenced this choice, as follows.

In discussing institutional barriers to integration, Nelson (1990) points out that in the past, a favoured view among many past decision-makers has been synoptic or technical, so that when institutions are identified as barriers to integration, they are structurally changed or removed, much like infrastructure such as roads or transmission lines (a reorganization-of-structure approach). In suggesting a more suitable way of achieving the type of integration needed for sustainable development, Nelson (1990) argues for a pluralistic perspective for institutions. Institutions are seen as social in character, evolving in response to societal demands as buffers, facilitators or links among groups which often have different perceptions, attitudes, values, goals and interests. Instead of replacing structure and changing function, Nelson (1990: 15) emphasizes the need to "build upon existing institutions, working across agencies and using ideas or concepts that are unifying and support broad communication and co-operation such as watershed ... or human ecology." The desired stress here is on accessibility, interaction and adaptation, rather than restructuring the machinery and its related functions. Accordingly, the focus of

this dissertation is on processes and mechanisms, and on the functions that are carried out within them to foster interaction.

In discussing the institutional response to cooperation and conflict resolution problems in water resource management, Dorcey (1987: 19-20) indicates that structural approaches created for impact assessment "... have often frustrated them, and planning processes have resulted in inadequate interaction to reach consensus." Instead of restructuring approaches, Dixon (1987: 9) emphasizes, in examining resolution of multiple use conflict, that "... research on the mechanisms and criteria is essential." As well, with the current high level of environmental awareness and its complexities, the different - and often opposing - perceptions of the public, professionals and politicians on resource use are bringing resource management decision-making to a halt. Different perceptions of resource values and the adequacy of resource management decision-making make trade-offs and compromises increasingly more difficult (Glass & Muth, 1987: 101).

Perspective was, therefore, considered to be an essential component for study, as a preliminary examination of the AL-PAC case demonstrated that differing perspectives gave rise to an evolving decision-making process. Context, legitimization, mechanisms and perspectives were, therefore, accepted as the most important components for examining interactions in the AL-PAC case study.

3.2.2 Description of Evaluation Framework Components

3.2.2.1 Context

It is important to recognize the broader context as it may hinder or trigger integration. For descriptive purposes, consideration is given to the state of the natural environment in order to identify and assess problems/issues as a stimulus for action. Ideologies need identification, as goals, objectives and strategies are often associated with them. Economic conditions or factors should be recognized, as well as their relationship to government willingness or resistance to act. As Mitchell (1987: 11) points out with respect to legal, administrative and financial arrangements: "They provide both opportunities and constraints. To understand the success or failure of integrative efforts, the analyst should have a solid understanding of [them]" Prescriptive guidelines for context are covered by subsequent subsections.

3.2.2.2 Legitimization

To identify and understand possible boundary effects, Mitchell (1987: 11) suggests that research is necessary:

- a) to identify the objectives of various pertinent agencies,
- b) the responsibility, power or authority of these agencies, and
- c) the rules for intervention and arbitration by higher level authorities when conflicts arise which cannot be resolved by the participants directly involved.

Understanding agency objectives and their powers should help to identify common and divergent interests. Both organizational goals that are shared and those in conflict must be known. Authorities and rights to resolve impasses should be clarified, as well as any related mechanisms and rules or procedures for this purpose.

From a **prescriptive** standpoint, Mitchell (1987) argues for a mechanism incorporated into governmental structure to facilitate resolution of legitimate differences of opinion. Attempts at resolving impasses by groups of equal participants with primary interests is cited by Paterson (1986: 101) as a "coordination trap" which should be avoided in favour of a single statutory focus of responsibility - i.e., a central authority.

In the research activity, objectives, powers and conflicts can be identified by examining related statutes and legislation. However, it is the extent and level of political commitment that determines the degree of integration that is possible (Mitchell, 1987: 13).

Administrative and bureaucratic policies of particular departments form another mechanism for legitimization. These should be examined, keeping in mind the fact that while public servants have limited responsibilities to foster integration, the nature of vertical and horizontal fragmentation provides little incentive to do so. Agency self-interest tends to weaken attempts towards official and directed attempts at coordination between agencies.

3.2.2.3 Processes and mechanisms

Identification and assessment of processes and mechanisms should address at least these basic questions:

- a) Which processes at the political and administrative levels are used to ensure that various values and interests are identified and assessed?
- b) What mix of interdepartmental committees, task forces, review procedures and lead agencies is used?
- c) What informal mechanisms are used to foster co-ordination?
- d) How are regional planning [or other planning systems], cost benefit analysis, environmental impact assessment and public participation used to bring together various concerns?

(Mitchell & Pigram, 1989: 200)

As well, all formal and informal mechanisms and processes for ensuring that community and individual viewpoints are fed into planning and management activities must be identified and examined. Consideration must also be given towards determining their adequacy in terms of opportunity for expression and effectiveness.

3.2.2.4 Organizational culture and participant attitudes (perspectives)

The major importance of the people involved in the decision-making process has already been noted (Dorcey, 1986). Kellow (1985: 121) adds support to this: "What is unwritten - the degree of cooperation and good-will - is more important than what is written down." Mitchell (1987: 21) notes that "... people who are inclined to co-operate and are enthusiastic often can make a poor system work well. Conversely, a well-designed system may falter if the participants are determined not to work together."

As well as organizational culture due to parochialism in structure, reaction from individual perspectives can create major obstacles to integration. In this respect, O'Riordan (1976: 65) points out that "... resource decision making is not so much about organization, statutory guidelines, and co-ordinating arrangements, as it is about the outcome of the skill, determination, vision, or indifference, antagonism and bloody-mindedness of particular individuals in important positions with influential connections."

In win-lose situations, the individual threatened by a potential loss may resort to activities which are seen to reduce risk, but often result in hindering integration (Mitchell, 1987: 22). The characteristics of an organizational culture and its participants' attitudes are, therefore, important for identifying barriers to integration. Professional bias and personal ambition can also add to this problem (Lang, 1986: 40-43).

From both descriptive and prescriptive viewpoints, analysis could attempt to separate interests from positions, as suggested by Fisher and Ury (1981), who have noted that while different participants often have similar interests, their public positions may differ.

In sum, four components or features of a framework for analyzing institutional arrangements for both descriptive and prescriptive purposes have been identified and described (Figure 3.1). After recognizing the context within which resource decisions are made, three leverage points provide focus for problem identification and potential opportunities for prescriptive

suggestions for integration - legitimization, processes and mechanisms, and organizational culture and participant attitudes (perspectives). The following criteria were selected as requirements for integration in each of the above components.

3.2.3 Evaluation Framework Criteria

3.2.3.1 Selection of criteria

The criteria selected were used within the evaluation framework to qualitatively measure the degree of integration within the institutional arrangements in play during the AL-PAC case (Figure 3.1). Each institutional arrangement component - i.e., legislation/policies, processes and mechanisms, perspectives - was evaluated through the application of these criteria. Thus, the extent to which integration had been provided for as a requirement for decision-making was assessed. The use of the criteria in this fashion provided the researcher with a uniform set of requirements for the analysis and, as such, contributed to the further development of institutional research methodologies for resource management.

Criteria selection was based on a review of antecedent literature and research. For this reason, these criteria, which represent a consolidation of the viewpoints of 'many', were adopted for use in this dissertation. In doing so, their utility and effectiveness within a case study approach were validity tested. An

evaluation of the use of the criteria is found in Section 11.3.2, following later. The other obvious reason for accepting the criteria was to build on the past research of others, with the hope of extending the volume of knowledge on this particular aspect of institutional arrangements research. Validity testing of the elements within the analytical model has added to this knowledge.

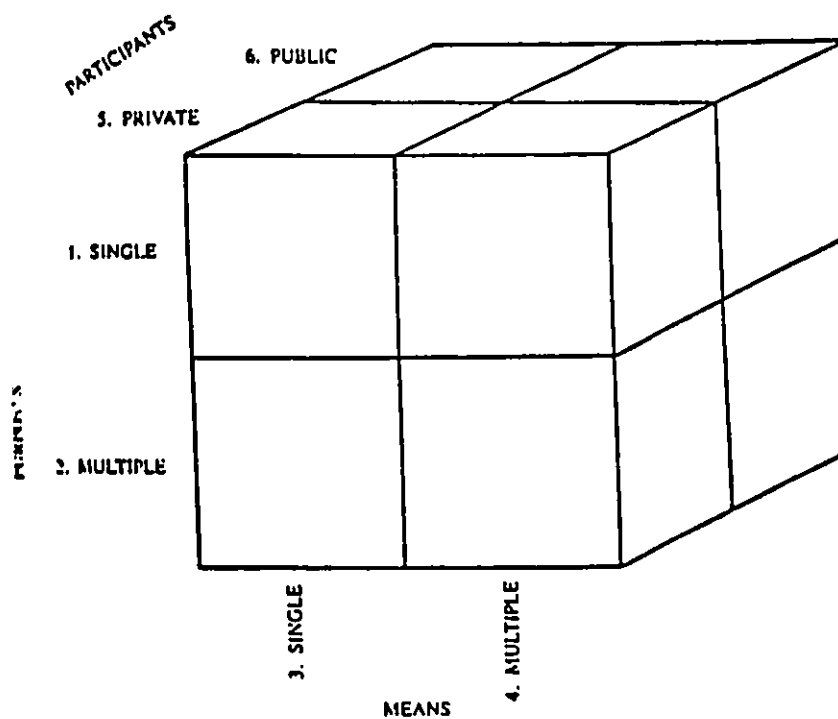
3.2.3.2 Description of selected criteria

The works of Mitchell (1985) and Lang (1986) provide the foundation for the criteria described below. Mitchell emphasizes the need for explicit criteria (1989: 245), and indicates that the following four criteria are essential (1986: 13-17):

1. multiple-purpose, multiple-means and multiple-participant strategies (MPMMMPS),
2. blending of resource sectors,
3. use of resource management as a mechanism for social and economic change, and
4. a striving for accommodation and compromise (conflict resolution).

3.2.3.2.1 Multiple-purpose, multiple-means, multiple-participant strategies (MPMMMPS)

In his alternative strategies for resource management, White (1969: 11-14) indicates that for the most part, approaches used in resource management have fallen into five strategy types, as shown in Figure 3.4. He implies that one objective in resource management is to develop strategies in which multiple purposes are blended with multiple means and multiple participants ('strategy combination 2-4-5-6'). For that to occur, the diverse values and inputs of various



Strategy Combination	General Strategy Type	Example
1-3-5	Single purpose, single means, private sector	Farm pond for water supply
1-3-6	Single purpose, single means, public sector	Navigation canal
2-3-6	Multiple purpose, single means, public managers	Multiple purpose dam
1-4-6	Single purpose, multiple means, public managers	National flood damage reduction program
2-4-5-6	Multiple purpose, multiple means, public and private sector	

Figure 3.4

Alternative Strategies for Resource Management

SOURCE: White, 1969, as shown in Mitchell, 1986: 15.

agencies and private interests must be identified, shared and coordinated (Mitchell, 1986: 15-16).

3.2.3.2.2 Blending various resource sectors (sector blending)

In order for integration to occur, foresters and loggers (forestry sector), mining engineers (mining sector), water experts, fishermen and fisheries experts (fisheries sector) - to name a few examples - must go beyond their individual sectoral perspectives when viewing problems within a given geographical area. It is further believed that if sharing, cooperation and coordination of the multitude of interests necessary for integration does not occur, then only separate sectoral interests will be served, and "legitimate societal values and interests may get overlooked or ignored" (Mitchell, 1986: 16). Thus, no common area goals would be established. Blending different resource sector interests, then, is a necessary component for integrated resource management.

3.2.3.2.3 Resource management as a mechanism for social and economic change (socio-economic tool)

Resource management can be viewed as a means for improving the quality of life, while maintaining the integrity of the environment. When seen as merely a means in itself, with objectives that are measured solely in terms of production - e.g., millions of board-feet from forests - then the broader and fundamental societal and environmental goals are not being addressed explicitly and, therefore, have less chance of being attained. Resource management

as a tool for social and economic change is essential if real integration of perspectives is to occur.

3.2.3.2.4 Achieving accommodation and compromise (conflict resolution)

As Ahmad and Müller (1982: 13) have indicated:

From the beginning, integrated planning has to be an open process to ensure that the full range of public and individual interests and subsequent changes in their nature and relative priority are properly considered. It can adopt sets of objectives which need not be mutually exclusive and can be pursued at the same time in the same area by different groups of society.

Thus, if this is to be done in an integrative fashion, then conflicts and disagreements are bound to take place among the various interests. "Conflict over water allocation, particularly in federal water development planning, has become more common, more intense, and more intractable over the last decade" (Lord et al., 1979: 1).

The process therefore must include mechanisms or arrangements which provide for conflict resolution. Unfortunately, in the past the planning process has not provided this satisfactorily. In the planning process which actually occurs, however, conflict is seen as an obstruction to progress. By the time it occurs little can be done to enlarge objectives, and the range of alternatives among which a conflict resolving solution might be found has been sharply restricted.

(Lord et al., 1979: 6)

The planning process, therefore, must not only include a means for conflict resolution, it must also provide for it at an early stage so that the issues associated with the problem are dealt with before alternate solutions are formulated.

The earlier issues are identified in the planning process the better. A structured, front-end process of issue identification not only helps to avoid trouble later on but also helps to focus and guide the planning process especially with respect to data collection, goal formulation and public consultation.

(Armour, 1986: 53)

Integrated resource management, therefore, must have as a component the mechanisms or arrangements which provide the opportunity for compromise in conflict resolution. This should take place early in the process so that diverse perspectives can be taken into account in defining the problem, long before solutions are being addressed.

Several equally important additional criteria related to planning processes within resource management are indicated by Lang (1986) as being essential in resource management in order to achieve integration. Lang's work (1986) focuses attention on strategic planning, interactive planning and the need for the inclusion of multiple perspectives in decision-making.

3.2.3.2.5 Strategic in planning

Lang (1986) argues that planning in order to achieve integration must be strategic in nature. Unlike previous planning, strategic planning is seen as more dynamic. "A strategy indicates not only what we want and the means for achieving it but also 'how' we intend to proceed step-by-step to get there, and what we will do if things change" (Lang, 1986: 32). Strategic planning is described as action-oriented, as it considers the practicality of implementation from the earliest stages of the process. It is focused, and focused early, on prioritizing which issues need

examination early in the process and to what extent. Flexibility is essential, necessitating an interactive process which can adapt to changing priorities. Strategic planning includes capacity-building through providing the opportunity to share viewpoints and to develop a sense of collective ownership of the process. 'Strategic planning', therefore, requires essential features detailing 'how' integrated planning is carried out.

3.2.3.2.6 Interactive in planning

While the fourth criterion, "Conflict Resolution" (Section 3.2.3.2.4), requires a mechanism or arrangement in the planning process to provide the opportunity for interaction among perspectives, the requirements for 'how' interaction should take place are described by Lang (1986: 35-40): "An integrated approach to resource planning must provide for interaction with the stakeholders in the search for relevant information, shared values, consensus and, ultimately, proposed action that is both feasible and acceptable."

Relevant information is, therefore, available to interested groups, rather than just being kept by planners. Action is shared between agencies and stakeholders, and not carried out by one agency's unilateral action. Conflict in perspectives is acknowledged as a legitimate part of the process and interaction is maximized towards resolution. Behavioural change among participants is recognized as positive in working towards achieving commitment and ownership of plan intentions and implementation. In short, "an

interactive style assumes that open, participatory processes lead to better decisions ... Thus success is measured by the extent to which balance can be achieved among contending interests and agreement can be reached on action to be taken" (Lang, 1986: 39). This notion of interactive planning is considered as an essential feature for successful integrated resource management.

3.2.3.2.7 Adopting multiple perspectives

The seventh criterion identified as critical to integrated planning and management focuses explicitly on how perspectives can differ and how they should be recognized by those responsible for ensuring that integration does occur. In resource management, one perspective has tended to dominate - i.e., technical rationality, which has produced many benefits in scientific applications (Lang, 1986: 40). However, this is also characterized by: problems which are technically solvable; problems which can be broken down through reductionism into understandable parts, then reassembled to form a comprehensible whole; and a reliance on data and models, a linear view of time, objectivity, quantification of information to depict reality, a single best solution and a disregard for the individual. While this paradigm has brought many benefits to society, we have, as Schon (1983: 39) puts it, "... increasingly become aware of the importance to actual practice of phenomena - complexity, uncertainty, instability, uniqueness and value-conflict - which did not fit the model of technical rationality." In other words, there

is no all-encompassing right perspective, with its accompanying methodology.

Lang (1986: 41-43) identifies three other main perspectives, in addition to the technical, which are essential to integrated resource planning:

1. Organizational perspective - characterized by narrow objectives and short time horizons, with primary concerns for stability and survival.
2. Political perspective - a view which emphasizes the wielding of power and the allocation of resources through bargaining and negotiation. The public interest is not seen as abstract or as defined in a plan, but is envisaged as an ever-changing mix of issues and priorities that is worked out in the political arena.
3. Personal perspective - intuition, personality traits, values and interpersonal capabilities are important in presenting a unique experiential point of view.

While these three perspectives offer up potential conflict, they must also be accounted for in integration. "The concept of **multiple perspectives** implies that all are relevant but that no one perspective alone can be adequate and none has fundamental priority over the others. Each makes its own special contribution to the mix" (Lang, 1986: 42).

3.3 EVALUATION FRAMEWORK, DATA SOURCES AND RESEARCH METHODOLOGIES

3.3.1 The Evaluation Framework

The four framework components that describe the institutional foundations and the seven criteria that determine institutional integration were assembled to form the general case study evaluation framework (Figure 3.5). The paragraphs following describe how the evaluation framework was used in each of the three phases of the research design (Figure 3.1).

<u>COMPONENTS</u>				
<u>CRITERIA</u>	<u>CONTEXT</u>	<u>LEGITI- MIZATION</u>	<u>MECHANISMS/ PROCESSES</u>	<u>PERSPECTIVES</u>
MPMMPS*				
SECTOR BLENDING	5	6	7	8
SOCIO-ECON. TOOL	CHAPTER	CHAPTER	CHAPTER	CHAPTER
CONFLICT RESOLUTION	CHAPTER	CHAPTER	CHAPTER	CHAPTER
STRATEGIC IN PLANNING	CHAPTER	CHAPTER	CHAPTER	CHAPTER
INTERACTIVE IN PLANNING				
MULTIPLE PERSPECTIVES				

* MPMMPS = Multiple-Purpose, Multiple-Means, Multiple-Perspective Strategies

Figure 3.5
General Case Study Evaluation Framework

3.3.2 Relationship to Data Sources

In **Phase I** of the research, weaknesses in institutional arrangements in place prior to and during consideration of the AL-PAC project were identified and described by applying the evaluation framework to three data sources (correspondence/news-clippings, interview results, official documentation). The use of three sources of data, rather than a single data source, was considered desirable for two reasons, as "... the social researcher who limits himself to a single method, survey or other, severely limits his ... ultimate ability to understand the world around him" (Babbie, 1973: 31). As well, each data source was specifically selected because of its capacity to identify and help in the assessment of weaknesses in institutional arrangements - i.e., system breakdown.

First, each source was viewed as a building-block to provide a more solid foundation for analysis; when assembled together, the cross-fertilization substantially increased the depth of insight gained. Thus, each evaluation framework component could be examined in terms of the different sources (Figure 3.6). In this fashion, the three sources helped to provide the 'whole picture' of institutional arrangements failure, after the evaluation framework was applied to each and the results combined (e.g., dates of events/decisions or expressed views missing in one source could be supplemented by the others).

FRAMEWORK COMPONENTS	CONTEXT	LEGITIMIZATION	MECHANISMS/ PROCESSES	PERSPECTIVES
METHOD/DATA SOURCE				
CORRESPONDENCE/ NEWSCLIPPINGS	---	X	X	X
EVAL. FRAMEWORK CRITERIA/ OFFICIAL DOC.	X	X	X	---
STAKEHOLDER INTERVIEWS	X	X	X	---

Figure 3.6

Data Sources for Evaluation Framework Components

Second, the use of three sources helped to verify and validate the research findings. For example, if the same institutional weakness was identified in more than one source, then its relative importance could be more readily determined. In addition, an assurance of reliability was obtained through using the three sources. Each source was purposely selected to represent a different set of biases (government positions, media perceptions, stakeholder perceptions). When considered in juxtaposition, views of weaknesses common to all sources could be identified. Thus, the reported **view** expressed in the media, the **position** taken in official correspondence, and the **perspectives** concerning institutional arrangements weaknesses expressed in interviews could be compared, summarized, then synthesized in order to provide a complete analysis

of where and how current institutional arrangements broke down, and to prescribe suggested improvements for integrated water management.

3.3.3 Application of the Evaluation Framework

The evaluation framework served as a guide or template to ensure that a rigorous analysis of the three data sources was carried out. In the first instance, content analysis (Phase I) of the correspondence between the stakeholders in the AL-PAC case provided a general account of the evolution of events; the major themes, actors and interests; and the perspectives of stakeholders on the legitimization and process/mechanism components of the evaluation framework. Content analysis of articles from selected newspapers was used to confirm findings in the first review, to fill identified information gaps, and to identify official positions taken by actors or organizations as reported in the media. The evaluation framework was used as the guide for identifying and organizing the data obtained from both the correspondence and the newsclipping searches.

With regard to the interviews, the evaluation framework was used for two purposes. Firstly, it served as a guide for designing the interview questions. Details on interview methodology can be found in Section 3.3.4.2; the structuring of questions in relation to the evaluation framework is detailed in Appendices 2 and 3. Secondly, it served as a template for organizing and normalizing the collected information so that it could be summarized later on in

Phase II (Figure 3.1) within the same structure used for the results of the other data reviews.

For the search and analysis of the official documentation (the third source) related to the AL-PAC project, the evaluation framework initially provided a focus for the collection of documents pertinent to the components of the framework (legislation and policies, utilized or operative). With the documentation in hand, the evaluation framework was applied directly to it in order to identify apparent weaknesses in relation to the subject component and the criteria, and to describe them systematically so that the results could be normalized. The evaluation framework, therefore, provided a rigorous procedural basis for data collection and analysis, thus providing an opportunity for replication of research results.

Through the use of the evaluation framework in Phase III (Figure 3.1), the results obtained from analysis of the three main data sources (Phase I) were normalized to produce a consolidated view of weaknesses in institutional arrangements for resource management. These weaknesses, and a review of current literature on resource management models (journals, studies, etc.), provided the basis for suggesting leverage point considerations for fostering integration in institutional arrangements for resource management.

Based on the preceding resource management considerations, Phase III (Figure 3.1) of the research design provides for the final objective of the research: considerations for institutional

arrangements which could encourage integration in water management within the federal role.

3.3.4 The Research Methodologies

The following paragraphs provide details on how each of the three methods were used to acquire the needed research data.

3.3.4.1 Correspondence/newsclipping review

3.3.4.1.1 Correspondence review

Access permission was obtained from senior agency management in order to examine and analyze by content those FEARO correspondence files related to the AL-PAC proposal. Such files are maintained by government agencies as 'hard-copy' records of communications between the respective agency and external parties concerning mandate-related topics. The protocols inherent in the content analysis process were followed.

Approximately 1,400 pieces of correspondence and related material were read and reviewed to identify main issue themes, the main actors and their perspectives, and the chronology of events surrounding the case study (Section 5.1). From this preliminary review, 134 documents were selected as being the most representative of the main issue themes that were present, the actors and their interests. Selected correspondence simply represented the issue(s) prevalent in a theme which was prevalent over a number of days or

weeks. All of the themes related to institutional weaknesses were represented by selected documents, thus removing any opportunity for bias in selection.

Selection was also based on the need to eliminate duplication, but, at the same time, to ensure that as a complete picture as possible was provided for later analysis. Source material was then extracted from the documents, using the framework described in Table 3.3. The framework served to direct and focus this procedure so as to ensure a degree of precision that would allow replication of the results.

The nature, date and origin of each document was recorded, followed by a statement indicating its general intent. The general attitude towards the project was identified, as was its apparent spatial focus, ranging from local to national. Perceived inadequacies in the main components of the institutional arrangements were recorded and classified by perspective (Section 5.2 and Table 5.3). Comments were made, primarily to summarize the salient points related to weaknesses that had been raised. The extracted material was a reflection of the highlights contained in the files reviewed.

3.3.4.1.2 Newsclipping review

The purpose of this review was to provide a second, independent research insight into the events, issues, main actors and perceived institutional weaknesses of the AL-PAC case. As such, this review helped to build a greater knowledge base for the case study.

Source material and data were obtained through several procedures. By using identified key words (e.g., 'AL-PAC mill'), specific titles of articles were identified through inter-library searches in selected newspapers (Calgary Herald, Calgary Sun, Edmonton Journal, Edmonton Sun, Globe and Mail, Financial Post). Desired articles were then identified from the titles and microfiches containing the articles were obtained through inter-library loans. The microfiches were then reviewed to select and obtain hard copies of articles relevant to the components of the case study evaluation framework.

A second search was undertaken in order to reduce the possibility that some articles may not have been picked up by the first search. Contact was made with the news-clipping service of the (federal) Department of the Environment, and permission was given by the Communications Directorate to review newsclipping files in Ottawa that related to the AL-PAC case. Relevant articles were copied and included with those obtained from the inter-library search. Of the approximately 235 articles obtained from both searches, read and reviewed, a total of 103 newsclippings and news releases were set aside for the content analysis. Similar to the correspondence review, the selected documents were representative of

all issue themes related to institutional arrangements breakdown, thus eliminating the possibility of bias. A systematic content analysis of the news-clippings and news releases was then undertaken, using the framework illustrated in Table 3.4.

Material obtained from both the correspondence and newsclipping reviews was then consolidated to provide a single account of the relative order of events, as well as the major actors, perspectives and issue themes related to weaknesses in institutional arrangements.

3.3.4.2 Interviews with stakeholders

3.3.4.2.1 Survey research and sample selection

For the purposes of researching the fourth component of the evaluation framework, 'Perspective' (Figure 3.5), survey research was used to obtain the opinions of actual stakeholders involved in the AL-PAC proposal's review (Moses & Kalton, 1971: 549; Babbie, 1973: 384). As discussed in Section 3.2.2.4, the attitudes or perspectives of key actors within a decision-making process are of great importance to its success or failure (Mitchell, 1987: 21). Survey research was considered appropriate for this purpose, as "... surveys are frequently conducted for the purpose of making descriptive assertions about some populations" (Babbie, 1973: 57).

In this case, the population to be sampled was identified through the previously described correspondence/newsclipping review. Three main stakeholder groups were evident, representing government, scientific and public interests (Table 3.5).

Table 3.4

Newsclipping Review Form

Number	Source	Article Title	Description/ Example Statement	Perceived Benefits/ Losses of Project	Spatial Focus				Perceived Inadequacies in Institutional Arrangements			Type of Perspective ^a	Comments ^b	
					Loc.	Sub. Pvt.	Pvt.	Reg.	Ntl.	Legitimization	Mechanisms/ Processes			Cultures/ Attitudes

a. Perspective categories: political, sectoral, organizational, professional, individual.

b. Comments = position vs. interests

Table 3.5
Stakeholder Group Sample

STAKEHOLDER GROUP	NO. IN SAMPLE
GOVERNMENT:	
Federal Government:	
Environment	4
Fisheries & Oceans	3
FEARO	1
Alberta Government:	
Environment	3
Forestry, Lands & Wildlife	2
Government of the Northwest Territories	2
SCIENTIFIC:	
Non-Proponent	4
Proponent	1
PUBLIC:	
Non-Governmental Organizations	4
Local Residents	2
Native Peoples	1

Selection of respondents for each of the subgroups was based on the following requirements:

- . they had to be **lead spokespersons of a major stakeholder group** (e.g., government department, industry, NGOs, organization, scientific community);
- . they had to be **primarily accessible for interviews** in either Ottawa (federal government) or Edmonton (provincial government and most NGOs involved), or in the local area

of the AL-PAC proposal (local government, NGOs and individuals); and

- . they had to be **willing and available** to participate in the interview.

The survey method was therefore used as a research instrument for providing for: a) specific data and information needs, and b) a means of testing interpretations of results obtained from the analysis of other data sources (correspondence, newsclippings, official documentation). When questionnaire results are given in the text of Chapter 8, they are referenced as 'personal communications'.

3.3.4.2.2 Selection and development of the interview/questionnaire approach

A major consideration related to the characteristic respondent population had to be taken into account. Several respondents were politicians and senior government officials with heavy schedules to maintain and with 'buffers' to public inquiry. Given my own considerable personal experience as a senior manager in the government bureaucracy, it was considered likely that this type of respondent would either not respond directly to a questionnaire sent by mail, or would ask a subordinate to fill it in and mail it back. In the latter case, one could not be certain exactly whose perspective was being presented. In the former, this view on the high rates of non-response by mail is supported by several authoritative works (Oppenheim, 1966: 34; Babbie, 1973: 171).

The telephone interview was also considered and rejected as the survey technique. Dialogue development was considered essential to foster an interviewer-respondent rapport that would not only identify weaknesses in institutional arrangements, but also make the respondent comfortable enough to suggest how weaknesses could be overcome.

Given the highly political profile of the case study, as well as the need for dialogue development and a high response rate, direct interpersonal communication was selected as the means for implementing the survey questionnaire. In addition, the personal interview was chosen because it offers the social scientist the highest degree of control over the data collection process (Walizer & Wiener, 1978: 289). Reduction of any potential biases which could be introduced by the interviewer was dealt with through the structuring of the questionnaire itself.

All of the questions used to conduct the interview were purposefully selected to provide a response related to the requirements of the criteria within the evaluation framework (Appendices 2 & 3). Each question was therefore intended to prompt a response which would either rank or elaborate on a perceived weakness in the institutional arrangements of the AL-PAC case. Questions used for the interviews are found in Appendix I. Relationships of the questions to elements of the evaluation framework are given in Appendices 2 and 3.

The ordering of questions was considered important, as an early question could affect responses to later questions (Babbie, 1973:

147-150). As well, consideration had to be given to the degree of structuring given to the questions. The first part of the interview included structured questions (Walizer & Wiener, 1978: 287). These questions required specific responses that could verify the results obtained from the two other analyses (correspondence/newsclippings, official documentation). By arranging the questions and through the use of a ranking technique, responses were obtained which indicated the strength of the subject's opinion or perspective. As well, the structured schedule was used to minimize as much as possible the effect of stray comments by the interviewer and to reduce the possibility of interviewer bias.

The latter part of the interview (Appendix 1), while structured in that the same questions were asked of each individual, was unstructured in terms of the open-ended response required. This provided an opportunity to probe for clarification and amplification, and to obtain any other major points that the respondent felt were of importance, relative to the areas of questioning already covered in the first part of the interview.

This combination design (structured/unstructured) for the interview allowed the interviewer to funnel the respondents' answers, starting from the very general questions and leading to the very specific questions, then to open up the interview to obtain in-depth information and perspectives on factors which were not apparent from the previous two reviews (Walizer & Wiener: 1978, 289). "In many cases this [open-ended questioning] allows the investigator to get a better picture of the respondents' actual

beliefs and attitudes. It also has a somewhat relaxing effect on the respondents by allowing them to put answers in their own words" (Robinson, 1976: 135-36).

3.3.4.3 Official documentation review

As indicated in Figure 3.1, official documentation, including legislation, policy statements, terms of reference and reports, was used as the third source of data (in addition to correspondence/newsclippings and interview results). The evaluation framework criteria (Figure 3.5) were applied to the documentation related to each of the evaluation framework components. Thus, the adequacy of legitimization instruments was assessed by applying the criteria to those legislation and policies having a bearing on the AL-PAC case. Similarly, the criteria were applied to the terms of reference, reports and official process-related documents which were operative during the AL-PAC proposal's review. In each case, weaknesses were identified and described in relation to each component and criterion for future verification with the results derived from the other data sources.

3.3.5 Summary

This chapter has provided an overview of the general direction taken in this research and has outlined in detail each element of the research design. The appropriateness of EIA as both stimulus and entry point for analyzing institutional arrangements associated

with other stages in the resource management process has been illustrated (Figure 3.2). The reason for choosing the EIA experience of the AL-PAC case has also been documented.

The latter part of this chapter has described how and why the evaluation framework was designed, as well as how it was applied to the correspondence/newsclippings, how it was used to guide interview questions and to record the results, and how it served as a template for assessing the adequacy of the official documentation, thus representing the context, process/mechanism and legitimization components of those institutional arrangements having a bearing on the AL-PAC project.

CHAPTER 4

INSTITUTIONAL ARRANGEMENTS CONTEXT: THE GENERAL OVERVIEW

... [S]ustainable development is a process of change in which the exploitation of resources, the direction of investment, the orientation of technological development and institutional change are all in harmony and enhance both current and future potential to meet human needs and aspirations.

(WCED, 1987: 46)

4.0 INTRODUCTION

This chapter describes the general context for resource management decision-making and the nature, extent and weaknesses of integrated resource planning in the study area prior to the AL-PAC mill proposal (Figure 1.1). Conditions in the broader study area are described as well as the integrated approach of the Alberta Government towards providing a context for project-related resource development decision-making. The status of integrated resource planning at the time that the AL-PAC pulp mill proposal was considered is described. Weaknesses in the latter approach and its

application in the study area are identified through the use of the case study evaluation framework.

4.1 GENERAL AND PREPLANNING CONTEXT

4.1.1 General Contextual Factors

4.1.1.1 Jurisdiction

Within the Peace-Athabasca-Mackenzie Basin (PAMB), jurisdiction for resource management is held by three provincial governments (Saskatchewan, Alberta, British Columbia), two territories (the Yukon and the Northwest Territories), and the federal government (Figure 4.2). Local governments are also found throughout the basin. Given the division of legislative jurisdiction over natural resources (Burton, 1972: 108), it is clear that "... one of the special features of the Mackenzie Basin is the complexity and difficulty created by the number of governments which could be involved in management decisions within that basin and the area affected by it, including the Beaufort Sea and the Arctic" (Thompson, 1984: 20).

Within Alberta's borders, the provincial government exercises a number of powers in relation to resource development. It has jurisdiction over public lands and forests, minerals, oil and natural gas, and recreation resources (except national parks). Federal powers are limited to inter-provincial transport, Indian

lands, and national parks. Areas of shared jurisdiction include agriculture, fisheries and water resources. The basic distribution of powers is summarized in Table 4.1. Responsibility for natural resource management is therefore fragmented, not only between governments, but also between sectoral agencies at each level of government. Thus, there exists a greater likelihood of independent decision-making within sectoral organizations, as well as more potential for separation between those developing natural resources and those responsible for protecting them (WCED, 1987: 310).

Table 4.1
The Division of Legislative Jurisdiction over Natural Resources

TYPE OF RESOURCE	LEGISLATIVE JURISDICTION		BASIS FOR JURISDICTION
	FEDERAL	PROVINCIAL	
Agriculture	X	X	<i>British North America Act, 1867, s. 91 (12);</i>
Fisheries	X	X	<i>British North America Act, 1867, s. 91 (12); Rulings of the Privy Council, 1898, 1913, 1920.</i>
Water Resources	X	X	<i>Canada Water Act, 1970</i>
Interprovincial Transport	X		<i>British North America Act, 1867, s. 91 (10, 13) and s. 92 (10).</i>
Indian Affairs	X		<i>British North America Act, 1867, s. 91 (24).</i>
National Parks	X		<i>National Parks Act, 1930 s. 5 (1).</i>
Offshore Seabed Resources	X		<i>Ruling of the Supreme Court of Canada, 1967.</i>
Public Lands and Forests		X	<i>British North America Act, 1867, s. 92 (3).</i>
Minerals, Oil, Natural Gas		X	<i>British North America Act, 1867, s. 109.</i>
Recreation, excl. National Parks		X	<i>British North America Act, 1867, s. 92 (16).</i>
Import and Export of Natural Resources	X		<i>British North America Act, 1867, s. 91 (2).</i>

SOURCE: Burton, 1972: 108.

4.1.1.2 Economic conditions and resource development

The early period of Alberta's economic development was largely centred on the production of timber and agriculture, with evident concerns for wildlife (Table 4.2). Initially, resource management consisted mainly of administration of the resources needed to meet the needs of a growing population (Alberta Energy and Natural Resources, 1983).

Table 4.2
Historical Background

<u>Period</u>	<u>Characteristics</u>
1900 - 1930	<ul style="list-style-type: none"> . transition from federal to provincial administration of natural resources . main sectors: timber, wildlife, agriculture
1930 - 1950	<ul style="list-style-type: none"> . transition from administration to management of resources with increased demands of war . introduction of resource management zoning for settlement, agriculture, forestry . establishment of joint federal-provincial conservation board
1950 - 1970	<ul style="list-style-type: none"> . increased demands and pressures for natural gas, coal, recreation and wilderness; with them, the need for resource legislation, regulation of development, inventories, research programs and a more coordinated system of management
1970 - 1980	<ul style="list-style-type: none"> . need for better communication and coordination among resource development agencies, the public and the private sector, resulting in advances in integrated philosophy of decision-making, heavily based on policy and planning
1980s	<ul style="list-style-type: none"> . provincial emphasis on forestry development as a means to diversify the economy

SOURCE: Adapted from:
 1) Alberta Energy & Natural Resources, 1983;
 2) Calgary Herald, 1988 (December 14, A8); and
 3) Crerar, 1983.

Increased demands on natural resources due to World War II, and the transfer of responsibility at that time from the federal to the provincial government, gave rise to a shift from administration to management of resources and the zoning of public land into areas for settlement, agricultural expansion, and forest management. As well, in 1948, a joint federal-provincial agency, the Eastern Rockies Joint Conservation Board, was established and a multiple-use approach to public land management was pioneered.

Rapid economic growth in the 1950s and 1960s placed increasing pressure for development of petroleum, natural gas, coal and recreational uses, accelerating the need for a more coordinated approach to managing development. This was followed in the 1970s by a major thrust towards integration with the adoption of the Policy for Resource Management of the Eastern Slopes in 1977. This policy, which later became the basic philosophy behind the system for integrated planning for all public lands and resources in Alberta, evolved out of the need for better inter-agency communications and coordination. A heavy reliance on only a few of the primary resource sectors as the mainstays for sustaining the provincial economy, particularly petroleum and natural gas, along with the depletion of supply and the fluctuating world prices for these resources, led to the political recognition that the provincial economy must be more diversified in order to survive:

Certainly the provincial government agrees, with the concurrence of the majority of Albertans, that the most important task facing the province is the development of a self-sustaining economic base that will provide wealth and employment when petroleum and natural gases are consumed ... there is no disagreement that Alberta's current [1983]

prosperity is built on a dwindling non-renewable resource ... [In its approach for tackling the problem], Alberta has chosen as its preferred pattern for growth to diversify and decentralize.

(Crerar, 1983: 270)

With regard to the forestry role in diversifying the economy, several developments in the mid-1980s took place which were geared to boosting forestry, and particularly pulp mill operations utilizing hardwoods, as a means toward this end. The first of these was the Forest Industry Development Division of Alberta Forestry, Lands and Wildlife. This provincial government agency was established to interest forest companies in this resource (Edwards, 1990: 10). This institutional change corresponded with the development of technology which could utilize the province's vast areas of aspen trees to the north. Subsequently, a number of companies expressed interest in producing a variety of forest products, the most significant of which were a number of new pulp mills and expansions of those already in place (Figure 4.1). The AL-PAC proposal was the largest of these.

The present premier, Don Getty, in commenting on the announcement of AL-PAC's \$1.3-million pulp mill set for Athabasca, praised the province's efforts to diversify the economy through the forestry sector. Premier Getty noted that the assistance provided by the province was "... an investment not an expenditure, indicating that \$200 million was invested in Alberta's forest industry [between 1968 and 1987] and \$2.9 billion in the last 18 months ... and that is a great diversification because this is a renewable resource" (Calgary Herald, December 14, 1988: A8).

- | | |
|----------------------|---------------------|
| 1 Fletcher Challenge | 6 Weldwood |
| 2 Finlay Forest Ind. | 7 Alberta Newsprint |
| 3 Fibreco | 8 Millar-Western |
| 4 Procter & Gamble | 9 Alberta Energy |
| 5 Daishowa | 10 Alberta-Pacific |

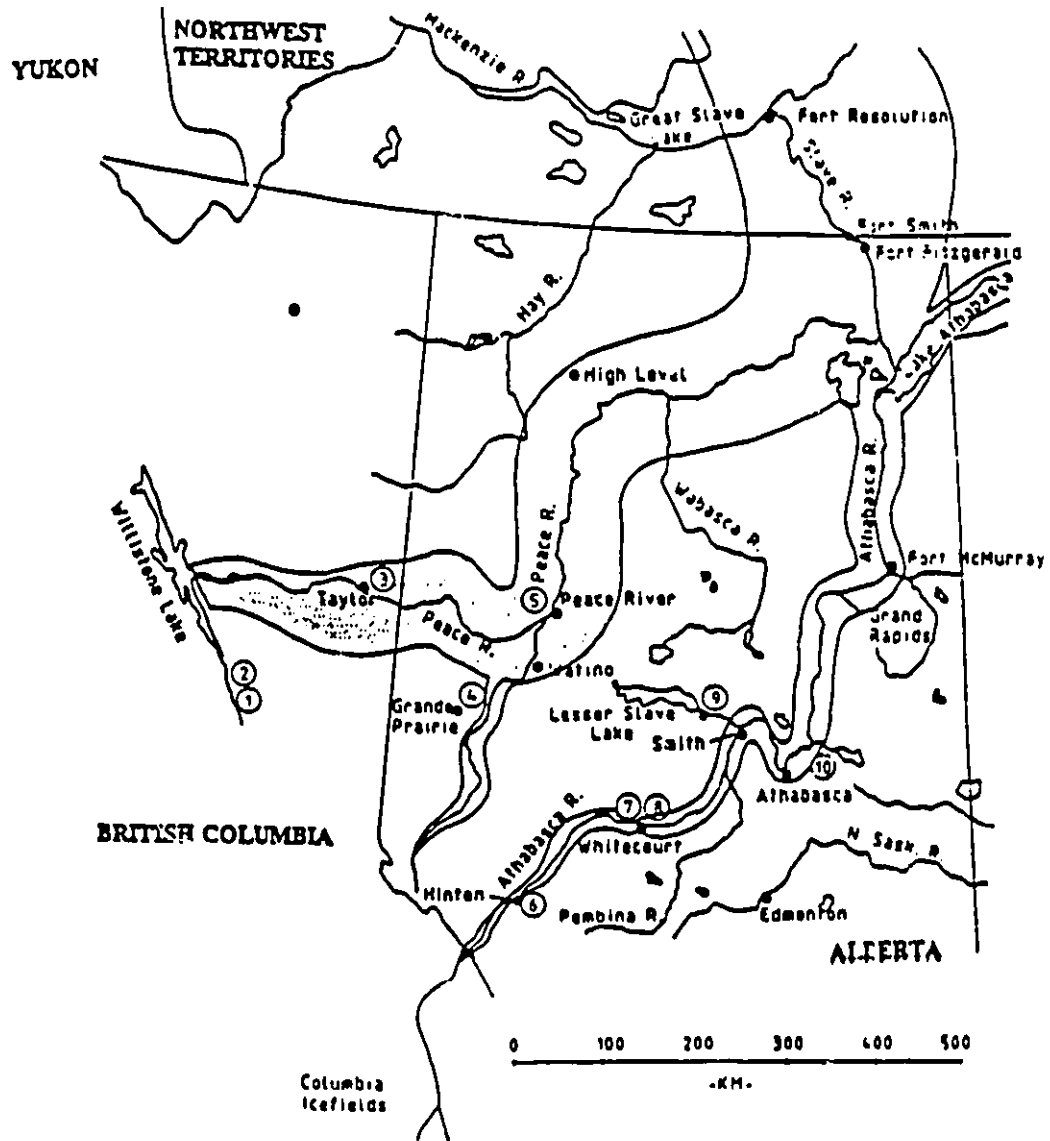


Figure 4.1

Pulp Mills in the Study Area

SOURCE: Jaakko Poyry Consultants, 1990a: 3.

Thus, it is apparent that the use of the forestry sector as a key area for diversification of the economy has been, and is, a definite part of the province's political ideology with respect to resource management. Potential water resource issues appear to be minor considerations that would not stand in the way of diversification efforts.

4.1.1.3 Natural conditions and resource development

The geographical focus (Figure 1.1) lies within the PAMB, a huge region of some 1.79 million square kilometres, with seven major rivers, three major lakes and three major deltas; the general direction of flow is northward (Figure 4.2). The rivers are generally unpolluted, with local exceptions as a result of agricultural activities in the Peace River Valley and pollution related to the oil sands developments in the Athabasca Valley (Crabb, 1988: 15). James and Foerstal (1983: 161) point out, however, that most of the waters have "... a limited buffering and accumulative capacity against pollution." Crabb (1988: 15) aptly summarizes the current conditions and concerns for the natural setting: "In this still largely undisturbed river system, there are many sensitive areas in biological ... terms, which could be easily destroyed by quantitative and qualitative changes to the nature of the waterways. It is a highly integrated biophysical system."

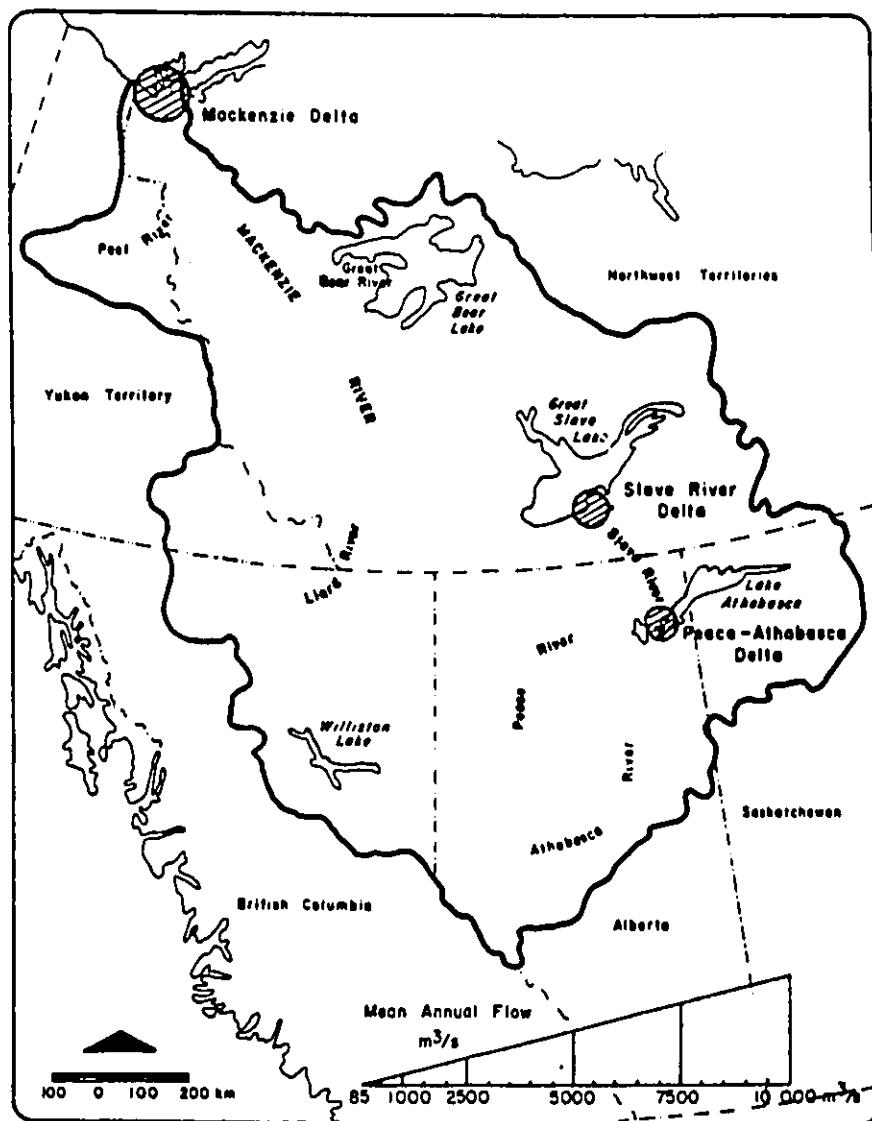


Figure 4.2

Peace-Athabasca-Mackenzie Basin (PAMB)

SOURCE: Sadler, 1984: 4.

Resource development potential in the PAMB appears to be considerable. Development opportunities include extensive potential hydroelectric power sites, mine sites, and coal, oil and gas reserves (Sadler, 1983: 4). In addition, there are also major forestry resources. In Alberta, the provincial government has leased 183,000 square kilometers - more than a quarter of the province - to a number of giant pulp firms for clear-cut forest projects (Figure 4.4), mainly on the Athabasca and Peace Rivers.

Canadian Geographic (1990: 63) describes this as "... one of the biggest resource giveaways in modern Canadian history." The same article suggested that the proposed AL-PAC mill would be the largest single process kraft mill in the world. The mill would extract its fibre supplies from 70,000 square kilometers of the leased boreal forest.

In consideration of the scale of potential development and the fact that the 300,000 residents of the entire basin, particularly the native peoples, are dependent on its water for their livelihood, it is apparent that the basin's natural environment, its biophysical needs and its fragility could easily be at stake. James and Foerstal (1983) raise the point that the key question is: How can the existing and potential uses of the waters of this large basin be managed equitably, so that any environmental values that may be recognized in each jurisdiction will not be jeopardized?

Interests other than resource developers, such as the Alberta Wilderness Association and other similar groups, are working to defeat the pulp mill projects. From their perspective, the

government has made "deals" to the tune of a billion dollars in loan guarantees and subsidies to the forest companies without even consulting the public (Kennedy: 1990: 63). The situation in northern Alberta appears to be characterized by decisions having to be made at the operational project level which will alter or negate any regional resource planning context or framework that is or should be in place prior to project consideration at this scale. The following section examines the nature and extent of this resource planning context.

4.1.2 The Preplanning Context: Integrated Resource Management in Alberta

4.1.2.1 Evolution of the approach

Integrated resource management in Alberta has evolved and is "not the result of any grand plan" (Cooke et al., 1986: 169). The management approach now in place had its beginning in the development of the 'eastern slopes region', adjacent to the Rocky Mountains and to Banff/Jasper National Parks (Figure 4.3). This area, rich in resources, came under heavy demands for timber, coal, transportation access, recreation and tourism. Recognition of the need for a special resource management regime resulted in the development of the Eastern Slopes Policy in 1977 (Alberta Energy & Natural Resources, 1977).

REGIONAL PLANS

WESTERN PLANNING SERVICES

- A EASTERN SLOPES REGION (P)
- B PEACE RIVER REGION (P)

EASTERN PLANNING SERVICES

- C NORTHEAST REGION (P)
- D CENTRAL REGION (P)
- E SOUTHERN REGION (P)

SUB-REGIONAL PLANS

EASTERN SLOPES REGION

- A1 POT CREEK-NIGHT (P)
- A2 WHITECOURT-BLUE RIDGE (P)
- A3 SWAN HILLS-FT. ASSINIBOINE (P)
- A4 BERLAND (P)
- A5 WILLOWBUSH WILDERNESS PARK (P)
- A6 YELLOWHEAD NORTH (P)
- A7 COLD CREEK (P)
- A8 COAL BRANCH (IC)
- A9 BRASSHILL-PEMBINA (IC)
- A10 ROCKY-NORTH SASKATCHEWAN (IC)
- A11 NORDEGG-RED OILIA RIVER (IC)
- A12 GHOST RIVER (IC)
- A13 BANANASIS COUNTRY (IC)

PEACE RIVER REGION

- B1 MAY-ZAMA (P)
- B2 WATT MOUNTAIN (P)
- B3 CARIBOU MOUNTAINS (P)
- B4 JEAN D'OR PRAIRIE (IC)
- B5 MICKWA-LOWER PEACE (P)
- B6 NOTIETOWN (P)
- B7 RED RIVER (IC)
- B8 BUFFALO HEAD HILLS (P)
- B9 EAST PRAIRIE (P)
- B10 PEACELESS-GRAMAM (P)
- B11 WABASCA (P)
- B12 SADDLE HILLS (P)
- B13 STURGEON LAKE-PURSWILLAN EAST (IC)
- B14 HART RIVER (P)
- B15 UTRUMA (P)
- B16 NORTH SWAN HILLS (P)
- B17 SARWA-WAPITI (P)
- B18 SMOY-SIMONETTE (P)

NORTHEAST REGION

- C1 FT. FITZGERALD (P)
- C2 CANADIAN SHIELDS (P)
- C3 BIRCH MOUNTAINS-FRIESAC (P)
- C4 FT. JAMNARAT-ATHABASCA OIL SANDS (P)
- C5 WINIFRED LAKE-PELUCAN PORTAGE (P)
- C6 WANDERING RIVER-SMOY LAKE (P)
- C7 BIG BEND (IC,A)
- C8 LAKELAND (IC,M)
- C9 GOLD LAKE (P)

CENTRAL REGION

- D1 RED BELL RIVER CORRIDOR (P)

SOUTHERN REGION

- E1 LIVINGSTONE-PORCUPINE HILLS (IC)
- E2 OLDMAN-BOW (P)
- E3 EASTERN IRRIGATION DISTRICT (P)
- E4 CYPRESS NORTH (P)
- E5 CAETLE RIVER (IC)
- E6 PAROWA-CYPRESS SOUTH (P)

LOCAL PLANS

EASTERN SLOPES REGION

- A101 ATHABASCA RIVER SANDHILLS (P)
- A102 DAVID THOMPSON CORRIDOR (P)
- A103 BOW CORRIDOR (IC,M)

PEACE RIVER REGION

- B101 UPPER PEACE VALLEY (IC)
- B102 LOWER PEACE VALLEY (P)
- B103 SMOY-PLACE POINT (IC)
- B104 GRAND PRAIRIE COUNTY WEST (P)
- B105 NORTH-GRAND PRAIRIE SAND DUNES (IC)
- B106 BEAR RIVER-WAPITI (IC)
- B107 FROST HILLS (IC)

NORTHEAST REGION

- C101 BEAVERHILL LAKE (IC)

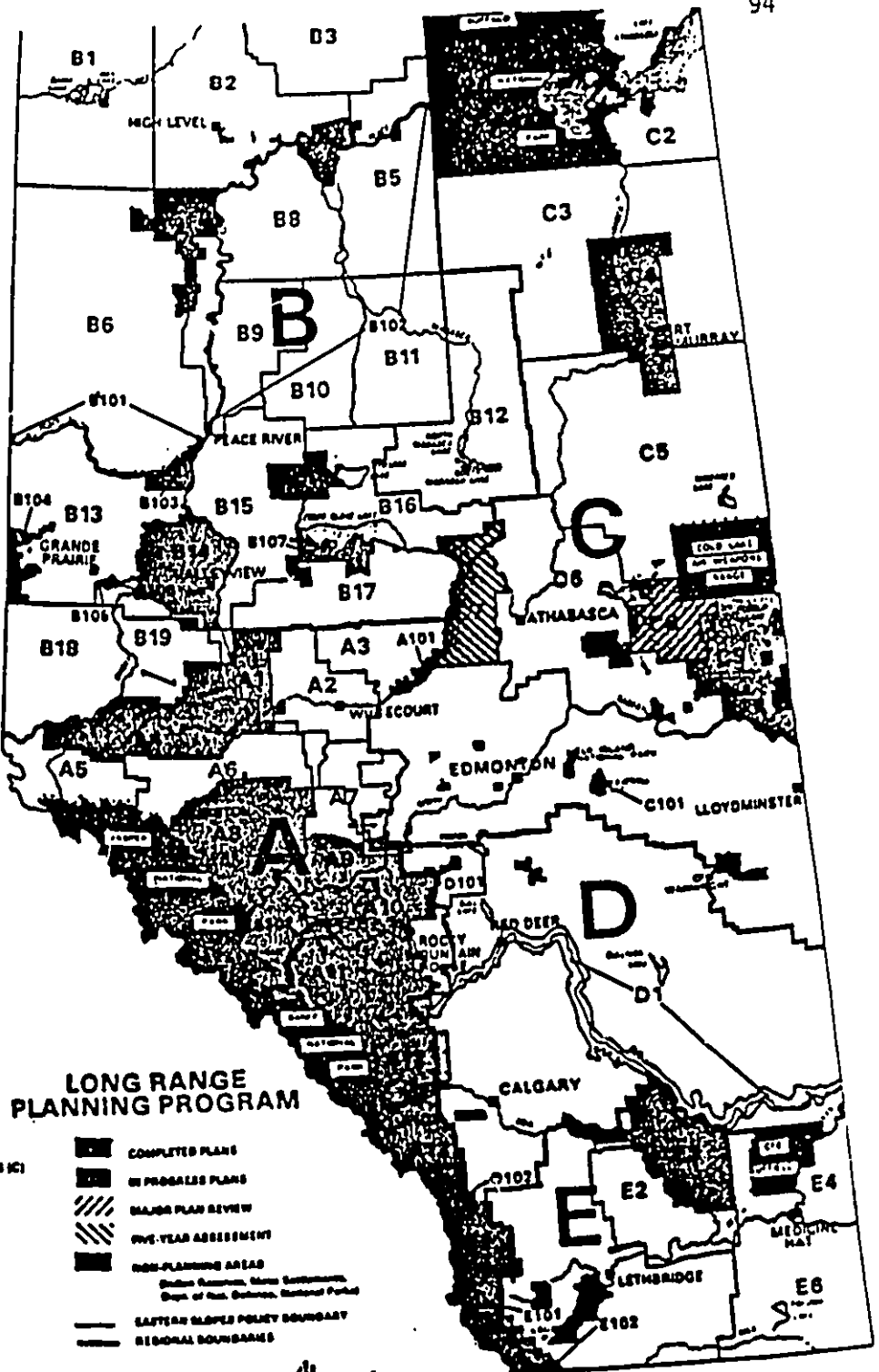
CENTRAL REGION

- D101 WHITE AREA FRINGS (P)
- D102 EDEN VALLEY (P)

SOUTHERN REGION

- E101 CROWNEST CORRIDOR (P)
- E102 POLL HAVEN (IC)

○ completed (IC) in progress (P) future (F)
 @ year assessment (A) major plan review (M)



Alberta
 CONSERVING LAND AND WILDLIFE

January 1991

Figure 4.3
 Long-Range Planning Program

By this time, two priorities for management, in addition to a cooperative approach and government commitment, had already been endorsed: definition of watersheds, and the concept of multiple-use management.

In a few years, the 1977 policy quickly came under heavy pressure for change due to changing conditions in the economy, evolving needs of people in the province and changes in resource development technology. Consequently, the content and application of the policy was revised in 1984 to test the province's entire concept of integrated resource management for application to all public lands in the province. This revised approach is described in the following paragraphs.

4.1.2.1.1 The approach

The legislative basis for integrated resource management in Alberta is provided by section 10 of the Public Lands Act (R.S.A. 1980, c. P-30). This enabling legislature gives the Ministry of Forestry, Lands and Wildlife the power to administer public lands and the authority to "... classify public land and declare the use for which he considers different classes to be adaptable" (Moen, 1990: 94). However, there are no regulations under this Act to specify the purpose, direction or process to be followed.

Within the administrative policy developed for Alberta's (Alberta Energy & Natural Resources, 1985) 'Integrated Resource Management', the government espouses three principles: integration, resource management and decision-making.

Integration

Integration, by bringing together people with different resource interests, encourages everyone involved to reach the best decisions. Teamwork permits government resource managers, with help from all interests, to efficiently manage public lands and resources. For the team to function, everyone must be willing to consider all resource concerns, not just their own. They must also make trade-offs. Time, effort and a positive attitude bring about effective decisions. Through public involvement in planning, people outside the team but interested in resource use are encouraged to assist.

Resource Management

Resource management is the efficient use and administration of resources. Today's resource management style focuses on increasing the benefits from resource use and on finding solutions to problems. It gives direction and control to resource development.

Management - planning, organizing, direction and controlling resources - is part of Integrated Resource Management. Planning is emphasized to identify opportunities for using resources and to deal with issues. Planners collect information about resources and their uses. At times, they develop several options and present the best.

Decision-Making

The Government of Alberta works with Albertans to achieve the best possible use of resources. All legitimate development proposals will be considered and integrated into the planning process.

Resource management decision-making occurs at three levels:

broad level: general objectives outlined; policies for land allocation formulated

middle level: land allocation and resource use in more detail

detailed level: implementation - all management directives provided by any of the decision-making levels carried out efficiently and practically

Keeping in touch with all interests ensures a broad, co-operative outlook. Comments and assistance are always welcome. As new information comes to light, planners can consider and incorporate opportunities for the future. Environmental, economic and social factors are all important in making decisions about public land and resources.

(Alberta Energy & Natural Resources, 1983: 4-5)

The Alberta integrated resource management approach has been guided by these principles until at least the time of research. The focus has been largely on the preparation of plans, with a concentrated effort on the eastern slopes region and several relatively small sub-regions in the northern part of the province (Figure 4.3). It is apparent as well that there was no existing regulation under the enabling statute (Public Lands Act, R.S.A. 1980, c. P-30) that required completion of integrated resource management plans prior to the occurrence of regional, large-scale, natural resource development (such as in the vast area set aside for forestry production to feed the AL-PAC and other mills). It is understood from staff at Alberta Forestry, Lands and Wildlife (1991) that IRM policy is presently under review. The following section examines the extent to which integrated resource management plans were completed in northern Alberta.

4.1.2.2 The contextual status of integrated resource management in the case study area

The study area is approximately divided into two formal "Regional Planning Areas" for natural resource planning purposes: the Peace River, and the North-East Region (Figure 4.4). Their common boundary passes through the forest area earmarked for the proposed AL-PAC mill. These regional units provide the geographical basis for the preparation of regional and sub-regional natural resource plans (Figure 4.3), outlining selected policies for resource management and areas designated for specific uses.

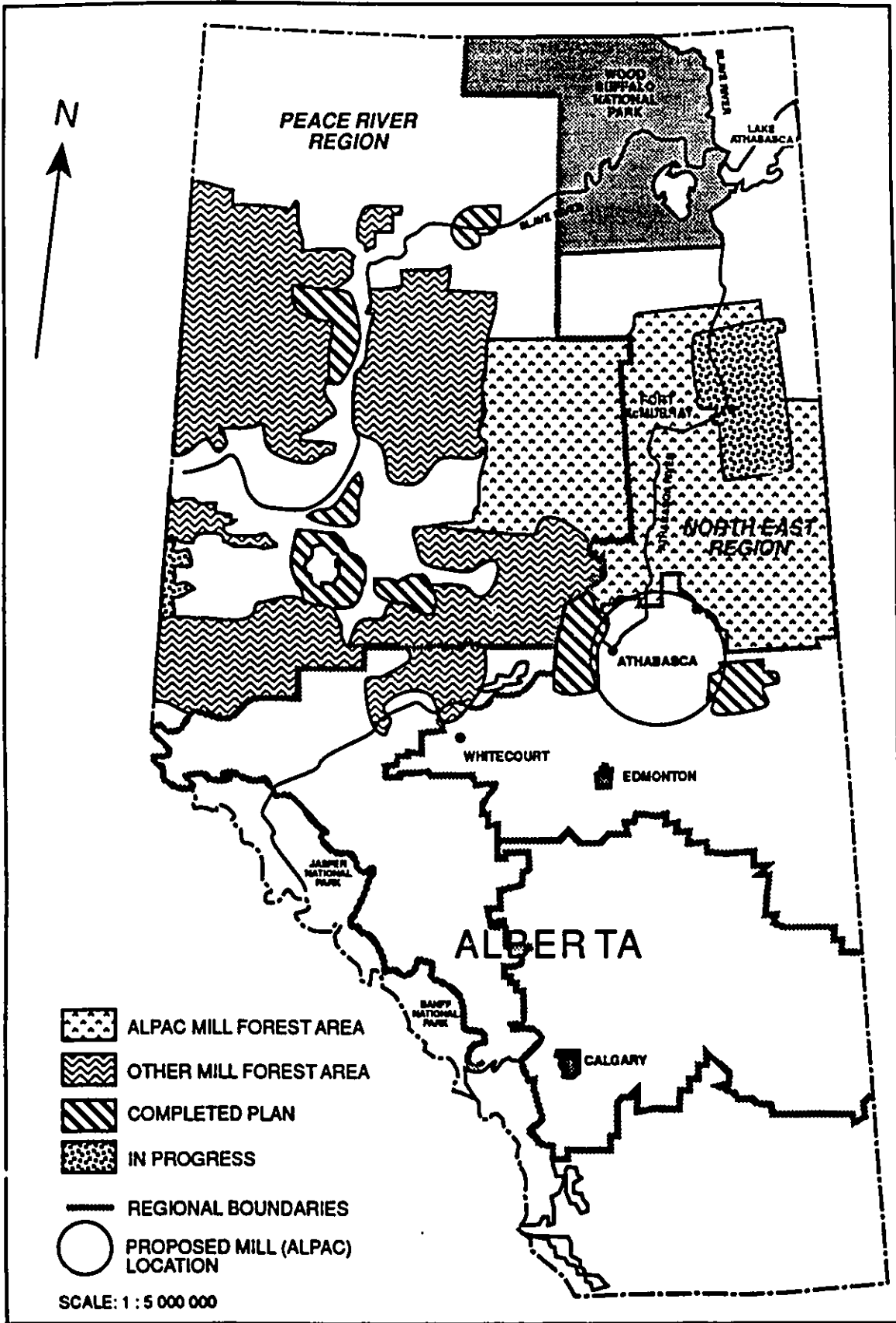


Figure 4.4

January 1991

**Status of Integrated Resource Planning
 in the Northern Alberta Forest Area**

Regional plans have not been completed for either of these large areas of the province. It is anticipated that the North-East plan could be approved by late 1992, and the Peace River plan a year later in late 1993 or early 1994 (Alberta Forestry, Lands and Wildlife, 1991).

Completion of several sub-regional plans has taken place, but they have been limited in size and bear little or no relationship to the AL-PAC pulp mill proposal (Figure 4.4). In the North-East Region, two plans have been completed to the east and west of the general mill proposal area, but apart from the Fort MacMurray-Athabasca Oil Sands development area further downstream, nothing is being actively considered within the Integrated Resource Planning process. The remaining five sub-regions within the study area have been identified for planning in the future, with the exception of Wood Buffalo National Park.

In the Peace River region, with nineteen sub-regional planning areas, three small areas have completed resource plans, leaving sixteen designated for planning in the future. While a number of local area plans (five out of seven) have been completed, their physical areas are relatively small in relation to the vastness of the region and the size of the areas earmarked for forest/mill usage.

In summary, regional planning in the study area had not reached completion and is not foreseen for some time. Completed sub-regional plans encompass a very small portion of the study area. With the exception of these and a number of completed local plans,

which essentially focus on the relatively small areal context and issues, the bulk of the study area is slated for future planning (Figure 4.3). Fardoe (1984: 11) states that "... integrated resource plans are currently islands of integration in a sea of resource management activity."

Thus, it is apparent that Alberta's '**Integrated Resource Management**' has not been used to provide a regional resource planning context within which individual project decisions could have taken place (e.g., consideration of various land-use options and their potential impacts in terms of social, economic and environmental advantages or disadvantages). It is also apparent that because extensive planning had not been undertaken, people living in the general area slated for forest production did not have the opportunity to examine alternatives through Alberta's '**Integrated Resource Management**' process. Therefore, they did not have an opportunity for contributing to the decision-making process which led to acceptance of the AL-PAC mill's agreement-in-principle prior to the mill proposal's review (Section 5.1).

CHAPTER 5

INSTITUTIONAL ARRANGEMENTS CONTEXT: THE AL-PAC MILL PROPOSAL

Land-use planning defines overall policy through a series of statements about the broad use of land or the goals to be achieved by the use of the land. Environmental impact assessments define the potential impact of a particular development on the environment in which the development is located. They should be a detailed technical check of a policy.

It follows therefore that planning must occur first. Planning requires a detailed assessment of the land base for which the planning occurs. Inventories of all of the ecological components should, of necessity, take place before planning can occur.

(Moen, 1990: 100)

5.0 INTRODUCTION

The previous chapter provided a general overview of the institutional arrangements context which existed prior to consideration of the AL-PAC mill proposal. Several key weaknesses in the institutional fabric were exposed, which indicated that an adequate context for judging development proposals had not been provided. The following discussion builds from this base by identifying and describing the main institutional issues and concerns that had a bearing on the AL-PAC mill's environmental impact assessment. They are described in the appropriate temporal context. Perceived weaknesses are summarized at the end of this chapter, using the components of the evaluation framework.

Based on analysis of correspondence and newsclipping data, the discussion also provides the reader with a description of the events, actors and perspectives existing during the mill's review, illustrating to varying degrees the cause-and-effect relationships which developed during the evolution of the decision-making process. This information provides a knowledge base or context for later discussion when the remaining components of the evaluation framework are examined individually in the following chapter.

5.1 THE TEMPORAL RESEARCH CONTEXT

The time taken for consideration of the AL-PAC proposal for this research extended over a two-year period from the day when signing of the Agreement-in-Principle was announced in December 1988 (Calgary Herald, December 13, 1988), to the time when the project was publicly given the go-ahead by Premier Getty in December 1990 (Financial Post, December 21, 1990). For the sake of a better understanding of the evolution of the decision-making process, the 'review period' is divided into five major phases (Table 5.1). While the descriptions provided in each of these phases represent what really happened in the AL-PAC case by exposing weaknesses in the institutional arrangements, section 10.0 in Chapter 10 outlines, for the sake of comparison, what should have happened if adequate institutional arrangements had been in place to support integrated decision-making.

Table 5.1

Major Phases in AL-PAC Proposal Review Period

	<u>Phase</u>	<u>Time Period</u>	<u>Approx. Duration</u>
1.	The Proposal - Initial Considerations and Outcry	December 1988 to July 1989	7 months
2.	The AL-PAC Review Board - Listening to Public Interests	July 1989 to March 1990	8 months
3.	The AL-PAC Review Board Report and Aftermath - Weighing the Review Board's Recommendations	March 1990 to July 1990	4 months
4.	The Scientific Review Panel - Acceptance of New Technology	July 1990 to October 1990	3 months
5.	Final Positions and Decisions	October 1990 to December 1990	2 months

5.1.1 The Proposal - Initial Considerations and Outcry

In response to the province's efforts to diversify the provincial economy by developing interest from the private sector in its northern forest areas (Section 4.1.1.2), a number of proposals were received for new mill construction and expansions to existing mills (Figure 4.1). These proposals offered to produce a range of forest products, including high-quality pulp using a bleached kraft pulp process. The largest of these was the AL-PAC proposal for a mill to be located near the Town of Athabasca in Alberta (Edwards, 1990: 12). An Agreement-in-Principle was reached between the company, Alberta-Pacific Forest Industries Incorporated (AL-PAC) and

the Province of Alberta. It was publicly announced in December of 1988. A major daily newspaper in the province reported the announcement that "... [money given to this project is] an investment and that is a great diversification because this is a renewable resource" (Calgary Herald, December 14, 1988).

Following the announcement, immediate concerns about this project were expressed to the then federal Minister of the Environment, Hon. Lucien Bouchard, by non-governmental organizations such as the Friends of the Athabasca Environmental Association (Fuller, February 12, 1989 - Personal Communication) and by various individuals (Gismondi, February 16, 1989 - Personal Communication; Vermeulen, February 15, 1989 - Personal Communication). The list of concerns included the possible loss of fish, wildlife and migratory birds, as well as wildlife habitat because of potential hazardous emissions from the mill during the course of its operation.

This reaction included the view that the environmental review process put in place by the province and carried out by the company did not provide mechanisms for citizens to present their concerns equitably and fairly, and that the geographical area covered by the assessment was too project- and/or site-specific. Federal intervention using the federal Environmental Assessment and Review Process (EARP, 1984) was requested by those expressing concerns in order to carry out an independent basin-wide study. Justification given for federal intervention under EARP (1984: s. 6) was that the proposal could affect federal interests such as federal lands, native peoples and Wood Buffalo National Park, and that it involved

inter-boundary rivers since emissions could travel northward into the Northwest Territories (Figure 4.2).

In April 1989, a federal court decision by Mr. Justice J. Cullen (1989) in the Rafferty-Alameda Dam case raised the profile of the applicability of the federal EARP in the minds of the public through its interpretation that the process requirements were law and thus obligatory, as opposed to just being voluntary 'guidelines' in situations where federal interests could be impacted on by provincial resource development projects. This action may have produced an inducement at this time for the Alberta Government to consider the necessity and possibility of the cooperative federal/provincial EIA which was later put in place (Meredith, 1991: 228).

Meanwhile, Environment Canada was still indicating that there was no basis for the application of the federal process and that the province was responsible for any independent review board which would undertake a public assessment (Jean, May 15, 1989 - Personal Communication). As well, the federal response noted that trans-boundary water resources were handled by the Mackenzie River Basin Committee (Canada, British Columbia, Alberta, Saskatchewan, 1977), and that the review of projects was handled by the Agreement Concerning Environmental Impact Assessment of Projects in Alberta with Implications for Canada and Alberta (Canada/Alberta, 1986).

Concern over inadequate time to prepare for meetings appeared as a growing issue during the early part of June (Fuller, June 16, 1989 - Personal Communication; Richardson, June 19, 1989 - Personal

Communication; Holt, June 15, 1989 - Personal Communication), with the added concern that meetings were not being held on downstream areas from the mill proposal (Fuller, June 16, 1989 - Personal Communication). As well, complaints were made over: the quality of analysis in documentation provided to the public; the lack of complete information; and the absence of social assessment, including such aspects as drinking water, other health impacts and potential social costs (Richardson, June 19, 1989 - Personal Communication).

Interaction at meetings was also deemed to be unsatisfactory in that the company (AL-PAC) was seen by some of the public participants as using much of the time to promote the project, rather than discuss it, and had little or no present expertise to answer technical questions. As well, the proponent and the province became viewed as partners working to move the project through too hastily (Holt, June 15, 1989 - Personal Communication). Also at this time, the federal Minister continued to request intervention through the use of EARP, as the province was being seen by some as attempting to rush the proposal through hastily, using a flawed review process (Shultz, June 19, 1989 - Personal Communication).

Growing concern over the perceived inadequacy of the review process was also expressed by native peoples (Boucher, June 20, 1989 - Personal Communication), citing in particular the fact that AL-PAC was not made "accountable" in terms of providing for openness, fairness and equity. A lack of no adequate baseline information to assess existing conditions and to predict possible future impacts

relative to the components of the forest ecosystem was also seen as a matter for concern by native peoples.

Appeals for federal intervention and/or participation continued to grow, with requests coming from beyond the province. One Ottawa-based opinion expressed concerns over the possible impacts of all mill developments on the total basin (Fulton, June 15, 1989 - Personal Communication). One from Yellowknife also expressed "fear over public health and safety" because of possible impacts on fish and drinking water downstream.

A federal review was also requested by Ethel Blondin (MP, Western Arctic). She cited the proposal as a "potential threat to one of Canada's largest and cleanest river systems and massive tracts of northern forests", and that federal intervention is justified on the basis of trans-boundary implications and possible affects on Wood Buffalo National Park (Blondin, June 30, 1990 - Personal Communication).

Towards the end of the month, in the Edmonton Journal (June 30, 1989), the Alberta Minister of the Environment, Hon. Ralph Klein, publicly indicated his concern over jurisdiction between Alberta and the federal government for reviewing the proposal. He pointed out that "we've really got to get this thing sorted out" and that the province must continue to exercise primary control over environmental decisions (Edmonton Journal, June 30, 1989). In the same article, it was stated that any delays with the project were "not on [Alberta's] part", and Premier Getty was quoted as saying: "[Alberta] has always, through their standards, their controls, and

their legislation far exceeded the standards of the federal government" (Edmonton Journal, June 30, 1989).

Towards the end of June, it also became evident that an assessment of the impact of the harvesting of timber required to feed the AL-PAC mill, was not likely to be included in the AL-PAC proposal review. Instead, the Minister of Forestry, Lands and Wildlife was indicating to the public that the planning process associated with forest management practices was "far better [than an EIA]" (Fjordbotten, June 30, 1989 - Personal Communication).

Concern was also expressed over the cumulative impact of all of the pulp mill proposals being considered in the region - e.g., how their combined emissions would impact on the PAMB. It was suggested that a stop-order for the AL-PAC mill be put in place until an independent EIA was done for all proposals (Barr, June 30, 1989 - Personal Communication).

In July 1989, the office of the federal Minister of the Environment publicly acknowledged possible impacts of the mill on federal interests, and indicated "misgivings about the potential effects of forestry operations in Alberta", expressing a willingness "to initiate discussions with the Hon. Ralph Klein, Alberta's Minister of the Environment, in the hope that some appropriate form of cooperative assessment can be developed" (Jean, July 10, 1989 - Personal Communication).

A wider concern was expressed by non-governmental groups such as Canadians for Responsible Northern Development to halt all mill proposals so that other data could be developed and considered in

order to examine potential impacts over a larger geographical area (Paschen, July 12, 1989 - Personal Communication). Others, such as the Canadian Manufacturing Association (CMA), appealed by letter to the federal Minister, Hon. Don Mazankowski, for cooperation with the provinces on EIA. The CMA said that they were "... confused and frustrated by the apparent lack of cooperation between federal and provincial counterparts", and expressed concern for possible losses through impacts on the economy, if the process is not made more expeditious (Sarri, July 12, 1989 - Personal Communication).

5.1.2 The AL-PAC Review Board - Listening to Public Interests

In mid-July, the Hon. Ralph Klein forwarded to the Hon. Lucien Bouchard the draft Terms of Reference for a cooperative review board to review the AL-PAC proposal (Klein, July 13, 1989 - Personal Communication). The terms specified included: federal review of possible impacts on federal interests, and the exclusion of any possible review of forestry harvesting impacts on the proposed AL-PAC pulp mill forest area. Bouchard agreed to the cooperative assessment and Klein signed Ministerial Order No. 08/89 (Alberta Environment, 1989) under Alberta's Department of the Environment Act (R.S.A. 1980, c. D-19, s. 6.1), providing the provincial authority for the establishment of the AL-PAC Environmental Impact Assessment Review Board.

The AL-PAC Environmental Impact Assessment Review Board* was announced by Alberta Environment on July 18, 1989 by the Hon. Ralph Klein:

I am both delighted and relieved that two months of often difficult negotiations have been concluded in such a way as to allow federal involvement in this process while at the same time protecting Alberta's constitutional jurisdiction over our natural resources. As well, it was indicated that if [the AL-PAC Review Board] was a success, then it will serve as a model for all future EIAs.

(Alberta Environment, 1989: Press Release, July 18)

The press release was followed by indications of support for the federal government's involvement in the review from NGOs such as the Alberta Fish and Game Association, as well as individuals (Fullerton, July 19, 1989 - Personal Communication; Carlielli, July 19, 1989 - Personal Communication). Opposing views on federal involvement were offered to the Hon. Lucien Bouchard by such groups as the Downtown Business Association of Edmonton, which expressed "the desire that bureaucratic delays and federal-provincial jurisdictional disputes not jeopardize [the AL-PAC proposal's] developments unnecessarily" (Nimmon, July 25, 1989 - Personal Communication). Others, such as the Peace River Stock Growers' Association in the agricultural sector, acknowledged legitimization of the AL-PAC Review Board and asked for clarification of the Board's role and the opportunities for participation, as well as indicating that their main concern was "the cumulative impact of the mills" (Cameron, August 3, 1989 - Personal Communication). Dennis Patterson, the Government House Leader of the Government of the

* Hereinafter referred to as "the AL-PAC Review Board".

Northwest Territories (GNWT), in a letter to the Hon. Ralph Klein, expressed the same concern about the need for a study of cumulative impacts downstream (Patterson, August 4, 1989 - Personal Communication). Patterson also requested that the GNWT have a full functioning member on the AL-PAC Review Board. Klein's reply to Patterson indicated that the GNWT was responsible to the federal government (Klein, August 9, 1989 - Personal Communication).

In mid-August, the federal government was approached for intervenor funding for the participation of native peoples in the review process, according to a letter from Tony Punko to the then federal Minister of the Environment, Hon. Lucien Bouchard (Punko, August 15, 1989 - Personal Communication). Concerns expressed by Punko on behalf of the Athabasca Tribal Association were based on the belief that the environmental implication of the logging for the proposed AL-PAC mill will affect at least six reserves, including the Association's own reserve. Funds for hiring expertise to weigh technical information and for travel to meetings were cited as being needed, and the point was made that the native peoples' interests are a federal responsibility.

Also in mid-August, the Alberta opposition critic on the Environment publicly indicated that Klein should order new EIAs for all northern Alberta pulp mills, as the AL-PAC process was being seen as a model which should be adopted for the others as well (Edmonton Journal, August 11, 1989). Within a few days, the Friends of the North, with a petition signed by 12,000 Alberta residents,

communicated their criticism of the AL-PAC Review Board's Terms of Reference, indicating that the Board should:

... include forestry harvesting for the mill (impacts); include baseline studies of environmental conditions; provide intervenor funding; determine the carrying capacity of the water system; assess the cumulative effects of all mills; deal with aboriginal claims; extend the time frame for the public consultations; identify resource monitoring needs; and deal with all impacts within the basin, not just in the immediate area of the project site.

(Lawrence, August 15, 1989 - Personal Communication)

Approximately one week later, the GNWT announced its participation in and support for the AL-PAC Review Board, stating that territorial interests related to water quality and cumulative impacts would be protected by the territorial Board member (Government of the Northwest Territories, 1989: Press Release, August 23).

Shortly thereafter, private sector interests representing the Alberta Construction Association indicated to Bouchard their view that federal involvement in assessing the project was infringing on Alberta's exclusive right to manage its own resources. It was also implied that the federal EARP was being applied inconsistently across the country (Jones, August 25, 1989 - Personal Communication).

During September 1989, considerable concern was expressed by NGOs and individuals over the AL-PAC Review Board's lack of scope and expertise, as well as the absence of baseline studies, the exclusion of assessments of forestry practices, and the credibility of the whole process, given the fact that (in the view of the Friends of the Peace) the mill's plant was already on order

(Sheehan, September 4, 1989 - Personal Communication; Ridgeway, September 21, 1989 - Personal Communication).

An independent federal EIA was requested on the grounds that the project had inter-jurisdictional implications, and given the large geographical area, as well as native peoples, that could be affected (Copp, September 25, 1989 - Personal Communication). Federal involvement was also requested to assess all mills within the watershed (Roschaub, September 28, 1989 - Personal Communication) and to protect the quantity and quality of the water, including consideration of forest harvesting (Burke, September 29, 1989 - Personal Communication).

Further perceived inadequacies in the AL-PAC Review Board's process were voiced by the Dené Nation, fearing possible damage due to downstream effects. Five public meetings were requested by the Dené in the NWT to give more opportunity for people downstream to provide input into the process (Erasmus & Bohnet, September 19, 1989 - Personal Communication).

At the same time, the public's attention was brought to focus on the need, as perceived by the media, for strict effluent controls for all mills, as it was reported that unsatisfactory emissions could result in reduced oxygen levels which would, in turn, be detrimental to the fish population. Responding to this, a government representative from Alberta Environment was quoted as indicating that all mills should be able to conform to accepted guidelines (Calgary Herald, September 16, 1989).

Responding to the Athabasca Tribal Association's prior request for intervenor funding, Environment Canada indicated that neither the AL-PAC Review Board nor Environment Canada (FEARO) provides funds for interventions by native peoples, suggesting that the Association pursue their request with Indian and Northern Affairs Canada (Bouchard, September 21, 1989 - Personal Communication). It was obviously not made totally clear at that time how native peoples within the watershed would be provided with funds for participating in the review process.

With the growing concern over impacts downstream from the mill and over a larger part of the watershed in relation to other mill proposals, it was becoming apparent that the geographical area (hereinafter referred to as 'the review area'), initially considered to be adequate for the review (north and northwestward within the watershed), was much smaller than was considered to be adequate by the residents of this larger area. Native organizations such as the Métis Association expressed concern that "... people who may be impacted by the proposal are not receiving an opportunity to present their concerns in a location close to where [they] live" (Bohnet, October 10, 1989 - Personal Communication), and that "the potential geographical scope of impacts has been prejudged without proper evidence." The scope of the AL-PAC Review Board's authority to look at cumulative impacts on a regional basis was questioned in the same instance.

To the south of the proposed Al-PAC mill, perceptions of the adequacy of the review area also came under public scrutiny.

Requests for public hearings in all of Alberta, particularly in Edmonton and Calgary, were called for (Paschen, October 5, 1989 - Personal Communication; Meller, October 11, 1989 - Personal Communication; Aitken, October 16, 1989 - Personal Communication), based on the perception that the large amounts of provincial tax revenue being put into the project to assist in making it attractive to industry were of a magnitude that significantly affected all taxpayers and that, as a consequence, these taxpayers should have a say as to whether it was a good idea or not.

Towards the end of October 1989, evidence of further or required adjustments to the review process appeared in print. It was reported that Alberta Environment was asking AL-PAC to pay at least some of the "\$750,000 cost" for the hearings on the project's EIA (Calgary Herald, October 26, 1989). As well, the views of Alberta Forestry, Lands and Wildlife on environmentalist perspectives were noted in the media. "[Environmentalists] get up on television and radio and they aren't telling the truth ... if they are going to be credible, they have to show some responsibility and some honesty in their approach as well" (Calgary Herald, October 26, 1989).

The federal review hearings commenced on October 30, 1989. On the second day of hearings, Dr. Robert Lane presented a joint submission of the federal departments of Environment Canada and Fisheries and Oceans Canada, indicating that the AL-PAC proposal was "currently unacceptable" (Edwards, 1990: 21), and that none of the mills should be approved without demonstrating their cumulative

impact on the environment (Calgary Herald, November 5, 1989). Considerable support for this position was voiced by NGOs, native groups and concerned citizens (Dickson, November 3, 1989 - Personal Communication; Pharis, November 1, 1989 - Personal Communication; Schmittroth, November 2, 1989 - Personal Communication; Erasmus & Krutko, November 3, 1989 - Personal Communication). The need for scientific information to assess possible cumulative impacts for the watershed appeared as the central theme, with support being voiced for the federal role as the proponent of this position, as well as assurance that if the results of such an assessment indicated that impacts were considered unacceptable by the AL-PAC Review Board, there would still be a 'no-go' alternative available (i.e., the mill would not proceed).

In apparent response to requests for spatial expansion of the review, Environment Canada described the 'review area' as including that which would hold out the possibility of both direct and indirect impacts. Public hearings were then scheduled in Edmonton (Jean, November 10, 1989 - Personal Communication). As well, in response to requests for the inclusion of forest harvesting impacts in the 'review', Environment Canada indicated that "environmental assessment of forestry harvesting, under the Constitution Acts, 1867-1982, designated this resource as being of provincial jurisdiction" and that public input was provided for in the Alberta forest management process. Assurances were also given to the public - for example, to such groups as the Wood Buffalo Harvesters' Alliance - that officials from Environment Canada were currently

involved in the protection of northern waters and the development of water management programs for this purpose (Jean, November 14, 1989 - Personal Communication).

At the local level, in the vicinity of the proposed mill site, people in the Town of Prosperity appeared to be of two polarized viewpoints. One perspective held that the area would "die" without the mill, while another was concerned that the community would "suffer irreparable harm" (Calgary Herald, November 12, 1989). From the provincial level, in response to mounting and widespread concern for the mill's impact, the Alberta Environment Minister indicated to the public, in a letter to the editor of the Edmonton Journal (November 12, 1989), that Alberta standards "make [Alberta] mills tops in controlling waste [compared to other provinces and countries]." Days later, a representative of the federal Department of Indian and Northern Affairs is quoted as saying: "There is not enough known about the environmental effects of toxic effluent from AL-PAC" (Calgary Herald, November 17, 1989). In the same article, a representative of the GNWT is quoted as indicating that 'no emissions' needs to be a requirement for judging the mill proposal.

Responding further to written requests to the Department that forest harvesting impacts be reviewed by the AL-PAC Review Board, Alberta Environment indicated that the environmental impact on the forest management area of the mill was not included in the Board's review with the exception of forest harvesting impacts on native reserve lands which are a federal responsibility (Klein, November 20, 1989 - Personal Communication). At the same time, Alberta

Forests, Lands and Wildlife, in responding to requests to assess the impacts of timber cutting related to the proposed mill, provided the public with explanations of how provincial forestry practices (and assessments) worked outside of the EIA review being carried out (Fjordbotten, November 24, 1989 - Personal Communication).

In late November 1989, the scope of the AL-PAC Review Board became further clarified. It was noted by Environment Canada that the geographical area for assessing cumulative impacts of the mill was not limited to Alberta (it could include the NWT) and that implications for human health could be considered (Bouchard, November 28, 1989a - Personal Communication). As well, earlier questions regarding arrangements for intervenor funding were answered (Bouchard, November 28, 1989b - Personal Communication). The responsibility for funding interventions by NWT residents and certain native groups had been assumed by the federal government.

In early December 1989, the review process came under increased criticism. While the Environmental Council of Alberta supported the importance of the public hearings (Calgary Herald, December 8, 1989), AL-PAC was accused of using "bullying tactics" to intimidate the GNWT and its scientific experts by suggesting that AL-PAC would sue for hundreds of millions of dollars if the project was rejected (Calgary Herald, December 10, 1989).

Several days before the close of the public hearings (on December 15, 1989), the media praised both the Alberta Environment Minister and the EIA review process. The Edmonton Journal (December 12, 1989) indicated that the EIA process had been a step forward as

far as the assessment of projects was concerned. The same article suggested that, as a result of this process, there would likely be a request for a moratorium of two to three years to allow for the study of river conditions and their capacity to assimilate mill emissions (Edmonton Journal, December 12, 1989).

Following closely on the heels of the completed public hearings, and before the AL-PAC Review Board's recommendations were officially presented to the public, there was an atmosphere of uncertainty generated by the press; a diversity of perspectives appeared in an apparent attempt to second-guess the fate of the proposal. On December 15, during the last day of the public hearings, statements given by Alberta Environment implied that the mill could be delayed "until next fall" because information on the downstream effects on fish (particularly related to organochlorines) were not adequately provided by AL-PAC (Calgary Herald, December 15, 1989). In the same article, a spokesman for Alberta Forestry, Lands and Wildlife, in commenting on this issue, stated: "If that's what they made, I'll have something to say tomorrow", while an AL-PAC spokesperson was also quoted as saying: "It has to be a political move [and] ... I am just amazed at how uncoordinated the federal and provincial and ourselves really are" (Calgary Herald, December 15, 1989).

In early January 1990, Alberta Forestry, Lands and Wildlife continued to explain their forestry management approach to concerned citizens (Fjordbotten, January 2, 1990 - Personal Communication; Fjordbotten, January 11, 1990 - Personal Communication). The

correspondence indicated that government standards, methods and technology would ensure protection for the environment, wildlife, etc. In public meetings held by Alberta Forestry, Lands and Wildlife, separate from the AL-PAC Review Board's activities, it became apparent to the public that an opportunity for public input on forest harvesting into the AL-PAC review process would not likely be possible before the AL-PAC Review Board concluded its review (Calgary Herald, January 13, 1990).

In response to correspondence expressing concerns by individual Albertans over possible impacts of the mill on health, Health and Welfare Canada indicated that, under the Canadian Environmental Protection Act (R.S.C. 1988, c. 16 4th Supp.), the federal government had "broad powers for dealing with a wide range of pollution issues" (Beatty, January 16, 1990 - Personal Communication). Days later, the same department was quoted by the Edmonton Journal (January 19, 1990) as indicating, in its submission to the AL-PAC Review Board, that "the overall impression is that the health effects were dealt with [by AL-PAC] in a very cursory manner and that little information was provided on which to base a substantial assessment."

Concerns over the lack of scientific information for assessing environmental impacts continued to be expressed, as quoted in the Edmonton Journal (January 16, 1990), by both Environment Canada, and Fisheries and Oceans Canada: "There continues to be insufficient information available to assess fully the environmental impacts resulting from the proposed AL-PAC mill." As well, Alberta

Environment went on record publicly as apparently supporting the need for more studies to assess impacts (Edmonton Sun, Edmonton Journal, Calgary Herald, January 17, 1990). In its response, quoted in the latter articles, AL-PAC demonstrated its frustration with the apparent lack of any explicit federal criteria or standards related to pulp mill operation. "The federal government have yet to establish any [pollution] rules. They just say words, they don't talk numbers" (Edmonton Sun, Edmonton Journal, Calgary Herald, January 17, 1990).

Acknowledgement of the perceived need to improve on Alberta's EIA process also appeared in the latter part of January 1990. Environment Canada indicated that the "existing EIA review process will be strengthened as a result of this initiative [i.e., the AL-PAC review] and public hearings will be a normal component for all major projects proposed in the future" (Klein, January 23, 1990 - Personal Communication). As well, further clarification was made of the roles of such stakeholders as Fisheries and Oceans Canada in the review process, explaining that the federal fisheries participated in the ongoing assessment of mills through the Canada/Alberta Agreement on Environmental Impact Assessment (Canada/Alberta, 1986) and that the department had submitted its concerns to the AL-PAC Review Board (Siddon, January 24, 1990 - Personal Communication).

In anticipation of the AL-PAC Review Board's expected negative report in mid-February 1990, AL-PAC is quoted as wanting to review the Board's final report before it is received by government. "We

should at least have the right to be consulted - we may have a countermeasure" (Edmonton Journal, February 26, 1990).

Immediately prior to the release of the AL-PAC Review Board's Report on March 2, 1990, both Environment Canada and Alberta Environment were quoted as supporting the Board's anticipated recommendations. The Edmonton Journal (February 28, 1990) quoted both Klein: "We would be dumb not to [do so]", and Bouchard: "The federal government is not more dumb than the provincial government."

5.1.3 The AL-PAC Review Board Report and Aftermath - Weighing the AL-PAC Review Board's Recommendations

On March 2, 1990, Don Getty, the Premier of Alberta, released the AL-PAC Review Board's Report and announced the provincial government's position on its recommendations. Highlights of these recommendations are summarized in Table 5.2.

In elaborating on the provincial government's position to support the recommended halt of the mill proposal, Premier Getty commented on the review process:

Alberta established this Review Panel with the full cooperation of the federal government in order to examine carefully all environmental impacts of the proposed AL-PAC mill ... The review process that produced this report was the first of its kind in this country and in fact we believe it's the first of its kind anywhere.

(Alberta Government, 1990: Press Release, March 2)

Table 5.2

Summary Highlights of the AL-PAC Review Board's Recommendations

1. The mill not be approved until sufficient scientific evidence is available to prove no harm, direct or indirect, to users.
2. All mills in watershed be studied in relation to the watershed's carrying capacity.
3. The forest management agreements for the mill must be negotiated in consultation with native peoples.
4. A full public review be carried out after 3 above.
5. The proposed site of the mill be assessed in relation to other possible locations.
6. EIA for major projects be changed to include public hearings before agreement-in-principle is made.
7. The above conditions be imposed on AL-PAC and other mill proposals.

SOURCE: AL-PAC Review Board, 1990: 93.

With respect to the province's goal to diversify the economy, he indicated that "this government's agenda is built on development which can sustain or improve our environment, not damage it" (Alberta Government, 1990: Press Release, March 2).

In the same press release, Premier Getty further noted that an independent assessment of the adequacy of the scientific data for the AL-PAC proposal would be carried out; other studies to obtain required information would start immediately, and the AL-PAC report would be considered as part of the Athabasca River Basin Planning program. Details of this program can be found in the Canada Water Act, Annual Report, 1990-91 (Canada, 1992). As well, the province's review of its EIA guidelines (underway at that time) would take into

consideration the AL-PAC Review Board's recommendations (Alberta Government, 1990: Press Release, March 2).

Provincial commitment to the AL-PAC Review Board's recommendations was reiterated through the news media by the Premier, who is quoted as saying: "[The proposed mill would not proceed] until the potential environmental impacts of this project were addressed to our satisfaction" (Calgary Herald, March 3, 1990). In the same article, he is quoted as saying that, with respect to all mill proposals, "all mills would have to be subject to a process similar to this one so basically nothing goes ahead until they've been given a thorough environmental review" (Calgary Herald, March 3, 1990).

It thus became apparent that while the proposal's approval was not immediately forthcoming, the province definitely did not see the project as being dead; instead, its future would be determined when its impacts were satisfactorily assessed. This became even more evident in the Ottawa Citizen (March 3, 1990); their coverage of Premier Getty's statement quoted him as saying that "this report and our decision does not mean an end to this valuable project."

Following the provincial government's position, opinions on the province's decision to halt the mill appeared to become polarized. In response to the AL-PAC Review Board Chairman's prediction that the additional studies recommended would take "at least two years" (Globe and Mail, March 3, 1990), AL-PAC's spokesperson was reported in the media as indicating that "we would like to begin to build this facility. We do not want to wait two years ... we have to look

and see if there is a middle ground" (Calgary Herald, March 2, 1990).

Others, including a private sector corporation, expressed their concerns to Premier Getty in writing, indicating that "we are deeply disappointed by the decision of your government to withhold the approval of [AL-PAC]. Accepting the report of the AL-PAC Review Board, which expresses a vague concern and a need for more studies, does not appear reasonable when the proposed mill is state of the art" (Anderson, March 20, 1990 - Personal Communication).

At the local level, for some individuals, there was an apparent perception that the AL-PAC Review Board was biased: "They interpreted the one-sided evidence given to them" (Globe and Mail, March 3, 1990). Thus, there was an apparent feeling that the members of the AL-PAC Review Board had either been personally biased in favour of the environment and/or had received predominantly environmentally-biased views from the public. Those representing local businesses and others representing business, such as the Boyle and District Chamber of Commerce, expressed their "disappointment at the news of the delay" (Frederick, March 26, 1990 - Personal Communication).

Supportive of the province's position that more information was required to conduct an adequate assessment, Environment Canada, as quoted in the media, went on to reiterate its support "for the recommendations of the panel to delay the project until we have more studies of the cumulative effect of effluents in the river system" (Calgary Sun, March 7, 1990). Among other supporters of the

province's position on delaying the mill to allow for further study, the Athabasca Tribal Association expressed its agreement with the outcome to both Alberta Environment and Environment Canada. "We commend you [Klein] and the government for the courage shown in adopting the very important recommendations of the panel" (Punko, March 15, 1990 - Personal Communication). Others believed that the benefits of the mill in terms of jobs created would only be significant during the construction stage, while possible environmental damage could be permanent (Cardinal, March 13, 1990 - Personal Communication). A GNWT spokesperson, as reported in the Ottawa Citizen (March 3, 1990), indicated that they were "delighted" with the decision and, in relation to concerns over possible loss of downstream habitat, etc., stated that "our way of life is at stake."

Concerning the adequacy of the EIA review process, the Edmonton Economic Development Authority raised concerns in the media about the business investment climate as a result of the province's decision. "Who wants to invest in a province where the rules are always changing ...? We have to be careful we don't harm the reputation of Alberta ... It's beyond me why, with the experience we've had of many years of environmental problems, we haven't come up before this with proper documentation of what rules [EIA] are supposed to be" (Edmonton Journal, March 6, 1990). As well, the view was expressed by the Edmonton-based Environmental Law Centre that "EIAs [should] be done early on in a project when decisions can be made to incorporate new environmental practice, or design can be

altered before irrevocable decisions are made and before lots of money is spent" (Edmonton Journal, March 17, 1990).

Following this polarization of opposing views, Premier Getty publicly expressed criticisms of the review and its recommendations. "This board was like a mirror ... It just took everything that came and put it all into the report, and therefore it was really incumbent that you have a balance of input because that was the only way you could have a balance ... and that didn't happen" (Edmonton Journal, March 24, 1990). In responding to the notion of the report being unbalanced due to the input of environmentalists, one member of the AL-PAC Review Board indicated that "the people that gave us the testimony that went into those major conclusions were not environmentalists, they were Alberta Environment scientists and scientists from Fisheries and Oceans [Canada]" (Edmonton Journal, March 27, 1990). A Finnish consulting firm, Jaakko Poyry Consultants, was later hired by the province on April 6, 1990, to conduct an independent assessment of the scientific data submitted to the AL-PAC Review Board (Alberta, 1990: Press Release, April 6).

The end of March saw public speculation that the mill might proceed, because AL-PAC was believed to have formulated a modification to the proposed mill's production process that would significantly reduce the organochlorine component of emissions to an acceptable level (Calgary Sun, March 27, 1990). As indicated earlier in this discussion, this had been at the centre of concerns over the need to assess cumulative impacts.

At the same time, evidence of fears that the AL-PAC Review Board's recommendations were not going to be followed was reflected in correspondence to the federal Minister of the Environment. Downstream from the mill, native groups (Punko, April 30, 1990 - Personal Communication), municipalities such as the City of Fort McMurray (Collicott, April 23, 1990 - Personal Communication) and NGOs such as the Friends of the Athabasca and the Prosperity Environmental Association (Schmittroth, May 29, 1990 - Personal Communication; Zachkewith, March 28, 1990 - Personal Communication), appealed to the federal government to ensure that the AL-PAC Review Board's recommendations be implemented. Other concerned citizens requested of Alberta Forestry, Lands and Wildlife that the public be allowed to participate in the formulation of Forest Management Agreements (FMAs) in Alberta, particularly with regard to the AL-PAC FMA (Stachko, March 15, 1990 - Personal Communication; Schmittroth, April 4, 1990 - Personal Communication). Reference was made in all cases that scientific information must be developed, available and be used satisfactorily to assess the possible impacts of the mill prior to its approval.

As well, in early April, the print media raised the question to the public concerning who has final jurisdiction for the mill's approval (Edmonton Journal, April 3, 1990). In this one article, varying degrees of uncertainty over the answer to this question were in evidence - for example, the Premier was quoted as saying: "There will be federal input but the responsibility for natural resources is clearly the province's"; Alberta Environment Minister Klein is

reported to have said: "That is a good question. It's very, very hard to say because the whole jurisdictional thing has not been sorted out"; and Fjordbotten reportedly indicated: "I don't know that because I don't know what the impasse might be" (Edmonton Journal, April 3, 1990).

In late April (Edmonton Sun, April 24, 1990) and early May (Edmonton Journal, May 4, 1990), it became evident that the province had, in fact, received a new proposal from AL-PAC which addressed at least some of the previous concerns over use of chlorinated organic compounds. Alberta Environment Minister Klein indicated that the proposal was being reviewed. "In about a week or so there will be a meeting of the minds ... to determine a course of action"; Klein is also quoted as saying: "My officials will be meeting federal officials tomorrow to compare scientific data and to determine what kind of a review process and where to go from there" (Edmonton Journal, June 14, 1990). Thus, it was apparent that a new or modified proposal had emerged, and that consideration was being given to how it should be reviewed.

Responding to the new possible proposal for the mill, a spokesperson for Fisheries and Oceans Canada was quoted as saying: "The Minister of Fisheries and Oceans Canada, Tom Siddon, may order the review [of the modified mill proposal] because the 1.3B mill would affect fish in the Athabasca" (Edmonton Sun, June 19, 1990).

The provincial view on a possible review indicated that there would be one (Calgary Sun, June 27, 1990). On July 6, 1990, AL-PAC

issued a press release describing the value of the new technology being included in the mill proposal.

5.1.4 The Scientific Review Panel - Acceptance of New Technology

The new 'scientific review' was announced by the Alberta Environment Minister in early July, indicating that no permits for the mill would be issued until the Scientific Review Panel completed its report (Financial Post, July 7, 1990). The next day, an announcement of a new public review process was made by Alberta Forestry, Lands and Wildlife through the media (Edmonton Journal, July 10, 1990). This new process was to be implemented separately from any EIA process.

In the few days following the announcement of the Scientific Review and the provincial forestry review process, perspectives polarized and confusion over the process seemed apparent. Some NGO views (e.g., Friends of the North) expressed disappointment, indicating that the review process agreed to by the federal and Alberta governments had not been followed. "It is a sad day when we cannot trust our federal government to do what they are required to do" (Darwish, June 1, 1990 - Personal Communication). Another spokesman for the same organization criticized Alberta Environment for not carrying out its mandate to follow through on the AL-PAC Review Board's recommendations (Lawrence, July 9, 1990 - Personal Communication). Criticism was also launched through the printed

media by the Alberta Wilderness Association's President, Vivian Pharis, concerning the new review process for timber harvesting of Alberta Forestry, Lands and Wildlife. "The entire process is flawed and we're just getting more government lip service ... [The Alberta and federal governments] need to look at the entire forest base including an examination of the mill and the river, all together" (Edmonton Journal, July 10, 1990).

On July 12, details of the Scientific Review Panel were announced by Alberta Environment, indicating that a three-member committee of scientists would hold three days of hearings to receive scientific presentations on the proposed technology of the mill (Saturday Post, July 13, 1990). The same article highlighted results from the completed report by Jaakko Poyry Consultants (1990). The article pointed out several needs related to the AL-PAC case. A regional environmental master plan to coordinate future forestry developments was considered essential. As well, while there were no apparent health risks downstream associated with the original AL-PAC proposal, it was felt that water quality and fish studies should be carried out to help provide information on the carrying capacity of the river system (Saturday Post, July 13, 1990).

Reactions to the scope of the Scientific Review Panel quickly came under criticism. The media indicated that opponents of the mill were outraged because of the limited scope of the Scientific Review Panel's Terms of Reference. The terms indicate that the Panel will decide who participates and who receives intervenor

funding, and may also limit intervention to people and/or organizations with scientific knowledge (Calgary Herald, July 13, 1990). An NGO organization, Friends of the North, was quoted in the printed media as threatening legal action if the project was to go ahead without first carrying out studies related to water quality and fish and wildlife habitat (Calgary Herald, July 13, 1990).

With respect to the mill's new technology to reduce impacts, an Environment Canada spokesperson was quoted as saying: "Certainly the federal government has changed its view regarding the AL-PAC mill because the company came forward with a mitigating measure which substantially changes the situation" (Edmonton Journal, July 14, 1990). Others such as the Federal Government Opposition Critic on the Environment, Charles Caccia, felt that the new technology represented a new proposal and should receive a full review (Edmonton Journal, July 18, 1990).

Throughout the rest of July and into August, various viewpoints were expressed, both negative and positive, over potential impacts of the mill on water quality (Calgary Herald, July 26, 1990; July 31, 1990; August 24, 1990). As well, a number of concerns were raised over the legitimacy of the scientific review. A spokesperson from the Sierra Club of Alberta viewed the panel's Terms of Reference as being too narrow (Hanebury, August 31, 1990 - Personal Communication). Non-compliance with required federal and provincial institutional arrangements was also considered to be a significant weakness (Fuller, July 27, 1990 - Personal Communication).

Towards the end of August, it became publicly apparent that the Terms of Reference of the Scientific Review Panel did not include assessing environmental impacts (Edmonton Journal, August 29, 1990). A submission on this subject by Fisheries and Oceans Canada was rejected for consideration since it dealt with potential environmental impacts (Department of Fisheries & Oceans, 1990). The Scientific Review Panel was quoted as saying that "[the Department of Fisheries and Oceans document] doesn't really fall under the terms of reference as we have interpreted them" (Edmonton Journal, August 29, 1990). In the same article, response to this in the media (Edmonton Journal, August 29, 1990) by a spokesperson of The Friends of the Athabasca reflected concern for the review process: "[The rejection of hearing the above report] is astounding, it really doesn't lend any credibility to the hearings. It doesn't matter how well the technology works, the significant question is the effect of the technology on the receiving environment."

With regard to whether or not the new technology being proposed by AL-PAC constituted an entirely new proposal, Environment Canada was quoted in the media as indicating that "we are treating this proposal as a mitigation of the original project and that means we are not required to launch a review ... Our legal experts told us that in their opinion, the proposal was a mitigation and that we could be sued by [AL-PAC if a new review was ordered]" (Edmonton Sun, September 11, 1990). Thus, the federal view was that the change in technology did not represent a new project.

5.1.5 Final Positions and Decisions on the AL-PAC Project

In late November 1990, a meeting was held between Environment Canada Minister, Robert de Cotret, and several provincial ministers (British Columbia, Saskatchewan), apparently to discuss natural resource management and related jurisdiction (Ottawa Citizen, November 29, 1990). With respect to EIA, Alberta Environment was quoted in the same article as indicating that it "want[s] recognition from the federal government that if there is an equivalent process for environmental impact assessment in a province ... it should be recognized" (Ottawa Citizen, November 29, 1990).

The implication being made here was clearly that the province should carry out its own process, and include federal concerns within it, rather than requiring a joint Canada/Alberta process (as in the AL-PAC case). In December, it was reported that Fisheries and Oceans Canada would study the affects of clear-cut logging in the prairie provinces on fish and fish habitat, with the AL-PAC forest management agreement as the case study area (Edmonton Journal, December 19, 1990). This action is particularly notable as the Fisheries and Oceans Canada submission to the Scientific Review Panel was not accepted on the basis that environmental impacts were outside its terms of reference. This suggests that Fisheries and Oceans Canada was continuing to address its concerns through a separate process, although it had previously been blocked.

Reactions to the anticipated mill decision were varied in late December. The Friends of the Mill indicated that "it would be the

niciest Christmas present we could get" (Edmonton Journal, December 20, 1990). Others argued that they were "outraged that the government has chosen to base their decisions on political reasons without any regard for the impact it will have on the community and the environment" (Edmonton Journal, December 20, 1990). Downstream in the NWT, similar viewpoints were reported in the media, from such individuals as John Donibee, legal counsel for the GNWT's Department of Renewable Resources. He indicated that a court injunction would be obtained to halt the project if it was approved (Calgary Herald, December 20, 1990).

The announcement of acceptance of the AL-PAC proposal drew various responses. In discussing the Alberta Government's decision, the Premier was reported as indicating that "this project is not about buildings. It is about people and jobs for people" (Globe and Mail, December 21, 1990). A real estate agent, a local resident of the area adjacent to the mill location, was quoted as saying "I think it's great", while in the same article, the views of other local residents indicated that "we're still going to fight it; there are still things we can do" (Financial Post, December 21, 1990).

At the federal level, Environment Canada Minister Robert de Cotret was quoted in the media as stating that the scientific review "shows that this will be one of the cleanest pulp mills in the world" (Financial Post, December 21, 1990). Days later, Environment Canada scientist, Robert Lane, gave his assurance that the project fell within the federal government's scientific 'comfort zone': "The project, as now mitigated, has provided us with a high

confidence level with regard to protection of the environment" (Globe and Mail, December 23, 1990).

As for the extent of the benefits of the mill, Premier Getty was quoted in the same article as pointing out that "the decision to move ahead with the AL-PAC project is good for Alberta. It's good for Athabasca and northern Alberta. It's good for Edmonton. It's good for Canada, you deserve it" (Globe and Mail, December 23, 1990). Thus, both levels of government appeared to be indicating satisfaction with the decision to proceed with the AL-PAC mill.

5.2 PERCEIVED WEAKNESSES IN INSTITUTIONAL ARRANGEMENTS DURING CONSIDERATION OF THE AL-PAC PULP MILL PROPOSAL

The following paragraphs describe, in summary form, the **types** of weaknesses that were perceived by stakeholders with regard to the adequacy of institutional arrangements in the AL-PAC case. In tabular form, Table 5.3 provides a summary account, by evaluation framework component, of the **individual** weaknesses identified in this chapter.

During the two years given to considering the AL-PAC proposal, the federal and provincial institutional arrangements having a bearing on the case appear to have evolved in response to the concerns and pressures of the various stakeholders (Table 3.5). Adjustments in the review's purpose, scope and focus were made to

Table 5.3
 Summary - Perceived Weaknesses in Institutional Arrangements*

EVALUATION COMPONENT PHASE	LEGITIMIZATION (Legislation, Policy, Guidelines, etc.)	PROCESSES/MECHANISMS	Project Concerns	P E R S P E C T I V E S Type
1. THE PROPOSAL	<ul style="list-style-type: none"> federal intervention needed - federal interests possibly affected (federal lands, native people, Wood Buffalo National Park, trans-boundary waters) EARP guidelines confirmed as being mandatory by Judge Cullen federal position that province had led in EIA and that EARP does not apply 	<ul style="list-style-type: none"> Alberta EIA process not providing mechanisms for equitable intervention geographical area for the review too small; need independent basin-wide approach federal trans-boundary water interests handled by Mackenzie River Basin Committee, not EARP lead for EIA in accord with Canada/Alberta Agreement on Environmental Impact Assessment inadequate time given to prepare for public meetings public meetings not being held in downstream area lack of complete information absence of social assessment lack of quality analysis Canada/Alberta Agreement on Environmental Impact Assessment no longer provides basis for cooperative/lead role for EIA interaction at public meetings unsatisfactory proponent and province perceived as partners rushing project through process no adequate baseline data to assess existing conditions and predict environmental impacts lack of expertise on Board (make-up) provincial position that forestry planning process better than EIA review process and would be kept separate 	<ul style="list-style-type: none"> possible loss of fish, wildlife, migratory birds and wildlife habitat 	<ul style="list-style-type: none"> organizational (ENGO)** individual political
	<ul style="list-style-type: none"> federal/provincial accord on EIA expires 	<ul style="list-style-type: none"> forest management practices impacts not included in the mill's review (forest management agreements [FMAs]) impact of all mill proposals in Mackenzie River basin should be included in AE-PAC proposal lack of federal/provincial cooperation slowing process 	<ul style="list-style-type: none"> possible impacts on drinking water/health potential social costs 	<ul style="list-style-type: none"> individuals organizational (ENGO)
	<ul style="list-style-type: none"> provincial concern to exercise primary jurisdiction over environmental decisions provincial position that Alberta environmental standards and legislation exceed those of federal government 		<ul style="list-style-type: none"> impacts on forest ecosystem 	<ul style="list-style-type: none"> individuals organizational (native)
			<ul style="list-style-type: none"> forest harvesting impacts will be unknown cumulative effects on total watershed 	<ul style="list-style-type: none"> organizational (political) individual individual organizational (private sector)

* SOURCE: correspondence/scippings.
 ** ENGO = environmental non-governmental organization.

EVALUATION COMPONENT PHASE	LEGITIMIZATION (Legislation, Policy, Guidelines, etc.)	PROCESSES/MECHANISMS	Project Concerns	PERSPECTIVES Type
2. THE JOINT AL-PAC EIA REVIEW	<ul style="list-style-type: none"> ministerial order under Department of the Environment Act (Alberta) provides provincial authority for (joint) AL-PAC Environmental Impact Assessment Review Board support for federal involvement concern over possible federal/provincial jurisdictional disputes 	<ul style="list-style-type: none"> AL-PAC Environmental Impact Assessment Review Board established review must include study of cumulative impacts downstream availability of intervenor funding for native people temporarily unclear - not provided by Board, later by Indian and Northern Affairs Canada Review Board's Terms of Reference inadequate; they should: <ul style="list-style-type: none"> include forestry harvesting environmental conditions determine carrying capacity of water system assess cumulative effects of all mills identify resource monitoring needs deal with all impacts (incl. mill's) in entire watershed geographical area for review too limited; area must: <ol style="list-style-type: none"> go beyond the project area to include downstream interests include large urban areas such as Edmonton and Calgary review area extended downstream to NWT and Edmonton joint submission by Environment Canada/Fisheries and Oceans Canada lack of scientific information to assess possible cumulative impacts lack of adequate information to assess health effects need for more studies to assess impacts need to strengthen Alberta EIA review process clarification made of continuing role of Fisheries and Oceans Canada in assessing pulp mill emissions under Canada/Alberta Agreement on Environmental Impact Assessment forestry harvesting practices via FMAs not included in review 	<ul style="list-style-type: none"> could jeopardize project unnecessarily cumulative impacts downstream cumulative impacts of all mills over entire watershed 	<ul style="list-style-type: none"> individuals organizational (private sector) organizational (private sector) organizational (territorial) organizational (native) individual ENGO organizational (native) organizational (private sector)
			<ul style="list-style-type: none"> a) cumulative impacts downstream b) subsidies using large amounts of tax revenue proposal unacceptable; no mills to be approved until cumulative impacts determined health impacts 	<ul style="list-style-type: none"> a) organizational (native) b) ENGO & individual organizational (federal scientific) ENGO organizational (native) individual organizational (federal) organizational (provincial) organizational (private sector) organizational (political)

EVALUATION COMPONENT PHASE	LEGITIMIZATION (Legislation, Policy, Guidelines, etc.)	PROCESSES/MECHANISMS	P E R S P E C T I V E S Type	Project Concerns
3. REVIEW BOARD REPORT AND AFTERMATH		<ul style="list-style-type: none"> relevant Board recommendations: <ul style="list-style-type: none"> scientific information to predict cumulative impacts considered inadequate all mills be studied for impacts on carrying capacity of water sites FIMAs for mill be negotiated in consultation with native peoples EIA for major projects be changed to include public participation before agreement-in-principle is made Review Board considered biased (towards environment) in recommending that mill be halted fear that due process would not be followed by province on Board recommendations anticipated scientific review not to use newly-created (Alberta) Natural Resources Conservation Board 	<ul style="list-style-type: none"> Review Board individuals organizational (private sector) organizational (provincial) political ENGO individual 	<ul style="list-style-type: none"> cumulative impacts on entire watershed impacts of forest harvesting on forest areas of native interest
4. SCIENTIFIC REVIEW	<ul style="list-style-type: none"> Natural Resources Conservation Board (Alberta) established for EIA of future major projects 	<ul style="list-style-type: none"> scientific review limited to assessment of mill technology, omitting assessment of environmental impacts scientific review perceived as attempt by government to avoid implementing Review Board's recommendations timber harvesting review process considered flawed without examining its impacts and mill impacts together Jasakoo Poyry report indicates: <ul style="list-style-type: none"> need for regional environmental master plan to coordinate future forestry developments water quality and fish studies needed to determine carrying capacity of river system scope of scientific review criticized as being too narrow (limited to assessment of mill technology) and too selective regarding who can give briefs (people with scientific knowledge) Fisheries and Oceans Canada submission rejected by Scientific Review Board as not being within Terms of Reference; indication of unclear perceptions of Board's role by this federal agency 	<ul style="list-style-type: none"> ENGOS individuals ENGOS individuals scientific 	<ul style="list-style-type: none"> water quality, fish habitat

EVALUATION COMPONENT PHASE	LEGITIMIZATION (Legislation, Policy, Guidelines, etc.)	PROCESSES/MECHANISMS	Project Concerns	P E R S P E C T I V E S Type
5. FINAL POSITIONS AND DECISIONS	<ul style="list-style-type: none"> · continuing uncertainty by public as to when EAPP applies; Environment Canada's position unchanged: a) EAPP only for spur line to mill b) joint review previously carried out under Canada/Alberta Agreement (expired May 1989) · Alberta Government indicates need for federal government to recognize equivalent EIA process by province · Fisheries and Oceans Canada exercise mandate to study effects of clearcut logging on fish and fish habitat for an area including mill proposal 	<ul style="list-style-type: none"> · perception that approval for mill was political and not result of process which was established to examine environmental and community impacts · mitigation measures to mill deemed sufficient to provide high level of confidence with regard to protection of environment 	<ul style="list-style-type: none"> · organizational (federal/provincial) · organizational (provincial) · ENGOs · individuals · organizational (federal) 	<ul style="list-style-type: none"> · organizational (federal/provincial) · organizational (provincial) · ENGOs · individuals · organizational (federal)

accommodate the need for conflict resolution. Three of these adjustments were major, essentially resulting in the proposal being assessed in three sequential steps: by the proponent, by a federal/provincial board, and by a scientific panel of experts.

Provincial policy for EIA provided the initial basis for AL-PAC's early attempt to assess the mill's potential impacts, and for the subsequent review, with the public, of the company's proposal and its impact assessment (Alberta Environment, 1985). Considerable dissatisfaction with both the proposal and the review process was expressed by the general public, within and beyond the mill site and its watershed, by NGOs and by the GNWT, and appears to have stimulated a view that an independent review of the proposal was needed. As well, it was felt that such a review should have enough scope to assess scientific information and public viewpoints over a wider geographical area, and to include greater opportunities for public intervention, particularly downstream.

It became apparent in both the printed media and the correspondence that a segment of the interested public believed that federal interests could be affected by the mill proposal. Consequently, it was felt by those expressing such concerns that application of the federal EARP (1984) could possibly provide a more independent review than that already underway. In what appears to be a learned response to this situation, the Province of Alberta (Alberta Environment) and Environment Canada established the AL-PAC Review Board to assess and review the proposal.

During the life of the AL-PAC Review Board, its scope appeared to expand from what was explicitly stated in its original Terms of Reference (Alberta Environment, 1989: Ministerial Order No. 08/89). The scope expanded as well to one that widened geographically to address not just the impact of one mill over the project area, but also the need to examine possible cumulative effects of all developments on the entire watershed. At the same time, however, while the need to assess the impacts of timber harvesting was a prominent public issue, the AL-PAC Review Board's response did not change to include it. The Government of Alberta chose to deal with the impacts of timber harvesting within a separate process.

Throughout the AL-PAC Review Board's public hearings, it became apparent that while a number of significant weaknesses in the institutional arrangements were identified, a main focus of concern centred on a lack of suitable scientific information. This void in information and knowledge rested in two primary areas: First, an adequate understanding of the conditions which currently prevailed in the water system, such as fish populations, water quality, chemical loadings and their affect on fish, etc. Second, a prediction of the environmental impact that the mill would have, in and of itself, as well as cumulatively in relation to other existing and proposed mill developments and related forest harvesting, on the entire Peace-Athabasca-Mackenzie Basin.

As a result, the AL-PAC Review Board did not finish by giving a conclusive assessment of the predicted impacts of the mill on the environment, as well as any judgements as to whether such impacts

would be acceptable. Instead, it concluded that the data required to make this judgement were inadequate or missing. In addition, it stated that until this need for data was satisfied, which could take several years, and until a comprehensive assessment was made of the mill's impact, it should not proceed.

With the provincial decision to stop the mill, the inadequacy of the scientific information available clearly stood in the way of any potential future for the mill. Two actions resulted from this perceived weakness in information. First, Jaakko Poyry Consulting was hired to assess the value of existing scientific information. Second, Alberta-Pacific Forest Industries Limited (AL-PAC) offered to change the design of the mill's processing technology in the belief that this change would result in 'safe' levels of emissions. The observed rationale for the new proposal appeared to be that the new technology could eliminate the possibility of harmful impacts.

The proposal of new technology for the mill appeared to result in some uncertainty in terms of institutional arrangements. Debate ensued over whether the new technology represented a totally new proposal, necessitating a completely new review for the entire mill proposal, or whether it should be seen as a mitigation measure within the old proposal which had already been reviewed.

In response, the Government of Alberta took the position that only the new technology must be reviewed and that a panel of scientific experts was to be established to obtain scientific viewpoints on the adequacy of the technology. The position of Environment Canada, in stating that the new technology was being

treated as a mitigation measure for the proposal already reviewed, did not appear to be in conflict with Alberta's viewpoint.

The scope and purpose of the third review was, therefore, restricted to an assessment of the mill's technology in producing emissions considered to be safe. Its Terms of Reference included neither an assessment of impacts on the environmental resources, nor an assessment of impacts related to forest harvesting (Alberta Environment, 1990: Ministerial Order No. 09/90). The Scientific Review Panel and, subsequently, the Government of Alberta, 'blessed' the technology in giving the proposal the 'go-ahead'.

Subsequent to the decision to proceed with the mill, the remaining main issue, centring on the lack of scientific information for predicting cumulative effects within the Peace-Athabasca-Mackenzie Basin watershed, was later addressed in September 1991, when representatives of the federal, Alberta and NWT governments signed the \$12.3-million Canada-Alberta Peace-Athabasca-Slave River Basin Agreement (Canada/Alberta, 1991: Press Release, September 27).

Thus, many of the weaknesses which emerged throughout the decision-making process were overcome by adjustments in the purpose, scope, and focus of the institutional arrangements. These adjustments provided mechanisms and processes to hear and resolve conflicting viewpoints in reaching what appears to be a compromise solution. While the perceptions of some people, such as a spokesperson from the Prosperity Environmental Association, labelled the final decision as politically expedient, other local people such

as members of The Friends of the Mill felt that it was providing "a Christmas present" (Edmonton Journal, December 20, 1990).

In conclusion, this chapter has outlined how the AL-PAC proposal was considered. The events, the stakeholders and the perceived weaknesses in institutional arrangements that were identified by the stakeholders were described and also summarized in Table 5.3. The chapter which follows identifies and evaluates the first component of these institutional arrangements: legislation and policies.

CHAPTER 6

LEGITIMIZATION WEAKNESSES IN INSTITUTIONAL ARRANGEMENTS

The ... great institutional flaw in coping with environment/development challenges is government's failure to make the bodies whose policy actions degrade the environment responsible for ensuring their policies prevent that degradation.

(WCED, 1987: 9)

6.0 INTRODUCTION

Through an examination of the institutional context surrounding the AL-PAC case, Chapter 5 identified **perceived** weaknesses in the mechanism/ process and legitimization components of institutional arrangements. The identification of these weaknesses was based on a rigorous analysis of related correspondence and newsclippings. The present chapter describes legitimization weaknesses, using the evaluation framework once again (Figure 3.5). The chapter commences with an overview of each legislative/policy instrument of the federal government (Table 6.1). In the same instance, the objectives, powers and authorities of each instrument are identified. Arrangements designed to address conflict resolution are also given.

A summary description of the results of the evaluation of the federal government legislative/policy instruments follows (Table 6.2), outlining perceived weaknesses relative to each of the criteria in the evaluation framework. Similarly, any legitimization weaknesses which were perceived as being the cause of possible weaknesses in mechanisms are identified and were later considered within Chapter 7 ("Process and Mechanism Weaknesses in Institutional Arrangements") so that any possible interaction among the components of the evaluation framework would be thoroughly investigated.

The above procedure is then repeated to arrive at a description of the weaknesses apparent with regard to the legislation and policies of the Alberta government (Table 6.4).

6.1 FEDERAL GOVERNMENT LEGISLATION AND POLICIES

6.1.1 Overview - Federal Government Legislation and Policies

In examining the evolution of the AL-PAC pulp mill review, it became apparent that general federal involvement was mainly guided by the Agreement Concerning Environmental Impact Assessment of Projects in Alberta with Implications for Canada and Alberta (Canada/Alberta, 1986) (Table 7.1). The Agreement between the two governments provided the opportunity for the Alberta Government to take the lead in EIAs where duplication of review processes could be

Table 6.1
Summary - Federal Government Legislation and Policies Relevant to the AL-PAC Case

DESCRIPTION	PURPOSE	POWERS/AUTHORITIES	CONFLICT RESOLUTION
<p>1. LEGISLATION</p> <p><u>Department of the Environment Act</u> (R.S.C. 1985, c. 14, 2nd Supp., s. 2)</p>	<ul style="list-style-type: none"> • establish Department of the Environment to deal with matters related to: <ul style="list-style-type: none"> - preservation and enhancement of environmental quality - renewable resources, including migratory birds - water • coordination of policies and programs of Government of Canada regarding the above - national parks 	<ul style="list-style-type: none"> • initiate, recommend and undertake related programs • promote and encourage environmental quality • advise heads of departments on environmental matters • establish guidelines for use by other departments • enter into agreements with government of any province or agency on matters related to environment 	
<p><u>Canada Water Act</u> (R.S.C. 1970, c. 5, 1st Supp., s. 1)</p>	<ul style="list-style-type: none"> • provide for management of water resources of Canada, including research, and planning/implementation of programs relating to conservation, development and utilization of water resources 	<p>*Part I, Comprehensive Water Resource Management:</p> <ul style="list-style-type: none"> • establish intergovernmental bodies to consult, advise and coordinate research, planning, policy and programs • enter into agreements with provincial governments to conduct research, formulate comprehensive management plans, design projects and implement plans • conduct research, collect data and establish inventories respecting management aspects of water resources <p>*Part II, Water Quality Management:</p> <ul style="list-style-type: none"> • enter into agreements with provincial governments to designate and manage water quality management areas • declare water quality management areas for inter-jurisdictional and/or federal waters; establish agencies to plan and manage related programs • regulate water quality in water quality management areas 	
<p><u>Fisheries Act</u> (R.S.C. 1985, c. F-14, s. 1)</p>	<ul style="list-style-type: none"> • provide for management of fish resources for purpose of maintaining viable commercial and sport fishing 	<ul style="list-style-type: none"> • regulate control of deleterious substance emissions into water bodies for purposes of fish habitat protection and pollution prevention • require plans and specifications of any development (including pulp mills) likely to result in degradation of fish and/or fish habitat • request modifications to and/or restrict or close any development deemed necessary, relative to Act's purpose 	

DESCRIPTION	PURPOSE	POWERS/AUTHORITIES	CONFLICT RESOLUTION
<p>2. POLICIES</p> <ul style="list-style-type: none"> Environmental Assessment and Review Process (EARP) Guidelines Order (Regulation SOR/84-467, June 22, 1984, and pursuant to s. 6 (2), Government Organization Act (responsible agency: Federal Environmental Assessment and Review Office (FEARO), reporting to Minister of the Environment) 	<p>set out requirements and procedures of FEARO Process, and responsibilities of participants therein</p>	<p>establish and administer assessments and reviews in order to:</p> <ul style="list-style-type: none"> - ensure that environmental consequences of all federal proposals are assessed for potential adverse effects, including directly related social/economic implications - ensure that environmental consequences of any development are assessed when federal responsibilities and lands may be affected, or when federal funds are involved - determine mitigation or compensation measures which could prevent any adverse effects of development 	<p>Environmental Assessment Panel (any decision on panel recommendations is made by initiating department in cooperation with any affected departments)</p>
<ul style="list-style-type: none"> Federal Environmental Assessment and Review Process (FEARO, 1987) (as above) - publication describing above process 	<p>planning tool (process) for predictive potential environmental impacts measures to identify unwanted effects before they occur and to determine mitigation measures</p> <p>offers opportunity to alter or abandon plans if major negative effects cannot be modified</p>	<p>as above</p>	<p>as above, plus: panels hold public meetings to scope issues and/or receive public comments on proposals - members have special knowledge and/or relevant experience</p>

avoided. As late as October 1990, it was evident that the only possible direct application of the federal Environmental Assessment and Review Process Guidelines Order (Table 6.1) had been or would be for the assessment of a proposed rail spur line to service the mill (de Cotret, October 9, 1990 - Personal Communication). Construction of this spur line was not given coverage in other correspondence or the media as being an issue of concern.

While the EARP was not directly applied to the main mill proposal, the Province of Alberta negotiated terms of reference with the federal Minister of the Environment, Hon. Lucien Bouchard, for the establishment of the AL-PAC Review Board.

The Alberta Government made this move because it was perhaps encouraged to do so by the concurrent court decision by Justice Cullen (1989) that the EARP Guidelines (EARP, 1984) were binding in the Rafferty-Alameda Dam case. In any case, this AL-PAC Review Board and its terms of reference were established by provincial Ministerial Order (Alberta Environment, 1989: Ministerial No. 08/89).

It was apparent that FEARO was at least mindful of the EARP Order at the time the AL-PAC Review Board was appointed. It had undertaken consultations pursuant to section 32 of the EARP Order which allows FEARO to vary these provisions in the Order (sections 21-31) relating to the creation and conduct of a public review (Edwards, 1990: 37). Thus, while the EARP may not have been directly applied, the arrangements made for the AL-PAC Review Board and the positions taken by the federal government appear to have

reflected a concern for the spirit of both the Guidelines Order and the expired Canada/Alberta Agreement on Environmental Impact Assessment.

Expert advice and/or intervention was provided to the AL-PAC Review Board by representatives of the federal Department of the Environment (Department of the Environment Act, R.S.C. 1985, c. 14) and the Department of Fisheries and Oceans (under the Fisheries Act, R.S.C. 1985, c. F-14) (Table 6.1). Similarly, representations were made to the Scientific Review Panel established by Ministerial Order No. 09/90 (Alberta Environment, 1990) under Alberta's Department of the Environment Act [R.S.A. 1980, c. D-19, s. 6 (1)]. The three-year environmental impact study on cumulative effects of existing and proposed developments on the region (Canada, 1990a: 37), which resulted from the recommendations of the AL-PAC Review Board, was to be carried out under arrangements provided for by the Canada Water Act (R.S.C. 1970, c. 5, 1st Supp. s. 1) (Table 6.1).

6.1.2 Summary - Weaknesses in Federal Government Legislation and Policies

The following paragraphs describe the identified apparent weaknesses in the order that the criteria of the evaluation framework were applied. In applying the evaluation framework criteria to the identified federal legislation and policies, the main focus of enquiry was to determine to what extent its purpose,

powers and authorities, and its capacity for conflict resolution, provided the opportunity for integrated resource management. This overriding question was thus asked through application of each of the evaluation framework criteria, and the results were correspondingly documented.

The following section provides, in summary form, a description of the results obtained from the evaluation of identified federal legislation and policies (Table 6.2).

The evaluation of federal legislation and policy indicated that the requirements identified for IRM are generally not explicitly in evidence in any of the instruments. As well, these instruments do not appear to be linked in any explicit way to form part of a cohesive body of legislation and policy within a resource management process context. Instead, they appear to stand almost alone and within their own sectoral boundaries. The Canada Water Act (R.S.C. 1970, c. 5) appears to be the exception where integration is extensively implied.

The Department of the Environment Act (R.S.C. 1985, c. 14) does not explicitly acknowledge multiple-purpose use of resources and/or resource management as a means for attaining other multi-sectoral purposes. As well, no explicit linkage is provided with the EARP as a planning tool or as a process for assessing projects for sectoral purposes at the project review stage of IRM. While the Act implies sector blending for the purposes of the environment, it provides no explicit mention or need for processes/mechanisms to blend sectoral interests in relation to resource management.

Table 6.2
Summary - Perceived Weaknesses in Federal Legislation and Policies Relevant to the AL-PAC Case

CRITERIA LEGISLATION/POLICY	MPMMMPFS	SECTOR BLENDING	SOCIO ECONOMIC TOOL	CONFLICT RESOLUTION	STRATEGIC IN PLANNING	INTERACTIVE IN PLANNING	MULTI- PERSPECTIVE
Department of the Environment Act (R.S.C. 1985, c. 14, 2nd Supp., s. 2)	<ul style="list-style-type: none"> not explicit in relation to other sectoral interests no explicit relationship to EA purpose/holders only explicit to environment, almost sectoral in focus 	<ul style="list-style-type: none"> no explicit requirement or provision for mechanisms/processes for sector blending 	<ul style="list-style-type: none"> does not (explicitly) address broader social/economic goals, only environmental 	<ul style="list-style-type: none"> no explicit acknowledgement of intersectoral conflicts, need for resolution or provision of mechanisms for same 	n/a	n/a	n/a
Canada Water Act (R.S.C. 1970, c. 5, 1st Supp., s. 1)	<ul style="list-style-type: none"> does not explicitly acknowledge other sectoral purposes (users) or possible impacts in any strategic sense 	<ul style="list-style-type: none"> sector blending mechanisms only focus on water needs - no explicit requirement for sector blending 	<ul style="list-style-type: none"> explicitly mentions broader socio-economic goals, but neglects to link them explicitly with purpose and powers 	<ul style="list-style-type: none"> no explicit acknowledgement of need for conflict resolution or compromise in consultative, advisory or coordinating mechanisms provided for 	n/a	n/a	n/a
Fisheries Act (R.S.C. 1985, c. F. 14, s. 1)	<ul style="list-style-type: none"> single purpose 	<ul style="list-style-type: none"> implicit recognition of other sectoral impacts at project review stage 	<ul style="list-style-type: none"> no explicit mention of broader socio-economic goals - assumes in public interest 	<ul style="list-style-type: none"> no explicit provision for mechanisms for conflict resolution related to other sectors 	n/a	n/a	n/a
Environmental Assessment and Review Process* (EARP, 1984)	<ul style="list-style-type: none"> no explicit or implicit linkage to other legislation or policy wording does not reflect explicit purpose as integrative 'planning tool' as suggested 	<ul style="list-style-type: none"> explicit for sector blending of impacts of project not explicit in requiring blend of sectoral interests 	<ul style="list-style-type: none"> only explicit regarding impacts on socio-economic factors - not seen as a means for assessing overall socio-economic environmental benefits and cost 	<ul style="list-style-type: none"> mechanisms provided in initial assessment - no mandatory requirement for stakeholder participation emphasis on examining effects and making recommendations rather than achieving compromise among stakeholders 	<ul style="list-style-type: none"> explicit in purpose and required activities, but less definitive on how, why and when process starts, relative to general definition of affected areas of federal responsibility 	<ul style="list-style-type: none"> early scoping of issues by other than initiating department is discretionary need for panel review determined by initiating department (vested interest) panel review interaction limited to question/answer approach, rather than consensus building 	<ul style="list-style-type: none"> explicitly recognized perspectives limited to government (departments), proponent and "public"

Apart from environmental concerns or needs, such as preservation and enhancement of environmental quality, the Act does not explicitly address any broad social and/or economic goals. Achieving accommodation and compromise among sectoral uses of the environment is only implicit, reflected in the use of words such as 'preservation'.

The Canada Water Act (R.S.C. 1970, c. 5), while providing for the opportunity for MPMMPS, does not explicitly acknowledge inter-relationships among water end-users, nor other sectoral purposes or strategies for the use of water. It is apparent that this Act could have provided the opportunity for a cumulative impact study prior to AL-PAC within the regional planning context described in Section 4.1.2. This Act provides for generic tasks such as research, coordination and consultation, but it is not explicit in relation to addressing sectoral interests. It gives the impression that only water-related interests are being blended. However, the Act is the only federal instrument (Table 6.2) which appears to explicitly acknowledge and address broad social and economic issues. "Pollution of the water resources of Canada is a significant and rapidly increasing threat to the health, well being and prosperity of the people of Canada and to the quality of the Canadian environment at large and as a result it has become a matter of urgent national concern" (Canada Water Act, R.S.C. 1970, c. 5, Preamble: 2). While it does provide for consultative, advisory and coordinating bodies, it can only be assumed that the purpose of such

bodies is to search for accommodation and compromise in the preparation of plans.

The Fisheries Act (R.S.C. 1985, c. F-14, s. 1) appears to be concerned almost exclusively with fisheries interests and is generally silent on any linkages with other sectoral purposes or strategies. Thus, there is no apparent acknowledgement of other sectoral interests or of any opportunity to provide for them.

The EARP appears to stand alone and is not explicitly linked in its wording to other federal legislation and policy (Table 6.1). Its purpose does not appear to be as an integrative tool which could assess projects from a multiple-purpose perspective. While it provides for the opportunity for sector blending of impacts, it does not appear to be seen as a means for sector blending or as a process designed to address broader social and/or economic goals. Instead, it appears to address only the social and economic factors or concerns related to the potential impacts of a project. As well, it appears to be implicit that the EARP is designed to achieve accommodation and compromise in terms of planning. The process is more specifically described as examining "effects" and making recommendations. In terms of planning, the EARP appears strategic in that it details what is to be achieved and the steps for achieving it. What appears less clear is when the process gets triggered by a provincially-initiated proposal (such as AL-PAC) affecting an area of federal responsibility. The latter is not extensively defined in any detail within the guidelines.

Relative to scoping of issues early in the process, it is apparent that this is only encouraged in the initial environmental assessment stage, and then only as a requirement in the later public review, if the initiating department deems it to be necessary. It would seem apparent, then, that had the EARP been operative, scoping would have been at least encouraged, if not formalized, during an initial assessment stage. As well, the opportunity for encouraging interaction could have been provided for, but again not as a requirement. The EARP's wording also suggests that the extent of the interaction at the panel review stage appears to be limited to question-and-answer hearings through a chairperson, rather than using a capacity-building interactive approach.

With respect to the last criterion - i.e., adequacy for including multiple perspectives - the EARP does not acknowledge that various perspectives are important to the process. Its description of the stakeholders includes mainly "the government (departments)" and "the public", with little apparent recognition of political, scientific and sectoral perspectives.

6.2 ALBERTA GOVERNMENT LEGISLATION AND POLICIES

6.2.1 Overview: Alberta Government Legislation and Policies

Several provincial statutes and policies had a direct bearing on how the AL-PAC proposal was considered during the EIA review (Table 6.3). The provincial Department of Environment Act (R.S.A.

Table 6.3

Summary - Alberta Government Legislation and Policies Relevant to the AL-PAC Case

DESCRIPTION	PURPOSE	POWERS/AUTHORITIES	CONFLICT RESOLUTION
1. LEGISLATION			
<ul style="list-style-type: none"> Department of the Environment Act (R.S.A. 1980, c. D-19) (responsible agency: Department of the Environment or Alberta Environment) 	<ul style="list-style-type: none"> establish Department of the Environment to deal with matters related to: <ul style="list-style-type: none"> - conservation, management and utilization of natural resources - pollution prevention and control - economic factors, operations or activities related to the above - related existing laws that affect ecology of the environment or natural resources 	<ul style="list-style-type: none"> coordinate related policies, programs and services/procedures liaise with agencies of all levels of government as representative of Alberta Government on related matters establish boards, committees and councils to advise on or administer related matters (e.g., AL-PAC EIA Review Board, AL-PAC Scientific Review Panel) enter into agreements with the above or with individuals on related matters establish areas to restrict or prohibit types of use or development regulate/prohibit activities which could be harmful to the environment conduct, review and coordinate related research prepare long-range environmental plans 	<ul style="list-style-type: none"> Natural Resources Co-ordinating Council (Deputy Ministers) Conservation and Utilization Committee (departmental employees) Environmental Council (Environmental Council Act, R.S.A. 1980, c. E-13)
<ul style="list-style-type: none"> Land Surface Conservation and Reclamation Act (R.S.A. 1980, c. L-3) (responsible agency: Department of the Environment or Alberta Environment) 	<ul style="list-style-type: none"> provide for administration of surface disturbance on lands with respect to conservation and reclamation 	<ul style="list-style-type: none"> promote and coordinate preparation of inventory of natural resources record, analyze and disseminate related data/information restrict use of land through agreements require assessment of environmental impact of any proposed operation or activity considered in the public interest stop any operation or activity deemed to contravene Act's provisions 	<ul style="list-style-type: none"> Environmental Council of Alberta (Environmental Council Act, R.S.A. 1980, c. E-13) environmental impact assessment for projects with surface disturbances
<ul style="list-style-type: none"> Department of Forestry, Lands and Wildlife Act (R.S.A. 1986, c. D-20.5) (responsible agency: Department of Forestry, Lands and Wildlife) 	<ul style="list-style-type: none"> establish Department of Forestry, Lands and Wildlife 	<ul style="list-style-type: none"> establish boards, committees or councils to advise on and administer related policies, programs and services 	

DESCRIPTION	PURPOSE	POWERS/AUTHORITIES	CONFLICT RESOLUTION
1. LEGISLATION (cont'd)			
<ul style="list-style-type: none"> Forests Act (R.S.A. 1980, c. F-16) (responsible agency: Department of Forestry, Lands and Wildlife) 	<ul style="list-style-type: none"> provide for production and disposition of timber 	<ul style="list-style-type: none"> divide forest land into forest management units determine annual allowable cut of timber in above units enter into forest management agreements for establishing, growing and harvesting timber set quotas, and issue licences and permits for disposal of timber require operating plan for a licence declare forest land zones and manage their use 	<ul style="list-style-type: none"> Integrated Resource Planning (Public Lands Act, R.S.A. 1980, c. P-30, s. 10)
2. POLICIES/GUIDELINES			
<ul style="list-style-type: none"> "Environmental Impact Assessment Guidelines" (responsible agency: Department of the Environment or Alberta Environment) (enabling legislation: <u>Land Surface Conservation and Reclamation Act</u> (R.S.A. 1980, c. L-3)) 	<ul style="list-style-type: none"> assist proponents of proposed developments who have been requested by Minister of the Environment to prepare and submit Environmental Impact Assessment Report 	<ul style="list-style-type: none"> provide (general) requirements for types, notice, approach, scope, content, public participation and approval elements of preparing and reviewing an EIA report 	<ul style="list-style-type: none"> Internal Interdepartmental and Multidisciplinary Review no explicit public hearing process for non-erigy projects proponent must determine public acceptability of project through self-designed public participation process
<ul style="list-style-type: none"> "Public Involvement and Forest Management Planning: Planning Together for the Future" (1990 guide) (responsible agency: Department of Forestry, Lands and Wildlife) 	<ul style="list-style-type: none"> explain forest management planning roles and responsibilities, and why and how public involvement takes place 	<ul style="list-style-type: none"> provide opportunity for economic diversification ensure development is subject to assessment and approval processes within IFM resolve conflicts among competing demands for public lands and resources seek public input in planning and ensure public concerns are considered 	<ul style="list-style-type: none"> Environmental Liaison Committee department resolves potential conflicts among competing demands for public lands and resources

1980, c. D-19) established Alberta Environment and, within its powers, provided the authority for coordination of environmental policies, programs and services with agencies within and outside of the provincial government. As the central provincial focal point for environmental matters, Alberta Environment was thus responsible for liaison and coordination on matters related to the AL-PAC review with federal and territorial government departments, as well as with municipalities, industry, NGOs, and other groups and individuals within the public sphere.

The statutory basis for the EIA of the AL-PAC proposal is found in section 8.1 of the Land Surface Conservation and Reclamation Act (R.S.A. 1980, c. L-3), administered by Alberta Environment. This is an Act which appears primarily to deal with environmental impacts of projects due to surface disturbances, not the assessment of impacts of a broader environmental nature, as found in the Department of the Environment Act (R.S.A. 1980, c. D-19, s. 2).

While the definition of surface disturbance (within the former Act) refers to the surface of land, section 8.2 indicates that the Minister may require an EIA (report) on a proposed project which could take into account a number of specified matters, including the conservation and management of natural resources, and pollution prevention and control of natural resources. As natural resources are defined in the Act to include land, plant life, animal life, water and air, the EIA could deal with more than impacts on land.

Although the Land Surface Conservation and Reclamation Act (R.S.A. 1980, c. L-13) provides authority to specify requirements

for EIAs, this had not been done at the time of writing. Requirements for the types, notices, approaches, scope and content of EIAs, including public participation, were instead covered by policy administered by Alberta Environment and described in the Environmental Impact Assessment Guidelines (Alberta Environment, 1985: 19). **Pulp mill developments are not listed in this policy as a project covered by the guidelines requiring an EIA**, although this did not appear to be an impediment for the provincial government in requiring an EIA in the AL-PAC case.

Authority to order public hearings is contained in section 6 of the Department of the Environment Act (R.S.A. 1980, c. D-19, s. 6-1) and was cited as the provisory clause for both Ministerial Order No. 08/89 (Alberta Environment, 1989), putting in place the AL-PAC Review Board, and Ministerial Order No. 09/90 (Alberta Environment, 1990), for the establishment of the Scientific Review Panel. The public reviews for the AL-PAC case were the first to be ordered utilizing section 6 of the Department of the Environment Act (R.S.A. 1980, c. D-19, s. 6) for a non-energy-related proposal (Edwards, 1990: 31-32).

While Alberta Forestry was not part of the review, its absence from the process became an issue and led to perceived weaknesses in the process itself (Table 6.4). While some government departments, non-governmental agencies and individuals felt that forest harvesting to supply the AL-PAC mill should have been part of a single environmental review, Alberta Forestry, Lands and Wildlife indicated by letter to inquiring citizens that the separate process

operated by the department was the most suitable, if not superior, approach for assessing forestry practices (Fjordbotten, June 30, 1989 - Personal Communication) in comparison with the EIA being conducted.

The Forests Act (R.S.A. 1980, c. F-16) provides the statutory basis for managing the production and disposition of timber on forest lands, and for managing declared land-use zones in accordance with this Act and section 10 of the Public Lands Act (R.S.A. 1980, c. P-30, s. 10). Neither of these Acts, nor the Department of Forestry, Lands and Wildlife Act (R.S.A. 1986, c. D-20, s. 5) (which establishes the Department of Forestry, Lands and Wildlife), specify any requirements for environmental impact assessment, nor is there any explicit reference to public involvement or how it might take place. In the latter Act, section 6.1 indicates that boards, committees or councils can be established to advise on related responsibilities. However, no specific provisions are evident for direct public involvement immediately prior to and/or during the establishment of any forest management agreement (FMA) which would set out requirements for timber harvesting.

Shortly after the end of the time period for review and approval of the AL-PAC pulp mill (the research period for this dissertation), the Department of Forestry, Lands and Wildlife released a policy statement concerning public involvement and forest management (Table 6.3). Although this policy was not publicly in effect during the course of the AL-PAC mill review, statements by the Department in response to inquiries and concerns may have

reflected the spirit of this yet-to-be-published policy (Section 5.1). Assuming that this was the case, and for the sake of conducting a thorough analysis, this policy was included in the evaluation described in the following section. The discussion which follows describes the weaknesses observed in the above described provincial legislation and policies, as a result of applying the evaluation framework criteria.

6.2.2 Summary - Weaknesses in Alberta Government Legislation and Policies

The following section describes the weaknesses that were apparent in the province's legislation and policies having a bearing on the AL-PAC case. These are identified in Table 6.4. Weaknesses were identified and described - again, through the application of the criteria of the evaluation framework to each of the instruments. The following paragraphs report these results in order of the criteria within the evaluation framework.

It is evident that provincial legislation and policy only partially and implicitly provide the opportunity for integrated resource management. As a whole, the instruments examined do not form a cohesive body of explicitly inter-related powers and purposes within an overall resource management context. As such, they appear to be separate and to stand alone to serve sectoral needs. Where integration is explicitly endorsed, no definitions are provided as

Table 6.4

Summary - Perceived Weaknesses in Alberta Government Legislation and Policies Relevant to the AL-PAC Case

LEGISLATION/POLICY	MP/MAMP/PS	SECTOR BLENDING	SOCIO/ECONOMIC TOOL	CONFLICT RESOLUTION	STRATEGIC IN PLANNING	INTERACTIVE IN PLANNING	MULTI-PERSPECTIVE
Department of the Environment A/E (R.S.A. 1980, c. 15-119)	<ul style="list-style-type: none"> not explicit in terms of purposes re: other sectoral purposes no explicit relationship to EA or EIA, including lack of coherency with other related acts purpose/means linkage not explicit and open to interpretation 	<ul style="list-style-type: none"> mechanisms provided not explicit in purpose - only generic functions no explicit requirement to bring 'y' or address sectors - 'means' during regional (land-use) planning & provide review stages of EIA 	<ul style="list-style-type: none"> no explicit requirement to address broader socio-economic goals - e.g., diversification of provincial economy environment treated much like a sector 	<ul style="list-style-type: none"> no explicit recognition/acknowledgment of legitimacy of conflict resolution as normal while possible mechanisms provided, no explicit purpose for resolution - only implicit for environment 	n/a	n/a	n/a
Land Surface Conservation Act (R.S.A. 1980, c. 15-1)	<ul style="list-style-type: none"> only reactive in response to other purposes not strategic in nature re: use of resources no explicit linkage with other legislation/policy 	<ul style="list-style-type: none"> no explicit reference to requirements for procedures for sector blending and E.I. 	<ul style="list-style-type: none"> nothing explicit - 'public interest' cited as implicit general goal 	<ul style="list-style-type: none"> provides opportunity for EA processes, but no specific procedures for implementation (e.g., conflict resolution) EA process explicitly linked to surface disturbances - not multi-sectoral conflict resolution 	n/a	n/a	n/a
Department of Forestry, Parks and Wildlife (R.S.A. 1980, c. 15-20)	<ul style="list-style-type: none"> no linkage to environment or other sectoral status/policies - (i.e., stands alone) 	<ul style="list-style-type: none"> no explicit evidence 	<ul style="list-style-type: none"> no explicit evidence 	<ul style="list-style-type: none"> no explicit evidence 	n/a	n/a	n/a
Forests Act (R.S.A. 1980, c. 17-15)	<ul style="list-style-type: none"> no explicit linkage to purposes of Environment Act no explicit linkage to EIA in Public Lands Act not seen as planning tool re: other sectoral purposes at project stage explicit purpose limited to adding proponent in proposing reports and providing information to public 	<ul style="list-style-type: none"> no explicit requirement for sector blending, although possible mechanisms in place implicit emphasis primarily on achieving (and/or maintaining) impacts - reaches 	<ul style="list-style-type: none"> only 'public interest' cited in relation to operational sectoral forestry goals no statutory basis for policy guidelines linked below sectoral objectives 	<ul style="list-style-type: none"> no explicit acknowledgement or provision prior to development linked to operational resolution once 'go' decision is made - e.g., how not if project should proceed 	n/a	n/a	n/a
Environmental Assessment Guidelines (prevailing legislation) - Land Surface Conservation and Reclamation Act (R.S.A. 1980, c. 15-1)	<ul style="list-style-type: none"> acknowledges multi-purpose importance of resource management, but nothing on how this is achieved prior to proposal approval no representation of linkage to EA or EIA Forestry Department seen as local point for purposes - ensure (pre-) assessment and approval processes 	<ul style="list-style-type: none"> endorses EIA, but little explicit evidence on how sectoral linkage will be achieved (e.g., explicit mechanisms/processes) 	<ul style="list-style-type: none"> implicitly endorses broader principles of co-ordination and explicit procedure 	<ul style="list-style-type: none"> no explicit provision for conflict resolution mechanisms - only for identifying issues and obtaining public input explicit statement: 'the Dept.] reaches conflict' 	<ul style="list-style-type: none"> not explicitly clear that project acceptability is being assessed on procedural steps, guidelines are general not all participants have equal voice little or no evidence of emphasis on capacity building 	<ul style="list-style-type: none"> degree of interaction determined by proponent nature and extent of interaction not specified in guidelines 	<ul style="list-style-type: none"> only government, proponent and 'public' identified within process
Public Investment and Forest Management Planning (Togetherness for the Future) - Public Forestry, Land & Wildlife, 1985					<ul style="list-style-type: none"> details process on an general - not assessable 	<ul style="list-style-type: none"> appears limited to obtaining viewpoints by proponent for its consideration apart from the public 	<ul style="list-style-type: none"> no explicit acknowledgment of importance of scientific and political perspectives

to details of procedures and scope. Where integration is implied, powers and process are generic without explicit purpose. Consequently, the legislation and policy appear to be very general in nature and lacking in definitive purpose and powers in relation to requiring and/or providing for integration.

While the Department of the Environment Act (R.S.A. 1980, c. D-19) appears to be multiple-purpose in nature with regard to environmental matters, the Act's expressed powers and authorities are generic in nature and thus, no clear purpose is directly or explicitly attached to them - e.g., coordination for what purpose. The Act is also silent on any relationship with integrated resource planning being carried out under authority of the Public Lands Act (R.S.A. 1980, c. P-30), or having EIA provided for under the Land Surface Conservation and Reclamation Act (R.S.A. 1980, c. L-3, s. 8.1). Each of the latter two acts appear more limited in scope than the former. It is also apparent that although the Department of the Environment Act (R.S.A. 1980, c. D-19) could have provided an opportunity for sector blending or the coordination of resource-related departments interests prior to and during the AL-PAC case, the powers and mechanisms within the legislation were apparently not used to provide an integrated multisectoral planning context for consideration of the mill proposal (e.g., no integration of forestry activities).

The Act also implies that "environmental management" seeks to attain broader social and economic goals, but is not explicit about a broader purpose related to resource management as a means to

attaining such goals. Thus, the environment appears to be perceived as a sector. As well, the Act appears to provide for an opportunity for conflict resolution between sectors within its mechanisms, but the stated purposes of these mechanisms do not explicitly address the achievement of compromise among cross-sectoral interests.

The Forests Act (R.S.A. 1980, c. F-16) appears to stand mainly on its own, with a primary focus on management of timber production and related uses, and there is little evidence to show any relationship with the Department of the Environment Act (R.S.A. 1980, c. D-19).

The Land Surface Conservation and Reclamation Act (R.S.A. 1980, c. L-3) appears to be limited in scope, with little apparent explicit linkage to other legislation and/or policy. It is not strategic in nature, but is reactive in response to other purposes which could cause surface disturbances. No explicit procedures/mechanisms for sector blending are in evidence, nor does the statute address any explicit broader social/economic goals other than the general "public interest". While providing the opportunity for EIAs, no specific acknowledgement exists of the need for or the procedures to provide for conflict resolution prior to project approval. Emphasis on assessment is given to surface disturbances, rather than to any multisectoral conflict resolution.

The Department of Forestry, Lands and Wildlife Act (R.S.A. 1986, c. D-20, s. 5) is primarily sectoral in nature, with no explicit provisions related to any of the evaluation criteria. The Forests Act (R.S.A. 1980, c. F-16) appears to be primarily sectoral

in focus (purpose), with no explicit requirements for sector blending. The "public interest" is the only reference to anything related to broader socio-economic goals. No statutory basis is provided for the guidelines entitled "Public Involvement and Forest Management and Planning" (Alberta Forestry, Lands & Wildlife, 1990), nor is there any provision for conflict resolution prior to project implementation.

The Environmental Impact Assessment Guidelines (Alberta Environment, 1985) appear to stand alone with no explicit linkage to integrated resource management or planning. They appear not to be viewed as a planning tool in any multiple-purpose strategic sense, but instead are limited in purpose to procedures for assisting the proponent to prepare the EIA report and for giving the public information on the proposed development. No explicit requirements are given for blending sectoral interests or addressing broader socio-economic goals beyond a mention of the "public good". Procedures are very general in description and appear only to intensify when the public reaction is strong, thus signalling the need to consider more interaction (e.g., a "play it by ear" approach).

While described as interdepartmental and interdisciplinary, the mechanisms provided under the Guidelines are not explicit either on the need to achieve compromise or on how conflict resolution among interests should occur. It is not clear how the acceptability of the proposal is assessed.

In a planning sense, there is little evidence that capacity-building or consensus-building among stakeholders are valued, nor what specific roles they have in the procedures described. Interaction between the stakeholders appears to be determined by the proponent (the vested interest), not the Guidelines, and the types of perspectives identified as those of the stakeholders are limited to "the government", "the proponent" and "the public". There are no guidelines in evidence for the role the public is to play in the process.

The Department of Forestry, Lands and Wildlife document entitled "Public Involvement and Forest Management Planning" (Alberta Forestry, Lands & Wildlife, 1990) endorses a number of principles, including IRM. It also acknowledges a number of the evaluation criterion requirements. However, it is silent as to their meaning, their explicit applicability, and the explicit procedures. No linkage is provided either to EIA or to IRM, and the wording suggests that the Department is solely responsible for the assessment and approval of proposals.

In terms of planning, procedures are only generally described. The extent to which the process is strategic or interactive is difficult to assess due to lack of detail, but the latter appears to be limited to obtaining viewpoints with little or no evidence on consensus-building. Scientific and political perspectives are not referred to in the Forestry, Lands and Wildlife Department document.

6.3 SUMMARY

This chapter has identified and described, in summary form and using the evaluation framework, apparent weaknesses in the legislation and policies of both the federal government and the Alberta government. While there is no need to summarize these findings again, it is worthwhile to note that both governments' legitimization instruments fall short of adequately providing opportunities for integration to take place. Each instrument tends to stand on its own, with little or no reference to other sectoral interests or related legislation or policy. Thus, in each instrument, there appears to be little or no recognition of the need for horizontal integration of interests in dealing with issues related to the pros and cons of a particular project in a particular geographical area (e.g., cumulative effects of timber harvesting, and mill production impacts).

In relation to stages within the natural resource management process (Figure 1.2), the instruments examined appear to demonstrate (Tables 6.2 & 6.4) that there is little or no recognition of any need for interdependency between stages. The prime example of such a vacuum between stages was the absence of any reference to regional land-use planning as providing a strategic framework and scientific information base for assessing such projects as the AL-PAC mill proposal under EIA policy.

A third major apparent gap or weakness in all of the instruments examined was that each instrument appeared to be vague

on how actions should be taken. The format used in the instruments tended to separate out purpose, powers and procedures, making them difficult to inter-relate. As well, it appeared that most instruments were too general in nature, leaving powers and procedures open to broad and multiple interpretations.

CHAPTER 7

PROCESS AND MECHANISM WEAKNESSES IN INSTITUTIONAL ARRANGEMENTS

Where administrative structures and jurisdictions leave separate agencies to compete over the outcome of the plan or a use of a resource, then integration is liable to be ineffective.

(OECD, 1989: 33)

7.0 INTRODUCTION

The previous chapter identified weaknesses in federal and Alberta government legislation and policies related to the AL-PAC pulp mill review. The legislation and policy discussed provided the authoritative basis for the processes and mechanisms put in place for consideration of the AL-PAC mill proposal.

This chapter provides an identification of these processes and mechanisms, and then describes the associated weaknesses in terms of the criteria in the evaluation framework.

7.1 EVALUATION OF PROCESS AND MECHANISM ELEMENTS

7.1.1 Overview - Processes and Mechanisms Related to Consideration of the AL-PAC Pulp Mill Proposal

Several major processes and/or mechanisms had a direct bearing on the AL-PAC case (Table 7.1). In chronological sequence, the Environmental Impact Assessment Guidelines (Alberta Environment, 1985), discussed in the previous chapter, provided the policy basis for AL-PAC to prepare and submit an Environmental Impact Assessment Report as the proponent (AL-PAC, 1989). Through the Agreement Concerning Environmental Impact Assessment of Projects in Alberta with Implications for Canada and Alberta (Canada/Alerta, 1986), Canada and Alberta had established a set of principles and procedures to be followed to avoid duplication of efforts when jurisdictions overlapped or when cooperation was required regarding the assessment of proposals of interest to both parties. Although this Canada/Alberta agreement expired on May 15, 1989, it is apparent that it could possibly have provided the basis for the arrangements made to establish the AL-PAC Review Board two months later.

The wording of the Terms of Reference for the AL-PAC Review Board (Table 7.1) established under Ministerial Order No. 08/89 (Alberta Environment, 1989) reflects arrangements which correspond to those contained in the expired agreement (Alberta, Department of the Environment Act, R.S.A. 1980, c. D-19).

Table 7.1

Processes, Mechanisms and Associated Reports Relevant to the AL-PAC Case

DESCRIPTION	STATUTORY AUTHORITY	PURPOSE	OPPORTUNITY FOR EXPRESSION, COORDINATION, AND RESOLUTION OF PERSPECTIVES
<ul style="list-style-type: none"> Alberta-Pacific Forest Industries Inc., 1989, <u>Environmental Impact Assessment: Beach Kraft Pulp Mill, Main Report</u> (AL-PAC, 1989) 	<ul style="list-style-type: none"> Environmental Impact Assessment Guidelines, Alberta Environment, 1985 (policy) 	<p>Environmental Impact Process:</p> <ul style="list-style-type: none"> - describe: proposal; environmental, community and economic impacts; issues of concern: to municipal/provincial governments - identify community concerns through public consultation program - describe measures to address concerns and ameliorate impacts of mill <p>NOTE: described as an interactive process involving public/government review of EIA document</p>	
<ul style="list-style-type: none"> <u>Agreement Concerning Environmental Impact Assessments of Projects in Alberta with Implications for Canada and Alberta (the Canada/Alberta Agreement)</u> (Canada/Alberta, 1986) 	<ul style="list-style-type: none"> Subsidiary Agreement to the Accord for the Protection and Enhancement of Environmental Quality 	<ul style="list-style-type: none"> - set out: agreed-upon principles/procedures to be followed in carrying out EIAs to avoid duplication and confusion regarding jurisdiction when both federal & Alberta governments have interest in a proposal - e.g., joint or cooperative public reviews 	<ul style="list-style-type: none"> - provide opportunity for creating mechanisms to ensure that procedures for obtaining information for each jurisdiction are satisfactory and that relevant interests of other party are included and addressed (by lead party)
<ul style="list-style-type: none"> AL-PAC EIA Review Board ("AL-PAC Review Board") Terms of Reference, July 1989 	<ul style="list-style-type: none"> Ministerial Order No. 08/89, (Alberta Environment, 1989) <u>Department of the Environment Act</u> (R.S.A. 1980, c. D-19) 	<ul style="list-style-type: none"> - hold public meetings and report (giving advice/recommendations) on environmental impacts of proposed AL-PAC pulp mill to Alberta Minister of the Environment and, through Minister, to federal Minister of the Environment, including: <ul style="list-style-type: none"> - examination of cumulative impacts on Peace-Athabasca river system - examination of potential impacts relating to federal responsibilities for fisheries, navigable waters, Wood Buffalo National Park, water quality in the NWT, and timber harvesting on Indian reserve lands 	<p>EXPRESSION:</p> <ul style="list-style-type: none"> - public hearings to be held both in immediate area of mill and downstream (original 5 locations expanded to 11) - coordination and resolution, by/within "Review Board" made up of people from possible areas affected (including native peoples) and scientific expertise

OPPORTUNITY FOR EXPRESSION,
COORDINATION, AND RESOLUTION
OF PERSPECTIVES

DESCRIPTION	STATUTORY AUTHORITY	PURPOSE	EXPRESSION: written submissions of scientific nature, augmented by oral presentations from those submitters selected by Panel
Proposed Alberta-Pacific Pulp Mill: Report of EIA Review Board (AL-PAC Review Board, 1990), and Terms of Reference, August 1989	as above	as above	as above
Alberta-Pacific Scientific Review Panel ("Scientific Review Panel"), Terms of Reference	Ministerial Order No. 09/90, (Alberta Environment, 1990) Department of the Environment Act (R.S.A. 1980, c. D-19)	enquire into and advise (Alberta) Minister of the Environment on AL-PAC's proposed improvements to wood-pulping and bleaching process as it relates to mitigation of discharge of chlorinated organics into Athabasca River	COORDINATION AND RESOLUTION: oral cross-examination of selected submitters, and consideration by Review Panel
Alberta-Pacific Scientific Review Panel ("Scientific Review"), 1990, A Review of the Modified Wood Pulping and Bleaching Processes Proposed for Alberta-Pacific Forest Industries Inc. Pulp Mill	as above	as above	as above

As well, the same Ministerial Order (Alberta Environment, 1989: Ministerial Order No. 08/89), in referring to the fact that consultations "pursuant to section 32 of the FEARO Guidelines [allow] variations to sections 21 to 31 thereof", makes it apparent that the Environmental Assessment and Review Process Guidelines Order was at least taken into account in establishing the terms of reference for the AL-PAC Review Board (EARP, 1984). This more detailed version of the terms of reference was further refined by the AL-PAC Review Board when it commenced its work in August 1989, with the likely intention of providing wording more easily understood by the general public. Both the terms of reference of the AL-PAC Review Board and its comments and/or recommendations (report) on any weaknesses relative to the Board's functioning or the process used are included in the analysis described in this chapter.

The terms of reference of the Scientific Review Panel established by Ministerial Order No. 09/90 (Alberta Environment, 1990) was also intended for analysis, as this mechanism was used to complete the review and report of the proposal prior to its approval (Alberta, Department of the Environment Act, R.S.A. 1980, c. D-19).

The following paragraphs describe the weaknesses which were identified in the above-noted processes and mechanisms established for the public review of the AL-PAC proposal. They jointly form the single general process for reviewing the impacts of the proposed mill.

7.1.2 Evaluation of Processes and Mechanisms

7.1.2.1 Multiple-purpose, multiple-means, multiple-participant strategies (MPMMMPS)

As discussed in Section 4.1.1.2, it is apparent that forest production and the proposed mill were seen as the main vehicles for diversification of the economy of the region. Regional or sub-regional Integrated Resource Plans (IRPs) had not been prepared which could indicate otherwise (Section 4.1.2.2). The processes and mechanisms put in place for the review of the AL-PAC proposal appear to reflect this singular strategic purpose (AL-PAC, 1989).

While the Environmental Impact Assessment Guidelines indicate that the public should be able to assess the significance of potential impacts on the community "and evaluate the alternatives and losses of proceeding with a development" (Alberta Environment, 1985: 7), the proponent's report does not show any apparent evidence that alternatives to a large-scale pulp mill had been assessed by the company (AL-PAC, 1989). In the AL-PAC case, therefore, it is apparent that the public had only one type of proposal to assess in relation to the provincial government's stated purpose of diversification of the economy for this portion of the northeast region of the province (Figure 4.4). Thus, at this point, in spite of the lack of preplanning for this portion of the northeast region of the province (Section 4.1.2), the review process did not provide for any opportunity for stakeholders to assess alternatives for resource use.

Similarly, the other processes and mechanisms (Table 7.1) appear to reflect a singular approach. Neither the terms of reference nor the recommendations of either the AL-PAC Review Board or the Scientific Review Panel indicate any apparent evidence that alternatives to the AL-PAC proposal were to be considered for the area. As well, in the principles and procedures suggested in the Agreement Concerning Environmental Impact Assessments of Projects in Alberta with Implications for Canada and Alberta (Canada/Alberta, 1986), there is no apparent wording to suggest that a project be assessed within any multiple-purpose approach for a given area. Therefore, it appears that the mechanisms and processes put in place for the AL-PAC review were singular in purpose and means, and similarly limited to a major single-purpose participant: the forestry sector.

7.1.2.2 Sector blending

While the Agreement Concerning Environmental Impact Assessments of Projects in Alberta with Implications for Canada and Alberta (Canada/Alberta, 1986)* does not explicitly state that sectoral interests be shared and coordinated and considered, the wording of the Canada/Alberta Agreement (1986: Principles of Agreement, No. 2) indicates that this may be made possible: "The party [whose constitutional jurisdiction has prime responsibility and thus whose environmental assessment procedures will apply] shall ensure that the relevant interests and concerns of the other party are included

* Hereafter referred to as the Canada/Alberta Agreement.

and addressed in the environmental impact assessment procedures." Thus, the 'interests and concerns of the other party' could possibly be interpreted as providing the opportunity for sector blending between and within the departments of the two governments. But the opportunity it is neither clear nor explicit.

The purpose and objectives described by AL-PAC for their "Environmental Impact Process" (AL-PAC, 1989: 1.4-1.5) further indicate that the focus of the process was singular and not designed to consider or blend together other sectoral alternatives. Considerations appeared limited only to the reduction of the possible impacts of the proposal on other sectoral interests.

The terms of reference established for the AL-PAC Review Board (Alberta Environment, 1989: Ministerial Order No. 08/89) include clauses which reflect the Canada/Alberta Agreement (1986). They emphasize "coordination" to avoid "duplication" of efforts, and the need to have "principles and procedures" adhered to in order to ensure that the assessment is carried out to the satisfaction of both governments. But no explicit principles are stated which would explicitly acknowledge or endorse the notion of sector blending. However, sector blending is implied in the statement of purpose of the AL-PAC Review Board in that it would examine possible impacts on federal interests related to fisheries, national parks, navigation and forest harvesting on native reserves (Table 7.1). Thus, provision was made to take these specific sectoral interests into consideration by the AL-PAC Review Board in order to formulate its recommendations, but here again only in the sense of reducing

negative impacts. The Alberta government had therefore chosen **NOT** to include forest harvesting in the AL-PAC Review Board's process and, in doing so, had eliminated the possibility of an integrated assessment of the mill's impacts.

Interestingly, no such explicitness is evident with respect to provincial sectoral interests. Possible impacts of the mill on forestry-related sectors such as tourism and recreation are not identified in the terms of reference, making it unclear as to whether or not these sectors' interests were included in the scope of the AL-PAC Review Board. Thus, at this point, the review process appeared to discriminate by requiring that only federal interests be specifically examined, leaving other potential interests within provincial jurisdiction either intentionally outside of the process by omission, or possibly just never thought of as appropriate for inclusion.

What is made clear is that any impacts from the harvesting of the timber needed to feed the mill would not be examined. "The [AL-PAC] Review Board is not empowered to consider other environmental impacts related to the harvesting of the timber for the mill ... These impacts are dealt with through the Alberta Department of Forestry, Lands and Wildlife" (AL-PAC Review Board, 1990). The mill was approved before these impacts were assessed by this provincial process. Since nature reserves were an acknowledged interest in the terms of reference of the AL-PAC Review Board, the Board had an obligation to assess the impact of timber harvesting on these lands for the purpose of feeding the AL-PAC mill. This

requirement, however, was only partially satisfied, as the conclusion to the negotiations and planning for the harvesting was not going to take place until a much later date, when the Department of Forestry, Lands and Wildlife had completed its own separate process for this purpose.

In its report, the AL-PAC Review Board indicated that it "found it difficult to assess the impact of timber harvesting on Indian reserve lands because of the separation of the environmental review of the proposed mill from the review [to be carried out by Alberta]" (AL-PAC Review Board, 1990: 86). The report also states that "the [AL-PAC Review] Board is of the view that approval of the proposed mill should not take place until [such] environmental assessment and public review ... are complete" (AL-PAC Review Board, 1990: 86). It also recommended that with regard to future changes to be made to the EIA review process, "projects should not be separated into different components for review purposes" (AL-PAC Review Board, 1990: 93).

It now seems apparent that the opportunity for sector blending only appears related to impacts on mentioned federal sectoral interests. Provincial sectoral interests are not mentioned. The wording "examination of the expected cumulative impacts" (AL-PAC Review Board, 1990: Appendix A, Terms of Reference, August 1989, s. B.1.a) appears to refer only to the waste matter and other discharges of the AL-PAC and other pulp and paper mills in the river basin, and not other sectors. The action of excluding forest management practices from "the Review", as well as any opportunity

for a separate review prior to the approval decision of the mill, appears to be in direct contradiction to the requirements of the sector blending criterion. The assigned reference to the Scientific Review Panel was related to mill technology. It is apparent that no need was perceived for sector blending in this review (Table 7.1).

In summary, the opportunity for the blending of sectoral interests appeared to be limited. It was only federal interests that were explicitly acknowledged as being in need of environmental assessment. The opportunity for blending of forestry interests within the review was apparently eliminated by provincial government choice and the AL-PAC Review Board explicitly recognized this as a weakness in the process. In addition, no provision appeared to be made for examining alternatives to the mill which combined in a number of sectoral interests or the blending thereof into a multisectoral alternative.

7.1.2.3 Socio-economic tool

The Canada/Alberta Agreement (1986), while setting out principles and procedures to avoid duplication of effort between the participating governments, did not explicitly endorse or suggest a need to address any broader socio-economic goals (Table 7.1). The primary focus was placed on setting out procedures which would respect each partner's jurisdiction and interests, but at the same time provide the opportunity for cooperatively assessing a proposal.

AL-PAC's own description of the "environmental impact process" limited any socio-economic considerations to those which must be

dealt with to reduce or eliminate the negative impacts or concerns of the proposal. The assessment process is designed "to identify the environmental, community and economic issues that are of concern ... [and] to describe the measures to be adopted to 1) address the concerns [and] 2) minimize or eliminate possible negative impacts" (AL-PAC, 1989: 1.4-1.5). Not in evidence in these main **process objectives** is any acknowledgement that the proposal was to be assessed in terms of how it would meet broader socio-economic goals for the area.

The terms of reference for the AL-PAC Review Board limited the panel review to "the **environmental** impact of the project ... the review [of] the degree to which local citizens' concerns have been addressed ... [and the provision of] advice regarding the **environmental** acceptability of the project" (Alberta Environment, 1989: Ministerial Order No. 08/89: 4 - my emphasis). Thus, no requirement was given to the AL-PAC Review Board to assess the overall acceptability of the project from other than an environmental perspective.

The terms of reference as re-drafted by the AL-PAC Review Board similarly limited the scope of the panel's activities to assessing **environmental** impacts, explicitly indicating that it would not be examining "financial feasibility" (AL-PAC Review Board, 1990: Appendix A). As well, it noted that the "[AL-PAC] Review Board is not empowered to consider ... impacts related to the harvesting of the timber for mill" (AL-PAC Review Board, 1990: Appendix A). In its recommendations on "Matters Beyond the Terms of Reference of the

Review Board", the report of the AL-PAC Review Board explicitly recommended that "the review panel should look at all aspects of a proposal, including social and economic impacts" (AL-PAC Review Board, 1990: 93). This statement appears to indicate that the AL-PAC Review Board had felt that its terms of reference in addressing social and economic matters had been too limited. In addition, neither the terms of reference nor the report of the Scientific Review Panel made mention of or addressed any broader socio-economic goals within their scope (AL-PAC Scientific Review Panel, 1990).

In summary, the processes and mechanisms put in place for the review did not explicitly acknowledge or address broader socio-economic goals. Socio-economic concerns resulting from possible impacts of the mill were to be addressed, but not those associated with harvesting of timber for the mill. It is not apparent from the documentation examined that the review process was explicitly viewed as a means for improving quality of life within the study area.

7.1.2.4 Conflict resolution

The EIA carried out by AL-PAC was guided by the requirements of the Environmental Impact Assessment Guidelines. These guidelines were very general with regard to procedure, as noted in Section 6.2. AL-PAC's interpretation of these guidelines in terms of objective and needed process indicated that a two-stage approach was needed, and that it was taken (AL-PAC, 1989: 1.4-1.5). In response to the objectives "to identify concerns" and "to describe measures" to deal

with them, the initial phase included a series of informal public meetings and more formal open houses (AL-PAC, 1989: 1.4-1.5). The product of these issue-gathering exercises was then to be taken under consideration by the company "to reduce or eliminate associated impacts" (AL-PAC, 1989: 1.5).

While open houses were chosen because they were stated to provide "the opportunity of meeting with the general public in a one-on-one basis so that an effective dialogue can take place", it is apparent that these gatherings were not intended to resolve conflicting viewpoints through dialogue seeking compromise (AL-PAC, 1989: 6.3). Instead, the scope of these sessions appears limited to question-and-answer gatherings to explain the proposal and collect concerns. "The open house format does not provide the opportunity for people to monopolize the meeting with their own set of agendas, thereby allowing as many as possible from the general public to have the opportunity to ask questions and register their concerns" (AL-PAC, 1989: 6.3).

After preparation of the EIA, AL-PAC indicated that the second stage in considering stakeholder viewpoints would include distribution of the report "to as broad a segment of the general public as practical for review. [This could then be followed by public meetings] to ask questions and receive answers from Alberta-Pacific on the content of the EIA document" (AL-PAC, 1989: 1.5). Here again, the apparent intent of the process and mechanism is for the public to raise concerns and for the proponent to provide answers, rather than for a dialogue aimed at achieving compromise.

The purpose of the Canada/Alberta Agreement (1986) - to prevent duplication and confusion between federal and Alberta government jurisdictions in EIAs - implicitly acknowledged the potential for conflict between the two governments, and outlined general principles and procedures to be followed to avoid conflict over responsibilities. In doing so, however, it did not explicitly recognize in these principles and procedures that differing views were normal to the process and that achieving compromise between stakeholders was a necessary requirement. However, while the Canada/Alberta Agreement (1986) implied in general terms that the "concerns of the other party be addressed" and that "mutually agreeable procedures" can be adopted, it was not explicit on any principle or requirement to use procedure to achieve compromise.

The terms of reference establishing the AL-PAC Review Board (Alberta Environment, 1989: Ministerial Order No. 08/89) also did not explicitly acknowledge conflict resolution as a recognized important activity for the AL-PAC Review Board to pursue in its mandate. Some phrases, such as "identification of potential impacts and concerns" (Alberta Environment, 1989: Ministerial Order No. 08/89, 1) and "to review the degree to which local citizens' concerns have been addressed by the proponent" (Alberta Environment, 1989: Ministerial Order No. 08/89, 4), suggest that the process of the AL-PAC Review Board was not to pursue the achievement of compromise between stakeholders. However, the AL-PAC Review Board did have some latitude to move, as it could "make rules of procedure governing the calling of meetings and hearings [and] the procedure

to be used at and conduct of the meetings and hearings, reporting and any other matters as required" (Alberta Environment, 1989: Ministerial Order No. 08/89, 5). The terms of reference, revised and published by the AL-PAC Review Board, provided no further elaboration in purpose or procedure on the need for conflict resolution (AL-PAC Review Board, 1990: Appendix A).

In its report, the AL-PAC Review Board itself recommended that "the scope of an EIA should be determined at public meetings ... [and that] those directly and substantially affected by the proposed project should be involved in the preparation of the EIA" (AL-PAC Review Board, 1990: 93). Thus, had this been a requirement in the AL-PAC review, an opportunity could have been provided for defining both the process and the problem.

Neither the terms of reference for the Alberta-Pacific Scientific Review Panel (Alberta Environment, 1990: Ministerial Order No. 09/90), nor the Report of the AL-PAC Review Board (Table 7.1), incorporated any apparent provision for conflict resolution between stakeholders.

7.1.2.5 Strategic in planning

The Canada/Alberta Agreement (1986) clearly indicated that the purpose of the accord was to avoid duplication and confusion between the two signatory governments, and provided "general" principles and procedures for how this would be done (Table 7.1). It did not provide detailed explicit steps on how an EIA would be carried out.

From a strategic-in-planning viewpoint, AL-PAC's interpretation of the Alberta EIA Guidelines indicates that the company felt that a simple two-stage process was necessary for the project review (AL-PAC, 1989: 1.4-1.5, 6.1-6.8). First, the collection of public concerns over impacts and the separate resolution of these concerns through proposal modification. Second, the circulation of the EIA document to government agencies and the public, and, through a series of public meetings, allowing the public to ask questions and receive answers.

The public consultation process described in the EIA document appears permissive, rather than interactive. While the objectives concerning what is to be done are generally clear, there is no detailed description of specific steps and procedures to be followed. In addition, there is no indication that the need for flexibility has been recognized, such as the freedom to repeat steps or return to an earlier step in order to achieve capacity building.

The objectives described and the general wording of the process suggest that the design of the process was overly simplistic in relation to the magnitude and possible perceptions of its impacts. Scoping was apparently perceived more as an exercise in collecting concerns, making minor proposal adjustments, and answering any other questions after a satisfactory EIA document had been produced. It is suggested that AL-PAC appears to have undervalued the importance of being flexible in how they might have achieved it.

The terms of reference for the AL-PAC Review Board, initially established by Ministerial Order No. 08/89 (Alberta Environment,

1989), set out clearly defined objectives for the review - e.g., what was to be accomplished. However, these were general in nature, as were the procedures described for the Board to follow. The AL-PAC Review Board was given the power to establish further rules and procedures regarding the holdings and conduct of meetings. However, while it did provide a degree of opportunity for flexibility, it did not provide any explicit requirements for the AL-PAC Review Board to follow on a step-by-step basis, nor any requirement that the review should emphasize that a capacity-building process was desirable and important.

The revised terms of reference of the AL-PAC Review Board elaborated on its purpose and, more particularly, on what was to be included, especially as related to federal interests (AL-PAC Review Board, 1990: Appendix A, August 1989). Any review of harvesting activities related to the AL-PAC mill (apart from those on Indian reserve lands) was excluded from what the panel was to address. As well, while some detail was explicitly provided on procedural steps to be taken, the descriptions do not appear to place any emphasis on flexibility or capacity building, other than for holding additional hearings if necessary.

The AL-PAC Review Board itself recommended changes in the EIA review process which suggest that in order for the process to be strategic, "the scope of an EIA should be determined at public meetings early in the process" (AL-PAC Review Board, 1990: 93). Therefore, in making this recommendation, the AL-PAC Review Board

appears to be confirming the importance of the need to be strategic in planning by way of early scoping in the planning process.

The terms of reference for the Scientific Review Panel (Alberta Environment, 1990: Ministerial Order No. 09/90), while of a general nature, left it clear that the Scientific Review Panel had discretionary powers for determining what submissions/presentations were relevant to the process. What appeared less clear was the stated purpose of the Scientific Review Panel. "The Review shall inquire into and advise the [Alberta] Minister of the Environment on the improvements proposed by Alberta-Pacific Forest Industries Inc. to the wood-pulping and bleaching process as they relate to the mitigation of the discharge of chlorinated organics into the Athabasca River" (AL-PAC Scientific Review Panel, 1990: Appendix I). Thus, the wording appears very general on the scope of the advice being sought - e.g., improvements in terms of environmental impacts of the mill, or improvements in the type and extent of emissions from the mill.

7.1.2.6 Interactive in planning

Opportunity for interaction within the processes and mechanisms operative in the AL-PAC review appear to have been limited to varying degrees during each stage of the project's review. Interaction during AL-PAC's preparation of the EIA document appears to have included various public meetings where the company explained the nature of the project, and the public indicated concerns verbally or through questionnaires. Thus, although the company

described this as an "interactive process", dialogue with the public at this point appears to have been lacking in opportunity for any consensus-building on the desirability of the proposal (AL-PAC, 1989: 1.4).

The second phase of the "interactive process" (review of the EIA document) envisaged a question-and-answer style format, thus also limiting any apparent opportunity for consensus-building at this stage of the planning process (AL-PAC, 1989: 1.5). As well, the scope of the meetings in terms of what information was to be made available appeared to be limited to only what was in the EIA document and explanations of its content. No reference is made to any consideration of other information related to alternatives to the mill proposal.

With regard to the Canada/Alberta Agreement (1986: 1), the federal and Alberta governments recognized the need to work together while respecting each other's jurisdiction.

And recognizing that acting within their respective constitutional jurisdictions the parties can, through co-ordination and co-operation, put in place mechanisms to ensure that the procedures for obtaining the environmental information required by each jurisdiction are efficient, timely, not duplicative and respectful of jurisdiction.

However, while the Canada/Alberta Agreement (1986: Principles of Agreement, 1-2) recognizes the need for coordination, efficiency and timeliness, it does not appear to recognize the need for interaction in terms of consensus-building.

In its "Operational Procedures", however, the Canada/Alberta Agreement (1986: 2) does specify the importance of "timely access to information; consultation in scoping of information requirements;

and opportunities for participation in working groups and as an intervenor in public meetings." While these apply to the two parties to the Canada/Alberta Agreement, no principles or procedures are in evidence with respect to other stakeholders. The result of this omission is a lack of directional principles for multi-stakeholder interaction within any EIA procedures established within the terms of the Canada/Alberta Agreement (1986).

The 1989 or original terms of reference for the AL-PAC Review Board gave no explicit recognition to the need for interaction, nor to how it should be procedurally carried out (Alberta Environment, 1989: Ministerial Order No. 08/89). The mandate of the AL-PAC Review Board only required that advice be provided "regarding the environmental acceptability of the project" (Alberta Environment, 1989: Ministerial Order No. 08/89, 4). Thus, in terms of interaction, the AL-PAC Review Board was not explicitly required to reach, through consensus-building, a balanced decision representative of the perspectives of the stakeholders.

The 1990 terms of reference provided by the AL-PAC Review Board, while elaborating in more detail on the Purpose, Public Hearings and Report of the AL-PAC Review Board, did not provide any further requirements to use the review process for consensus-building, stating that the "[AL-PAC] Review Board will prepare a report containing advice", not a decision (AL-PAC Review Board, 1990: Appendix A). Interaction was also limited by the AL-PAC Review Board in its terms of reference, as any review of timber harvesting for the mill was excluded from its scope.

The AL-PAC Review Board report itself did not recommend any explicit change to the EIA review process with regard to consensus-building to achieve a balanced decision within the process (AL-PAC Review Board, 1990). But it did recommend that "those directly and substantially affected by the proposed project should be involved in the preparation of the EIA" (AL-PAC Review Board, 1990: 93).

Neither the terms of reference for the Scientific Review (Alberta Environment, 1990: Ministerial Order No. 09/90), nor the report of the Scientific Review Panel (AL-PAC Scientific Review Panel, 1990), suggest that any form of interaction was required, other than through the receipt of verbal and written submissions and the cross-examination of evidence from those invited (by the Scientific Review Panel) to augment their submissions (AL-PAC Scientific Review Panel, 1990: Appendix I).

7.1.2.7 Multiple perspectives

The need to include the opportunity for multiple perspectives to be incorporated in the processes and mechanisms operative in the AL-PAC review was, at most, only partially satisfied. The Environmental Impact Assessment Process described by AL-PAC explicitly acknowledges the importance of multiple perspectives in the groups/people identified as being affected by the mill proposal (residents, native communities, environmental groups, local governments, the Alberta Government and "the other appropriate government agencies" (AL-PAC, 1989: 1.4-1.5, 6.1-6.8). Less clear is the acknowledgement of the need for a scientific perspective, as

valued input into the review process, although "meetings with health units [and a] technical workshop at Athabasca University" were included in the public participation program (AL-PAC, 1989: 6.2).

The focus of the Canada/Alberta Agreement (1986: 1) is concerned mainly that "the relevant interests and concerns of the other party are included and addressed" in whatever process is provided and decided upon through the provisions of the Agreement. Therefore, the importance of multiple perspectives beyond the two signatory parties to the Canada/Alberta Agreement (1986) are not acknowledged or provided for within the Agreement.

The Canada/Alberta Agreement (1986) does provide for each government's EIA process to be utilized to varying extents, depending on the nature of the proposal. Each of these processes, as discussed in the previous chapter, recognize to varying degrees the need for including multiple perspectives. However, the Canada/Alberta Agreement (1986) does not require that multiple perspectives be addressed.

The terms of reference for the AL-PAC Review Board recognized "local citizens' concerns ... the public ... and both the Alberta and federal governments" (Alberta Environment, 1989: Ministerial Order No. 08/89, 4-5). The importance of perspectives from the scientific community is, therefore, not explicitly recognized as a requirement, nor is there any specific mention of native peoples. In practice, however, both scientific and native peoples' perspectives were included within the AL-PAC Review Board process by the inclusion of representatives of these groups on the AL-PAC

Review Board itself (AL-PAC Review Board, 1990: Appendix A). This arrangement, however, still did not recognize the need for inclusion of the scientific perspective on the proposal from outside the AL-PAC Review Board's membership.

The terms of reference for the Scientific Review (Alberta Environment, 1990: Ministerial Order No. 09/90) and the report of the Scientific Review Panel (AL-PAC Scientific Review Panel, 1990) do not place an emphasis on the importance of including multiple perspectives. The prime focus of the Scientific Review is on the mill's technology and is reflected in the need to examine only 'scientific evidence'. No other perspectives are acknowledged or referred to as being required.

7.2 SUMMARY - PROCESS AND MECHANISM WEAKNESSES IN INSTITUTIONAL ARRANGEMENTS

The processes/mechanisms put in place for the assessment and review of the AL-PAC proposal do not appear to have been designed to look at alternatives to the mill proposal (Table 7.2). It is evident that the mill review was singular in purpose. Consequently, other apparent strategies for the development of the area were not considered. Further, the scope of the environmental impact assessment was apparently limited to examining only the environmental acceptability of the proposal. Social and economic feasibility were excluded.

Table 7.2

Summary - Process and Mechanism Weaknesses in Institutional Arrangements

CRITERIA LEGISLATION/POLICY	MPMMMPs	SECTOR BLENDING	SOCIO ECONOMIC TOOL	CONFLICT RESOLUTION	STRATEGIC IN PLANNING	INTERACTIVE IN PLANNING	MULTI- PERSPECTIVE
Alberta-Pacific Forest Industries Inc. 1989 Environmental Impact Assessment, Bleached Kraft Pulp Mill Main Report (AL-PAC, 1989)	no alternatives examined single-purpose	limited to reduction of negative impacts on other sectoral interests	socio-economic objectives limited to impact reduction, not sustainability or economic terms	consultation process not viewed for or used to resolve conflicts among stakeholders - just used to inform the public and to register concerns company attempted to resolve conflicts by modifying proposal - limited in scope	permissive rather than prescriptive no detailed explanation of steps for EA need for feasibility not recognized importance of being strategic in relation to stakeholders understated	interaction multi-limited to present question-and-answer format no explicit evidence of importance of consensus-building among stakeholders for changes to document - done by proponent, not by consensus of stakeholders	no explicit acknowledgment of scientific perspectives beyond proponent's
Agreement Concerning Environmental Impact Assessments of Projects in Alberta with Producers for Canada and Alberta (Canada/Alberta, 1988) (The Agreement)	no recognition of need or provision for MPMMMPs	provision to argue and open to interpretation - implicit	not recognized or provided for	no requirement for provision to use process to achieve compromise	no provision of explicit steps to be followed on EAs	requirements limited to Canada and Alberta Governments - no recognition/requirement to guide other stakeholders	no requirement for addressing multiple perspectives, only government interests
AL-PAC EA Review Board (AL-PAC Review Board), Terms of Reference	singular in purpose - alternatives not included in scope	sector blending limited to consideration of sectoral interests made explicit, but not provincial related sectoral interests (e.g., forestry) and/or possible impacts excluded from EA process	no requirement to determine overall acceptability of project (i.e., socio-economic plus environmental)	"AL-PAC Review Board" scope limited - conflict resolution among stakeholders not an explicit requirement	no requirement for capacity-building feasibility limited to location of hearings no stop-by-stop explicit procedure for AL-PAC Review Board in Ministerial Order No. 08/78	no requirement for AL-PAC Review Board, through consensus-building, to reach balanced decision of stakeholders' perspective opportunity for interaction on forest harvesting excluded	multi-perspectives not explicit, but implicitly provided for in membership of 'AL-PAC Review Board'
Proposed Alberta-Pacific Pulp Mills Report of AL-PAC Review Board	no explicit recommendations regarding alternative proposals (purpose)	explicit recommendation that timber harvesting should not have been separated from EA review only sectoral impacts considered and then only lateral interests made explicit	recommended that all aspects of proposal (social, economic, environmental) be reviewed, not just environmental	scope of EA should have been developed with stakeholders (at public meetings)	scoping of process with stakeholders not done early enough	interaction limited by exclusion of timber harvesting from public review within EA those affected by proposal must be involved in EA preparation	no explicit mention
Alberta-Pacific Scientific Review Panel (Scientific Review Panel), Terms of Reference	singular in purpose	sector blending not addressed or present	not addressed or present	no provision for conflict resolution among stakeholders	only general statement on what was to be achieved	limited to written and oral presentations no requirement for consensus-building among stakeholders information limited to scientific interactions	limited to consideration of scientific perspectives
Alberta-Pacific Scientific Review Panel (Scientific Review Panel), Terms of Reference	singular in purpose	sector blending not addressed or present	not addressed or present	not required	no comment given	and terms of reference above	as above

No explicit recognition of the **need to blend sectoral interests** in the development of the area was evident, except in relation to impacts of the mill proposal on other sectoral interests. Here, consideration appeared primarily to be limited to reduction or elimination of negative impacts, and only federal interests were explicitly noted for review. Thus, the proposal was not apparently being considered as part of any proactive strategy that combined various sectoral interests. Timber harvesting impacts were excluded from the EIA, thus creating a barrier to blending of sectoral interests within the processes and mechanisms established for the mill's review and approval.

In addition, there was no evidence that any of the **processes and mechanisms** were being explicitly recognized as tools for pursuing broader socio-economic goals. The AL-PAC Review Board, which had the broadest scope, was limited in mandate to reviewing environmental impacts and any related socio-economic effects.

Achieving **compromise and accommodation** appeared to be limited, in all phases of the review, to mechanisms and processes designed to present information to "the public" (the stakeholders), to hear their viewpoints and then to consider the impacts/issues separately, with the ultimate decision being made by the responsible governments.

The mechanisms and processes, therefore, were not explicitly designed to achieve workable compromises **WITH** the stakeholders. Thus, the task of conflict resolution remained with those politically responsible for the review - the Alberta and federal

governments - taking into consideration the recommendations of the AL-PAC Review Board and the Scientific Review Panel. The mechanisms and processes appeared to be designed, therefore, to facilitate a decision, rather than to make it.

The importance of being **strategic** in relation to the stakeholders appeared to have been undervalued, at least in the early phase of the review. What was to be achieved by the mechanisms/processes was explicitly general in nature and elaborations of the specific details on steps to be taken were not given. The exception was the Scientific Review (Alberta Environment, 1990: Ministerial Order No. 09/90). The AL-PAC Review Board itself recommended that the scope of future EIAs be developed with the stakeholders early in the process, thus indicating that those affected should strategically be a part of the process and, consequently, have a contribution to make as to how each step could take place.

The value and role of **interactive planning** did not appear to be recognized by inclusion in the processes. Interaction appeared to be largely limited to presentation/question-and-answer formats within formal and informal public meetings. Any consensus-building interaction concerning possible impacts of forest harvesting practices (apart from timber harvesting on native lands) was excluded from the process. This exclusion was a decision by the Alberta government to review this issue separately. Interaction within the Scientific Review was also limited to consideration of

scientific information, as required by its terms of reference (Alberta Environment, 1990: Ministerial Order No. 09/90).

The need to include multiple perspectives in the review was also not explicitly recognized, although mechanisms and processes frequently cited the "proponent", "government" departments and "the public" as the main participants. The scientific and native peoples' perspectives were notably absent as a requirement for providing input to the AL-PAC Review Board in mandate and procedure descriptions. Inclusion of representatives of these groups on the AL-PAC Review Board appeared to be the intended method for incorporating these perspectives, although it placed such board members in a difficult, almost conflict-of-interest, situation regarding collecting and offering scientific opinions. The scientific perspective expressed by the AL-PAC Review Board was not considered to be satisfactory to the Alberta government. The need to acknowledge and provide for all key perspectives was, therefore, not explicitly acknowledged and provided for in the early and middle stages of the review (Section 5.1). The latter phase excluded all perspectives other than scientific and political.

Process and mechanism weaknesses which could hinder or serve as barriers to integration in the AL-PAC review were therefore apparent in all stages of the proposal's consideration. These findings beg the obvious question related to previously identified weaknesses in legislation and policy (Chapter 6). Would these barriers to integration (weaknesses) in processes and mechanisms have occurred

if adequate legislation and policy had been in place to require arrangements that would foster better integration?

CHAPTER 8

PERSPECTIVES ON WEAKNESSES IN INSTITUTIONAL ARRANGEMENTS

There is ... considerable feeling on the part of groups and individuals that many of our resources, such as water, mature forests and unique scenic areas, are finite and fragile. Once altered or lost they can never be recaptured. The sense is that decisions affecting these resources are too important to leave to government agencies and politicians. Considering that natural resources are not "owned" in the same sense as private property, the different values that people ascribe to such resources need to be identified and debated before decisions are taken.

(Priscoli & Homenuck, 1986: 67)

8.0 INTRODUCTION

The preceding chapters identified and described apparent weaknesses in: a) the contextual circumstances prior to and during consideration of the mill (Chapters 4 and 5); b) the legitimization instruments (legislation, policy) which provided the statutory or legal basis for the review (Chapter 5); and c) the processes and mechanisms which were used for the mill's review and approval (Chapter 7). These analyses relied primarily on two basic data sources: media newsclippings/correspondence, and formal government documentation (statutes, policies, guidelines, terms of reference, reports).

This chapter, based on the results obtained from interviews of actual stakeholders (Table 3.5), identifies and describes their perceptions of weaknesses in the institutional arrangements prior to and during consideration of the mill (Table 8.1). By way of structured interview questions, institutional weaknesses related to context, legitimization and processes/mechanisms are pinpointed, qualified and discussed, according to the evaluation framework matrix and its criteria.

The reader is asked to turn to Appendices 1 and 2, respectively, for details on the arrangement of interview questions within the matrix, and for records of responses. Responses to unstructured questions were also recorded in relation to the evaluation framework matrix to provide for compatibility and ease of analysis (Appendix 3). Since interviewees were selected as representatives of major stakeholder groups (federal and Alberta governments, scientific, and public), responses were scored accordingly to provide the flexibility required to identify patterns of response, both in the total sample and in relation to the identified groups (Table 3.5).

The names of stakeholders interviewed are listed in Appendix 5. No individual person's perspective has been identified in the text by name, only by group. Assurance to the interviewees that this approach would be used was necessary both to provide an opportunity for openness and to ensure the confidentiality of those respondents requesting it.

Table 8.1

Summary - Perspectives on Weaknesses in Institutional Arrangements

COMPONENT	CRITERIA	MPMM/MS	SECTOR BLENDING	CONFLICT RESOLUTION	SOCIO ECONOMIC TOOL	STRATEGIC IN PLANNING	INTERACTIVE IN PLANNING	MULTI-PERSPECTIVE
CONTEXT	<ul style="list-style-type: none"> alternative strategies to mill should have been examined - EPPs could have been used prior to project consideration 	<ul style="list-style-type: none"> opportunity lost to use resource development as socio-economic tool in no area development alternative - these were examined by stakeholders before signing AIP 	<ul style="list-style-type: none"> no strategic planning (alternatives) produced or considered by stakeholders before project consideration 	<ul style="list-style-type: none"> general lack of public involvement in determining future development of north-west Alberta - no opportunity to discuss forest development vs. other uses with government and industry before signing AIP - other jurisdictions with post-approval impact assessment consulted before it was too late 	<ul style="list-style-type: none"> General lack of formalized requirements for: <ul style="list-style-type: none"> interaction before/ during early stages of proper reviews interaction between governments interaction between provincial departments (e.g., Environment, Forestry, Lands and Wildlife) 			
GENERAL COMMENTS:	<ul style="list-style-type: none"> context for assessing mill was lacking - should have been provided before projects considered: <ul style="list-style-type: none"> no scientific knowledge base for predicting impacts common scientific knowledge required to give credibility to process baseline assessment needed to assess cumulative impacts of all developments relationships among government, industry and the public needed to carry out necessary studies in advance to examine alternative land-uses APs by certain provinces with developers should not be permitted on projects without: <ul style="list-style-type: none"> proper consultation with other jurisdictions, if and when possible impacts occur consultation with stakeholders within a province 	<ul style="list-style-type: none"> explicit procedures needed to clarify federal/provincial procedures and leads (e.g., announcements) - apparent duplication/overlap of mandate in Fisheries and Forestry - no explicit environmental standards or indication no strategic policy for examining alternative land-uses before projects legislation/policy missing to refine jurisdiction for consultation before signing AIP when interjurisdictional impacts are possible uncertainty with federal "including department" no legislated provincial EA process 						
LEGITIMIZATION	<ul style="list-style-type: none"> view by scientific and public respondents that federal/provincial government leadership was lacking view by respondents from both federal and Alberta governments that others had been somewhat lacking in exercising their respective mandates legislation and policy considered a serious cause of weaknesses in institutional arrangements by all groups except federal respondents lack of clear jurisdiction between federal and Alberta governments was given great importance by all groups as a cause of weaknesses 							

COMPONENT	CRITERIA	MPMIMPS	SECTOR BLENDING	CONFLICT RESOLUTION	SOCIO/ECONOMIC TOOL	STRATEGIC IN PLANNING	INTERACTIVE IN PLANNING	MULTI-PERSPECTIVE
PROCESSES & MECHANISMS		purpose and benefits of proposal not adequately defined process designed to achieve environmental, social, economic and political goals, but considerable political commitment to environmental and social goals lacking low opportunity to develop alternatives (and alternatives) due to lack of scientific information	apart from federal respondents, government departments, government agencies, forest harvesting practices should not have been included from EA review separation of fish and wildlife concerns within Alberta and federal governments	half of respondents felt issues not substantially dealt with most of federal respondents satisfied with issues resolution majority more than satisfied from federal (Alberta governments) but proper approach based on thorough investigation of environmental consequences too limited review panels majority felt more attention should have been given to environmental impacts of mill lack of scientific information: - uncertainty about impacts - no cumulative impact assessment possible of all mills - no context for judging proposal - no credibility in process - polarized views - no credible positions - scientists seen as biased - FR's not possible - scope of panels limited adequate scientific information would not have altered decision (federal/Alberta governments)	lack of known socio-economic goals	lack of understanding of wider processes who influence the public on decisions during federal/provincial EIA who should be taking lead federally relative to panels, the media, federal/provincial liaison lack of strategic agreement with industry for data collection federal/provincial jurisdiction - loss of strategic direction requirements for establishing process for provinces considering proposals with possible multi-jurisdictional impacts prior to signing AIP lack of inter-jurisdictional agreement specifying procedures and responsibilities for data collection and assessment for wetlands lack of detailed formalized procedures and responsibilities for proponent	lack of scientific information prior to revised highest as cause of weaknesses lack of scientific information on environmental impacts of mill (major cause) lack of communication between government (major cause) lack of GMMT involvement at earliest stage lack of public involvement in preparing terms of reference for review inadequate federal explanation of why mill should proceed interaction with public limited by lack of scientific information no dialogue of value on cumulative effects lack of communication on forest harvesting between Alberta government departments lack of communication among government departments, industry and the public interaction - no credibility without common scientific information no opportunity for review involvement before signing AIP (especially re: forest harvesting) panel members had vested interests or biases interaction limited to consideration of only one mill, not cumulative effects of all mills	process driven by narrow perspective (scientific and public groups) acknowledgment and formalization of scientific perspective not adequately included in review procedures and/or policy legislation panels must be neutral and hear all perspectives - not preconceived perspectives

GENERAL COMMENTS:

- general dissatisfaction (apart from some federal respondents) with the way the AL-PMC review was handled
- poor federal/provincial EA review identified by 70% of respondents as most satisfactory stage
- pre-planning by province cited by majority (60%) as least successful stage, followed by AL-PMC's proposal and review (20%)

8.1 CONTEXT

8.1.1 General

In the context of preplanning done by the Province of Alberta in the area for the AL-PAC mill, over half (15 out of 26)* of the interview respondents indicated that it was the least successful stage in the planning and review process. Preplanning included the preparation of regional and sub-regional integrated resource plans (refer to Chapter 4 for a discussion of the adequacy of such plans). Of the 28 respondents, only one (from Alberta Forestry, Lands and Wildlife) identified this stage as being the most successful.

When given the opportunity to comment openly on **ANY** weaknesses related to the decision-making process or circumstances prior to or during review of the mill proposal, 18 out of 28 (at least half of every major group) voiced explicit dissatisfaction with a number of circumstances prior to consideration of the mill.

In terms of political agreement to the mill proposal, it was felt by one respondent that no province should have the legal right to sign an agreement-in-principle with a company (or companies) for a development which could impact on other jurisdictions without having prior consultations and agreements with those jurisdictions. As well, it was pointed out that there was no consultation with the

* NOTE: Twenty-eight (28) people were interviewed in all. When a total number is indicated that is less than 28 (e.g., 15 out of 26), it represents the number of people who actually responded to that particular question.

stakeholders within the province prior to the agreement-in-principle being signed for the mill proposal. It was further suggested that in both cases, institutional arrangements should have been in place to ensure that the opportunity for consultation was given prior to initial project approval.

Comments also focused on the lack of adequate scientific knowledge in the entire watershed. It was felt by a number of both governmental and non-governmental respondents that there was no scientific basis for predicting environmental impacts of the AL-PAC or any other mill proposal. As well, the consensus among respondents was that the impacts of all of the development proposals in the watershed should be examined together so that the overall cumulative effects could be estimated, not just examining each mill proposal in isolation from any others. It was felt that an area-wide assessment should have been done a number of years ago. Respondents were of the opinion that without such an assessment, and considering the general lack of Integrated Resource Plans (IRPs), there was no context for judging development proposals - i.e., no satisfactory impact assessment was possible (Section 4.1.2.2). As well, it was felt that no opportunity had been created to form partnerships among government, the private sector and the public to carry out the necessary studies in advance in order to examine the alternatives and to make a balanced decision which would serve all. It was considered that without the common knowledge base, it was impossible to achieve any kind of consensus.

8.1.2 Multiple-Purpose, Multiple-Means, Multiple-Participant Strategies (MPMMPS)

One-quarter (7 out of 28) of the respondents noted the need for MPMMPS. Comments focused on the necessity for completion of IRPs as a means for producing strategies which would have dealt with resource allocation and land-use issues in a regional context (Section 4.1.2.2). It was felt that through such strategies, alternative proposals for diversification of the economy, with the accompanying socio-economic benefits, could have been examined by the government, industry and the public. Forestry and tourism plans were cited as being part of the strategy exercise. It was felt that without such strategies, alternatives to proposals like AL-PAC could not be weighed by either the people of the area, industry or government.

8.1.3 Socio-Economic Tool

One respondent explicitly indicated that while the stated purpose of the AL-PAC mill proposal was to diversify the economy of the province (Section 4.1.1.2), the opportunity to use it as a mechanism for social and economic change in the area affected by the mill was, to a great extent, lost. Little or no attempt had been made to consult with the people to determine what social and economic benefits were desirable and/or feasible.

8.1.4 Strategic in Planning

One-seventh of the respondents indicated that institutional arrangements should have been in place for the required regional planning to be completed prior to consideration of any mill proposals so that strategic alternatives could be examined by the stakeholders prior to approval of any large-scale developments.

8.1.5 Interactive in Planning

A general lack of opportunity for public involvement in the future of northern Alberta, prior to the Alberta Government's intention to develop large-scale pulp and paper projects, was generally (10 out of 28) cited as a major weakness in the institutional arrangements in this case. This included a lack of interaction between governmental jurisdictions, with the public (local residents, native peoples, the general public in the southern part of the province and to the north in the Northwest Territories), and with industry (in public). It was felt that the large scale of developments such as the AL-PAC proposal and others could have a cumulative effect on such a vast area, within and outside the province, that a broad base of the population within the appropriate jurisdiction should be consulted before any provincial position or agreement-in-principle for such development becomes irreversible.

8.2 LEGITIMIZATION

8.2.1 General

In terms of decision-making provided by governments during the AL-PAC review, considerable dissatisfaction with the way that both the federal and the Alberta governments (2.9 and 3.2, respectively)* demonstrated leadership was voiced, particularly from non-governmental respondent groups. Little criticism was made of the leadership of the Government of the Northwest Territories (GNWT) (1.6) in the case.

Within the governmental groups, respondents from both the federal and the Alberta governments (2.6 and 2.8, respectively) indicated that they felt the other to be somewhat lacking in leadership in exercising their respective mandates, but they also felt that their own leadership was lacking.

Overall, the respondents indicated considerable dissatisfaction with existing legislation and/or policies (2.9). Only the federal respondents (1.9) considered this aspect of the institutional arrangements to be less of a problem. Thus, Alberta government respondents, scientists and representatives of the public domain saw current legislation and/or policy as being a significant cause of apparent weaknesses in the decision-making process.

* NOTE: All decimal scores represent rankings by the respondents in order of importance given to the identified weakness. Scale: 1.0 = not important, up to 5.0 = extremely important. Any score over 2.5 indicated dissatisfaction.

All groups placed a high level of importance (3.7) on the lack of clear jurisdiction between the federal and provincial governments as a cause of weakness in institutional arrangements. However, little concern was expressed as to the clarity of jurisdiction of the GNWT (2.1).

8.2.2 Strategic in Planning

Volunteered observations* on weaknesses for this criterion indicated a need to clarify federal/provincial responsibilities, relationships and procedures in EIA. A number of specific weaknesses were mentioned. Who responds to the public about decisions during a joint EIA was deemed to be unclear. Duplication of mandates, particularly with regard to fisheries, was raised as being a problem. Federal overlap into provincial jurisdiction over forestry was also a concern. An agreement between the federal and Alberta governments to outline in detail clear procedures to be followed was deemed to be missing. Also considered to be required were explicit environmental laws and policies to set environmental standards.

A lack of strategic economy/environment policy requiring that alternative land-use be examined by stakeholders prior to project consideration was seen as absent. Also deemed absent were established national requirements for procedures to be followed by a

* NOTE: These are not responses to the structured questions.

provincial government to ensure that potential stakeholders are involved in projects which could impact on other jurisdictions, prior to agreements-in-principle being signed. Another weakness given was that legislation and policy did not require that all aspects (e.g., social, economic, environmental) of a proposal be examined.

With regard to federal legislation and policy, it was suggested that the federal government did not clearly understand the intricacies of EARP. What constitutes an initiating department was mentioned as an example of this kind of uncertainty. It was also felt that recent court decisions related to the Rafferty-Alameda dam (Cullen, 1989; Muldoon, 1989) have added to this uncertainty.

Concerning provincial legislation and policy, the view was expressed by several respondents from both the federal and Alberta governments that the province just did not have a non-energy review process in place at the time, with clear procedures which would spell out how projects were to be assessed. A new legislated process was deemed to be a necessity.

8.2.3 Interactive in Planning

The main concern of the viewpoints given focused on the lack of formalized requirements for interaction, both prior to and during project review. It was felt that the opportunity for interaction among government, the proponent and the public had been lacking,

particularly prior to and during the early stages of project review, and that this was largely due to the absence of formalized requirements. Also considered to be missing were formalized arrangements to ensure interaction between the federal and Alberta governments, as well as internally among provincial government departments (Environment; Forestry, Lands and Wildlife; etc.)

8.3 PROCESSES AND MECHANISMS

8.3.1 General

A majority of respondents (23 out of 28) indicated dissatisfaction with the way the AL-PAC case was handled. Of those respondents who were positive about the process (5), three were federal government respondents, with one each from the provincial government and the public. None of the respondents in the scientific group found it to be "satisfactory". Respondents who expressed dissatisfaction reflected a relatively even distribution of total scoring in the "unsatisfactory" categories (Appendix 2).

When asked to identify the most satisfactory stage in the planning and review process, 75 percent of the respondents selected the (joint federal/provincial) review of the AL-PAC Review Board as being the most satisfactory. Only one respondent (from Alberta Forestry, Lands and Wildlife) identified the most satisfactory stage as being the preplanning done by the province in the area prior to

project consideration. Two respondents (one from Alberta Forestry, Lands and Wildlife, and one from the public) identified the company's (AL-PAC's) proposal as being the most satisfactory. The scientific review was selected as being the most satisfactory by three respondents: two from the federal government and one from the scientific group.

Of the 25 persons responding, 60 percent (15) indicated that the preplanning done by the province in the area prior to project consideration was the least successful stage in the planning and review process. An additional 28 percent chose either the company's (AL-PAC's) proposal or the initial review as being the least successful stage. Only two respondents (from Alberta Forestry, Lands and Wildlife) selected the (joint federal/provincial) EIA review as being the least successful stage in the planning and review process.

It is apparent from the above results that the stakeholders in the AL-PAC case, with the few noted exceptions, were supportive of the (joint federal/provincial) EIA review as being the most positive part of the total process and implicitly agreed that the mechanism put in place (AL-PAC Review Board) had the greatest success in overall consideration of the mill proposal. On the negative side, respondents found that the preplanning and proposal preparation stages were the least satisfactory.

Thus, the views expressed indicate that the stage in the total review procedure that was formally legitimized as an inter-jurisdictional approach (AL-PAC Review Board) was the most

satisfactory to the majority of respondents, in spite of the many deficiencies identified with it.

8.3.2 Multiple-Purpose, Multiple-Means, Multiple-Participant Strategies (MPMMPs)

Respondents indicated a considerable dissatisfaction (3.0) with the lack of definition of the overall purpose and benefits of the AL-PAC proposal. A range in the rankings by group reflected that the public and the GNWT saw this as a greater weakness in the process (4.0) than did either the federal (2.4) or Alberta (2.2) governments.

When asked what goals they thought the review process was designed to achieve, approximately 75 percent of the respondent groups similarly indicated that the review process had been designed to achieve environmental, social, economic and political goals. However, when asked if there had been a lack of political commitment to any of the foregoing goals, 75 percent indicated "yes". Of the 24 respondents (note: three respondents - from the federal and provincial governments - chose not to answer this question), 16 said that there had been a lack of political commitment to environmental goals. Of these, all but one indicated that the province was lacking, and eight were of the opinion that the federal government was lacking in this area.

One-third of the total respondents (8) felt that there had been a lack of political commitment to social goals on the part of both the federal (6) and the provincial (7) governments. Only a few respondents stated that there was a lack of commitment to economic (4) and political (3) goals.

A volunteered response indicated that because there had been such a lack of social, economic and environmental baseline data, there was no possibility or opportunity for developing MPMMPs for the area. This was seen as a barrier to the preparation and consideration of alternatives to large-scale pulp mill projects.

8.3.3 Sector Blending

With the exception of the federal government respondents (2.0), all other groups (4.0) felt that government departments representing different sectoral interests lacked common objectives related to the AL-PAC proposal. This implies that while federal representatives generally believed that disparate federal and provincial sectoral interests were not a problem, none of the other respondent groups shared this belief.

Volunteered comments include the view that Alberta Forestry, Lands and Wildlife and Alberta Environment should have had one (combined) EIA for the proposal, and that procedures should have been formalized as to how this would be done. The fact that forest harvesting to supply the mill was not included in the joint review

was seen as a major weakness. As well, it was pointed out that the separation of fish and water concerns into different organizations at both the federal and provincial levels caused much confusion.

8.3.4 Socio-Economic Tool

All respondent groups felt that a lack of known socio-economic goals for the (AL-PAC) project was a considerable weakness (3.0). Both the public (3.6) and the GNWT (4.0) gave this more importance than did the other groups.

8.3.5 Conflict Resolution

In terms of how well the entire review process (Section 5.1) identified issues, came to grips with conflicting views and reached a satisfactory conclusion, one-half (14) of the respondents indicated that the most important issues and concerns were identified, but were not satisfactorily dealt with. The degree of perceived weakness in the outcome was relatively evenly distributed among the groups (30 to 50 percent), with the exception of the public, where 80 percent (6 out of 7) expressed their dissatisfaction. As well, one-third of the scientific group (2 out of 6) and one of the respondents from the GNWT indicated that the

decision-making process had not even identified the most important issues and concerns.

Those groups indicating satisfaction that the process had identified and resolved the issues and concerns were primarily the federal government (5 out of 7) and the Alberta government (3 out of 6) and, to a lesser extent, the scientific group (2 out of 6). Thus, apart from federal government respondents, at least one-half of the respondents in the other groups believed that the decision-making process had not adequately identified and/or resolved the key issues which emerged. Thus, it would appear that the level of dissatisfaction over resolving conflict increased among respondents as one moves from the federal to the local level.

In terms of the adequacy of the understanding (or knowledge) developed by the decision-making process which led to the ultimate decision to approve the mill proposal, a little over one-half (15 out of 27) of all the respondents believed that project approval was based on a thorough investigation of the environmental consequences. The groups most solidly behind this viewpoint were the federal government (4 out of 6), the Alberta government (5 out of 6), and the scientific group (3 out of 6). Most of the public (5 out of 7) felt the opposite, indicating that the impact of the mill on the environment was never adequately known.

In considering the scope of the review panels as a possible weakness, almost all of the respondents (24 out of 27) indicated that such review panels had been inadequate. Almost 80 percent (19 out of 24) believed that the scope of the company's (AL-PAC's)

review was lacking, while about one-half (11 out of 24) felt that the joint federal/provincial EIA review was lacking, and over one-half (14 out of 24) felt the same way about the scientific review. While over 60 percent (71 out of 28) believed that more attention should have been paid to the mill's impact on the environment. Not one respondent felt that more attention should have been given to the technology of the mill. Three-quarters (21 out of 28) of the respondents indicated that had better scientific information been available to all interests, then the decision-making process during the process would have been more satisfactory (at least one-half of all groups).

Volunteered comments on how such information would have improved the process were considerable. Respondents from the federal government and the GNWT generally felt that it would have resulted in a more satisfactory conclusion for all by removing scientific uncertainty over environmental impacts. More conclusive predictions of impacts could have been made in relation to the technology of the mill. As well, the loading of emissions from all mills would have been known and the cumulative effects on the watershed could have been determined. It was felt that without this kind of information, there was no context for judging any such proposal.

As for process, federal government respondents indicated that adequate scientific information for the watershed would have made the process more credible to the public, as common information would have been available to all stakeholders. As a consequence,

viewpoints would not have become so polarized and the length of time taken to reach a decision might have been shortened, particularly as the scientific review would not have been required. As well, scientists would not have been seen as biased. Positions generally would have been seen as less biased and, in turn, would have created more trust and a greater opportunity for conflict resolution.

A number of provincial government responses reflected the same beliefs as indicated by the federal group, adding that the public would have felt more comfortable judging projects as their questions could have been answered, and that adequate scientific information would have provided a knowledge base for regional involvement. Another provincial viewpoint was of the opposite opinion, indicating that there was no urgency for the collection of data in the area, considering budget constraints and existing needs in other priority parts of the province.

The scientific group, like the federal government respondents and some of the provincial government respondents, supported the need for more scientific knowledge, citing better problem definition, more accurate predictions of savings in time and money, and greater public trust as likely benefits. Since public fears would have been reduced, the process would have been more scientific and less emotional.

The public group also supported the majority view, adding that with adequate scientific knowledge being available, IRPs could have been developed to provide an opportunity for examining alternatives for the area prior to consideration of the mill proposal. As well,

it was felt that the scope of the review could have been broadened to address area-wide cumulative effects. Implied by these views is the position that the review process would have been improved by adequate scientific information, as the cumulative impacts of various alternatives could have been predicted and assessed.

When asked if the availability of adequate scientific information would have changed the outcome of the decision-making process (the decision to approve the mill), about one-half (14 out of 27) of the respondents thought not. Of those indicating this viewpoint, 78 percent (10 out of 13) were federal and provincial government respondents. This would suggest that government may have a different opinion of what institutional arrangements for interaction in planning are designed to achieve.

Those respondents from the scientific group (4 out of 6) and the public group (5 out of 7) who indicated a greater belief that the outcome could possibly have been different emphasized that alternatives to the large-scale mill project could have been examined in relation to the assimilative capacity of the water basin. In turn, this could have led to a range of different outcomes, considering type and scale of developments, locations and, possibly, rejection of any new mill proposals if it was found that the assimilative capacity of the river system had already been reached.

In spite of these differing opinions on the mill decision, one federal government respondent was of the opinion that the process that evolved through conflict resolution of different interests led

to the approval of a better project (technologically), thus contributing to a better overall outcome.

8.3.6 Strategic in Planning

All groups evenly expressed the belief that a lack of clarity and of understanding about how the review process procedures were to work had been a considerable cause of weakness (3.1) in the decision-making process. A lack of understanding of what issues and concerns were being covered by the review panel was given less importance as a cause of weakness, but was still considered of significance (2.6), particularly by the federal government (3.3) and the GNWT (3.0).

From volunteered comments (8 out of 28) on the above, some federal respondents indicated that the handling of the announcements of the results of the federal/provincial EIA review was confusing as to who, how and when the public was or should have been informed. As well, it was felt that the process was unclear for the federal departments as to who should be taking the lead relative to the review bodies, the media, and federal/provincial liaison and coordination.

One viewpoint of provincial respondents indicated that the process could have been made more strategic in planning if the pulp mill companies and/or their association had become partners to a planning type of agreement prior to project consideration. This

partnership would have facilitated the development and monitoring of watershed data as part of an approach for establishing and ensuring that river assimilative capacities were not surpassed.

It was also felt that federal/provincial jurisdictional confusion had contributed to loss of public respect for the strategic direction provided by politicians during the consideration of the mill proposal.

A respondent from the GNWT expressed the belief that a major strategic weakness in the process was in the earliest stage. A legally established national process was considered lacking that would have set out procedures to be followed by a province when considering a proposal such as AL-PAC's which could impact on another jurisdiction. Such procedures should have required that potential jurisdictions of impact be consulted prior to any agreement-in-principle being signed with a development proponent. It was felt that interjurisdictional agreements should have been in place to deal with trans-boundary situations, setting out in detail the what, who and how of the required actions and responsibilities, including provisions for obtaining the required scientific knowledge in partnership with the private sector.

Viewpoints volunteered from the scientific group indicated that a strategic policy was missing for outlining how social, economic or environmental considerations can be given to various regional development alternatives prior to considering any agreement-in-principle with developers. Once regional alternatives are examined, scoping and terms of reference for a project must be known. As

well, a detailed account of a company's responsibilities must be known prior to signing an agreement-in-principle. The idea of a partnership between government and industry to collect, monitor and assess data on a watershed basis was supported by the scientific group, who indicated that government must take the lead.

It was also believed that panel membership had been a weakness in the AL-PAC case because stakeholders with vested interests were involved in the review mechanisms. It was felt that panel members should be professional panel experts with no vested interests.

8.3.7 Interactive in Planning

Apart from the public group (2 out of 7), respondent groups held the belief that the review process had provided adequate opportunities for those interested to give their viewpoints (20 out of 28). As well, all groups generally supported the belief that the geographical focus of the review process had been adequate (22 out of 27). Those groups having some disagreement with the latter view were the province (2 out of 6) and the public (2 out of 6).

A lack of adequate communication between panel members and participants was not considered to be a major contributing cause of weakness (1.8). On the other hand, all groups evenly indicated that a lack of communication among governments had been a significant major cause of weakness (3.6).

In terms of not having adequate information available (and at the right time) on the technology of the mill, respondents gave this a moderate ranking (2.6) as a cause of weakness in the decision-making process. Of much greater consequence was the considered lack of scientific information on possible impacts of the mill on the environment (3.5) and the lack of similar information on environmental conditions in the possible area of impact prior to the AL-PAC mill proposal reviews (4.6). In both cases, the Alberta Government rankings were less than the other groups (2.7 and 3.8, respectively). This appears to indicate that the lack of scientific information on the latter two areas described above was considered to be a major cause of weakness in decision-making during the reviews, although the Alberta Government sub-group ranked it somewhat lower in importance. The rating given (4.6) to the lack of contextual information for judging the mill was the highest ranked score from the interviews, clearly indicating that in the minds of the stakeholders, this problem was central to the review process.

Ninety-three percent of the respondents felt, either very definitely (19 out of 28) or definitely (7 out of 28), that the decision-making process would have been more satisfactory if adequate scientific information had been available during the planning and project review phases of the AL-PAC project.

Volunteered federal viewpoints on interaction weaknesses reinforced the generally held view that the lack of baseline information on the sociological, economic and environmental conditions in the watershed area had been a definite obstacle to

satisfactory dialogue throughout the review process. It was suggested that the GNWT should have been involved in the process much earlier, and that stakeholders should have been brought together at the outset to design the terms of reference for the review. As well, there was a belief that the federal explanation of why the mill should go ahead (after the "Scientific Review") was never adequately explained to the public (e.g., the adequacy of the mill's technology).

Volunteered provincial viewpoints also focused on and reinforced the belief that a lack of adequate scientific information had been a major cause of failure or a barrier in interaction throughout the process. The company (AL-PAC) was thought to have had a difficult start, not being able to provide basic information to the public. Interaction with the private sector on data requirements, collection and assessment was weak, as no formal requirements for partnerships (with the private sector) had been made. Little or no information was available for interaction/assessment of all mills in the watershed area, so that dialogue on cumulative impacts was impossible. As well, communication between Alberta Environment and Alberta Forestry, Lands and Wildlife was considered lacking, particularly with regard to including the assessment of forest harvesting practices within the EIA.

Viewpoints expressed by respondents from the GNWT emphasized that better communication is needed among governments, government departments, industry and the public. Interjurisdictional agreements are needed to require such improved communication and to

outline in detail how this would occur. Difficulties in obtaining such agreements were seen as a major obstacle to improved communication.

As was to be expected, the scientific group saw the lack of scientific knowledge as a major barrier to effective interaction among stakeholders. Noting that baseline data for the watershed must be available prior to the consideration of projects, the view was expressed that, given costs for data collection, the federal government should strengthen its research role to help fill the gap in the resource management process. This data could be used for both basin planning and project assessment.

Land-use planning and resource allocation should have been dealt with by the people of the watershed area before any mills were considered. More scientists and more funding were also seen as needed. Without a scientific base for decision-making, it was felt that the process had no credibility - the public should have understood the nature of the resources in the area before any project was considered.

Partnerships with industry (or industry associations) for data collection, monitoring, assessment and planning were cited as necessary in order to overcome the aforementioned obstacles to developing an adequate scientific information base for planning and project assessment. In this context, the proponent would know what was expected in advance of any commitments being considered. The scientific perspective also expressed the view that the **scope** of the

review panels had been limited due to the absence of sociological, economic and environmental baseline data.

Public group respondents echoed many of the concerns of the other groups with regard to the lack of scientific information, indicating that it had been difficult to develop their positions for hearings. It was suggested that the two levels of government (federal and provincial) needed to work together to develop the information base. Because this common base of knowledge had been lacking, it was felt that any environmental information that was presented to a panel was no good or unreliable "if it was not your own".

In other aspects of the review process, the public group expressed a concern that stakeholders should have been involved at the outset, before any agreements-in-principle were signed between the province and industry. The view was also expressed that there was no opportunity for native involvement in the Alberta Government's Integrated Resource Planning process (Section 4.1.2) prior to the consideration of any development projects. It was noted that negotiations should take place with native peoples before any forest management agreements are considered and that the real economic costs and benefits of proposals are not made clear or often known. Native interests were believed to be 'falling between the cracks'.

From a geographical standpoint, the view was expressed that the review should not have been limited to assessing the impact of one mill in isolation from the others (Figure 4.1). Overall cumulative

impacts of all developments on the basin should have been examined. Continuing monitoring of cumulative effects was deemed to be critical to achieving sustained environmental health in the area.

8.3.8 Multiple Perspectives

Apart from the perception that lack of adequate and timely information had been a barrier to satisfactory interaction, there was a general belief among most respondents (23 out of 28) that the review process had been open in nature and designed to obtain as many perspectives as was realistically possible. Exceptions to this perspective were found in the public group (3 out of 7) and in the group from the GNWT (1 out of 2), indicating that several respondents from the local area and a representative of downstream interests deemed that the process had not adequately included their perspectives.

Although most respondents were satisfied that the process had been open in nature and had attempted to obtain a multiplicity of perspectives, over half of them (15 out of 28) believed that the process had been driven by a narrow perspective, rather than by a range of perspectives representative of those affected. Two-thirds of those respondents who were of this opinion were from the scientific group (5 out of 6) and the public group (5 out of 7). A majority of government respondents (10 out of 15) therefore felt

that the process, which the governments established, had not been driven by a narrow perspective.

The above results could be interpreted as indicating that while the process was perceived by non-governmental people as having been intentionally driven by a narrow perspective, nevertheless, through its evolution (interaction with the stakeholders), it took on a broader perspective in attempting to come to grips with the different perspectives that emerged.

Volunteered comments regarding related weaknesses resulted in the explicit acknowledgement by two provincial respondents that the scientific perspective was important to the decision-making process and must be formally provided for in that process. Comments from the scientific group focused on the need to ensure that scientific perspectives should be neutral and not representative of vested interests. This group felt that panels should not be biased towards a particular perspective, but that they must be neutral and composed of professional panel experts who obtain and consider the perspectives of each of the stakeholders.

8.4 SUMMARY - PERSPECTIVES ON WEAKNESSES IN INSTITUTIONAL ARRANGEMENTS

8.4.1 Context

The single most significant weakness identified by respondents was that there was little or no context against which any proposals

could be judged (Table 8.1). The lack of adequate scientific, social, economic and environmental data and any extensive pre-planning in the area was deemed to have made impossible any potential investigation of alternatives to the mill development proposal. As well, the lack of scientific context was seen as eliminating any possibility of accurately predicting the impacts of the AL-PAC mill. For the same reason, the mill proposal could not be judged in relation to other proposals, making impossible any hope of assessing cumulative effects for the entire watershed.

In terms of process, it was felt that a number of contextual institutional elements were missing and should have been in place prior to any project being considered - for example: i) a national requirement to prohibit provinces from signing agreements-in-principle (AIPs) for proposals without prior consultation with those potentially affected; and ii) partnerships between government and industry to collect, assess and monitor scientific data prior to signing AIPs for projects.

The general lack of scientific information appeared to be a major causal factor related to a number of perceived weaknesses in the decision-making process throughout the review. It was felt that as no alternatives to the mill could be developed or assessed, the opportunity to use resource development as a socio-economic tool had been lost. As there were no alternatives, no overall strategic means could be developed and assessed by the public to address the needs of the area to be impacted upon (the singular strategy for mill development was a given, decided elsewhere).

From an interactive standpoint, perceived weaknesses identified were: i) a lack of public involvement in determining the future use of northern Alberta prior to signing AIPs for mill developments; and ii) no consultation with other jurisdictions and native peoples affected by possible impacts prior to signing AIPs. A lack of an adequate context for resource development was therefore perceived to be a root cause for various weaknesses in the institutional arrangements prior to and during the review.

8.4.2 Legitimization

General comments (with the exception of most federal respondents) on legitimization concerns expressed the view that inadequacies in legislation and policy related to the review had been a major cause of weakness in the decision-making process. Generally, the respondent groups from both the federal government and the Alberta government expressed the view that the other had been somewhat lacking in exercising its respective mandate. The scientific and public groups felt that both governments had been lacking in leadership. Lack of clear jurisdiction between the two levels of government was given as a major cause of weakness in the review process.

From a strategic-in-planning standpoint, perspectives given cited a number of major weaknesses related to both existing legislation and policies. Clarification of federal/Alberta

government roles and responsibilities, duplication of mandate (federal/provincial), and the question of who had the federal lead (or was the initiating department) were given as major concerns, particularly during the joint federal/provincial EIA review.

It was felt that a provincial strategic policy requiring examination of alternative regional land-use plans was required (prior to signing AIPs). As well, a legislated Alberta EIA process (with detailed procedures) and related environmental standards were considered missing and, therefore, required. Also considered a weakness was the lack of any formalized procedures on how forestry harvesting practices were to be included in EIAs carried out by Alberta Environment.

Perspectives on the adequacy of interaction related to legitimization indicated a serious lack of formalized requirements for interaction among the public, governments, government departments and scientists, particularly prior to, and in the early stages of, project consideration.

From a strategic-in-planning standpoint, perspectives indicated a serious need for establishing and clarifying more detailed procedures, outlining roles and responsibilities, and providing for interaction among stakeholders (particularly at the outset), prior to and during consideration of land-use plans and project EIAs.

8.4.3 Processes and Mechanisms

Respondents giving general comments (apart from most federal representatives) indicated overall dissatisfaction with the way the review was handled. The pre-planning carried out by the province prior to the proposed AL-PAC pulp mill proposal was considered to be the least satisfactory stage surrounding the review, with AL-PAC's own proposal and review being the next least satisfactory. The joint federal/provincial EIA review was cited as the most satisfactory stage.

In terms of MPMMPs, there was a perception that the purposes and benefits of the mill proposal had not been adequately defined and that while the review process had been designed to achieve multiple purposes, there was a lack of political commitment to environmental and social goals. Perceptions indicated that the social and economic goals for the project itself were not adequately defined. The lack of scientific information was also perceived to be a major cause of weakness, as its absence eliminated possibilities for developing alternative development strategies.

Perceptions were that government departments lacked common objectives in considering the mill proposal which, in turn, created a resistance or deterrent to sector blending. The exclusion from the EIA of forest harvesting for the mill was seen as a major barrier to an integrated review. Separation of fish and water responsibilities in both federal and provincial governments was also thought to be a barrier to the blending of sectoral interests.

In terms of expressed satisfaction with conflict resolution, only half of the respondents felt that the most important issues had been identified and dealt with (the only group expressing general satisfaction was the group of federal respondents). Slightly more than half of those interviewed (mostly respondents from the federal and Alberta government groups) believed that the mill's approval had been based on a thorough investigation of environmental impacts, although a similar number indicated, in response to a separate question, that more attention should have been given in the review to examining the impacts of the mill on the environment.

It was felt that the scope of the review panel had limited conflict resolution in terms of both subject matter and procedure. Panels were not empowered to address cumulative effects of all mill proposals and did not attempt to achieve compromise (but were just to obtain their views) in discussion with stakeholders.

The lack of scientific information was thought to have been a major barrier to conflict resolution. As there was no adequate common scientific base of information available to all stakeholders, all data were considered suspect; consequently, positions taken were not seen as credible. As a result, news became polarized and win-lose confrontations prevailed in many situations. Scientists were even viewed as biased. Thus, with no scientific information context for judgement, as well as limitations in panel scope, the conflict-resolution process was perceived to have been less than satisfactory by approximately half of the respondents.

In terms of actual outcome (the decision to proceed with the mill), and with the above implied perspective that scientific information would have made a difference, nevertheless most federal and Alberta government respondents indicated that had adequate information been available for the review, the decision would likely have been the same. This result suggests that the government and public respondent groups had differing perspectives on the purpose and scope of the entire review. In other words, government saw the process as being much narrower and possibly less flexible than did the public, particularly with respect to the possibility of assessing alternatives.

A general lack of explicit review procedures with defined roles and responsibilities for stakeholders was considered a major cause of weaknesses, particularly with regard to Alberta review legislation and/or policy. As well, confusion over federal/provincial jurisdiction, and over which federal department had the lead (i.e., who is in charge?), was identified as a strategic weakness, resulting in a perceived loss of credibility at the political level. A lack of defined and formalized responsibilities and procedures for the proponent was also seen as a major weakness.

Strategic direction was also perceived as being lacking, due to the lack of agreements among stakeholders about interjurisdictional consultation on large-scale projects (prior to signing AIPs), as well as the lack of agreements between government and industry for scientific data collection and between governments for carrying out joint reviews.

The lack of adequate scientific information was deemed to be the greatest cause of weaknesses related to inadequacies of interaction throughout the review (previously summarized in Section 7.2). Distrust, polarized views and loss of credibility in the process were seen as the result.

Interaction among governments, government departments, industry and the public, including native peoples, particularly prior to signing AIPs and during the initial stage of project consideration, was seen as being a major inadequacy. Consultation with the GNWT, native peoples and the public of northern Alberta on the future land-use development of the area was considered absent and, therefore, necessary. Any interaction on development alternatives and cumulative effects within the entire watershed was considered to be seriously limited or lacking, again deemed to be largely the result of a lack of scientific data. It was also felt that the public should have been involved at the outset in preparing the terms of reference for the review.

Perspectives clearly indicated, therefore, that interaction in planning was seriously limited because of a lack of scientific information, a lack of adequate interaction at the outset, and a lack of adequate procedures that clearly define how interaction among the stakeholders is to occur.

With regard to taking multiple perspectives into account, both the scientific and the public respondent groups generally felt that the process had been driven by too narrow a perspective. It was felt that the scientific perspective must be acknowledged in policy

instruments as a necessary part of the process, and that procedures should be put in place to ensure that such a perspective is non-partisan. With respect to the composition of review panels, it was felt by respondents (including those from the scientific group) that the members of such panels should not represent the interests of the stakeholders, but should be professional facilitators/panel experts who then deal with the perspectives of the stakeholders.

In conclusion, it is apparent that the context for project assessment (pre-planning) was perceived to be seriously lacking or absent. In addition, established arrangements with explicit agreements and procedures to guide the process prior to and during the review were not considered adequate. While at least half of the respondents (mostly from the government groups) were satisfied with the outcome, all of the groups identified numerous inadequacies in the arrangements as needing attention and improvement.

There was a general feeling among many government respondents and some from the scientific group that while the process had been deficient, it represented a step forward in furthering better EIAs, as well as in advancing better mill technology. Some members of other respondent groups appeared to share a broader concern that no development of the scale of the AL-PAC pulp mill proposal should occur until the current environmental and socio-economic conditions are known. In other words, there should be no development until there is a context in place for judging alternatives for development in relation to desired socio-economic goals for the area.

The results described in this chapter assisted in identifying the institutional arrangement weaknesses considered to be of greatest importance. In looking back over the entire study period (and prior to it), it became apparent that these stakeholder-identified weaknesses (Table 8.1) helped to provide a foundation for the identification of leverage points or possible opportunities for strengthening integrated resource management in Chapter 9 following.

CHAPTER 9

SUMMARY OF WEAKNESSES AND RECOMMENDED ACTIONS FOR THE IMPROVEMENT OF INSTITUTIONAL ARRANGEMENTS IN INTEGRATED RESOURCE MANAGEMENT

When water resource problems occur, governments often respond by assigning the problems to administrative organizations insufficiently equipped to cope with them. This situation occurs because, while the problems have multiple and interdependent causes, most of the organizations facing these challenges tend to be independent and fragmented, working to relatively narrow mandates and with a closed decision process. Prevailing administrative and legal arrangements for integration of water with other government policies therefore are not well developed.

(OECD, 1989: 9-10)

9.0 INTRODUCTION

The analysis results described in the preceding five chapters clearly identify that the institutional arrangements to provide for integration, that were in place prior to and during the AL-PAC case, were seriously inadequate. These inadequacies were so great, in fact, that the system in place simply broke down. Early on, stakeholders became aware of these inadequacies and created public pressure to make changes. Established processes were subsequently

modified and new mechanisms were created in order to respond to stakeholders' demands for the integration of perspectives and scientific information. Unfortunately, the *ad hoc* adjustments made to mechanisms and processes clearly did not result in a satisfactory conclusion of the review from the perspectives of several stakeholder groups, as well as a number of government representatives.

The purposes of this chapter are twofold. **First**, it provides a summary of the results of the analysis of institutional arrangements weaknesses, described in the preceding chapters. **Second**, it prescribes, recognizing that the weaknesses in the AL-PAC case epitomize current weaknesses in institutional arrangements, various actions which should be taken for building greater opportunities for integration into the resource management process. Weaknesses are thus used as leverage points to identify recommended actions, therefore following the direction provided in the research design of the thesis. This prescription is set in the context of the evaluation framework used as an organizational guide.

While the overview narrative discusses the **types** of weaknesses and prescriptions, specific problems and corresponding recommendations for action are presented in a concise tabular fashion (Tables 9.1 to 9.4) as the main body of the chapter.

9.1 CONTEXT

9.1.1 Weaknesses

Contextual factors (Table 9.1) were a major 'constraint' or hindrance to integration in resource management in the AL-PAC case (Mitchell, 1987: 11). The study area is relatively pristine with unpolluted water bodies (James & Foerstal, 1983), but their buffering and accumulative capacity against pollution appeared to be threatened by the Alberta Government's declared desire to diversify the provincial economy through major forestry development in the northern part of the province (Getty, as quoted in the Calgary Herald, December 14, 1988: A8). The area offers many other resource development opportunities (Sadler, 1983: 4), yet it appears to have been the priority given to major forestry development and consideration of the AL-PAC mill, among others, that has publicly brought forth and given profile to major contextual weaknesses in institutional arrangements.

Large-scale forestry development was given a priority, and surprisingly little or no context for judging the impacts of such development was provided. Regional planning had not been extensively carried out, which should have been used to assess general impacts of designating lands for forestry development. As well, development alternatives had not been developed and/or considered by the public, and any adequate baseline information for considering the feasibility and/or desirability of projects was considered to be seriously lacking, if not absent, in the AL-PAC

Table 9.1

Results Summary - Contextual Weaknesses and Recommended Actions for Improved Integration in Institutional Arrangements

Identified Weaknesses

Methodology/Source CRITERIA	Correspondence/ Newsclipping Results	Evaluation Framework Results	Stakeholder Interview Results	Recommended Actions for Improvement of Integrated Resource Management
MPMMMFPS		<ul style="list-style-type: none"> single purpose seen as: pulp mill development to diversify prov. economy lack of regional and sub-regional land-use plans as basis for multi-strategy consideration before project consideration no explicit procedures to ensure fed/prov. sector blending throughout IRM process (emphasis only on plans) no explicit incorporation of impact assessment in each stage of IRP 	<ul style="list-style-type: none"> alternative strategies to mill should have been examined - IRPs could have provided this opportunity 	<ul style="list-style-type: none"> establish prov. requirements for completion of regional land-use planning with MPMMMFPS and alternatives for consideration by stakeholders before large-scale project consideration (before signing AIPs) in prov. regional land-use planning procedures, establish requirements for fed. sectoral involvement and expression of interests re: fed. jurisdiction in preparation of prov. regional land-use plans, include assessment of impacts of strategies/alternatives, including collection and analysis of appropriate scientific baseline data
SECTOR BLENDING				
SOCIO-ECONOMIC GOALS		<ul style="list-style-type: none"> no explicit requirement in IRPs to identify geographical socio-economic goals 	<ul style="list-style-type: none"> opportunity to use resource development as socio-economic tool lost as no alternatives examined before signing AIP 	<ul style="list-style-type: none"> in prov. IRM procedure, require opportunity to develop/establish overall socio-economic goals by stakeholders for planning areas
CONFLICT RESOLUTION		<ul style="list-style-type: none"> unclear on explicit mechanisms in IRP for conflict resolution on issues before project draft plan review 		<ul style="list-style-type: none"> recognize conflict resolution as important in prov. IRM procedures and provide mechanism for achieving it
STRATEGIC IN PLANNING		<ul style="list-style-type: none"> no explicit requisite in IRM to require completion of IRPs before large-scale developments 	<ul style="list-style-type: none"> no strategic planning alternatives examined before signing AIP 	<ul style="list-style-type: none"> establish prov. requirements for completion of strategic regional land-use planning and alternatives for consideration by stakeholders before signing AIPs on large-scale projects
INTERACTIVE IN PLANNING		<ul style="list-style-type: none"> process description emphasizes input/review, not consensus-building interaction data limitations could hinder interaction 	<ul style="list-style-type: none"> general lack of public involvement in determining future development (land-use) of northern Alberta no opportunity for discussion of proposed forest developments before signing AIP jurisdictions, other than Alberta govt., with possible impacts not consulted before signing AIP 	<ul style="list-style-type: none"> include public involvement and consultation with other jurisdictions that could be impacted on in (above) required regional land-use planning (before large-scale project consideration) in public involvement (above), require interaction leading to consensus-building among stakeholders

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Recommended Actions for Improvement of Integrated Resource Management

recognize, require and provide for inclusion of scientific perspective and needed scientific information in (above) regional planning (and regional impact assessment)

Stakeholder Interview Results

lack of credible scientific perspective, given inadequacies of data

Evaluation Framework Results

perspectives limited to "public" and "government"

Correspondence/ Newsclipping Results

Methodology/Source CRITERIA

MULTIPLE PERSPECTIVES

scientific context for judging mill should have been provided before project consideration

AIP agreements/requirements should have been in place before signing AIP, which would:

prohibit one province from signing AIPs on large-scale projects with possible impacts on other jurisdictions without prior consultation

form partnerships among governments and industry to collect needed data

ensure that basin-wide assessments are conducted when large-scale developments could cause cumulative effects

regional plans could provide context (and scientific information) for project consideration and review:

if other jurisdictions were consulted during regional land-use planning (with assessment), then prov. project AIPs with developers should be in compliance with plans agreed upon by jurisdictions affected

partnerships/agreements among industry and governments should be formed in advance of project consideration in order to collect, assess and monitor needed scientific data

regional plans should be focused on or include entire watersheds

GENERAL COMMENTS

case. Consequently, impacts of the project on the environment were never examined prior to project approval. Instead, one outcome of the AL-PAC assessment was to carry out the necessary study on the water system **after** the project was given the go-head.

The context, therefore, included a provincial priority for large-scale development of a large region, with little or no apparent large-scale planning or impact assessment, nor involvement of the people affected directly or indirectly (including other jurisdictions) in the decision-making process prior to signing project Agreements-in-Principle. In sum, **institutional arrangements in place prior to public consideration of the AL-PAC mill did not successfully provide a context for integrated decision-making.** As a consequence, the project consideration stage that was to follow in the resource management process was weakened.

9.1.2 Recommendations

A number of types of actions should be considered by government for overcoming the above described resistors to integration. Before large-scale developments (such as AL-PAC) are considered, provinces such as Alberta could require that regional land-use planning be mature, and that development alternatives are well-defined and available for public consideration and scrutiny. Potentially affected jurisdictions and the public, both inside and outside the

province, would be included in the activity to ensure integration of views and responsibilities within the process.

These plans and alternatives would be seen as instruments or means for assessing the impacts of land-use options, and for addressing the social, economic and environmental needs of the area affected. Selection of optimum plans by all those potentially affected would be based on strategic choices - that is, the compromise that best meets the goals of all participants in the planning process. To achieve this, adequate scientific information would have to be developed and made available to participants as input for developing their particular perspectives. In this regard, knowledge of the nature and extent of resources and possible impacts of development alternatives seems particularly important. These improvements would produce a contextual framework and information base for project assessment which is the next step in the resource management process (Section 1.3).

9.2 LEGITIMIZATION

9.2.1 Legislation

9.2.1.1 Weaknesses

A number of types of legislation-related weaknesses were identified in federal and Alberta government statutes (Table 9.2). In terms of providing general direction for resource management, neither level of government appears to have any statute which

Table 9.2

Results Summary - Legitimization Weaknesses and Recommended Actions for Improved Integration in Institutional Arrangements

Methodology/Source CRITERIA	Correspondence/ Newsclipping Results	Identified Weaknesses	Evaluation Framework Results	Stakeholder Interview Results	Recommended Actions for Improvement of Integrated Resource Management
MPMIMMPS			<p>A. LEGISLATION</p> <ul style="list-style-type: none"> environmental legislation not explicit in acknowledging or providing for consideration of other sectoral interests/purposes little or no relationship or cohesiveness among individual legislative statutes in terms of purpose purpose/means linkage left implicit and open to interpretation in individual statutes sectoral legislation predominately single-purpose, with no explicit recognition of need for multiple strategies in geographic areas while EARP guidelines recognize EIA as planning tool, procedural descriptions do not explicitly reflect integrated approach EARP guidelines not implicitly or explicitly linked to other resource/environment legislation or policy: <ul style="list-style-type: none"> emphasis on blending impacts, not sector interests (proactive) <p>B. POLICIES</p> <ul style="list-style-type: none"> Alberta EIA policy not explicitly linked to purposes of either Environment Act or IRM under <u>Public Lands Act</u> 		<p>A. LEGISLATION</p> <ul style="list-style-type: none"> environmental legislation could explicitly acknowledge sectoral resource user interests and indicate requirements for MPMIMMPS as part of resource management needs related to environmental purpose "umbrella" resource management legislation (needs to be created) could explicitly endorse principles for IRM (could be based on issues such as evaluation framework criteria) that sectoral legislation must address when related to specific geographic areas in addressing principles (above), individual sectoral statutes could be worded so as to explicitly link purpose and means would be covered by above federal EIA legislation could endorse IRM principles, recognizing EIA as "integrative" planning tool at project stage federal EIA could explicitly acknowledge other sectoral resource interests and provide for their consideration (proactive, as well as impacts) <p>B. POLICIES</p> <ul style="list-style-type: none"> under Public Lands Act, prior to EIA, "umbrella" resource management legislation (Alberta) could recognize stages in resource management and their inter-relationships, including regional planning

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Methodology/Source CRITERIA	Correspondence/ Newscipping Results	Evaluation Framework Results	Stakeholder Interview Results	Recommended Actions for Improvement of Integrated Resource Management
MPR/AR/APS (cont'd)	<p>A. LEGISLATION</p> <ul style="list-style-type: none"> • federal involvement in review seen as infringement on Alberta's jurisdiction over natural resources/standards/rules for pollution control • federal involvement under EAPP limited to rail spur line; EIA not used as integrating tool 	<ul style="list-style-type: none"> • Alberta EIA not seen as integrative planning tool relative to other sectoral interests • explicit purpose of Alberta EIA policy limited to assisting proponent in report preparation and in providing public info • recent forestry policy on public involvement propounds multiple-purpose resource management, but is not explicit on procedures; as well, no explicit relationship of procedures for integration with EIA or IRM 	<p>through legislation and IRM principles, EIA policy (Alberta) could endorse EIA as "integrative" planning tool in relation to other sectoral interests (& procedurally provide for opportunity for integration) purpose of EIA policy (Alberta) could be revised to reflect broader, more comprehensive integrative focus that would serve needs of all stakeholders forestry policy (Alberta) could endorse IRM principles (same as for LEGISLATION above) and provide explicit detailed procedures to address them, including relationship with and/or procedure within EIA</p>	<p>through legislation and IRM principles, EIA policy (Alberta) could endorse EIA as "integrative" planning tool in relation to other sectoral interests (& procedurally provide for opportunity for integration) purpose of EIA policy (Alberta) could be revised to reflect broader, more comprehensive integrative focus that would serve needs of all stakeholders forestry policy (Alberta) could endorse IRM principles (same as for LEGISLATION above) and provide explicit detailed procedures to address them, including relationship with and/or procedure within EIA</p>
SECTOR BLENDING	<p>A. LEGISLATION</p> <ul style="list-style-type: none"> • federal involvement in review seen as infringement on Alberta's jurisdiction over natural resources/standards/rules for pollution control • federal involvement under EAPP limited to rail spur line; EIA not used as integrating tool 	<p>A. LEGISLATION</p> <ul style="list-style-type: none"> • no explicit requirements - where mechanisms provided, functions are implicit/generic • Alberta: no explicit requirement to address blending of sectoral interests in IRM or project review stages of resource management • Federal: sector blending limited to impacts on single sector needs 	<p>A. LEGISLATION</p> <ul style="list-style-type: none"> • IRM principles could be endorsed in "umbrella" legislation, including need for sector blending • IRM principles could be endorsed in sectoral legislation and policy (incl. IRM & EIA) with explicit requirements/procedures to address need for proactive sector blending, not just blending of impacts • federal/provincial requirements for blending of sectoral interests in EIAs (when both govts. involved) could be explicitly legitimized (in detail) through federal/provincial accord (to clarify jurisdictional uncertainty) 	<p>A. LEGISLATION</p> <ul style="list-style-type: none"> • IRM principles could be endorsed in "umbrella" legislation, including need for sector blending • IRM principles could be endorsed in sectoral legislation and policy (incl. IRM & EIA) with explicit requirements/procedures to address need for proactive sector blending, not just blending of impacts • federal/provincial requirements for blending of sectoral interests in EIAs (when both govts. involved) could be explicitly legitimized (in detail) through federal/provincial accord (to clarify jurisdictional uncertainty)
POLICIES	<p>B. POLICIES</p> <ul style="list-style-type: none"> • Fisheries & Oceans Canada indicates need to study effects of clear-cut logging on fish and fish habitat 	<p>B. POLICIES</p> <ul style="list-style-type: none"> • Alberta: no explicit requirements; emphasis on blending of minimized impacts - reactive • Alberta - Forestry Guide endorses sector blending in IRM, but nothing explicit on means 	<p>B. POLICIES</p> <ul style="list-style-type: none"> • Fisheries & Oceans Canada study of effects of clear-cut logging on fish/fish habitat could be considered/integrated with cumulative impact assessment of mill proposal (follow-up to "AL-PAC Review Board" recommendations) 	<p>B. POLICIES</p> <ul style="list-style-type: none"> • Fisheries & Oceans Canada study of effects of clear-cut logging on fish/fish habitat could be considered/integrated with cumulative impact assessment of mill proposal (follow-up to "AL-PAC Review Board" recommendations)

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Methodology/Source CRITERIA	Correspondence/ Newsclipping Results	Evaluation Framework Results	Stakeholder Interview Results	Recommended Actions for Improvement of Integrated Resource Management
<p>CONFLICT RESOLUTION</p>	<ul style="list-style-type: none"> concern over possible federal/provincial jurisdictional disputes federal involvement seen as infringement on Alberta jurisdiction Alberta Government sees need for federal government to recognize equivalent EIA process 	<ul style="list-style-type: none"> generally, no explicit acknowledgement of need for conflict resolution as normal part of resource management apart from EIA, no mechanisms provided with explicit purpose of conflict resolution among minor stakeholders (only within government) EIA mechanisms limited to conflict resolution of impacts (projects, not plans) EIA mechanisms emphasize examining effects and making recommendations, not achieving compromise with stakeholders 	<ul style="list-style-type: none"> suggested federal/provincial accord (as above) would explicitly recognize and clarify jurisdictions re: EIAs conflict resolution could be recognized as one of IRM principles endorsed by above accord, with suitable mechanism defined and provided federal/provincial legislation/policy could recognize need for conflict resolution and provide for it in mechanisms and procedures conflict resolution provided for in legislation and policy could include resolution of sectoral interests (social, economic, environmental), not just resolution of impacts on sectoral interests 	
<p>SOCIO-ECONOMIC TOOL</p>		<p>LEGISLATION/POLICY</p> <ul style="list-style-type: none"> no explicit requirement to address broad socio-economic goals (except Canada Water Act does not link powers with purpose) "public interest" cited throughout as only apparent broader goal no specific requirement to link goals with geographic areas EIA seen only as minimizing socio-economic impacts 	<p>LEGISLATION/POLICY</p> <ul style="list-style-type: none"> legislation/policy could endorse use of resource development as broader tool for achieving socio-economic goals of any geographic area and indicate how purpose/powers in individual instruments can be directed accordingly broader socio-economic goals (such as in Canada Water Act) should be included/addressed in individual instruments, not just vague notion of "public good" EIA could be used as integrative planning tool to achieve identified socio-economic goals in given geographic area 	
<p>STRATEGIC IN PLANNING</p>	<ul style="list-style-type: none"> EARP Guidelines confirmed as law new requirements uncertainty by public as to when EARP applies federal position that province has lead in EIA that EARP only applies to rail spur 	<ul style="list-style-type: none"> Alberta policy (EIA) not explicitly clear about acceptability of project being assessed: <ul style="list-style-type: none"> procedural steps/roles/responsibilities general, absent or vague no evidence on capacity building federal (EARP) explicit in purpose and types of procedures, but less definitive on how/why/when process starts re: "affected areas of federal responsibility" 	<ul style="list-style-type: none"> new federal requirements for EIA could include: <ul style="list-style-type: none"> clarification of federal "areas of responsibility", when process is triggered (applied) what makes lead department, what role it plays explicit procedures on how and when federal/provincial sectoral departments work together in EIA requirement for regional land use planning (with regional assessment) to be completed before large-scale projects are considered lacking specific procedures for federal/provincial roles/responsibilities/activities (and leads) in province-sponsored projects apparent duplication/overlap of mandates re: fisheries and forestry between federal/provincial governments no explicit environmental standards or indicators 	

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Methodology/Source CRITERIA	Correspondence/ Newsclipping Results	Evaluation Framework Results	Stakeholder Interview Results	Recommended Actions for Improvement of Integrated Resource Management
STRATEGIC IN PLANNING (cont'd)	<ul style="list-style-type: none"> • provincial concern over primary jurisdiction on environmental decisions • provincial concern over superiority of environmental legislation and standards • federal/provincial accord on EIA expired • Natural Resources Conservation Board (Alberta) established 	<ul style="list-style-type: none"> • no strategic policy requiring examination of alternative land uses before project consideration • no legitimized requirements for province to consult, before signing AIPs, on large-scale projects with jurisdictions that could be impacted upon • lack of legislated, detailed Alberta Government EIA process • lack of clarity in federal EARP as to lead department and what constitutes federal interests that could trigger process 	<ul style="list-style-type: none"> • explicit procedures for federal roles/responsibilities/activities (and leads) in EIAs when province-sponsored projects affect federal interests (court); provide framework for coordinated federal/provincial EIA accords (e.g., joint EIAs) requirement (in cases involving interjurisdictional waters with possible injurious/directional impacts) for province to consult with appropriate jurisdictions before signing AIPs on large-scale developments • acknowledgement of need to address appropriate federal/provincial pollution control standards/limits • negotiation of accords with province to establish explicit roles and procedures to be followed when federal/provincial interests could be impacted upon • Alberta EIA legislation/policies could include: <ul style="list-style-type: none"> - explicit purpose to indicate acceptability of project being assessed - explicit detailed procedures defining roles/responsibilities of all stakeholder groups, interests, governments, proponents, NGOs, individual scientists, etc. - acknowledgement of need for capacity building among stakeholders throughout EIA process - requirement for completion of regional land-use plans (with assessment) before project consideration in given geographic area - requirement for consultation before signing AIPs with developers on large-scale projects with potential impact on other jurisdictions 	

I d e n t i f i e d W e a k n e s s e s

Recommended Actions for Improvement of Integrated Resource Management

Stakeholder Interview Results

Evaluation Framework Results

Correspondence/ Newsclipping Results

Methodology/Source CRITERIA

<p>INTERACTIVE IN PLANNING</p>	<p>federal intervention perceived as needed due to view that federal interests possibly affected</p>	<p>POLICIES</p> <ul style="list-style-type: none"> • Alberta (EIA): degree of interaction determined by proponent - nature/extent of interaction not explicitly detailed in guidelines • Alberta (Forestry Guidelines): limited to obtaining viewpoints/proponent for consideration/decision apart from public federal (EARP); early scoping of issues by other than initiating department, discretionary need for panel review determined by proponent (department) 	<ul style="list-style-type: none"> • general lack of formalized requirements on extent and desired type of interaction • inadequate interaction before/ during early stages of project • inadequate interaction between federal/Alberta governments and NWT government • inadequate communication between Alberta Environment and Alberta Forestry, Lands & Wildlife 	<ul style="list-style-type: none"> • federal/Alberta legislation/policies could include: <ul style="list-style-type: none"> - explicitly described requirements outlining nature/extent of required interaction with all stakeholder groups for each stage of EIA - opportunity for interaction among stakeholders at earliest stage possible - before signing AIPs to examine alternatives and scope issues - early issue scoping for EIA by other than proponent (and/or gov. prop. dept.) - explicit requirements/procedures for interaction among governments and gov. depts • federal/provincial accords for carrying out EIAs when both federal/provincial interests affected could incl. explicit detailed requirements for interaction between governments (also lead roles) and between sectoral gov. depts.
<p>MULTIPLE PERSPECTIVES</p>	<p>all legislation/policies: if perspectives recognized, only perspectives of government, government departments, proponent and public cited - no recognition of perspectives of scientific group or native peoples</p>	<p>panel review interaction appears limited to question-and-answer approach, rather than consensus building</p>	<ul style="list-style-type: none"> • scientific and public perspective that federal/provincial government leadership lacking • federal/provincial government views that other government lacking in exercising its mandate • legislation/policies re: review considered serious inadequacy by all groups, except majority of federal government respondents • lack of clear jurisdiction between federal/Alberta governments considered major cause of weakness by all groups of respondents 	<ul style="list-style-type: none"> • federal/Alberta legislation/policies could explicitly recognize needs/ provide for inclusion of scientific & native perspectives in regional land-use planning and EIA
<p>GENERAL COMMENTS</p>	<p>explicit incorporation of IRM principles and related explicit requirements (suggested above) could provide improved opportunity for establishment/ operation of explicit recognized mechanisms/procedures for stakeholder involvement and political decision-making</p>	<p>scientific and public perspective that federal/provincial government leadership lacking</p> <p>federal/provincial government views that other government lacking in exercising its mandate</p> <p>legislation/policies re: review considered serious inadequacy by all groups, except majority of federal government respondents</p> <p>lack of clear jurisdiction between federal/Alberta governments considered major cause of weakness by all groups of respondents</p>	<ul style="list-style-type: none"> • explicit incorporation of IRM principles and related explicit requirements (suggested above) could provide improved opportunity for establishment/ operation of explicit recognized mechanisms/procedures for stakeholder involvement and political decision-making 	<p>explicit incorporation of IRM principles and related explicit requirements (suggested above) could provide improved opportunity for establishment/ operation of explicit recognized mechanisms/procedures for stakeholder involvement and political decision-making</p>

recognizes natural resource management as a process with a number of connected steps which together can embrace the potential interests of various economic sectors. Concomitantly, there is no overriding legislated requirement that resource development is to be used to achieve social, economic or environmental goals.

Individual statutes appear to stand on their own. There is little or no explicit reference to legislation which applies to a step before or after in the management process or which is related to other sectoral interests which could be taken into consideration when applied to a given geographical area. Alberta legislation which provides for mechanisms and processes (e.g., regional planning and EIAs) is not explicit in purpose, powers and procedures and is thus limited in direction and open to wide interpretation for policy development purposes.

Results have generally indicated that the federal and Alberta legislative statutes examined do not reflect the evaluation criteria requirements to any great extent. The purpose statements of individual statutes tend to be very general (if not vague) and stated powers, which are most often described separately in generic terms, show little apparent linkage. Thus, while statutes likely provide maximum flexibility for interpretation, they also appear to contribute little direction in such areas as addressing the need for sector blending, for example, or for using resource development to achieve general social, economic and environmental goals in a given geographical area.

As well, most of the legislation examined appeared to be generally reactive in nature, dealing with outcomes, rather than being proactive or preventive. As such, these statutes tended to provide for or emphasize purposes and related powers which deal with past problems (what to do if something happens), rather than providing a basis for determining how the environment, fisheries and forests can best be managed to meet the ongoing and future needs of the public.

9.2.1.2 Recommendations

The results strongly suggest a number of ways in which the opportunity for integration should be institutionalized within legislation. One is an 'umbrella' approach involving a statute at the federal level and for each province that would simultaneously acknowledge natural resource development as a means for achieving integration and for attaining social, economic and environmental goals. The statute would acknowledge resource management as a process with inter-related stages, with purposes, actions and outcomes. Such a statute could legitimize a set of integrated resource management (IRM) principles - for example, the criteria requirements in the evaluation framework. It could also be empowered to override specified, current resource-related statutes by requiring that its principles be complied with in their application. This approach should be considered as a short-term practical measure until such time as individual statutes are

reviewed and subsequently revised to reflect a more proactive and integrated resource management approach.

While such an approach may appear to be somewhat radical to an incrementalist in the Canadian scene, this type of approach is now already under consideration in countries such as the United States (Lindblom, 1959: 79-88) and should be on the priority agendas of governments in Canada.

Let's create a new generation of environmental responses - including new laws and institutions - that are capable of meeting the challenge of the next decade and the next century. [This new generation of responses] implies that instead of continuing to add more and more discrete authorities as new problems arise, we should begin to integrate our efforts to sustain environmental quality.

(Reilly, 1989: 63, 76)

Clarke's (1992: 281-300) review of recent American experience in considering a single statute for integrating pollution control through consolidation suggests that while government must start moving in this direction, the magnitude of the undertaking may be beyond the capabilities of the existing governance system. However difficult, governments such as New Zealand's appear to have succeeded in creating a single-statute type of resource management legislation, targeted at a sustainable development objective, which represents a consolidation of previously repeated statutes and embodies a set of principles to integrate economic and ecological considerations (Palmer, 1991: 3-10). As this has just been promulgated in 1991, there has been no opportunity to measure its success. The umbrella approach perhaps holds out more potential for acceptability and short-term gains until such time as the benefits and costs of a multi-statute reform can be analyzed.

Thus, incorporating integration principles through legislation would provide the opportunity and requirement for linking stages in the resource management process. Regional planning and EIAs would be used as inter-related steps and integrative tools in a decision-making process designed to address both sectoral and broader socio-economic goals. While the umbrella approach for establishing this may be the most practical in the short term, in a longer time period one could envisage the incorporation of integration principles into all natural resource-related statutes, or into a single statute, whichever is seemed more feasible at that time.

9.2.2 Policies

9.2.2.1 Weaknesses

The weaknesses associated with both federal and Alberta policies also revealed that policies tend to stand alone to a great extent, with little obvious relationship with or linkage to respective enabling legislation, other sectoral or environmental legislation, or other resource-related policies (Table 9.2). As well, requirements related to IRM criteria were seldom addressed. One might suggest that these weaknesses could be due, at least in part, to the weaknesses identified in the legislation, as policy is often given authority by legislation - the suggestion being that without explicitly legislated requirements for IRM, the resultant policy containing such requirements is less likely to be

established. The same suggestion could be made that weaknesses in policy can result in similar weaknesses in the processes and mechanisms for which it provides.

A range of weaknesses was identified in the policies examined in relation to evaluation framework criteria (Table 9.2). Generally, both federal and Alberta policies did not explicitly describe natural resource management as a means for achieving broader social and economic goals. As well, policies for planning and EIAs did not appear to emphasize MPMMPS or acknowledge conflict resolution and obtaining consensus-building among stakeholders as a positive requirement for achieving a balanced decision on resource management.

Alberta policy was found to be particularly general, if not often vague, on how stakeholders should be involved in resource management decision-making, the purpose of such involvement, and how and when each stakeholder group would be involved. This was most strongly exhibited in the results related to policy for planning (or its lack) prior to consideration of the AL-PAC mill, and for providing procedures for impact assessment and review.

Like the legislation examined, little or no recognition and provision for involvement of other governmental jurisdictional interests were in evidence. As well, the value and need for scientific information and perspectives as a requirement for decision-making did not appear to be endorsed or required by policy. Required stakeholder involvement generally appeared to be limited to terms such as the public, the proponent and government departments,

with little or no clear reference to the geographic extent of public involvement in processes requiring it.

In brief, both federal and Alberta policies in place prior to and during consideration of the AL-PAC mill exhibited major weaknesses that appear to have been barriers to integration (Table 9.2).

9.2.2.2 Recommendations

A greater opportunity would be provided for operationalizing integration at planning and project consideration stages if resource-related policies endorsed IRM principles, and provided for processes and mechanisms that take them into account. Requirements should include explicit procedures, such as how MPMMPs are to be developed and considered in regional planning; how related sectoral interests can be taken into account in plan alternatives; how resource plans and projects will address broader social, economic and environmental goals; and how inter-jurisdictional relationships must be taken into account. Individual resource-related policies, by incorporating IRM principles, would then form a more integrated cohesive body of policy which would, in turn, provide a basis for the creation of plans that are more integrative for a given geographical area. This change would also facilitate project designs that are more comprehensive, and project review processes that provide the opportunity for a consensus-built and balanced decision among stakeholders (Table 9.2).

9.3 PROCESSES AND MECHANISMS (Table 9.3)

9.3.1 Weaknesses

The weaknesses identified in the processes and mechanisms analysis appear to exhibit a close relationship with the policies which provided them. When integration requirements were either inadequately stated or absent in policy, then corresponding weaknesses were apparent in the mechanisms and processes created by them. While many examples of this situation were found, several of the more important are mentioned here (Table 9.3).

The opportunity was minimal for integrated decision-making among stakeholders in order to address regional and basin-wide issues and concerns. This reality resulted because the policy of the day did not require that IRPs be completed for areas with large-scale resource development potential prior to project consideration.

Without such regional planning, the project consideration stage was left without a context for integrated decision-making - i.e., no alternative land-uses had been considered by stakeholders and, subsequently, no adequate scientific information was available upon which projects could be judged. Correspondingly, the results of this research, based on stakeholder interviews, identified a lack of preplanning and a lack of scientific information as two of the greatest weaknesses leading to integration barriers.

Other examples highlight the apparent lack of and need for explicit IRM requirements in policy in order to provide integrative

Table 9.3

Results Summary - Process/Mechanism Weaknesses and Recommended Actions for Improved Integration in Institutional Arrangements

I d e n t i f i e d W e a k n e s s e s				
Methodology/Source CRITERIA	Correspondence/ Newsclipping Results	Evaluation Framework Results	Stakeholder Interview Results	
MPMMMPS	<ul style="list-style-type: none"> terms of reference of review inadequate - should include: <ul style="list-style-type: none"> study of cumulative impacts of all development proposals in basin determination of carrying capacity of water system identification of resource monitoring needs need for regional environmental master plan to coordinate future forestry development 	<ul style="list-style-type: none"> no apparent alternatives put forth by proponent no recognition of need for MPMMP or provision for it in terms of reference for review bodies 	<ul style="list-style-type: none"> purpose and benefits of proposal not adequately defined perceived lack of commitment to environmental and social goals little opportunity to develop MPMMP (and alternatives) due to lack of scientific information 	<p>Recommended Actions for Improvement of Integrated Resource Management</p> <ul style="list-style-type: none"> all processes/mechanisms could recognize/endorse IFM principles, incl. provision for MPMMP, and require consideration of alternative plans/development strategies suggested regional land-use planning would provide strategies for implementation through project development with explicitly related purposes and benefits purpose and benefits of proposals could be explicitly defined re: regional land-use planning strategies collection/assessment of scientific baseline data for regional land-use planning would provide scientific basis for assessing carrying capacity, development alternatives and cumulative impacts processes/mechanisms could require provision of alternatives for stakeholders' consideration
SECTOR BLENDING	<ul style="list-style-type: none"> lack of social assessment assessment of forest harvesting practices excluded from EIA by province water quality and fish studies needed to assess carrying capacity of rivers Fisheries & Oceans Canada submission rejected by Scientific Review Panel as beyond panel's terms of reference scope of review limited to assessment of single-sector impacts 	<ul style="list-style-type: none"> need for proactive sector blending generally not recognized or provided for sector blending limited to consideration of mill impacts on other sectors in "AL-PAC Review Board" terms of reference, federal sectoral interests made explicit, but not provincial interests inclusion of timber harvesting in EIAs recommended by "AL-PAC Review Board" 	<ul style="list-style-type: none"> perceived lack of common objectives by sectoral government departments (except federal government respondents) forest harvesting practices should not have been excluded from EIA review sector blending inhibited by separation of water and fisheries responsibilities in different organizations within federal and Alberta government departments 	<ul style="list-style-type: none"> all processes/mechanisms could recognize/endorse IFM principles, incl. provision for proactive sector blending and blending for impact reduction of projects processes/mechanisms could include requirements that sectoral interests of all stakeholders be explicitly identified before start of EIA process all major sectors potentially contributing to or affected by proposal be part of single EIA process for that project (all levels of government)

I d e n t i f i e d W e a k n e s s e s

Methodology/Source CRITERIA	Correspondence/ Newsclipping Results	Evaluation Framework Results	Stakeholder Interview Results	Recommended Actions for Improvement of Integrated Resource Management
SOCIO-ECONOMIC TOOL	<ul style="list-style-type: none"> social assessment lacking 	<ul style="list-style-type: none"> generally not required (proactive) socio-economic objectives limited to impact reduction no requirement to determine overall acceptability of project in relation to any socio-economic goals for area "AL-PAC Review Board" recommended assessing overall acceptability of proposal in future 	<ul style="list-style-type: none"> lack of known socio-economic goals for mill proposal 	<ul style="list-style-type: none"> all processes/mechanisms could recognize/endorse IRM principles, incl. provision for use of resource development to achieve broader socio-economic goals for given geographic area EIAs could require that: <ul style="list-style-type: none"> broader socio-economic goal be established for given areas being considered for large-scale developments before project consideration (i.e., before signing AIFs) all large-scale dev. proposals explicitly identify how project will contribute to achievement of established broader geographic socio-economic goals assessment include determination of overall acceptability of proposal (socio-economic), not just environmental
CONFLICT RESOLUTION	<ul style="list-style-type: none"> lack of scientific information for assessment of existing conditions/barriers to reaching compromise forest management concerns excluded from EIA "AL-PAC Review Board" terms of reference inadequate ["AL-PAC Review Board" recommends broadening them (in future)] concern that "AL-PAC Review Board" recommendations would not be followed scope of scientific review considered too narrow - should examine environmental impacts perception that environmental impacts not adequately examined before (non-government) approval of mill - also that decision based on potential expediency 	<ul style="list-style-type: none"> consultation process generally not designed/used to resolve conflicts with stakeholders, only to provide information/receive viewpoints scope of EIA not developed with stakeholders - perceived as barrier to conflict resolution 	<ul style="list-style-type: none"> half of respondents felt issues not satisfactorily dealt with federal respondents generally satisfied with conflict resolution, given mill's new advanced technology government respondents generally felt decision to go ahead based on thorough environmental investigation, while others mainly disagreed in spite of above, majority felt more attention should have been given to environmental impacts lack of adequate scientific information seen as major barrier to conflict resolution: <ul style="list-style-type: none"> uncertainty of impacts no cumulative impact assessment possible no context for judging proposal no credibility to position, then to process scientific information seen as biased scope of panels limited IRMs and alternatives not available for resolution 	<ul style="list-style-type: none"> all processes/mechanisms could endorse IRM principles, incl. recognition of conflict resolution as normal part of EIA processes, and provision of adequate mechanisms/procedures conflict resolution mechanisms and procedures could require/ provide for resolution of conflicts with stakeholders, to produce "balanced" decision, rather than government/proponent providing information and receiving public input, then government making decisions separately EIAs could require and provide: <ul style="list-style-type: none"> procedure to give opportunity to stakeholders to participate in determining scope of EIA issues, extent of EIA required to resolve conflicts (terms of reference) scoping of needed scientific information with stakeholders, re: issues, as part of early scoping of terms of reference for EIAs

I d e n t i f i e d W e a k n e s s e s

Recommended Actions for Improvement of Integrated Resource Management

Stakeholder Interview Results

Evaluation Framework Results

Correspondence/ Newsclipping Results

Methodology/Source CRITERIA

CONFLICT RESOLUTION (cont'd)

- determining, through above scoping, if adequate scientific information is available to allow EIA to proceed
- providing scientific information common/accessible to all stakeholders and resulting from (above) scoping procedures that ensure consideration of all major sectoral interests related to particular proposal (upstream or downstream in production process) within single EIA and review

perception by government respondents generally that availability of scientific information would not have altered decision, given mill's superior technology

STRATEGIC IN PLANNING

- Alberta Forestry, Lands & Wildlife views forestry planning process as more adequate than EIA review - reason for exclusion process for obtaining intervenor funding for native peoples temporarily unclear
- uncertainty over inclusion of assessment of cumulative impacts of AL-PAC mill - and for all mill developments
- uncertainty over geographic area to be included in EIA - evolved over time for downstream effects and to south for Edmonton
- Alberta EIA review process seen as inadequate
- assessment of health impacts lack of baseline scientific information to provide basis/ context for examination of strategic alternatives
- while Canada/Alberta Agreement on Environment Impact Assessment cited as providing lead, it expired before joint federal

all processes/mechanisms lacking in detailed procedures need for flexibility not recognized no requirement/recognition of early scoping of process and issues with stakeholders not required stakeholders' roles not explicitly recognized in procedural steps

lack of formalized, detailed agreements/requirements and procedures for:
 - requiring province to consult with other jurisdictions that could be impacted upon before signing AIP for large-scale projects
 - carrying out interjurisdictional EIAs - particularly federal/provincial ones
 - provincial/provincial ones
 - responsibility
 - data collection, assessment and monitoring - also determination of carrying capacity of watersheds
 - communicating with stakeholders during and after joint reviews
 - lack of understanding of when federal EARP applies, which department has lead, which is initiating department
 - federal/provincial jurisdictional confusion contributes to loss of credibility of overall strategic direction of EIA

- agreements could be negotiated to establish explicit procedures for consultation among jurisdictions when regional land-use alternatives are being considered that could impact on areas beyond provincial boundary
- establish partnerships among governments and industry with explicit roles, responsibilities and procedures for data collection, assessment and monitoring of cumulative effects when large-scale development is anticipated in river basins (incl. post-project approval monitoring for compliance with regulations/standards)
- establish explicit roles, responsibilities and procedures for EIAs when interests of more than one jurisdiction are affected
- all processes/mechanisms could recognize/endorse IFM principles, incl.:
 - explicit provision of detailed step-by-step procedures in regional land-use planning and EIAs with opportunity for flexibility and capacity building

I d e n t i f i e d W e a k n e s s e s

Methodology/Source CRITERIA	Correspondence/ Newsclipping Results	Evaluation Framework Results	Stakeholder Interview Results	Recommended Actions for Improvement of Integrated Resource Management
<p>STRATEGIC IN PLANNING (cont'd)</p>	<ul style="list-style-type: none"> - "AL-PAC Review Board" recommends that, in future, EIA participation before signing APs be changed to require public participation before signing APs - confusion over follow-up to recommendations of "AL-PAC Review Board" - lack of recognized procedure - uncertainty over terms of reference of scientific review panel after rejection of Fisheries & Oceans Canada submission 	<ul style="list-style-type: none"> - no requirements in many processes/mechanisms for interaction to achieve consensus building - no recognition of need for balanced decision - interaction in public review mechanism limited mainly to giving information and to question-and-answer format - agreement between Canada and Alberta re: EIA provided no explicit requirements/principles for stakeholder involvement other than general requirements for each party to accord - interaction on forest harvesting concerns within EIA excluded by provincial decision 	<ul style="list-style-type: none"> - most major causes of weakness re: interaction include: <ul style="list-style-type: none"> - lack of scientific information before mill consideration - public on potential impacts (also cumulative effects) positions not credible, become polarized - review process loses credibility without common knowledge base - scientific views become suspect to bias - little or no opportunity for GNMW involvement at earliest stage - public involvement in preparation of terms of reference for EIA - native involvement on forest harvesting and mill before signing APs - other major interaction weaknesses identified include: 	<ul style="list-style-type: none"> - recognition of need to determine cumulative effects in certain described circumstances (particularly re: regional land-use plans) and procedures to be followed - explicit requirements and procedures to be followed for scoping size of geographic area to be included in EIA assessment and review (part of scoping of terms of reference for EIA by stakeholders) - explicit definition of roles/responsibilities of all stakeholder groups (incl. proponent) in IRM and EIA processes
<p>INTERACTIVE IN PLANNING</p>	<ul style="list-style-type: none"> - no adequate baseline data as basis for positions and interactions on possible impacts - lack of federal/provincial cooperation - scope of interaction of "AL-PAC Review Board" limited by: <ul style="list-style-type: none"> - exclusion of forestry harvesting assessment - inability to assess cumulative impacts of all developments - lack of scientific information to assess possible socio-economic (and health) impacts - exclusion of examination of overall feasibility of project, re: other alternatives - scientific review limited to (scientific) technology interaction of mill 	<ul style="list-style-type: none"> - no requirements in many processes/mechanisms for interaction to achieve consensus building - no recognition of need for balanced decision - interaction in public review mechanism limited mainly to giving information and to question-and-answer format - agreement between Canada and Alberta re: EIA provided no explicit requirements/principles for stakeholder involvement other than general requirements for each party to accord - interaction on forest harvesting concerns within EIA excluded by provincial decision 	<ul style="list-style-type: none"> - need for and provision of explicit requirements for interaction among stakeholders (incl. scientific community) that emphasize consensus building among stakeholders - need to have relevant information available to stakeholders for interaction throughout regional land-use planning and EIA processes - requirements for interaction in regional land-use planning, incl. information on potential impacts of development alternatives - requirements for interaction in EIAs that include stakeholders' participation in scoping information needed for assessment and review 	<ul style="list-style-type: none"> - processes/mechanisms could recognize/endorse IRM principles, incl.: <ul style="list-style-type: none"> - need for and provision of explicit requirements for interaction among stakeholders (incl. scientific community) that emphasize consensus building among stakeholders - need to have relevant information available to stakeholders for interaction throughout regional land-use planning and EIA processes - requirements for interaction in regional land-use planning, incl. information on potential impacts of development alternatives - requirements for interaction in EIAs that include stakeholders' participation in scoping information needed for assessment and review

I d e n t i f i e d W e a k n e s s e s

Recommended Actions for Improvement of Integrated Resource Management

Stakeholder Interview Results

Evaluation Framework Results

Correspondence/ Newsclipping Results

Methodology/Source CRITERIA

- need for accessible, common scientific information base, available to all stakeholders throughout regional land-use planning and EIPs
- need to involve all potentially affected stakeholder groups (and jurisdictions) before signing AIPs with developers of large-scale projects
- processes/mechanisms could recognize, require and provide for multiple perspectives and:
 - include in procedures explicit requirements as to how scientific perspective be obtained and considered
 - require that review panels be made up of professional panel experts (neutral facilitators), not representatives of different perspectives
 - require that review panels' objective be to develop consensus among stakeholders through open flexible process attempting to arrive at balanced decision
 - require/ensure that perspectives of all major groups possibly impacted upon by proposal be included in geographic area for consideration

- lack of communication among levels of government, industry and public
- lack of communication (especially federal) with public on decisions and why decisions were made - why mill should proceed

- process driven by narrow perspective (scientific and public group respondents)
- scientific perspective must be acknowledged and formalized into procedures
- panel membership must not represent particular perspectives, but must be composed of neutral panel experts
- no explicit acknowledgement/ requirements to include multiple perspectives, apart from government interests and public viewpoint
- need to include scientific perspectives not acknowledged/ required in mechanisms/ processes - only implicit recognition through membership of "AL-PAC Review Board" and "Scientific Review Panel"

- review area must go beyond project area to include viewpoints of those downstream and south in urban areas - former may be physically affected, latter because of large expenditures of public funds from urban-dwellers
- lack of scientific information to support scientific perspective
- political perspective: "AL-PAC Review Board" scientists biased in their perspective against proposal

MULTIPLE PERSPECTIVES

GENERAL COMMENTS

- preplanning before large-scale project consideration should be completed before project consideration with involvement of major stakeholders
- EIA reviews with broader scope to include multiple perspectives are considered more satisfactory by these perspectives

- general dissatisfaction (apart from most federal respondents) with handling of AL-PAC mill review
- joint federal/provincial EIA review perceived by 75% of respondents as most successful stage in process
- preplanning in area before consideration of ALPAC mill considered by 60% as least successful stage, followed by AL-PAC's proposal and review (28%)

processes and mechanisms. The exclusion of forest harvesting practices from the AL-PAC Review Board's terms of reference is a case in point. As no requirement for sector blending in EIAs was made explicit in legislation or policy, individual sectoral departments related to the project were apparently not obligated to be a part of the EIA process, thus foregoing any stakeholder involvement in the review until after the mill was approved.

A third example of a process weakness was identified by stakeholders interviewed. It is the apparent uncertainty and confusion over the role of the AL-PAC Review Board and the legitimacy of its recommendations. While the AL-PAC Review Board recommended that the mill should not proceed until its cumulative effects on the basin were determined, the federal and provincial governments chose to approve the mill and to study the cumulative effects later. While the AL-PAC Review Board's mandate was to recommend and the government's to decide, there was no explicit policy to provide procedures for a situation in which the AL-PAC Review Board and the government disagreed. Again, a lack of clear policy can be related to an identified weakness in the process of decision-making. It is a weakness stemming from a lack of IRM policy principles.

9.3.2 Recommendations

The process/mechanism improvements outlined in Table 9.3 emphasize the need for IRM criteria requirements. These requirements, when legitimized in policy, will assist in overcoming the apparent lack of cohesiveness and/or linkages between processes and mechanisms put in place for resource management. As well, incorporation of IRM principles would require, within each appropriate process and/or mechanism, such improvements or explicit procedures for scoping issues and information needs for stakeholder involvement in consensus building, as well as procedures for considering sectoral interests. These are just a few examples of the means presented to improve the opportunity for integration in decision-making.

A number of partnership-type arrangements are identified in Table 9.3. For example, and as necessary, agreements should be negotiated between potentially affected jurisdictions to establish explicit procedures, roles and responsibilities for such tasks as the preparation of regional land-use plans and related assessments of alternatives.

Similarly, agreements between government and industry should be put in place to provide the scientific information needed in a geographical area (e.g., a water basin) to support the decision-making related to the regional planning, EIA and monitoring stages in the natural resource management process (Figure 1.3). Using such integrative mechanisms together would assist in providing basin-wide

opportunities for assessing cumulative impacts on the water system; as such, they have been identified by stakeholder groups as necessary for this purpose.

9.4 PERSPECTIVES (Table 9.4)

9.4.1 Weaknesses

The following section presents highlights of the identified main perspectives as contained in the newspaper article and correspondent content analysis. These are summarized in Table 9.4. As such, they represent stakeholder perceptions of weaknesses in institutional arrangements. These perceptions help to confirm the results derived from the application of the evaluation framework and the interviews.

With regard to the scope of EIAs, there was general concern that the review carried out for the AL-PAC proposal was narrow in approach. The mechanisms put in place did not give due concern to other sectoral and public interests (e.g., fish habitat, human health). Not including timber harvesting was also seen as a barrier to an integrated EIA review process. Confusion over whether or not the cumulative effects of the AL-PAC and/or other mill proposals was being assessed was also in evidence in the content analysis results.

Table 9.4

Results Summary - Perspectives on Weaknesses and Recommended Actions for Improved Integration in Institutional Arrangements

		I d e n t i f i e d W e a k n e s s e s		
Methodology/Source CRITERIA	Correspondence/ Newsclipping Results	Evaluation Framework Results	Stakeholder Interview Results	Recommended Actions for Improvement of Integrated Resource Management
MPMMMFS	<ul style="list-style-type: none"> project must consider other purposes - possible loss of fish, wildlife, migratory birds, wildlife habitat, human health, forest ecosystem (NGOs, individuals) 	n/a	n/a	<ul style="list-style-type: none"> EIA process could require that proposals include explicit strategies for addressing public interests (socio-economic) EIA could be used as integrative planning tool for assessing feasibility/desirability of alternative plans and project proposals
SECTOR BLENDING	<ul style="list-style-type: none"> forest harvesting not part of EIA - impacts may never be known (NGOs, native peoples, individuals) cumulative effects of all developments on total watershed must be examined (GNWT, NGOs, native peoples, individuals) lack of scientific information to assess impacts (socio-economic, health) other than environmental impacts 	n/a	n/a	<ul style="list-style-type: none"> EIAs could require assessment and review of all upstream/downstream impacts of project in production process (e.g., forest harvesting for mill) EIAs could require that no single large-scale project be assessed solely on basis of its own impacts, but instead be considered re: its contribution to cumulative effects on entire basin
SOCIO-ECONOMIC TOOL	<ul style="list-style-type: none"> nil 	n/a	n/a	<ul style="list-style-type: none"> nil
CONFLICT RESOLUTION	<ul style="list-style-type: none"> inadequate scientific information to predict impacts (NGOs, native peoples, individuals) forest harvesting impacts will be unknown (NGOs, native peoples, individuals) no mills to be approved until all proposal impacts assessed and review (federal) approval for mill seen as political decision, not result of review process 			<ul style="list-style-type: none"> approval of project developments could be withheld until adequate information is available to stakeholders to predict and assess impacts, then resolve conflicts
STRATEGIC IN PLANNING	<ul style="list-style-type: none"> confusion over whether or not cumulative effects of ALPAC and other developments were included in review (NGOs, native peoples, individuals) inadequate Alberta EIA review process - need to strengthen procedures (Alberta) 			<ul style="list-style-type: none"> federal/Alberta EIA processes could require cumulative effects assessments before approval of large-scale projects

I d e n t i f i e d W e a k n e s s e s

Methodology/Source CRITERIA	Correspondence/ Newsclipping Results	Evaluation Framework Results	Stakeholder Interview Results	Recommended Actions for Improvement of Integrater Resource Management
<p>INTERACTIVE IN PLANNING</p>	<ul style="list-style-type: none"> • geographic area for review initially considered too limited - extended to further interaction downstream and in Edmonton • interaction limited by lack of scientific information (NGOs, native peoples, individuals) • interaction on cumulative effects of all developments desired, but not required/possible due to lack of information • scope of scientific review limited interaction to mill's technology, excluding mill's environmental impacts (NGOs, individuals) 			<p>federal/Alberta EIA processes could require that when cumulative effects assessment is required for basin/watershed, then interaction among larger area's stakeholders should also be required federal/Alberta EIA policy could require that both technological capabilities of production proposals and its impacts be assessed and reviewed within single process</p>
<p>MULTIPLE PERSPECTIVES</p>	<ul style="list-style-type: none"> • lack of scientific information to support scientific perspective (NGOs, individuals) • "Review Board" scientific information considered biased (organizational, Alberta, government, private sector) • approval for mill considered result of political decision, not due process of institutional arrangements (NGOs, individuals) 			<p>respect and credibility of different perspectives could be enhanced groups had access to common base of scientific information for assessing possible impacts political decision-makers could be seen by public as more credible, and their decisions as resulting from due process, if adequate institutional arrangements were in place to support such decisions</p>

The perception of a narrow approach being taken led many to believe that the public would never know if the proposal was both feasible and desirable in terms of socio-economic benefits.

A range of weaknesses in institutional arrangements was cited, but the most common concern focused on the lack of scientific information for the AL-PAC review. Lack of information was given as a reason why interaction in public meetings was inadequate, why impacts could not be satisfactorily estimated, why the area of impact could not be clearly established, why other sectoral interests (e.g., wildlife habitat, human health) could not be addressed, and why no one particular group would trust the limited scientific information that was made available.

Perceptions also included expressed concern over EIA procedures (Table 9.4), indicating confusion over what steps were required and by whom. In this regard, weaknesses in the arrangements appear to have resulted in an apparent difference between government and public perceptions of what the review process was to accomplish. In other words, the public tended to believe that the report of the AL-PAC Review Board would provide the conclusive answer as to whether or not the mill would proceed. Government obviously did not have the same perception, as the mill was approved in spite of the AL-PAC Review Board's recommendation that the cumulative effects on the environment be examined before proceeding.

The perspectives summarized above and in Table 9.4 on weaknesses in institutional arrangements support the considerations given in the following section.

9.4.2 Recommendations

Consideration should be given to increasing the scope of EIAs in two ways. First, with regard to assessing the impacts of a particular proposal, EIA policy should explicitly require that other sectoral interests (including human health) must be taken into account in determining the desirability of a project. Second, to provide an even broader scope, project reviews would include an assessment of how well a proposal would contribute to the socio-economic and environmental needs of the area to be affected (in relation to other alternatives). Thus, **environmental impact assessment** would become **impact assessment**, the latter being used as a proactive, integrative planning tool to address, within a single process, goals such as sustainable development - e.g., the cumulative effects at the broadest level of conception.

Included in cumulative effects evaluation, impact assessments should require assessment of upstream and downstream effects in the production process (e.g., forest harvesting). Sectoral interests which had been identified in any regional land-use plan would thus be incorporated at the project review and approval stage in the management process (Figure 1.3). Information disclosed could form the knowledge base required to support decision-making (including public involvement).

9.5 SUMMARY

As this chapter itself is a summary of the results described in the preceding five chapters, another brief statement in summary form would only lose the essence of what had already been accomplished. However, this chapter has highlighted the weaknesses in institutional arrangements for integrative resource management that have been identified by this research.

In addition, it has recommended a number of specific actions for improving integration in resource management - a critical need, as evidenced by the system breakdown that took place in the AL-PAC case. This breakdown of institutional arrangements, however, made it clearly evident that the ecological health of the PAMB, like that of other water systems, became the central focus of concern, as in any similar debate over land-water relationships. For this reason, the AL-PAC situation provided the ideal contextual case study for recommending improvements for integration in related water management, found in the following chapter.

CHAPTER 10

RECOMMENDATIONS FOR STRENGTHENING THE FEDERAL ROLE IN INTEGRATED WATER RESOURCE MANAGEMENT THROUGH CHANGES IN INSTITUTIONAL ARRANGEMENTS

Despite the principles articulated in textbooks and government policy documents, it is by no means clear to me that there is a broadly-based consensus in practice, either within or outside of the water community, about the principles that should guide water resources management in Canada. I believe that this is a fundamental reason why principles have existed but not been put into practice. The failure of professional, political and public commitment in putting principles into practice is rooted in the lack of a real consensus. Now that we are beginning to see fresh reasons to apply old principles and reuse them to reflect an ethic of sustainable development, it is most appropriate and timely to initiate debate.
(Dorcey, 1992: 1.1)

10.0 INTRODUCTION

The system breakdown that occurred in the AL-PAC case clearly illustrated that the institutional arrangements in place to support resource management were seriously inadequate with respect to the management of water as a valued resource. The health of the PAMB water system, perceived to be threatened by forestry development, quickly became a central resource management issue which galvanized

public opinion and stressed the processes and mechanisms put in place for review of the proposal. Seeking adjustments or improvements to achieve integration of their perspectives, stakeholders attempted, through the media and correspondence, to obtain further commitments by both provincial and federal governments to extend the application and scope of existing arrangements. Both federal and provincial roles came under close scrutiny and criticism as these adjustments were sought.

In spite of these attempts, and government's subsequent adjustments to the review process, it was the perspective of several stakeholders that the decision to proceed with the mill was not based on adequate scientific knowledge - i.e., the mill's impacts on the PAMB water system were never adequately assessed.

The scientific information needed to assess these impacts had not been developed by the Alberta Government's Integrated Resource Management Planning Process, nor by any federal government agency, prior to consideration of vast forestry development in northeastern Alberta. Nor was the information developed by either the proponent or government during the EIA. Adequate institutional arrangements were therefore not in place to require this information before or during consideration of the mill proposal.

The system simply broke down. In the end, environmental impacts were not conclusively predicted through the review process. Instead, government's attention shifted to the assessment of the proposed technology, and the assumption was made that substances released by it into the waterways of the PAMB would likely be

compatible with the water's eco-system. To test this assumption, and to address other future needs, an extensive study was undertaken, **after** the mill was approved, to obtain the required scientific information.

The picture portrayed by the AL-PAC case is not unique to the PAMB. It is found in water basins throughout Canada where resource developments and urban populations deposit their effluents in water bodies. Developments on land result in effects on water bodies. Unfortunately, neither the cause-and-effect relationships are well understood, nor are the institutional arrangements in place to require governments and industry to provide this type of integrated knowledge. Without it, the regional planning and environmental impact assessment activities of government and industry are without a legitimate scientific context for operating.

The results of this research have also clearly demonstrated how the division of responsibilities for resource management between the federal government and a provincial government (Chapter 4) can serve as a barrier to integrated decision-making when the institutional arrangements in place are inadequate. While a province such as Alberta has almost exclusive jurisdiction over resource planning and development, the responsibility for assessment of the impacts of a development proposal is shared between the provincial and federal governments because of their respective powers granted under the Constitution Act (1867-1982). In presenting recommendations for improving integration in water management, this chapter recognizes the 'resistances to integration' placed on resource management

decision-making by the division of powers over resource management within the Constitution Act (1867-1982).

In an ideal world, regional planning in the AL-PAC case would have been completed prior to consideration of the AL-PAC mill proposal. The Province of Alberta, industry and the federal government would have formed a partnership to provide the necessary scientific information in advance of project consideration. Explicit integrative institutional arrangements would have been established to examine the overall socio-economic and environmental benefits and costs of alternative development scenarios. The public in the entire watershed, along with the scientific community, would have been recognized as participants in the process from the outset. This process and the subsequent EIA process would have been characterized as consensus-building towards achieving multiple-purpose goals for both the watershed and the province. The decision would have been based more upon the agreement of all the major stakeholder groups on the acceptability of the project's predictable impacts on the people, land and waterways of the PAMB and of the province - not on the mill's technology.

The recommendations which follow, therefore, recognize that in order to achieve these desirable ends, the powers and processes of the two levels of government need to be bridged through partnerships and agreements, as well as through the incorporation of integration requirements within each government's respective institutional arrangements. The evaluation framework components serve as the

format for presenting the following recommended actions for enhancing the federal role in water management.

10.1 CONTEXT REQUIREMENTS FOR CHANGING INSTITUTIONAL ARRANGEMENTS

10.1.1 Changing Attitudes

Whichever scenario one considers, 'an ideal world' or 'reality', it is apparent from this research that in order to achieve integration in natural resource management in Canada, a different kind of contextual perspective of what is needed is perhaps required. Such a perspective requires thinking about natural resources as having needs. It is not just thinking about the needs of industry, municipal water supply systems, the public, etc. For example, needs with respect to water include such things as adequate oxygen levels to support fish. When such needs are not met, the value and utility of the resource is lost. In essence, we are searching for ways to make our **water resource values** sustainable.

Given that our institutions are deemed to be reflections of our societal values, then new attitudes will likely require radically new institutional arrangements for water resource management. It is likely that some people will label some of the proposed changes as radical, while others will see them as needed but difficult to

attain. The author believes that the recommendations put forth are in the latter category. As such, they are not a panacea, but are, instead, changes which can make a difference. These recommendations embrace the integration criteria of the evaluation framework. Consequently, if implemented, they would establish explicit requirements for integration in water resource management.

10.1.2 A Renewed Political Commitment

To successfully put in place the institutional arrangements for integrated resource management in Canada - and within it, arrangements for integrated water management - a renewed political commitment to federal/provincial cooperation is critical. As Whyte (1986: 322) points out: "It seems likely that what is truly influential in obtaining a resolution of serious policy conflicts is the simple need for agreement, or the personal dedication of political leaders to intergovernmental co-operation."

It is critical that this commitment to cooperation must initially be a willingness on the part of governments to re-examine their resource-related legislation, policies, processes and mechanisms, and to embark upon reforms that would acknowledge the importance of water to all resource sectors and life support systems.

10.1.3 The Need for a Common Vision for Integration

Within the natural resource management domain, how can institutional arrangements for water resource management be changed or established so that a common vision of what is required to achieve integration is embodied in all of the components or leverage points for integration?

Recognition that water resource management is being guided by a set of recognized 'principles' has become an encouraged method among a number of countries (an example set of principles is found in Appendix 6). There appears to be a consensus that while a single framework can apply in all countries, it must be adaptable (UNDTCD, 1991: 35). The desirability for such an approach is illustrated in the instruction by the Preparatory Committee for the United Nations Conference on Environment and Development (UNCED, 1991: 3) to the Secretary General of the Conference to take into consideration, in the preparation of a plan and action program for the 'Protection of the Quality and Supply of Freshwater Resources', "... the need to establish and apply principles of sound water resource management, taking into consideration practices of water use prevailing at social, national and regional levels."

In later preparation for UNCED's 1993 Conference (1992: 4), the use of such principles as critical goals appeared to be further strengthened.

Integrated water resources management should be carried out at the catchment basin or sub-basin level, taking into account existing interlinkages between surface and ground waters ... [P]rincipal goals should be pursued as follows:

- a. to promote a dynamic, interactive, iterative and multisectoral approach to water resources management, including the identification and protection of potential sources of freshwater supply, which integrates technological, socio-economic, environmental and human health considerations;
- b. to plan the rational utilizations, protection, conservation and management of water resources based on community needs and priorities and within the framework for national economic development policy;
- c. to design, implement and evaluate projects and programmes which are both economically efficient and socially appropriate within clearly defined strategies, based on a full public participatory approach, including the participation of women and indigenous peoples in water management policy-making and decision-making at the community level as well as at the national, regional and global levels.

As well, in Canada, provincial governments such as Manitoba's through its Round Table are, for the first time, endorsing principles and guidelines for sustainable development. Principles such as "Integration of Environmental and Economic Decisions" (Manitoba, undated: 6) and guidelines for "Integrated Decision-Making and Planning" (Manitoba, undated: 9), are viewed as 'integrative' requirements to be met for formulating and implementing strategies for land and water management.

Sustainable development requires integrated management and decision-making to optimize opportunities and benefits to resource users. Equally important, sustainable development requires that relevant stakeholders affected by management and development decisions be involved and help make the difficult choices and trade-offs.

(Manitoba, undated: 2)

The Manitoba Government approach is graphically illustrated in Figure 10.1.

building process. When accepted, these principles could be used to guide all provisions in those mechanisms and processes that foster federal-provincial cooperation and coordination in water resource management.

The provincial and territorial governments would not be limited in any way by federal jurisdiction in the embodiment of these principles in their respective legislative and policy instruments. The application of these principles by Canadian jurisdictions would be on a voluntary basis through federal/provincial/territorial agreements such as political accords. They would not, therefore, have any enforceable compliance requirement (Whyte, 1986: 322-323). But they could at least provide the opportunity for a high-profile common **vision** among governments, the public and industry - a first step towards achieving integrated water resource management.

10.1.4 Implementing the Vision: Principles for Water Resource Management

The AL-PAC case study has illustrated that natural resource management is given authority and direction by legislation and policy, and that, through the latter, it is given processes and mechanisms (means) by which stakeholders make decisions. It has also clearly illustrated that the management process has stages (Section 1.3) which are linked, more or less, in a sequence with inter-dependencies among stages. Consequently, processes and

mechanisms within each stage are influenced by what is or is not done in the preceding stage. For example, the results of the case study have shown how weaknesses in (or the absence of) legislation appear to result in apparent weaknesses in policy and process.

It has also shown, in the operational sense, that when statutes are either not in place or do not require that regional planning and impact assessment be carried out prior to large-scale project developments, then the subsequent stage in the process is without a broad framework and information base for decision-making. The case study has demonstrated that natural resource management is a process with stages, and that in order to function in an integrated fashion, the institutional arrangements supporting it must acknowledge and provide for the inter-relationships among sectoral interests throughout. These institutional arrangements must be proactive with regard to broader social, economic and environmental goals, rather than just being reactive to sectoral goals.

10.2 LEGITIMIZATION REQUIREMENTS FOR CHANGING INSTITUTIONAL ARRANGEMENTS

The Federal Water Policy "... endorses an integrated approach ... that ensures that the many values of water and related resources are recognized, and ensures the continued productivity of the resource and the ecosystems that depend on it" (Environment Canada,

1987: 10). As pointed out in Section 1.4.2, this policy is not explicit on how such an approach is to be operationalized, other than through generally described actions which refer to the necessity for adhering to and encouraging "... integrated water resource planning and plans; establishing evaluation criteria relative to federal water goals; and the use of EIA to ensure possible adverse impacts of projects are mitigated" (Environment Canada, 1987: 10).

The following paragraphs, based on the research results of the AL-PAC case, recommend explicit actions that the federal government should take in the area of legislation and policy to provide for integration in water management.

10.2.1 Cohesive Legislation to Require Integration

As water is the most critical resource and its use is central to most sectoral federal government activities (e.g., forestry, environment, fisheries), integrated water resource management principles or requirements (an example can be found in Appendix 6) should be embodied in all resource-related legislation. Initially, the "top-down" requirements of a central agency would have to be met by all federal departments in the implementation of respective statutes and policies. This could be seen as an interim step until such time as individual departments were able to obtain revisions to their respective statutes and policies in order to incorporate the

principles. It is worthwhile to note that a similar approach has already been recommended by the federal Interdepartmental Committee on Water (ICW, 1990: 5).

Federal governmental policy programs and funding approval procedures could also be revised to include integrated water resource management principles as part of the screening criteria against which new departmental policy and project initiatives are judged (e.g., Regulatory Impact Assessment Statements analysis). Such screening procedures could include policy and project proposals which have a wide range of possible impacts.

To illustrate, the process to be established by the anticipated passage of Bill C-13, the Canadian Environmental Assessment Act (R.S.C. 1992, c. 37), to provide for new legislated federal environmental assessment, can include integrated water resource management requirements. This would be done through Ministerial Powers under its section 58 (1), that could affect proposed projects involving federal interests. Policies developed to elaborate on and operationalize the purpose and process of the statute could, therefore, establish integration requirements for project assessment and reviews within the EIA stage that would focus on meeting sustainable water-use requirements.

Thus, federal legislation for all resource-related sectors would require enhanced integrated decision-making through policies and programs emanating from the respective statutes.

10.2.2 Providing a Legitimized Context for Project Decision-Making through Federal Stewardship and Science

As noted in the Introduction to this chapter, the sustainable development concept requires that society must ensure that resource needs are met so that human needs can be met. Past decision-making in resource use has been compartmentalized sectorally by private industry and by government departments, each operating separately to meet organizational objectives (Mitchell, 1989: 304-305). Unfortunately, as this research has demonstrated, this has led to fragmented knowledge and understanding of resources and a potential failure to meet their needs.

It is apparent that a number of requirements must be met, if a context for considering land-use alternatives within a water basin is to be provided. Based on the findings of the AL-PAC case study, it is mandatory that:

- . **the interests of all the main stakeholders in the watershed be known.** Identifying federal interests for other stakeholders would help to identify issues of related concern and to foster the establishment of common objectives for the area. Federal interests could be documented throughout the country as input data for the planning process.
- . **In addition, institutional arrangements would need to be in place to provide a planning framework for integrated decision-making.** Provision of such a framework could be established under the Canada Water Act (R.S.C. 1970, c. 5, 1st Supp. s. 1),

and federal/provincial cooperative agreements for such purposes have had some success. However, Kennett (1991: 101) points out that "interjurisdictional water issues pose particularly difficult problems for cooperative federalism, as shown by the slow pace of negotiations and the limited number and scope of water management agreements." Kennett's (1991: 191-227) constitutional analysis of interjurisdictional water management argues that federal jurisdiction over trans-boundary water issues could involve considerations of a number of alternative federal water policies. Included here would be "direct federal legislation [under the national concern branch of POGG, Constitution Acts, 1867-1982 (ss. 91-92)] through the enactment of water quality standards and minimum flow requirements in watersheds crossing provincial and territorial boundaries" (Kennett, 1991: 222-227). Kennett (1991: 226) suggests that once such an action is taken, this "might create incentives for federal-provincial and interprovincial cooperation in water management."

Assuming, for the moment, that basin standards could be established, cases such as the AL-PAC experience could benefit from cooperative arrangements on a number of accounts. Inter-jurisdictional standard-setting among interested parties alone would require considerable negotiation and cooperation, as would periodic standards review. Results from the AL-PAC case study suggest that not only are agreements on standards required, but also agreements are necessary between governments and industry in order to develop

bases of information to be used for establishing baseline conditions, land-use planning, and the assessment of alternative land-use scenarios and their potential cumulative impacts on water basins relative to agreed-upon standards. Information developed through such arrangements would also support water-related activities in the next stages of integrated watershed management - i.e., project assessment and approval, and project monitoring.

It is recommended that **federal government responsibilities in such arrangements, in addition to providing enhanced leadership on standards-setting, could focus more emphatically on the provision of data collection and interpretation services to the provinces.** While improved knowledge of water conditions in particular basins is essential for short-term decision-making, an enhanced federal role in water research is needed to address longer-term issues. "We need more forward-looking, anticipatory and speculative research directed towards forestalling rather than rectifying problems" (Pearse et al., 1985: 123). It is suggested that an enhanced federal political commitment to such research and its results could assist in supporting increased cooperation in integrated watershed management for areas such as that involving the AL-PAC case.

Without partnerships for water resource data collection, assessment and monitoring, backed by long-term water research standards, the project review and monitoring stages of integrated water resource management will be plagued by mistrust and uncertainty. The AL-PAC case has clearly identified the need for new institutional arrangements for both standards-setting and

coordination in order to ensure that satisfactory watershed planning takes place prior to project reviews. The establishment of such arrangements through federal/provincial cooperation appears to offer benefits to all stakeholders, in both the short and the longer term, as it provides an opportunity for more informed decision-making.

10.3 PROCESS/MECHANISM REQUIREMENTS FOR CHANGING INSTITUTIONAL ARRANGEMENTS

10.3.1 Integrated Watershed Management

The AL-PAC case study results have shown that reforms must acknowledge the fact that the institutional arrangements for natural resource management should have a geographical focus in their application. The most appropriate and commonly accepted spatial unit is the watershed (Canada, 1987: 10; Burchi, 1985: 297; Kindler, 1992: 2.12).

As Kennett (1991: 39-44) has indicated, **integrated watershed management** is not a new or established concept, having been a topic of discussion in the literature for a number of decades. One problem appears to be its actual implementation. "There have been few examples of integrated resource management despite a number of calls for such a management philosophy. [Integration among resource sectors is at a most embryonic stage.] The extent and the

importance of the links between resources has only [recently] become recognized" (McDonald & Kay, 1988: 229).

Integrated watershed management and recognition of the watershed as the geographical management unit for integration has been accepted as official federal government policy in the Federal Water Policy (Environment Canada, 1987: 10). Integrated watershed management could be envisaged as an intensive legitimized consensus-building process. Within this process, the stakeholders (federal/provincial governments, the public, industry), using mutually agreed-upon institutional arrangements, would manage the water and other resources of the watershed through policy-setting, planning, project consideration/approval, project monitoring, evaluation and feedback.

Through integrated decision-making, the opportunity for a balanced perspective would theoretically be possible in each stage of the resource management process - for example, in regional land-use planning and EIAs. However, given the constitutional distribution of powers for water in the Canadian federal system (Constitution Acts, 1867-1982) and the extent of intergovernmental conflict between federal and provincial powers over water jurisdiction, it would not be overly pessimistic to suggest that establishing watershed management which encompassed explicit integrated water management criteria or requirements to cover all of the five geographical areas within Canada's five watersheds would be fraught with difficulty. Such a normative and intensive approach

would be truly difficult to achieve without renewed political commitment.

10.3.1.1 Opportunities for integrated watershed management

10.3.1.1.1 Preventive integrated watershed management

Geographical areas undergoing little stress and/or relatively undeveloped (such as the AL-PAC case) appear to hold out the opportunity for integrated watershed management with more of a preventive focus. However, as pointed out in Chapter 3, it is often difficult, if not impossible, to muster enough public support and/or political commitment for an integrated watershed management approach to be taken seriously. Support generation has historically demanded a full-blown crisis to focus the perceived needs and to give consideration to managerial, financial and other institutional arrangements that could address it.

The thought of preventive action raises a number of questions which are difficult to answer. When is the time right for pursuing an integrated water resource management approach? What economic signals do we watch for to indicate that a watershed will likely undergo some form of large-scale development, and thus impact on the ecosystem? Which level of government watches for signals, and which level 'hoists the flag' to indicate that it is time to consider an integrated approach? When is it feasible for the federal, provincial and local governments, as well as industry and the public, to begin considering and developing information needs for the production of watershed plan alternatives? Do we wait until

proposals like AL-PAC and Grande Baleine (the James Bay hydro development project) emerge after an Approval-in-Principle has been signed, without stakeholder participation, before initiating integrated watershed management approaches?

The perspectives of most of the stakeholders in the AL-PAC case (including those of the AL-PAC Review Board) have indicated that integrated planning, and examination of alternatives and their cumulative effects on a watershed basin, should be carried out before any Agreement-in-Principle has been signed for a large-scale development proposal. How, then, can such a requirement be triggered, and what institutional arrangements can be suggested to support integration? The recommendations put forth in section 10.3.3 indicate that federal EIA could provide this trigger if S.91 of the Constitution Act (1867-1982) provided the jurisdictional basis of power.

10.3.1.1.2 Within existing arrangements

A number of types of opportunities appear to exist for applying integrated water resource management principles within processes and mechanisms contained in federal/provincial agreements and programs. Examples include inclusion in agreements flowing from the Canada Water Act (R.S.C. 1970, c. 5, 1st Supp. s. 1), which provides for the "management of the water resources of Canada, including research and the planning and implementation of programs relating to the conservation, development and utilization of water resources."

As reported in the Canada Water Act Annual Report (Canada, 1990b: 6), seven cooperative water resource management programs were ongoing and six were under negotiation under this Act. While each of these activities presents an opportunity for adoption of integrated water resource management principles, the proposed Mackenzie River Basin General and Master Agreements provide an example for illustration with a direct context for the AL-PAC case. The Mackenzie River Basin Committee, which has members from the Governments of Canada, Alberta, British Columbia, Saskatchewan, the Yukon and the Northwest Territories, has been working towards a master agreement for cooperative water-sharing among jurisdictions (Canada, 1990b: 9). Broad principles, goals and objectives will provide a basis for the functioning of a water resource management board for the watershed, which should include integrated water resource management principles. The seven bilateral sub-agreements among the various jurisdictions should incorporate such principles as well.

Programs such as the Fraser River Estuary Management Program (Canada, 1990b: 53), established in October 1985 in order to "guide economic development while protecting the environment of the Fraser River Estuary", could also embrace integrated water resource management principles through its processes and mechanisms and as requirements in its activity programs.

10.3.2 Achieving Integration through Interdepartmental Coordination

The role of the Interdepartmental Committee on Water (ICW), administered by Environment Canada, could be given the mandate to provide a legitimized vehicle for the preparation and implementation of an interdepartmental action plan to embody integrated water resource management principles in federal legislation, policy, processes and mechanisms. As the AL-PAC case has indicated, the level of cooperation among departments to do this would likely be difficult to achieve and would only have some hope of success if legitimized at the highest political level. The ICW, however, has already acknowledged the need for a concerted federal effort in water resource management in 1990 by recommending that the federal government should "increase use of the Interdepartmental Committee on Water to enhance integrated federal decision-making with respect to water-related policies and programs" (ICW, 1990: 5). What appears to be needed now is the political commitment and effort required to move ahead and to get the job done.

10.3.3 EIA as an Integrative Planning Tool

The federal role in integrated watershed management can be enhanced through the use of EIA. Institutional arrangement modifications for this purpose should include the following:

1. Federal/provincial accords embracing integrated water resource management principles should be established to provide a framework for carrying out EIAs within a province when both federal and provincial interests could be impacted upon (including interjurisdictional waters). It is suggested that such agreements require that these principles be endorsed and implemented as requirements. A foundation, therefore, would be provided for examining potential intersectoral relationships and/or impacts on water resources.
2. Sectoral federal institutional arrangements should acknowledge, provide for and utilize EIA as an integrative planning tool for water management. This would assist in ensuring that a particular sector's interests can be assessed and reviewed in relation to a set of common goals for a particular geographical area at the project stage of the resource management process.
3. Integration of sectoral federal interests in a particular geographical area should take place prior to participation in a joint, federal/provincial EIA. This task must be completed so that potential federal intra-departmental conflicts over water use can be resolved before entering into the larger arena.
4. Federal interests, and when they are affected enough to trigger federal EIA legislation and involvement, should be clarified in statute and policy. It is apparent that what triggers the EIA

process is unclear to the general public, as different federal departments are perceived as communicating such triggers separately and differently. Some form of integrated federal communication is needed in circumstances where federal interests could be impacted upon so that the public can better understand the federal government's interests and position. A single-window approach would avoid the federal government being perceived as a unified group of disparate perspectives.

5. **Federal legislation should be enacted to require that, under POGG (Constitutional Acts, 1867-1982, s. 91), an accepted level of regional planning and associated impact assessment be completed prior to any EIA of any large-scale project that could affect federal interests (including potential interjurisdictional effects). This would help to ensure that a regional policy framework and adequate information base against which project proposal impacts on water could be assessed, was in place prior to consideration of major projects.**

6. **The federal government should encourage and establish partnerships for integrated data collection and monitoring with provinces and private industry for geographical areas where water is or could likely be under considerable stress by development. Such partnerships would foster integrated perspectives on the present condition of water bodies and their assimilative capacities. This, in turn, would help provide**

greater opportunities for providing a common information base for predicting impacts and, thus, decision-making on proposals, as well as project monitoring requirements.

7. **Federal project assessment and review should be designed so that it can be part of an "integrated impact assessment" that considers the project's ability to achieve broader societal goals.** It is apparent from the research that the EAKP process (EARP, 1984) may be incompatible with integrated resource management principles - i.e., it may be prejudiced in favour of the environment. Results from the AL-PAC case indicated that the EIA review process should look at economic, social and environmental goals in a proactive integrated fashion within a single planning framework. It is suggested that the purpose and scope of a review must consider all of these factors, and that no one factor should dominate; thus, the best compromise is the one that optimizes the benefits when considering all of them. Interview results indicated an opinion that the AL-PAC review process was prejudiced towards the environment and, as such, that no opportunity was provided to determine whether or not the project made any economic sense.

8. **Federal/provincial accords for carrying out joint and/or delegated EIAs should be negotiated to require that upstream impacts (in the production line) of a project be included as a requirement if it could add to any potential impacts on federal**

interests (e.g., fish habitat in the AL-PAC case). A major concern during the AL-PAC case was that the impacts of the forest harvesting required to feed the mill was not included in the federal/provincial "AL-PAC EIA Review".

9. **Federal departments should be required to develop environmental objectives related to water that will assist in ensuring that each department's activities are compatible with all federal and federal/provincial institutional arrangements (including multi-year plans to meet these objectives).** Through such a requirement, the federal government could provide cohesive support and a unified response to integrated water management in both the regional planning and EIA stages of resource management (Figure 1.3). For example, while targets such as the national objective of achieving net gain in the productive capacity of fish habitat are a first essential step, goals related to specific geographical areas (e.g., watersheds, basins) appear to be critical, both to the local resources within the regional planning context and to their potential contribution towards achieving such national targets. The ICW could be used as the main mechanism for coordinating the preparation of plans, once this mechanism's enhanced role is legitimized.

10.4 CHANGES IN PERSPECTIVE FOR IMPROVED INSTITUTIONAL ARRANGEMENTS

10.4.1 Political Perspectives

The need for a renewed political commitment to federal/provincial cooperation is discussed in section 10.1.2. In addition, the AL-PAC case study has demonstrated the need for increased interdepartmental cooperation within each government level. In the provincial domain, the impacts of forest harvesting practices were not included in the integrative EIA process during the AL-PAC review. The prevailing political perspective of the provincial department responsible for forestry claimed that that department's review process was better than the AL-PAC EIA process. Whether or not this is true is not the point. The point is that having separate processes prevents the kind of planning and assessment required to integrate intersectoral considerations and viewpoints.

Within the federal government, political resistance to integration was similarly evident. Research results clearly indicated that the federal Environment Minister endured many months of public pressure before finally acknowledging that federal interests could be affected and that the spirit of the EARP Guidelines (1984) should be considered within the AL-PAC assessment process.

While the Constitution Act (1867-1982) does divide the responsibilities for resource management between the two levels of

government, changed political attitudes towards cooperation in decision-making are critical to overcoming the 'turf-protective' attitudes of the past. Integration can only occur if new arrangements for cooperation explicitly recognize and respect jurisdictional powers.

10.4.2 Scientific Perspectives

Neither the federal nor the Alberta EIA policies recognized any explicit requirements for the inclusion of distinct 'scientific perspectives'. In the AL-PAC case, 'scientific perspectives' were put forth by both the federal and Alberta governments, by the proponent, and by the public. In other words, it was merged with the government's organizational perspectives, with the proponent's corporate interests, and with the public's for-and-against organizational factions.

As there was no credible pool of common scientific information for each stakeholder to draw upon, the credibility of each party's information was held in contempt, thus discrediting the entire process in the minds of some stakeholder groups. Subsequently, it is recommended that if the integration of stakeholder perspectives regarding the impacts of plans and projects is to be taken seriously by governments, then **government must recognize that a neutral scientific perspective is a requirement, and that it must be provided for in policy and process.**

10.2.5 Summary

Within this chapter, a number of recommended actions have been given for strengthening the federal role in integrated water management through changes (or additions) to the type of institutional arrangements in place at the time of the AL-PAC case study. The AL-PAC case, which epitomized institutional arrangements weaknesses in resource management, has served as an ideal model for recommending change. Central to any hope of operationalizing these recommendations is the perceived need for a renewed political commitment to federal/provincial cooperation in the resource management domain, particularly with regard to water resource management. Without such a commitment, and given the division of responsibility for natural resources among these levels of government, many of these recommendations will likely be dismissed.

With political commitment, the recommended arrangements could provide for more informed political decision-making, thus minimizing political uncertainty in addressing the complexities associated with the ecology and the goals of sustainable development. The time to start implementing these recommendations is now,

The following final chapter provides a critical assessment of the completed dissertation and the research activity that was conducted to produce it. Additional avenues for research are identified that could assist in furthering and improving upon both the research process and its direction.

CHAPTER 11

CRITICAL ASSESSMENT OF THE RESEARCH DESIGN, RESEARCH RESULTS, AND SUGGESTED FUTURE AVENUES FOR RESEARCH

11.0 INTRODUCTION

A critical reflection on the research design and its success and/or failure in addressing the research objectives provides a valuable end-point to this dissertation. Identification of its strengths and weaknesses, and adjustment to them, enhanced the enquiry's integrity.

This final chapter, therefore, describes the results of a critical assessment of the following:

- . the use of EIA as the entry point into examining the resource management process;
- . the research direction;
- . selection of the AL-PAC proposal experience as the case study;

- . the evaluation framework, methodologies and data sources; and
- . the overall capability of the research design to provide results which can serve as a basis for suggesting changes to institutional arrangements that will further federal leadership and participation in integrated resource management through integrated water planning.

11.1 EIA AS THE ENTRY POINT FOR ANALYSIS

The use of EIA as the entry point (Section 3.1.2) into this examination of a resource management process appears to have been a good decision.

In the AL-PAC case, EIA has served to identify the resource development-related stakeholders, their respective interests, the authorities (legislation/policies) upon which these interests are based, and the processes and mechanisms which were put in place to empower them. Relative to all of these, it has also provided the opportunity to observe and analyse how these interests were managed, and to obtain a measure of satisfaction/dissatisfaction with the institutional arrangements in place prior to and during EIA, and those needed for certain post-EIA activities. The focus of EIA - the AL-PAC project proposal - and its process forced stakeholder interests to come together in a test of the adequacy of institutional arrangements. The test ultimately exposed weaknesses

that served as leverage points for suggesting change to those institutional arrangements having a bearing on EIA and on the preplanning required prior to such assessments.

11.2 THE RESEARCH DIRECTION

The AL-PAC case and use of the evaluation framework provided a sound means for examining how stakeholders participate in a decision-making process where the central conflicting issues are dominated by concerns for water quality and economic development. As such, the results obtained made it possible to assess, firstly, institutional arrangement weaknesses in resource management and, within this sphere, inadequacies related to planning for water use.

11.2.1 Case Study Selection

The AL-PAC proposal has proven to have exceeded expectations, relative to the criteria used for selection of the case study. It epitomized how current institutional arrangements are failing to provide for integrated decision-making. Intensive stakeholder involvement in attempting to influence a decision on the mill resulted in such a high public profile that the scope of the review evolved and broadened to encompass more perspectives and a much larger geographical area than originally intended. As well, the

focus evolved to consider not just the environmental impacts of one mill, but the cumulative environmental effects and social impacts of a number of proposals on an entire watershed.

Because of this breadth of scope and focus, the AL-PAC case also included the participation of governments and their departments on the federal, provincial, territorial and local levels, thus providing for an assessment of governmental positions and those of sector-related departments, and their legislation, policies, and processes and mechanisms. This provided an opportunity for examining intersectoral barriers to integration and for identifying how successfully institutional arrangements either contributed to and/or reduced such barriers.

Another unique aspect of the AL-PAC case study was its dynamism. As stated at the outset in Section 1.2, the ecosystem/geographical focus, the interest to resolve conflicting views, and the evolution of the process, together formed a unique opportunity for insightful research into systems breakdown and into emerging perspectives on how to resolve failures occurring in the process.

The decision-making process became somewhat flexible in scope and its participants attempted, through various types of interaction, to reach a decision that allowed the proposal to proceed. Interaction could therefore be examined from a beginning, or preplanning stage, through to a conclusion, or final decision/implementation stage.

This complete cycle allowed an examination of the evaluation framework components and criteria throughout an entire process.

This ability to track a project's entire development provided greater opportunity for applying the methodology and, consequently, for obtaining more comprehensive results. Lack of this evolutionary characteristic or strength in the Rafferty-Alameda Case prompted the author to drop it from the research design during the initial research stage of this dissertation.

11.3 THE EVALUATION FRAMEWORK

11.3.1 Use of the Components

The evaluation framework generally proved to be an effective template for analyzing the source material, and for identifying, describing and assessing weaknesses in institutional arrangements. In conducting the research, it became evident that the four components selected (context, legitimization, process/mechanism, and perspectives) were the main leverage points in the case for identifying weaknesses and for prescribing improvements for integration. The interaction between these components provided a dynamism which allowed the researcher to identify how and why systems failure was occurring. Interview results tended to confirm that structure was not a major contributing weakness or barrier to integration, and the functions that were identified and examined were easily dealt with as outcomes of legislation/policy and/or process/mechanism.

The use of the components within the framework also provided an opportunity to track weaknesses from one component to another, thus identifying apparent interactions and possible cause-and-effect relationships. The most obvious example proved to be that weaknesses in legislation appeared to contribute to weaknesses in policy, and similarly from policy to processes and mechanisms. The use of the perspectives component was not without difficulty. Having perspectives of two types, one as a component and another as a criterion, sometimes added confusion during the analysis and created a constant need to keep clarifying one's own perspective and interpretation of the two.

On the more positive side, the components served well as a focus for applying the seven criteria (Section 3.2.3.2), guiding the writer through a step-by-step process of identification and assessment. As a result of the discipline enforced by the framework, not only was individual data collected that could be normalized by criteria, but relationships between components became easily identifiable.

Apart from the more active use of the framework when applying it to legislation, policy, etc., it also proved to be a useful tool for organizing other research elements. It served to normalize data from review of the newspaper articles and correspondence in order to provide a basis for related structured questions for the interviews, and for normalizing the results received from both structured and unstructured interview questions.

11.3.2 Use of the Criteria

While the evaluation framework criteria (Section 3.2.3):

1. multiple-purpose, multiple-means, multiple-participant strategies (MPMMMPS)
2. blending various resource sectors (sector blending)
3. resource management as a mechanism for social and economic change (socio-economic tool)
4. achieving accommodation and compromise (conflict resolution)
5. strategic in planning
6. interactive in planning
7. adopting multiple perspectives (multiple perspectives)

generally proved to be satisfactory, there are a number of cautions or concerns that need to be expressed with regard to their use.

With regard to the application of the criteria to official documentation, flexibility in interpreting how they are applied to each of the four components (context, legitimization, mechanisms and processes, perspectives) is required. Some of the criteria may be more applicable to one component than to another in terms of the difficulty in obtaining a discrete measurement of the results. To illustrate, the requirements of the first four criteria (MPMMMPS, sector-blending, socio-economic tool, conflict resolution), which deal more with WHAT should be included, are readily applicable to all components. However, the latter three (strategic in planning, interactive in planning, multiple perspectives), which deal with HOW

things should be done, are more readily applied to processes and mechanisms, as they are explicitly action-oriented.

Legislation, on the other hand, did not generally provide explicit details on operationalizing its purpose. The researcher, however, should not feel threatened by unevenness in the detail of the results received by this one methodology. Results obtained from the other two methodologies utilized (correspondence/newsclipping review, interviews) supplement these findings to provide balanced overall results for a particular criterion.

Another concern with the use of the criteria was difficulty in not appearing repetitious in identifying and describing weaknesses with regard to several of the criteria requirements. To illustrate, stakeholders' interests are addressed in a number of ways within several criteria. Conflict resolution deals with sectoral interests, as does MPMMPs and sector-blending. While the requirements of each of these criteria are explicit, reporting the results of their application without overlap (i.e., spilling over into the area of the next criterion) required constant attention to the borders of each.

11.4 METHODOLOGIES AND DATA SOURCES

11.4.1 General

The method used for the identification and description of institutional weaknesses and recommendations for improvement proved to be both practical and logical in terms of ease of data collection and analysis. It provided a thorough understanding of the case study. The sequential gathering and analysis of data - from the initial correspondence/newsclipping reviews, from the interviews, and, finally, from evaluation of the official documentation - proved to be a building process, each step contributing both to a widening knowledge base and to confirmation of the interdependent research results.

11.4.2 Individual Methodologies and Data Sources

Analysis and review of the newspaper articles provided a 'reported' view of the issues, identification of the main players and their perspectives, and an approximate chronology of the events and actions. Concomitantly, analysis and review of the relevant correspondence presented a more 'official' view of events and results as communicated among the stakeholder groups and individuals. While it assisted in clarifying and confirming the results obtained from analysis of the newspaper content (by

providing a second source with stated stakeholder positions), the correspondence also provided evidence of what the stakeholders believed to be (or should be) the federal role in the AL-PAC case. Indications of expectations of the applicability and adequacy of legislation/policy (particularly federal) were obtained, exposing perceived weaknesses in institutional arrangements. The evaluation framework served to organize the results of these analyses and reviews so that the findings could be normalized with those obtained from other sources.

Although it proved satisfactory for the above-noted purposes, review of the newspaper articles and correspondence appeared to be lacking with regard to their identification of the full range of the main policy and legislation instruments and the mechanisms and processes inherent to the AL-PAC case. To fill this gap, an adjustment had to be made in the original research plan. The revision required interviewing the stakeholders involved in the AL-PAC case before evaluating official documentation having a bearing on the case. Survey research respondents provided pertinent documentation on legislation/policies. To elaborate somewhat, much of the documentation required would not have been obtained without having personally met with those persons who were both representatives of a stakeholder group and, at the same time, were responsible for a particular aspect of the institutional arrangements in place prior to or during the AL-PAC mill episode. Cooperation in this respect was excellent.

The interviews served well to confirm many of the results from the other analyses, giving varying weights to the importance of weaknesses and their causes. Few difficulties were encountered, but several lessons were learned in the process of setting up and conducting interviews. While everyone (save federal politicians approached) was most cooperative, the ease with which the cooperation was obtained varied, depending on the approach. It is probably safe to say that during the course of the AL-PAC case, a number of very intense and conflicting views were taken. In reaching its compromise conclusion, various perspectives had to be accommodated and, consequently, some had to be publicly modified to allow this to happen. It became clear within the interviews that some respondents generally wanted to answer questions from an uncompromised viewpoint, and that this would be given and could be recorded, as long as no single viewpoint could be clearly identified in the dissertation with a particular singular respondent. In the interest of obtaining the frankest opinions possible, it was agreed that this would be accommodated, where requested. Consequently, for example, political perspectives are included in the organizational group's perspective that they represent, thus ensuring confidentiality of single-source information, as requested.

Although other difficulties were encountered in the use of the questionnaire, they were overcome through interaction within the interview. Questions should be as short as possible and with single concepts, as repetition of the longer questions was sometimes required by the respondent in order for him/her to understand what

was being asked. It also became difficult to terminate an interview with an enthusiastic respondent and still retain the spirit of openness and cooperation which developed in almost every case. Enough time must be set aside between meetings to accommodate this aspect of the interview process.

While most people contacted were very willing and cooperative about participating in a 20-minute interview, some difficulty was experienced in obtaining interviews with federal ministers since their busy schedules simply did not permit such interviews.

Interview results were easily recorded through the use of the evaluation framework, both as the basis for structured questions and answers, and for sorting unstructured comments among the components and criteria for normalization.

11.5 RESEARCH EXTENSIONS

Several avenues for future research attention can be identified. As an outcome of this work, it is suggested that the following areas warrant research attention (in addition to research associated with the recommendations made in the preceding chapter):

- i) A study should be completed to determine how integrated water management principles can be incorporated into federal central agency processes - e.g. screening new legislation, regulations, policy, and Treasury Board submissions. In this fashion, all

new proposals could be vetted to ensure that integration requirements will be addressed.

- ii) A study should be completed to demonstrate, through the development of model legislation, how a federal natural resource-related statute (such as the Fisheries Act, R.S.C. 1985, c. F-14, s. 1) could embody integrated water management principles as requirements. Individual sector statutes could therefore include accountability to address such requirements as contributing to broader socio-economic goals.

- iii) Federal interdepartmental and intergovernmental mechanisms involved with natural resource management decision-making should be identified and examined to determine how they can best address integrated water management requirements.

- iv) A study should be completed to determine private sector willingness (single corporations and/or industry associations) to participate as agreement partners in collecting the scientific information needed for natural resource planning, related project identification and assessment, and project monitoring in selected geographical areas. If possible, such partnerships would obviate situations where there is inadequate data for regional land-use planning (with impact assessment) and project impact assessment by sharing both the responsibility and the cost with industry.

The above research activities and those required to pursue the actions recommended in Chapters 9 and 10 can provide much of the new knowledge required to introduce and reinforce the federal role in integrated water management.

APPENDICES

Appendix 1

Guide for Interviewer - AL-PAC Case Study Research

A. PERSON IDENTIFICATION

NAME: * _____

ORGANIZATION (if appl.): _____

POSITION (if appl.): _____

PLACE OF RESIDENCE (city/town/village, province):

B. RESEARCH BACKGROUND (read to all interviewees at start)

A number of different opinions have been expressed by individuals, groups and organizations (public and private) on the adequacy of the resource management decision-making process, prior to and during consideration of the ALPAC pulp mill proposal. While various strengths in the process have been noted in the media and elsewhere, the purpose of this research is primarily to identify and clarify where weaknesses may have existed. The assumed view here is that weaknesses can provide opportunities to make improvements for strengthening the decision-making process and its foundation in legislation, policy and process.

C. QUESTIONS

I. GENERAL

1. How would you rate your general level of satisfaction with the way in which the proposal was handled? (the whole process) (check one:)

- a) _____ fully satisfactory
- b) _____ satisfactory
- c) _____ partially satisfactory
- d) _____ somewhat unsatisfactory
- e) _____ totally unsatisfactory

Comments: _____

* NOT TO BE CITED IN RELATION TO A SINGULAR SPECIFIC VIEWPOINT.

2. During the planning and review process surrounding the ALPAC proposal, what stage stands out in your mind as the most satisfactory in terms of execution? (check one:)

- a) _____ preplanning done by the province in the area prior to project consideration
- b) _____ project proposal itself by ALPAC
- c) _____ the initial review of the proposal prior to the joint review
- d) _____ the joint fed/prov EIA review (DeSorcy panel)
- e) _____ the scientific review
- f) _____ none of the above - please specify: _____

Comments: _____

3. Which of the stages was the least successful in terms of execution? (check one:)

- a) _____ preplanning done by the province in the area prior to project consideration
- b) _____ project proposal itself by ALPAC
- c) _____ the initial review of the proposal prior to the joint review
- d) _____ the joint fed/prov EIA review (DeSorcy panel)
- e) _____ the scientific review
- f) _____ none of the above - please specify: _____

Comments: _____

II. SPECIFIC WEAKNESSES

What were the main weaknesses in the decision-making process? The answers are divided into four categories: direction, results, process and focus.

1. **DIRECTION:** for the statements below, indicate their importance as a major weakness on scale of 1 to 5; 1 = not important, 5 = extremely important

a) **GOALS/OBJECTIVES:** A major weakness was:

- i) _____ lack of known socio-economic goals for the project
 ii) _____ overall purpose and benefits not adequate as defined
 iii) _____ government departments representing different sectoral interests lack common objectives

Comments: _____

b) **LEADERSHIP:** A major weakness was:

- i) _____ lack of federal leadership to exercise mandate
 ii) _____ lack of provincial leadership to exercise mandate
 iii) _____ lack of territorial leadership to exercise mandate
 iv) _____ nothing lacking or inadequate

Comments: _____

2. **RESULTS:** select one () of the following statements as true.

a) **ISSUES:**

- i) _____ the most important issues/concerns were not identified
 ii) _____ the most important issues/concerns were identified, but were not satisfactorily dealt with

a) ISSUES: (cont'd)

iii) _____ the issues/concerns were adequately dealt with

Comments: _____

b) UNDERSTANDING: Select () the statement which best describes your feelings:

i) _____ the impact of the mill on the environment was never adequately known before the project was approved

ii) _____ project approval to proceed was based on a thorough investigation of the environmental consequences prior to commencing construction

Comments: _____

3. PROCESS: (check one:)

- | | <u>Yes</u> | <u>No</u> | |
|----|------------|-----------|---|
| a) | _____ | _____ | the decision-making process achieved the compromise required to permit the project to proceed, while ensuring that environmental impacts will be within acceptable limits |
| b) | _____ | _____ | the review process provided adequate opportunities for those interested to give their viewpoints |
| c) | _____ | _____ | the review process was open in nature and designed to obtain as many perspectives as realistically possible |
| d) | _____ | _____ | the review process was driven by a narrow perspective, rather than the range of perspectives representative of those affected |

Comments: _____

2. **MECHANISMS/PROCESSES:** rank as in the preceding question (III, 1)

a) **SCIENTIFIC INFORMATION:**

- i) _____ lack of scientific information on the technological capability of the mill
- ii) _____ lack of scientific information on possible impacts of the mill on the environment
- iii) _____ lack of scientific information on environmental conditions in the possible area of impact prior to the ALPAC mill proposal review (e.g., baseline data)

Comments: _____

b) **UNDERSTANDING:**

- i) _____ lack of clarity and understanding of how the review process procedures were to work
- ii) _____ lack of understanding of what issues and concerns were being covered by the review panels

Comments: _____

c) **COMMUNICATION:**

- i) _____ lack of adequate communication between panel members and participants
- ii) _____ lack of communication between governments

Comments: _____

Appendix 2

Structured Responses Related to Components/Criteria

AL-PAC Case Study

CRITERIA	COMPONENT	CONTEXT	LEGITIMIZATION	PROCESSES/ MECHANISMS
General		I.2.a, I.3.a	II, 1.b, III.1	I.1, I.2, I.3
MPMMPS				II.1.a.ii, II.3.e, II.4.b
Sector-Blending				II.a.iii
Socio-Economic Tool				II.1.a.i
Conflict Resolution				II.2.a, II.2.b.i, II.2.b.ii, II.3.a, II.4.c, II.4.d
Strategic in Planning				III.2.b
Interactive in Planning				II.3.b, II.4.a, III.2.a, III.2.c, IV.a (see also II.4.c above)
Multiple Perspectives				II.3.c, II.3.d

Appendix 3
 Unstructured Responses Related to Components/Criteria
 AL-PAC Case Study

CRITERIA	COMPONENT	CONTEXT	LEGITIMIZATION	PROCESSES/ MECHANISMS
General		IV.d		
MPMMPS		IV.d		IV.d
Sector-Blending				IV.d
Socio-Economic Tool				
Conflict Resolution				IV.b, IV.c, IV.d
Strategic in Planning		IV.d	IV.d	IV.d
Interactive in Planning		IV.d	IV.d	IV.d
Multiple Perspectives				IV.d

Appendix 4
Number of Interview Respondents by Group
AL-PAC Case Study Research

The following is a classification of interview respondents according to their employer affiliation.

<u>ORGANIZATION</u>	<u>NO. OF RESPONDENTS</u>
Federal Government:	
Environment Canada:	
. Headquarters (Ottawa)	3
. Region (Edmonton)	3
. Other (
Fisheries & Oceans:	
. Headquarters (Ottawa)	1
. Region (Winnipeg)	1
FEARO	1
Provincial Government:	
Dept. of the Environment	3
Dept. of Forestry, Lands & Wildlife	3
Northwest Territorial Government:	
Dept. of Tourism & Renewable Resources	2
Municipal Government & Local Organizations	4
Native Organizations	1
Non-Governmental Organizations (other than local)	2
Academics, Administrators & Corporate Interests	4
	<hr/>
TOTAL:	28

Appendix 5

Persons Interviewed - AL-PAC Case Study*

- Allard, Glen. Environmental Protection Directorate, Environment Canada. Hull.
- Ayles, Burton. Fisheries and Habitat Management, Fisheries and Oceans Canada. Winnipeg.
- Beaver, William. Indian Association of Alberta and Tribal Council, Big Stone Creek. Desmarais.
- Boulden, Robert. Inland Water Directorate, Environment Canada. Hull.
- Bourque, Jim. Deputy Minister, Department of Renewable Resources, Government of the Northwest Territories.
- Brown, Karen. Pacific and Freshwater Fisheries Operations, Fisheries and Oceans Canada. Ottawa.
- Connelly, Robert. Federal Environmental Assessment and Review Office. Hull.
- De Sorcy, Gerald. Chairperson, Alberta-Pacific Environmental Impact Assessment Review Board. Edmonton.
- Fenner, Gerald. Vice President - Pulp, Alberta-Pacific Forest Industries Inc. Edmonton.
- Fjordbotten, Leroy. Minister, Alberta Forestry, Lands and Wildlife. Edmonton.
- Fuller, William. Resident. Athabasca.
- Gamble, Don. Acting on behalf of the Department of Renewable Resources, Government of the Northwest Territories.
- Hall, Eric. Waste Water Technology Centre, Environment Canada. Burlington.
- Heggenbothen, Ken. Alberta Forestry, Lands and Wildlife. Edmonton.
- Hermanson, Ole. Mayor, Town of Athabasca. Athabasca.
- Klein, Ralph. Minister, Alberta Environment. Edmonton.
- Lane, Robert. Environmental Protection, Environment Canada. Edmonton.

* Affiliations listed were in effect at the time of the interview.

- Lawrence, Randolph. Friends of the North. Edmonton.
- Love, Rod. Office of the Minister, Alberta Environment. Edmonton.
- Manners, Gordon. Environmental Protection, Environment Canada.
Edmonton.
- Mill, Tom. Fisheries Management Branch, Alberta Forestry, Lands and
Wildlife. Edmonton.
- Paschen, Gerald. Canadians for Responsible Northern Development.
Edmonton.
- Pentland, Ralph. Inland Water Directorate, Environment Canada.
Hull.
- Plante, Dale. Friends of the Mill. Athabasca.
- Schindler, David. University of Alberta (also member of Alberta-
Pacific Environmental Impact Assessment Review Board).
Edmonton.
- Schmittroth, Louis. Friends of the Athabasca. Athabasca.
- Shulte, Fred. Environmental Assessment Division, Alberta
Environment. Edmonton.
- Slavik, Jerome. Barrister and solicitor, Ackroyd, Piasta, Roth &
Day. Edmonton.

Appendix 6

Integrated Water Resource Management Principles

1. Wherever possible, management decision-making should be viewed in a broader geographical context, preferably on a watershed basis.
2. Effective management can only be achieved through joint efforts or cooperative partnerships, with each jurisdiction or stakeholder contributing its identified area of interest towards the coordination of the overall objective of having national leadership with delivery at the local level.
3. Water must not be considered as a free good, and a fair value should be determined through a balance of supply and demand approaches within environmentally sustainable parameters.
4. In order to achieve the diverse values of our society more adequately, water resource management strategies should attempt to be multiple-purpose, multiple-means and multiple-participant in nature. Singular approaches seldom address broader socio-economic goals.
5. The various resource sectoral interests must be blended so that conflicting values associated with different resource sectors can be translated into common objectives and compatible sectoral programs within specific geographical areas.
6. Water resource management should be seen as a means to an end and not an end in itself. Like overall resource management, water resource management should be viewed as a means to enhance positive social and economic change.
7. Coordination of diverse interests and conflicting views must be acknowledged as a normal aspect of water resource management, and explicit mechanisms must be put in place to facilitate the bargaining and negotiations required to reach compromise.

In addition, in order to effect integration within the planning component of resource management:

8. Resource planning should be strategic in nature, with characteristics that provide a fundamental bias towards early and continuing action; a capability to focus, and focus early, on options; flexibility and adaptability towards changing circumstances; and a capacity for consensus-building from the outset, so as to develop a sense of ownership and commitment by the participating interests.

9. An integrative approach to water resource planning must provide the opportunity for interaction among stakeholders throughout its entire process by ensuring that relevant information is made available at the right time; that adequate consultation and feedback take place; that values are shared and consensus is reached through negotiation; and that proposed actions, both feasible and acceptable, are developed and adopted.
10. 'Technical rationality', as it has sometimes been called, cannot be the single perspective that dominates our resource planning practices. A multiple-perspective approach is basic to the spirit of integration and can enhance the capacity of planners, decision-makers, managers and stakeholders to see resources and their use from a number of vantage points.

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