

EFFECTIVENESS OF BRITISH COLUMBIA'S
ENVIRONMENTAL ASSESSMENT POLICY
FOR
FIRST NATIONS' PARTICIPATION
IN MINE DEVELOPMENT

by

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Abstract

Historically, First Nations' participation in mine development in British Columbia has been minimal. More recently, mine developments in First Nations' traditional territories have created conflict between mine corporations and First Nations' communities. The focus of this research is to determine: British Columbia's environmental assessment (EA) policy effectiveness for First Nations' participation in three cases of mine development; what impact the proclamation of the *Environmental Assessment Act* had on EA policy effectiveness; and, provide recommendations to improve British Columbia's EA policy effectiveness for First Nations' participation in mine development. Methods used include a literature review, post-hoc analysis, community observation, and comparative analysis to answer the research questions. Policy effectiveness for each case is determined with an analysis framework that examines efficacy from a practice, performance, proficiency, and purpose perspective. When combined, the four perspectives yield a measurement of overall policy effectiveness. The results of this study indicate that of the three cases of EA, none attained overall policy effectiveness for First Nations' participation. This is due to non-achievement of principles or objectives within each of the practice, performance, and transactive perspectives examined. The impact of the proclamation of British Columbia's *Environmental Assessment Act* on policy effectiveness was most readily seen within the performance perspective. Legislating First Nations to sit on the Project Committee helped towards the achieving of performance objectives. The study concludes with recommendations, based on the case study results, to improve British Columbia's EA policy effectiveness for First Nations' participation in mine development.

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Chapter One

Introduction

pursued by mining companies. However, a recent review of the EAA has found that the process needs to address the issue of First Nations' participation in the environmental assessment process (Sadler, 1997).

The issue of First Nations' participation for a range of different developments in the EAA was identified during a series of information sharing and advisory sessions held throughout British Columbia with varied First Nations' groups in 1996 and 1997. Within these meetings First Nations expressed many concerns with the EAA process. The first concern deals with notification. First Nations' principal concern in this area is the need for early notice of an application for a project approval certificate prior to any sod turning.

The second concern involves the assessment of project effects. First Nations expressed the view that past history with development projects has demonstrated a lack of impact assessment for economic, environmental, social, heritage, cultural, and health effects. The view was also expressed that past developments have failed to share resulting project benefits, such as economic, educational, and employment opportunities with neighboring First Nations' communities.

The third area of concern expressed by First Nations was that consultation should provide an open process. First Nations felt that their concerns regarding certain issues must be treated with respect even if they are different than concerns held by people outside their communities. First Nations also expressed opinions regarding the manner in which consultation should take place. They expressed the need for two-way communication, sufficient time to discuss the issues within their communities, and a choice of what consultation method will be used in the process. In summary, the

expression of concerns by First Nations' groups creates the perception that there is a lack of First Nations' participation within British Columbia's EAA and raises the question of the current policy effectiveness for First Nations' participation within the process.

This perceived lack of First Nations' participation in the environmental assessment process in British Columbia appears to be a contributing factor in the conflict that exists between them and mine developers. For example, there has been conflict at the Kemess and Huckleberry mines, located in northwestern B.C. The developers of the Kemess mine were accused by the Tsay Keh Dene band of destroying or impairing their rights and practices in relation to their traditional territory and of providing inadequate compensation for these damages. The company response to the Tsay Keh Dene allegations was that, because the company had received their project certificate after a four-year process that included consultation with all parties and stakeholders (including the Tsay Keh Dene), all issues had been addressed. In response, the Tsay Keh Dene attempted to halt the mine development project by taking their fight to the province's supreme court (Royal Oak, 1998). Through mediation between the Province and the Tsay Keh Dene, the Band discontinued its current litigation as an out of court settlement was achieved.

Conflict between the Cheslatta band and the Huckleberry mine developer occurred when the Cheslatta band accused the government of failing to follow its own environmental assessment process when it approved the Huckleberry mine (Native Group's, 1997). As a result, the Sierra Legal Defense Fund, representing several First Nations groups, challenged the Huckleberry mine development approval in BC Supreme Court (Schreiner, 1997). In the end, the challenge failed to have the project approval

certificate and various decisions made by representatives of the BC government and the Environmental Assessment Office set aside (Natives Fail, 1998).

Criticism of mine developments from First Nations is not only limited to British Columbia but is present in other areas of Canada. For example, recent approval of the BHP diamond mine in the North-West Territories has resulted in criticism of environmental assessment as failing to provide a comprehensive, fair, and rigorous process (O'Reilly, 1996, and Wismer, 1996). First Nations involved with the process are calling for the direct involvement of their communities in environmental plans. They say "we have to be involved in developing it, reviewing it, and approving it" (Diamond Panel, 1996).

First Nations' lack of sufficient involvement in mine development has also been recognized by government and industry. For example, the government of British Columbia recently rejected the proposal for a mine development in the Windy Craggy area because insufficient consultation, in their opinion, had occurred with First Nations (Hauka, 1997). As well, Placer Dome's chief executive officer, John Willson, agreed that First Nations are not consulted as well as they should be by mine developers, but that Placer Dome is learning to provide the opportunities for more consultation and is aware of this deficiency (Natives, Miners, 1997).

In many quarters the continued conflict between First Nations and mine developers in British Columbia is considered serious enough to be a threat to the viability of the mining industry. A recent mining survey found that 92% of respondents cited aboriginal issues as the industry's main concern (Cunningham, 1998). Considering the economic importance of mine development in British Columbia and the wide spread

perception that First Nations' participation in the EAA for mine development is lacking, the need for research to evaluate the policy for First Nations' participation in the environmental assessment process for mine development is apparent.

1.1 Objectives of the Research

In order to further our understanding of British Columbia's environmental assessment policy for First Nations' participation in mine development, three avenues of evaluation are possible (Nagel, 1986, 99):

1. Equity

- The extent to which a policy's costs and benefits are distributed, among those affected, in such a manner that no individual or group receives less than a maximum cost level or minimum benefit level.

2. Efficiency

- The extent to which a policy reduces costs, especially monetary costs, as indicated by a ratio that involves both benefits and costs or total cost.

3. Effectiveness

- The extent to which a policy achieves the benefits it is supposed to achieve, plus any unanticipated side benefits.

This thesis will examine the policy effectiveness of First Nations' participation in environmental assessment for mine development in British Columbia. Questions posed for this thesis are:

1. What are the criteria and how does one determine effective policy for First Nations' participation in EA for mine development in British Columbia?
2. How has the proclamation of British Columbia's EAA in 1995 changed the policy effectiveness of environmental assessment for First Nations' participation in mine development in British Columbia?

3. What policy recommendations can be made to improve policy effectiveness for First Nations' participation in environmental assessment of mine development in British Columbia?

1.2 Organization of Thesis

The following chapters will examine the context in which First Nations' participation in the environmental assessment process for mine development in British Columbia is occurring. Rationale for First Nations' participation in environmental assessment, along with a conceptual framework to measure environmental assessment policy effectiveness is examined in Chapter Two. Chapter Three discusses the methodology and analysis used for each of the cases in the study. Historical background on First Nations' participation in mine development and the evolution of environmental assessment policy for mine development in British Columbia introduces the descriptions of each case of mine development in Chapter Four. The results of the case analyses are discussed in Chapter Five. Chapter Six provides recommendations, based on the case analysis, to improve the effectiveness of First Nation's participation in the environmental assessment process of mine development in British Columbia and includes a conclusion with some closing remarks.

Chapter Two
Public and First Nations' Participation
in
Environmental Assessment

2.0 Introduction

First Nations' participation in environmental assessment is supported by a number of rationales. These rationales are derived from the literature on public participation in government decision-making and environmental assessment, specific to First Nations' participation in both processes. This chapter introduces five rationales, which are derived from these literature sources and includes discussion of objectives for public and/or First Nations' participation programs. The concluding section utilizes the objectives for participation programs and proposes a framework that is used to measure policy effectiveness for First Nations' participation in environmental assessment.

2.1 The Concept of Public Participation

The literature on "citizen participation" or "public participation" is generally divided into three categories of participation. These are: participation in social or recreational events like community sports teams; participation directed towards individual, community, or group betterment such as the programs of the United Way; and participation that influences government decision-making (Canadian Council on Social Development, 1988). Due to the nature of this study the forthcoming discussion will focus on the category of public participation that influences government decision-making.

Public participation in government decision-making is often termed "citizen participation" or "citizen involvement" and has numerous definitions within the literature. For example, Arnstein (1969) defines citizen participation as citizen power, whereas Praxis (1988, 1) states that "public involvement is the process by which the views of all parties interested in agency decisions are integrated into an agency's decision-making

process". Oakley (1991) on the other hand, concludes that there is not a universal definition. In an attempt to define participation by reviewing the literature, Oakley presents the idea that the definition is influenced by whether participation is used as a means or an end. Participation as a means is simply the use of participation to achieve some predetermined goals or objectives. Participation as an end is entirely different, as it promotes the development and strengthening of the capabilities of the public, enabling them to play an increasing role in future decision-making processes. Oakley's conclusion is that the definition of public participation is determined by the objectives of the decision-making process in which participation is promoted.

Although the literature lacks one universal definition for public participation there are some common factors that the majority of definitions share. Public participation, at a minimum, involves two-way communication, rather than a one-way flow of information between government and the public. It suggests some level of citizen influence over the outcome of the decision and subsequent decisions, and it has the potential for the public to learn as a result of the experience (Sadler, 1977).

The public in the participation process is defined as a "constantly shifting multiplicity of affiliations, interests, and alliances" (Praxis, 1988, 2). This means that there is not only one public, but many different ones that change and grow according to the issues at hand and the point in the decision-making process. As Grima (1985) notes, care in selection of the public(s) is not only important to the design of the process, but also ensures that special interest groups do not steer the process in a direction that is not congruent with the interest of the general public. Special interest groups have a specific interest and may benefit directly from a decision, whereas public interest groups ideally

represent the public good and will not directly benefit from a decision (Brenneis, 1990). In any government decision-making process the public(s) will be composed of individuals from the general public, interest groups, First Nations, and industry.

2.2 Government Decision-Making and Public Participation

There is a growing realization by society that public participation in government decision-making is needed. This is because the public is increasingly frustrated with - and is recognizing the limitations of - representative democratic structures (Duffy et. al. 1995). For example, when governments are asked for decision-making accountability they are often unable to respond to the satisfaction of either individuals or groups. The public may also be dissatisfied because it doesn't understand the processes involved in decision-making and finds them inaccessible (Knopp and Caldbeck, 1990). There is general concern that special interest groups have political or economic power that is used to influence the government decision-making process in a manner that is not in the best interest of the public (Parenteau, 1988). The justification for inclusion of public participation is not only in response to these frustrations and limitations, but is also rooted in several rationales. The rationales are of three motivational types: political, functional, and democratic.

2.2.1 Political Rationale

Political motives for the government to include the public would be to enhance its image, legitimize its actions, and increase its credibility (Duffy et. al. 1995). Often participation is rationalized by governments to make their decisions more acceptable by

making the public feel as though they have been involved or by resolving conflicts by winning over the vocal opposition (Brenneis, 1990). Although political motives for public participation are important, this study will focus on functional and democratic rationales for participation because any participation process that relies solely on a political rationale will not likely be in the best interest of the public.

2.2.2 Functional Rationale

Functional motivations are derived from the concept that public participation can improve decision-making *effectiveness* and *efficiency*, make the public more *self-reliant*, and provide *information and expertise* to the process. Functional motivations therefore assume that the inclusion of public participation during decision-making both improves the process and benefits the public.

Effectiveness - Improvement of decision-making effectiveness is dependent on meeting the objectives of the process (Oakley, 1991). These process objectives can be clarified and organized early in the process with public input (Praxis, 1988). Thus, decision-making will become more effective because increased input and scrutiny by the public aids in the achievement and defining of objectives (Brenneis, 1990).

Efficiency - It is often argued that public participation slows the decision-making process and uses large amounts of resources (Brenneis, 1990). These criticisms point to a perceived lack of participation efficiency. On closer examination, however, there seems ample reason to conclude that public participation increases process efficiency. If public input is used to clarify and organize objectives early in the process, resource use can be

more efficient (Oakley, 1991). In that event process efficiency will increase because there is less likelihood of later disagreements that slow down the process and create conflict (Praxis, 1988).

Self-Reliance - Self-reliance is a broad category of benefits that is brought to the public as a result of its participation in decision-making. Participation of the public is seen as an educational process in the issues involved, and in the democratic decision-making process (Brenneis, 1990). The participation process also helps the public become independent by promoting self-awareness and confidence. This self-awareness and confidence can be used to examine the issues and determine solutions to problems for an engaged decision-making process and in future processes (Oakley, 1991).

Information and Expertise - Public participation in decision-making can provide data and information that may otherwise not be accessible. Two distinct sources of information can be derived from the public to aid the decision-maker (Brenneis, 1990). First, the public can offer information and expertise that is inaccessible to the government, and second, the public can provide information about values, and an estimate of the public will, that are critical. Such input can aid in the clarification and organization of process objectives, leading to better decisions (Grima, 1985).

2.2.3 Democratic Rationale

Democratic motivations for public participation stem from our democratic traditions. Democracy is best understood by its Greek roots: *demos*, meaning the citizen body and *cracy*, meaning 'the rule of'. Initially, democracy meant the rule of the body of citizens rather than the rule of an aristocracy or a monarchy. In ancient Greek democracies the citizen body was restricted to those who were not female, slaves, foreigners, men aged under thirty, and those unable to bear arms (the poor). Thus, in practice, Greek democracies were described as being Military democracies. For those who were citizens, democracy meant collective self-government or direct rule (Dunleavy and O'Leary, 1987).

During the fifth century BC, in ancient Athens, the citizen body assembled and a majority vote, normally by a show of hands, decided every political issue. Citizens for administrative and judicial offices drew lots and there were effective instruments for controlling the major elected officials. For example, if officials received a certain percentage of citizens voting against them in an election they could be ostracized from the city for a period of ten years (Dunleavy and O'Leary, 1987).

From its origin in ancient Greece to the present, the evolution of democracy has produced many theories and ideologies attempting to explain its concepts. For simplicity, the majority of these theories and ideologies can be divided into three groups: (1) *classical* or *direct* ideologies of democracy; (2) *representative*, *indirect*, or *pluralist* conceptions of democracy; and (3) *participatory* democracy (Rejai, 1995, 157).

Classical or *direct* ideologies of democracy are associated primarily with ancient Greece or, in particular, the democracy that existed in Athens at that time. Essentially, these ideologies promote the principles of self-rule by the people. The “common good” is realized by the “common will”, and the rights and liberties of individuals are important. Critical to the functioning of these principles is the assumption of the ordinary individual’s rationality and goodness (Rejai, 1995).

Opponents of direct democratic rule have heavily criticized this assumption, along with the other principles. The main arguments against the theory are as follows. First, available evidence does not show that the ideal of “government by the people” has ever been realized, or ever will be. Second, the assumption of human goodness and rationality is unreasonable considering the findings of modern psychology. Third, the conceptions of “common good” and “common will” are intuitive notions that cannot be demonstrated or proved. And lastly, the concepts of liberty and individual rights, in literal terms, are contradictory and cannot be achieved in any society (Rejai, 1995). In response to these arguments, which were recognized as being valid, the defenders of democracy proposed indirect, representative, or pluralist democracy.

Representative, indirect, or pluralist conceptions of democracy emerged and grew in the nineteenth and twentieth centuries. The basic premise of representative, indirect, or pluralist democracy is that, because of their large numbers, direct rule by the people is limited. Instead, they choose leaders and representatives who rule on their behalf (Rejai, 1995).

Relying on this premise, the main principles of a representative, indirect, or pluralist democracy are centered around the existence of political and social competition, or pluralism. Social pluralism refers to the existence of a number of different interest groups such as business and labor organizations, scientific and professional groups, cultural and artistic organizations, civic organizations, and voluntary associations. Political pluralism relies on the continued existence of two or more political parties to offer alternative policies, platforms and leaders (Rejai, 1995).

Within this pluralistic system the people must have the ability to elect and dismiss their leaders and the political parties, over time. The elected government must also be accountable and answerable for their actions and be able and willing to achieve reasonable popular demands (Rejai, 1995). Lastly, a democratic society cannot function without liberty and equality; meaning that an individual's freedom is limited only by the equal freedom of all other individuals. This idea is referred to as *Liberalism* and demands that some individual rights, or freedoms, should be protected from the government and majority decisions (Dunleavy and O'Leary, 1987).

Until the 1960's few refinements to pluralist democracy had changed its fundamental principles. However, a wave of intellectuals at that time, and later, pointed out gaps between concept and reality. First, they argued that a pluralist democracy claims to be objective. Yet in reality, by emphasizing political office rotation and competition, the pluralist writers declare a conservative bias for balance, stability, harmony, predictability, and status quo. Second, pluralist democratic theory stresses popular participation and competition, whereas in reality, democratic groups are composed of and run by elites.

Basically, the critics said that there are at least two ways to look at representative democracy: from the inside and top down; and from the outside and bottom up. From the inside and top down (from the standpoint of an elite) one sees alternating governments, change, and political competition. From the outside and bottom up (from the standpoint of an individual in society) the rotation at the top fails to promote popular influence or any amount of control from below. Lastly, pluralist democracy emphasizes responsibility and responsiveness, whereas in reality, the elites are, for all intents and purposes, self-governing and beyond public reach (Rejai, 1995).

Alternate competing theories have received much attention in response to these criticisms of pluralism. For example, theories such as the New Right, Elitism, Marxism, and Neo-pluralism are common to this debate concerning liberal democracy. Each of these theories has its merits and faults. "Pluralist approaches to input policies, state-society relationships, state organization, policy-making and crises still dominate the political science literature of Western Europe and North America" (Dunleavy and O'Leary, 1987, 70). Out of this, pluralist democracy was found wanting because a gap between reality and concept remains. What was proposed to fill this gap was the theory of participatory democracy.

Participatory democracy, originating in the 1960's, is based on a central premise that requires maximum participation in and control over programs, policies, and candidates. Two principles involved with this premise are the decentralization of decision-making and political power. This means that decisions should be made as close as possible to the

affected constituency, and ordinary citizens should have direct involvement in decision-making (Rejai, 1995).

The advantages of participatory democracy, claimed by the proponents, are that governmental abuse of power is limited, decision-making is more responsive to local needs and conditions, the legitimacy of decisions is rarely an issue, and the process of decision-making provides learning, education, and improvement for the community. However, participatory democracy fails in that it is an incoherent ideology that it is weak, vague, and incomplete. Also it is not congruent with reality because it fails to recognize the societal problems associated with local decision-making on issues such as pollution, poverty, arms control, and the economy. Lastly, participatory democracy is fatally flawed: it attempts to return to the ideology of direct or classical democracy without having solved the fundamental problems that have plagued its precursor (Rejai, 1995).

On the whole, participatory democracy seeks perfection and utopia while political reality is by definition imperfect. Consequently, for all its shortcomings and flaws, indirect representative, or pluralist democracy is the only realistic arrangement available to us today. As Winston Churchill is supposed to have said, democracy is a bad form of government until one begins to contemplate the alternatives (Rejai, 1995, 164).

Although pluralism is accepted as the ideology in which democracy must function, it is of continuing interest to improve how the public participates in decision-making. To this end, Parenteau (1988) proposes the institutionalization of public participation within the representative system. This institutionalization would provide a

means to check and balance the decision making process with the concerns of affected individuals and those of the representative government (Brenneis, 1990).

There are, however, difficulties in achieving a balance between the concerns of affected individuals and those of the representative government in the decision-making process, because public participation is viewed differently by the two. As Bregha (1977, 122) notes:

In a liberal, representative democracy this process, by definition, is conflictive and elitist. Participation, on the other hand, strives to be co-operative and egalitarian. Hence, there is an opposition in values that no specific model can transcend.

As there exists this opposition in values between affected individuals and those of the representative government, what is needed are objectives for public participation. Until these are established, public participation will continue to be ill defined, lack guidance and have no means for its evaluation (Sadler, 1977). Despite difficulties such as these that hinder the definition of public participation, attempts have been made to define public participation and establish objectives for its evaluation.

Borrowing from the work of Laird (1993, 343), public participation within the context of pluralism can be defined “as the actions of organized voluntary groups” that citizens join and support to represent their interests. A closer examination of pluralism provides some characteristics that aid in the identification of objectives for public participation:

1. The public is required to participate in ways beyond that of merely voting in elections. Although this requirement suggests a lessened importance for representation, it is assumed and recognized that there is a need for other formal institutions to support participation.
2. Participation must be meaningful in two ways. First, it should enable individuals to learn more about their interests and how they may affect decisions that could impact their interests. Second, it should enable individuals to have some sort of influence over the decisions that are made.
3. Pluralism is concerned with the actions of voluntary groups where people can promote their interests through collective action much more effectively than as individuals. In fact, a properly functioning pluralistic system depends on properly functioning groups.
4. Pluralism emphasizes outcomes and the distribution of benefits and burdens throughout society. The process is looked at as a linear model where people's interests are brought together and presented by separate interest groups in the political process. The collective interest(s) of a group are viewed as static throughout the decision-making process and are simply inputs into the process, where groups compete for a decision in their favor.
5. Pluralism recognizes that formal legal structures and political institutions are not adequate. Beyond those things a society must agree on some norms for decision making. Citizens need to be educated in those norms and have some degree of

agreement on the acceptable range of alternate decisions. Without these preconditions the society could not be democratic and could degenerate to tyranny or a fractured state.

These characteristics aid in identifying objectives for public participation in a pluralist democracy. However, bridging the “opposition in values” (Bregha, 1977, 122) between a representative system and a participatory one has resulted in a proposal for what is termed “broadened pluralism” (Smith, 1984, 254). Smith discusses public participation in policy-making as “a means to broaden the base of the pluralistic system so that planning and decision-making become ‘open’ processes of management”. Therefore, the following objectives for public participation are based on pluralism as it is seen as the “mainstream theory of democracy in American political science” (Laird, 1993, 343) and guided by the broadened pluralistic perspective within the literature.

1. *Participation beyond voting* - there must exist a legislative basis for participation, or in other words, the public must have a legal right and opportunity to participate (Lucas, 1977; Smith, 1993; and Brenneis and M’Gonigle, 1992).
2. *Representation of participants* - in order for participants to be represented there must be provisions for equal access and opportunities for participation. This also means that the representation should entail a full range of values and interests on a topic (Beresford and Croft, 1993; MacLaren, 1995; and Smith, 1993).

3. *Participant learning and understanding* –learning and understanding should occur in two areas: those that deal with the issue(s) in the decision-making process, and those that deal with the process itself.

The participation process should provide access to information concerning the issue(s). An active and well-informed public is necessary for effective participation (Lucas, 1977). This also means that the staff of the decision-making authority should be responsive to participant information requests (MacLaren, 1995). This information should be of immediate relevance, be attractive and brief and be appropriate to the peoples' abilities, experience, knowledge, language, and culture. The end result of this information provision should be the building of new sets of skills, ideas, and values (Beresford and Croft, 1993).

In order for the public to gain an understanding and knowledge of the decision-making process there must be access to information that is relevant and makes the process understandable (Brenneis and M'Gonigle, 1992). The process information should also include when the opportunities for public participation are to occur and how the outcomes are to be derived from the participation effort (Parenteau, 1988).

4. *Resource provision* - Provision of adequate resources serves two purposes. First, resources such as funding, personnel, and logistical support are needed to balance inequalities that exist between participants (Brenneis and M'Gonigle, 1992 and Smith, 1993). These resources provide technical guidance, legal advice, transport and travelling expenses for participant attendance, information, and training that helps

ensure continuity of participation (Beresford and Croft, 1993). Second, the provision of adequate resources such as funding, staffing, and technical resources for public participation from the government shows commitment to the process (McLaren, 1995).

5. *Participant influence* - Public influence over the decision-making process can be assessed by some initial characteristics. First, the authority that initiates the process must have decision-making power, must make clear what decisions are pending, must clearly define the limits of public authority in the process, and must deal in good faith and commit to accept public input (Parenteau, 1988, and McLaren, 1995).

Second, public input should not be in a non-personal form, such as written, but be through forms that are verbal and direct (Blahna and Yonts-Shepard, 1989). The authority should combine participant preferences in a way that demonstrates how input was considered and used to affect the decision-making process (Knopp and Caldbeck, 1990). The way in which the public receives the feedback from input into the process should be in a written form and should demonstrate the reasoning behind a given decision (Brenneis and M'Gonigle, 1992).

Lastly, there should be some form of evaluation of the decision-making process by the participants to gauge satisfaction with the efficiency and effectiveness of the program (Knopp and Caldbeck, 1990 and Beresford and Croft, 1993).

In summary, the five objectives of public participation in government decision-making are *participation beyond voting, public representation, participant learning and*

understanding, resource provision, and influence in the decision-making process. These objectives will be repeatedly emphasized in the following sections as being critical to public and First Nations' participation in environmental assessment and are utilized in the concluding section of this chapter that proposes an evaluation framework for environmental assessment policy effectiveness.

2.4 Environmental Assessment and Public Participation

Environmental assessment (EA) is often referred to as the process that is designed to identify, predict, and evaluate the environmental impacts of a development or policy proposal (Rees, 1988; Gardner, 1989; Sadler, 1995; and Lawrence, 1997a). A broader definition for EA would be a process that depends upon various decision-making approaches that are concerned with human activities and the environment.

These approaches essentially analyze, synthesize, and manage predicted impacts of development proposals, policies, and programs. The goal here is to prevent biophysical and socioeconomic damage through enlightened decision-making (Gibson, 1993). Although EA is usually defined broadly, some practitioners and administrative systems promote EA as Social Impact Assessment (SIA), Fauna Impact Assessment (FIA) and Strategic Environmental Assessment (SEA). In some cases this may be warranted, but the persistence of these separate identities creates confusion and is detrimental both to efficient environmental management and a holistic view of the environment (Brown and McDonald, 1995).

In attempting to describe EA in a broad sense, Gardner (1989, 345) proposes three different types of decision-making approaches: (1) environmental impact assessment approaches, (2) environmental assessment approaches, and (3) resource and environmental planning and management approaches. She defines the terms as follows:

1. *Environmental impact assessment* - focuses on the prediction and mitigation of site specific impacts.
2. *Environmental assessment* - attempts to understand interacting environmental elements and processes for decision-making, and is used at different planning and management stages.
3. *Resource and environmental planning and management* - are concerned with minimizing damage and maximizing resource use through planning and management of human activities that impact the environment.

Historically, EA (*environmental assessment*) was first formally introduced in the United States as the *National Environmental Policy Act* (NEPA) in 1969. NEPA was produced in response to the public outcry over environmental damage. It provided environmental legislation that focussed the concerns of the public into standard planning and consent procedures (Appiah-Opoku, 1994). Canada adopted the *Environmental Assessment Review Process* (EARP) in 1973, which applied to development proposals initiated by the federal government. One striking difference between NEPA and EARP at the time was the EARP did not enjoy a legislative backing. It was not until 1995 that the *Canadian Environmental Assessment Act* (CEAA) was proclaimed (Sadler, 1995).

During EA's evolution from its first formal introduction as NEPA and EARP to the present, recognition of the need for including the public in the decision-making process has grown. This occurred as a result of EA's inability to effectively address the issues of economic development and environmental limits and this served to focus the attention of many authors on the issue of public participation (Bregha, 1977; Thompson, 1979; Sadler, 1979; Smith, 1984; Grima, 1985; and Parenteau, 1988). The basis for rationalizing EA for these writers is an extension of the democratic, political, and functional motivations that we find within the literature for public participation in government decision-making.

The release of *Our Common Future* by the United Nations World Commission on Environment and Development (WCED) in 1987 arguably created a new rationale for public participation in environmental decision-making. This document took the position that EA should promote sustainable development (Lawrence, 1997a). In an interpretation of *Our Common Future*, by a Canadian Task force on Canada's EIA process, it was recommended that steps be taken to "open environmental, resource, and economic development policy-making and planning to greater public input" (Hill, 1988, 198).

From a normative viewpoint, sustainable development has received much attention as many authors (Steadman and Hill, 1992; Margerum, 1997; Wyant et. al., 1995; and Lawrence, 1997a) have published articles that discuss the implications for public participation when EA is integrated with sustainability. For example, Gardner (1989, 342) (discusses public participation in EA) concludes that a "fair distribution of power in decision-making" which allows "for social self-determination and cultural

diversity” as well as the “achievement of equity and social justice” are principles that must be followed for developments to be sustainable. Although sustainable development has been accepted by governments as a goal toward which environmental decision-making should strive, “the practical implications of this commitment have not yet been well recognized or often translated into action” (Gibson, 1993, 13).

More recently though, strategic environmental assessment (SEA) is promoting the concept of sustainable development. SEA is defined as “the formalized, systematic and comprehensive process of evaluating the environmental impacts of a policy, plan or program and its alternatives, including the preparation of a written report on the findings of that evaluation, and using the findings in publicly accountable decision-making” (Glasson et. al., 1994, 300). More simply stated, SEA is the application of EA at a more strategic level: the level of policies, plans, and programs (Wood, 1995).

At an international level, the practice of SEA has utilized the concept of sustainable development in the production of guiding principles for evaluation of policies, plans, and proposals. This is a result of numerous recommendations such as the Earth Summit of Rio’s Agenda 21 and the Brundtland report. Both have stressed the importance of considering social and economic issues, parallel to ecological issues, in political decisions in relation to sustainable development. Thus, from the start, the promotion of public awareness, involvement of the public and environmental authorities, as well as reporting on the environmental impact, were held to be central issues (Feldman, 1998). The Guiding Principles of SEA reflect this focus requiring public involvement as one of the thirteen principles (Marsden, 1998).

On a more substantive basis, Gibson (1993) integrates the theoretical implications of sustainable development with an analysis of EA in Canada over the past twenty years. Within a set of design principles that he formulates, Gibson (1993, 19) proposes that decision-making should be open, fair, and participatory. His inclusion of public participation is based on the three following arguments:

1. Environmental assessment is unavoidably value-laden and therefore public participation is viewed as a means to combat narrow biases and encourage careful attention to matters of public concern.
2. The openness of decision-making to the public has become politically inescapable. The public is generally suspect of assurances made by government agencies and people expect to be involved in decisions that will affect their lives.
3. Public participation is appropriate because environmental assessment is seen as a learning process for the public.

Environmental assessment, as Beattie (1995, 109) notes, “always contains unexamined and unexplained value assumptions”. EA has traditionally been a technical matter reserved for experts, but experience has shown that many questions in the EA process cannot be answered solely through the provision of technical facts but require the involvement of values and preferences. This has underlined the importance of public participation that is representative of all interested and affected parties, at an early stage in assessment decision-making (Gibson, 1993).

Beyond the above arguments there are two other important considerations required for effective participation to occur in EA: resource provision and fairness of process. Resource provision is especially important in EA as “public participants rarely have adequate funds for effective involvement in complex and lengthy deliberations, such as hearings, especially where professional technical and legal expertise is needed” (Gibson, 1993, 19).

Process fairness is the equal treatment of all parties in the assessment. This requires things such as provision of independent administration, explicit criteria for impartiality in appointments to decision-making and review bodies, mandatory release of information and reasons for decisions, and an appeal process for questionable decisions. However, as Gibson (1993) notes, even if these steps are taken to provide a fair process, public participants are often disadvantaged (even with provisions for funding) as they can seldom match the resources of the project proponent.

Public participation in EA is now clearly recognized as important to the decision-making process, both from the broad framework of rationale for public participation (Grima, 1985) and because of the implications of integrating sustainable development with EA (Gardner, 1989). Practical experience over the last twenty years has also shown that public participation is an important factor in implementing effective EAs (Gibson, 1993). EA effectiveness may, however, depend on how one views the role of EA. EA is often viewed as passive, *active*, or *educative* (Brown and McDonald, 1995).

The *passive* role consists of the preparation of a report providing advice to decision-makers with respect to the environmental soundness of a project. The *active* role, on the other hand, expands the passive role to include the incorporation of remedial measures to mitigate adverse impacts in response to design changes during the planning stage or included as conditions to project approval. It is noted that EA has been effective in a passive role, but ineffective in an active role. This recognition has caused the proposal of the educative role as a means to improve the efficiency and effectiveness of EA (Brown and McDonald, 1995).

As an extension of Gibson's (1993) principle, that public participation is appropriate because EA is a learning process, the *educative* role occurs through public involvement and is seen as a means of achieving social objectives for community participation, involvement and empowerment (Brown and McDonald, 1995). These authors propose an educative role for EA, not only as a mechanism to improve its effectiveness and efficiency, but also as a critical process of social learning that individuals, organizations, and governments must go through and that cannot be avoided.

Webler et. al. (1995) defines social learning not simply as individuals learning in a social situation. It is the process that occurs when people with diverse personal interests and common interests come together to reach an agreement on collective action to solve a mutual problem. From this viewpoint, Webler et. al. (1995) divides social learning into two components: moral development and cognitive enhancement. Moral development places emphasis on how individuals are enabled to make moral judgements by setting aside their personal demands and act for the good of all.

Cognitive enhancement, on the other hand, involves not only gaining technical competence, but also learning about collective values and preferences as well as the subjective feelings and impressions of others. As Sinclair and Diduck (1995) argue, education that creates awareness of the EA process and related issues is a necessity as a precondition to advance levels of public involvement. It is often argued (Arnstein, 1969) that for decision-making processes to become more effective, efficient, and fair, public involvement processes must lean towards greater levels of decision-making power. However, as Sinclair and Diduck (1995, 228) point out, "citizens must have a firm understanding of the decision-making process of which they are a part" as "an effective transfer of power requires an effective transfer of knowledge".

Programming in which cognitive enhancement and moral development have occurred provides some basis for evaluation of public participation techniques. In reviewing techniques for providing public education, Sinclair and Diduck (1995) found that citizen-training programs, computer-based participation, open houses, plain language legislation, phone education, publications, and video/film presentations were the best education techniques. Similarly, certain activities were found to be instrumental in promoting social learning (Webler et. al., 1995). These include such things as: site visits, small-group work (face-to-face), multiple meetings over time, unrestricted opportunities to influence the process, political commitment to the process, direct connection to decision making, and support by experts.

The rationale for public participation in EA decision-making, as discussed in this section, has broadened beyond political, functional, and democratic motivations to

include sustainable development. The introduction of sustainable development, by the WCED in 1987 and its implied integration with EA, created a heightened awareness of the need for public participation to promote such things as “social self determination and cultural diversity” (Gardner, 1989, 342).

This section also reaffirms the public participation objectives: the need for representation, resource provision, fairness, and education and learning. These have all been emphasized as important components for effective public participation in EA. The following section further endorses and emphasizes objectives that require focus for First Nations’ participation in EA.

2.5 First Nations’ Participation in Environmental Assessment

Cultural diversity, as a principle derived from sustainable development, focuses on the cultural environment of people and strives to protect cultures in the same way that conservation programs strive to protect bio-diversity (Merdeith, 1992). *Cultural environment* is comprised of all those aspects of the physical environment that relate to human society and culture, in combination with the cultural institutions that hold communities together and tie them to their surroundings (King, 1998). Often, terms such “as culturally appropriate forms of development” (Gardner, 1989b, 342) and “cultural impacts” (King, 1998) are used in the literature. Such terms create confusion when we are considering of the role of culture in EA. Meredith (1992, 127) states “culture exists only in the human mind, and persists only where it has managed to meet at least the biological needs of its individuals, in other words, where it ‘fits’ the resource base”.

Similarly, King (1998, 131) states “culture itself, as an abstraction, is not subject to environmental impact” but “it is those empirical, sometimes more or less measurable, aspects of the environment on which culture depends that can be affected by change”.

As Meredith (1992, 127) points out, “the environment shapes the culture and the culture shapes the environment” and together they form a functioning co-evolving system that defines a relationship that ties the human population to the environment and vice-versa. Thus, if provisions are made for culturally different publics to participate in EA processes, an opportunity is created to analyze and interpret the empirical impacts that proposed actions may have on the cultural values, social institutions, and valued places of living communities (King, 1998).

The First Nations' peoples of North America are distinguished by two characteristics: first they have lived on the land since the last ice age, and second they have developed a way of interacting with the environment in a harmonious way. The relationship that evolved between First Nation's peoples and the environment led to the development of a traditional knowledge base and an indigenous worldview. This indigenous world-view gave them a different perception of the environment, one in which environmental assessment “is a way of thinking, rather than a process” (Mohawk Council of Akwesasne, 1994, 12).

An example of how First Nations peoples view the environment can be seen by some of the words shared by Chief Roger Jimmie of the Kluskus people at a conference on sustainable forestry:

Except for perhaps the fur trade with Europeans, we were pretty much independent and self-reliant in our road-less wilderness. We looked after ourselves. We could support large, extended families from the wealth of the forest. Moose, deer, squirrels were common animals we ate, along with mushrooms, roots, and berries. We also log, but only selectively. I can recall one of our elders saying, "Maybe squirrel, he climb that tree; maybe lynx use that tree over there." In other words, we respected all users of the forest. We were a part of this forest. (Groenberg, 1992, 21).

This perception of the environment by aboriginal cultures perceives humans and nature as being linked through a system of values and beliefs that forms the basis for explaining the physical and natural world. The western viewpoint, conversely, separates the human world from the physical and natural world, explaining phenomena in terms of laws that are tested through the accumulation of qualified data. This leads to the viewpoint that the natural environment can be manipulated in order to serve the needs of humans (Dene Cultural Institute, 1995).

The differences in world views between First Nations and western societies highlights difference in culture, values, and knowledge, reinforcing the need for First Nations' participation in EA decision-making. As Lane (1998) points out, experience of indigenous interaction with land and resource planning in Australia has shown that differences in culture, values, and knowledge has tended to marginalize or exclude aboriginals from the planning process.

The recognition of values and knowledge that seem alien to Western culture yet favor preferred environmental and economic circumstances is critical when culturally different publics are included in EA decision-making (Meredith, 1992). The Western

concept of development is often characterized as the shift from “the old or archaic to the new or from traditional to modern ways of life” (Appiah-Opoku and Mulamoottil, 1997, 159). Based on this notion of development, indigenous life-styles, institutions, and views of nature have been characterized as primitive, simple, and reflective of an “earlier and therefore inferior stage in human cultural progress and beyond this...completely irrelevant to our sophisticated modern needs and times” (Appiah-Opoku and Mulamoottil, 1997, 159).

In these ‘sophisticated modern times’ “institutionalized systems of resource and environmental management have been founded on technical and professional disciplines that strive for rigor, objectivity and value-neutrality. These systems fail to recognize certain limitations, such as respect for other knowledge and value systems (Sadler and Boothroyd, 1993). The reliance upon technical and professional disciplines has given “traditional environmental assessment practitioners a measure of power by virtue of their technical knowledge” (Lawrence, 1997b, 92). Their power “must be tempered by a recognition that expert knowledge rarely is sufficient in analysis, prediction, and management” (Lawrence, 1997b, 92). There is a growing acknowledgment that conventional science has limits in solving environmental problems which are of increasing complexity and magnitude (Appiah-Opoku, 1994). The recognition of limits has led to a summons for practitioners in environmental assessment to “reject the false dichotomy between expert and layperson, recognize the value of local knowledge and experience, and accept the public as a legitimate partner” (Lawrence, 1997b, 92). “Rural people, with their detailed interactive knowledge of their environments, are experts in

their own right because they possess more information about their environments than outsiders” (Atte, 1992, 6).

The push to accept local knowledge is also occurring within an intellectual wave that has been building up in the planning theory field since the 1970’s. Scholars are recognizing that all forms of knowledge are social processes, where ways of thinking, valuing, and acting are constructed by participants, and that “the knowledge of science and the techniques of experts are not as different from ‘practical reasoning’ as the instrumental rationalists had claimed” (Healey, 1997, 29).

The call for consideration of knowledge and values in theory is also recognized in practice. One of the most well known cases of EA in Canada’s North that considered aboriginal culture, values, and knowledge was the Berger inquiry. The Berger inquiry thoroughly explored the issues surrounding the construction of a northern pipeline by providing a forum for the integration of technical and environmental issues with very personalized cultural and social concerns (Gamble, 1978). Many people view the Berger inquiry as a highpoint of an era in public participation, rather than a beginning, (Wisner, 1996). Judge Berger took the time not only to listen, but to understand and acknowledge what the residents of the North were saying in response to a proposed pipeline (Beakhust, 1977). As Beakhust (1977, 320) notes:

In the north there was no question of people’s awareness of their interests once the proposal had been explained to them in their own language and by people they trusted. There could, however, have been difficulties in getting them to express it, even at community hearings, had it not been for the inquiry’s attempt to follow the local approach to discussion and

decision-making rather than impose a formal and legal one from the outside.

Not only did Judge Berger listen, understand, and acknowledge the views of First Nations people at these hearings but he made a clear decision at the beginning to solicit as many views as possible by those that were to experience the greatest impact by the pipeline. He also sought to provide adequate funding so that groups which had expressed a desire to participate would be able to represent themselves through expert witnesses, researchers, and counsel (Gamble, 1978).

More recently, Ross (1990) determined that EA is likely to be ineffective if indigenous cultures' values, social dynamics, and beliefs are discounted in environmental impact assessment. Meredith (1992, 126) concurs, concluding that "local values and aspirations must be embodied in any vision of development", for "sustainability is impossible where indigenous populations are dispossessed, forcibly dislocated, or disenfranchised".

In addition to the call for recognition and integration of cultural values and knowledge within EA, there has also been a move to create a knowledge base that blends both indigenous and modern approaches to environmental problem solving (Appiah-Opoku and Mulamoottil, 1997). This is a result of the recognition that conventional science is limited in solving environmental problems of increased magnitude and complexity (Appiah-Opoku, 1994). There is a wealth of literature (Atte, 1992; Sadler and Boothroyd, 1993; Centre for Traditional Knowledge, 1997; Stevenson, 1995; and

Freeman and Carbyn, 1988) concerning the integration of traditional ecological knowledge (TEK) with EA.

In conclusion, participation of First Nation's peoples in EA decision-making processes is crucial for two reasons. First, they are different culturally; therefore their values and knowledge are different and this gives them authority in determining how they will be impacted by changes in the environment. Second, because of the limits of conventional science in dealing with environmental problems, the ecological knowledge systems they possess should be joined with Western science to produce the best possible information base for EA decision-making. These conclusions reinforce the need to ensure that the normative goals of representation and participant influence are emphasized in any evaluation process of First Nations' participation in EA decision-making.

2.6 An Evaluation Framework for EA Policy Effectiveness

As discussed in the introduction, this thesis examines the policy effectiveness of First Nations' participation in EA of mine development in British Columbia. Historically, measuring EA policy effectiveness gained attention in the mid 1980's and continues today (for a more detailed discussion see Wood, 1995). However, there has been no reliable quantification of effectiveness for EA, and this has created difficulties in reaching an overall judgement about any EA system (Wood, 1995). Although these difficulties exist, progress has been made in the areas of EA effectiveness definition and criteria that are used for its measurement.

Effectiveness, within the realm of EA is defined as “how well something works or whether it works as intended and meets the purposes for which it is designed” (Sadler, 1996, 37). To measure EA effectiveness there are three criteria that can be used: procedural, substantive, and transactive (Marsden, 1998; Sadler, 1996). To be effective *procedurally* means to meet accepted principles and provisions, whereas to be effective *substantively* is the achievement of established purposes and objectives (Sadler and Verheem, 1996). To measure effectiveness *transactively* is to determine the extent to which the procedural principles deliver the substantive objectives at the least cost and in the minimum time possible (Sadler, 1996).

For example, how an EA participation policy works from a *procedural* aspect is the extent to which it meets accepted principles such as public notification of meetings, provision of access to information, and use of appropriate consultation techniques. If it conforms to these accepted principles the policy works procedurally. From a *substantive* aspect, how the EA participation policy works is the extent to which it meets established objectives such as representation of the public, public education, and resource provision. If it fails to attain these established objectives the policy does not work substantively.

Finally, we can say that: If the way in which an EA public participation policy is applied (i.e. public notification of meetings one week in advance, access to information at local libraries, and use of specific consultation techniques) delivers the objectives (i.e. representation of the public was attained, public education on the issues and the process occurred, and the public had access to resources) in a manner that is not wasteful of resources such as time and money, then the policy works transactively.

These aspects (procedural, substantive, and transactive) of EA effectiveness can be measured by the application of an "Effectiveness Triangle" (Figure 2.1 from Sadler, 1996). Krawetz et. al. (1987) also uses the concept of the "Effectiveness Triangle" in the development of an effectiveness framework for measuring environmental monitoring. They refer to the framework as the "Monitoring Triad", which relates the plan (policy), the process (application), and the objectives (performance) of monitoring to one another in a triangle shape. Similarly, the "Effectiveness Triangle" illustrates an evaluation cycle for measuring overall effectiveness of an EA policy. It does this by focussing on the relationships between the policy, the application (practice), and the results (performance). As we relate the implications of performance back to the policy, process development and policy adjustments can be made to improve policy effectiveness.

Application of the "Effectiveness Triangle" can also occur at different levels of environmental assessment. Sadler (1996, 39), identifies three different levels of EA policy evaluation: (1) system-wide reviews; (2) decision audits; and (3) component-specific evaluations.

System-wide reviews evaluate a number of processes over a given time period and indicate the overall results in terms of the extent to which policy or institutional goals were supported (Sadler, 1996). For example, the evaluation of a number of cases of EIA from different provinces in Canada over a given time period would be a system-wide review. Evaluations previously completed at this level are the works of Hollick (1986) and the North Atlantic Treaty Organization (1993).

Decision audits evaluate the application of a given process from start to finish in one or a number of cases (such as the evaluation of British Columbia's EA process for a

number of different projects). Much work has been done on evaluations of EIA processes at this level (Wood, 1995; Marsden, 1998; Ortolano, 1993; Hickie and Wade, 1998; Canter and Clark, 1997). Most notable are the criteria for EIA effectiveness laid out by the Canadian Environmental Assessment Research Council (1988) and Gibson (1993).

Component specific evaluations examine particular stages or activities of an EA process. This can occur step-by-step as part of an EA process or as a separate exercise. For example, as a separate exercise, an EA process may be reviewed for such things as procedural compliance, completeness and quality of EA documentation, or adequacy of methods used to assess public involvement (Ortolano, 1993). Similarly, Krawetz et. al. (1987) examines monitoring as a component of EIA and proposes a framework for effectiveness determination.

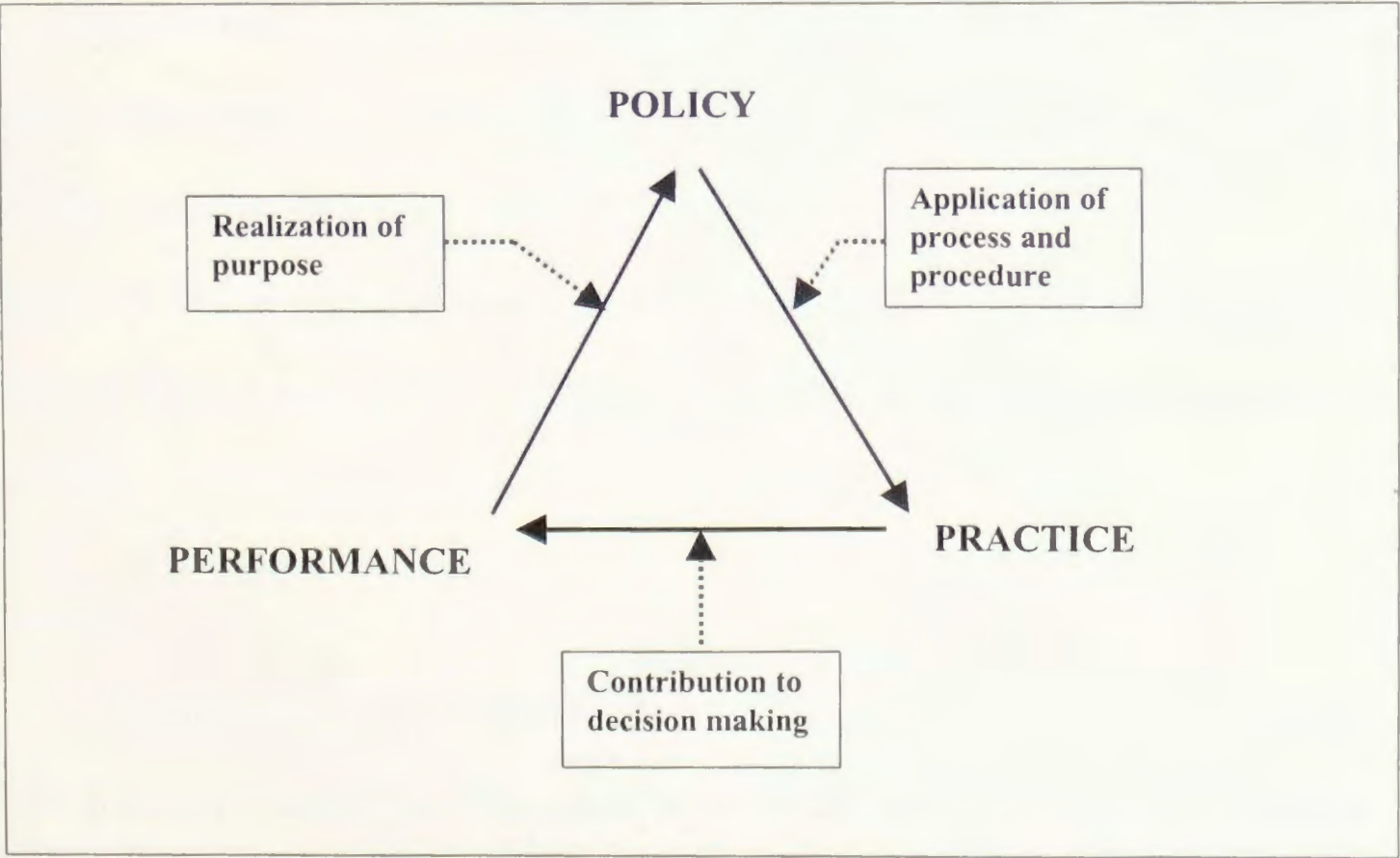


Figure 2.1 The “Effectiveness Triangle” (Sadler, 1996)

Sadler's "Effectiveness Triangle" can be used as a basic template for the development of a framework for determining EA policy effectiveness at a component specific level (Figure 2.1). The focus of the present research (and the foundation of the framework in Figure 2.2) is component specific in that it seeks to measure the activity of First Nations' participation as a part of British Columbia's EA process for mine development. The expanded framework in Figure 2.2 places the policy at the center surrounded by different aspects of efficacy (how well it works). Procedural (practice), substantive (performance), and transactive (proficiency) aspects are borrowed from Sadler's framework and a normative (purpose) aspect is added. *Normative efficacy* is defined as the extent to which the policy achieves the normative goals, which are represented by the purpose(s) of the policy.

The expanded framework represents a circular effectiveness cycle. The cycle focuses on the aspects of practice, performance, proficiency, and purpose, linking them to policy by their respective efficacy measurements. Overall policy effectiveness is reflected by the extent to which the policy works from all four aspects. Utilization of the framework begins with the practice of a policy and proceeds in a clock-wise direction. Each of these aspects will be discussed to elaborate on how the framework can be applied.

Practice

Examination of the practice involves finding out how the policy was applied or what procedures were used. The extent to which the application adheres to accepted procedural principles for the policy provides a measure of procedural efficacy. From this

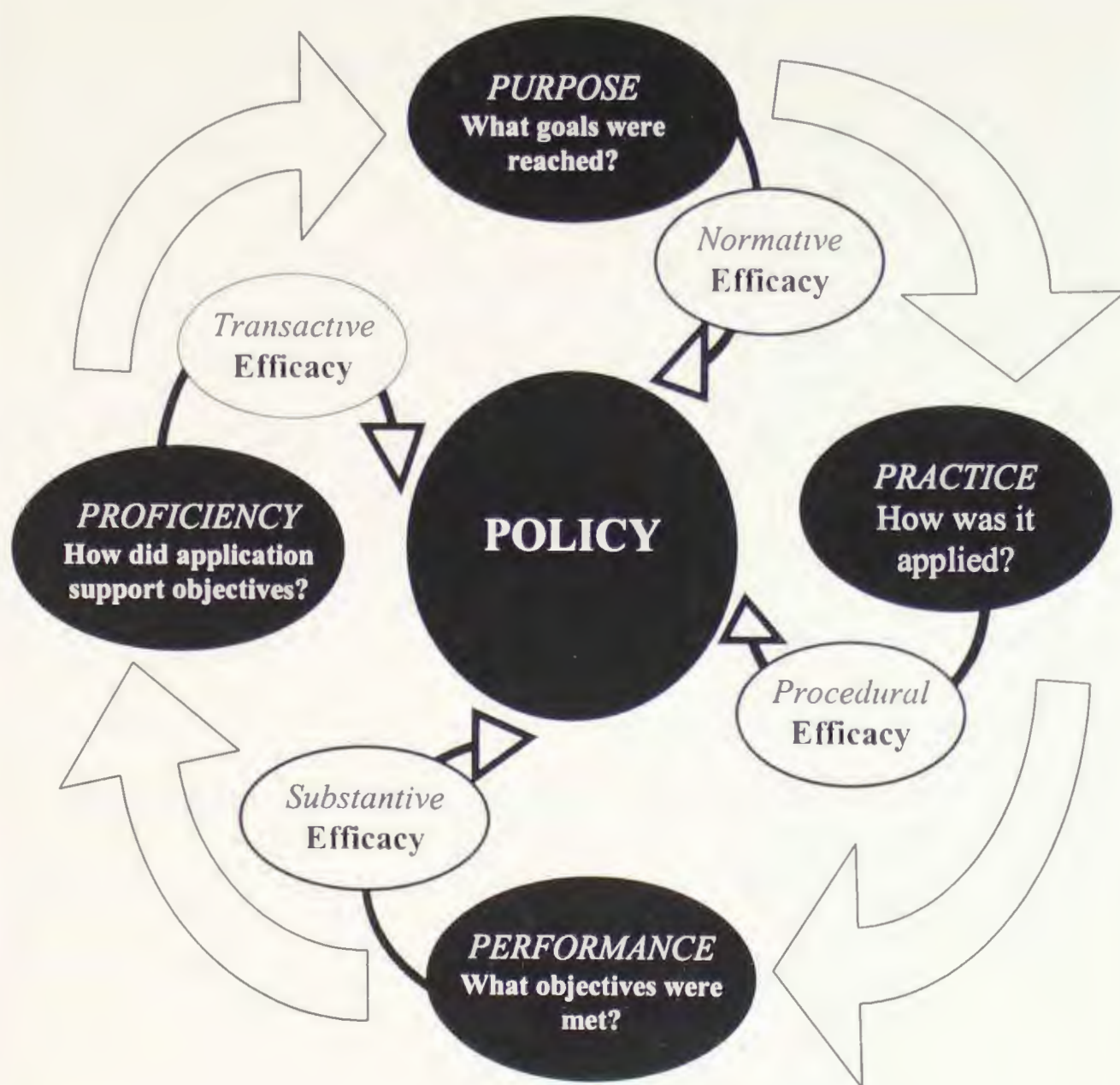


Figure 2.2 Aspects of Policy Effectiveness

measurement, adjustments are made to the policy to improve how it works in future applications. For example, if it was found in the application of an EA public participation policy that the public was given only seven days notification and the procedural principle

prescribed 45 days, the resulting measurement would be that the policy didn't work in practice. This would lead to a policy adjustment prescribing more time for public notification, thereby improving how it would work in future applications.

Performance

Examination of performance involves finding out what objectives were met as a result of the application (the practice). When the achieved objectives are compared to established objectives for the policy the result is a measure of substantive efficacy. This measurement leads to policy adjustments to improve the meeting of objectives by future policy applications. For example, if it was found that the objective of public representation was not being met for an EA public participation process, the policy would be examined to determine what adjustments need to be made to meet this objective. Meeting of this objective in future applications would improve how the policy works from the performance aspect.

Proficiency

Examination of proficiency involves finding out how resources were used in achieving objectives. Transactive efficacy is the extent to which the least cost was incurred and the minimal amount of time used in achieving objectives. For example, if the application of a policy uses time and money in achieving objectives in a manner that is wasteful, the policy does not work proficiently. Alternatively, if resources are used conservatively the policy works from a proficiency aspect.

Purpose

Examination of the purpose involves finding out what normative goals are realized by the policy. Questions are asked to determine the extent to which these goals are realized, resulting in a measurement of normative efficacy. This leads to policy adjustments which in future applications result in the realization of the normative goals, and thus improves how the policy works from a purpose aspect. For example, if a normative goal for an EA public participation policy is to promote sustainability, and it is found that the policy achieved established criteria that indicate the realization of this goal, the policy works from a purpose aspect.

Overall Policy Effectiveness

Overall effectiveness is determined by the extent to which the policy works from the standpoint of practice, performance, proficiency, and purpose. For example, if a policy works well from all four aspects (met accepted principles, achieved established objectives, attained objectives in a manner not wasteful of resources, and realized normative goals) the policy has overall effectiveness. Alternatively, if the policy fails to work from any of these aspects, it does not have overall effectiveness.

This thesis will not evaluate the policy purpose of EA for First Nations' participation in mine development for British Columbia. This is due to limited time and funding in conjunction with the subjective nature of measurement of normative efficacy. Therefore, this thesis will focus on practice, performance, and proficiency in determining a measure of overall effectiveness. Procedural principles, substantive objectives, and

criteria used to assess proficiency are derived from the EA literature on public participation and effectiveness.

Procedural Principles

Basic procedural principles for public participation programs in EA are derived from "Public Consultation Guidelines and Procedures for the Environmental Assessment Report: Key Elements and Options" (Nicholson, 1990), the "International study on EA Effectiveness" (Sadler, 1996) and supporting EA literature that refines these procedures. Borrowing from Nicholson (1990) and Sadler (1996), primary procedural principles, divided into five categories, are established for use in measurement of procedural efficacy. The five categories are composed of:

1. Guiding principles - The process should be open, fair, and objective
 - Consult about how to consult;
 - Inform people about how to become involved. Facilitate participation by provision of funding, personnel, logistical support for technical guidance, legal advice, transport and travelling expenses for participant attendance, information, and training (Brenneis and M'Gonigle, 1992; Beresford and Croft, 1993; and Smith, 1993);
 - Explain how results of consultation will be used in the decision (Parenteau, 1988).
2. Notification
 - At least 45 calendar days;
 - Through minimum of one newspaper notice; and
 - Through methods such as letters to make aware those most likely affected.

3. Access to Information

- Information available, in appropriate regional libraries, that concerns the issues in decision-making process (Lucas, 1977), and that makes the process understandable (Brenneis and M'Gonigle 1992);
- Information should be of immediate relevance, be attractive and brief, and be appropriate to the peoples' abilities, experience, knowledge, language, and culture (Beresford and Croft, 1993); and
- Staff of decision-making process to be responsive to participant information requests (MacLaren, 1995).

4. Consultation Techniques

- Government Department shall hold a minimum of one public meeting or open house;
- Select appropriate consultation technique (public meetings, open houses, site visits, etc.); and
- Seek public input on public preferences for timing, location, and format of consultations.

5. Reporting

- Direct reporting in writing to all participants in consultation, upon announcement of decision on project by minister (Brenneis and M'Gonigle, 1993); and
- Report to include review of consultation process and explanation of how results were or were not incorporated into final decision (Knopp and Caldbeck, 1990).

The extent to which these procedural principles are implemented in a given First Nations' participation process in EA for mine development determines the procedural efficacy for British Columbia's EA policy in that instance.

Substantive Objectives

Substantive efficacy for British Columbia's EA policy for First Nations' participation in mine development is determined by the extent to which the policy achieves the objectives for a participation process in a 'broadened' pluralistic democratic society. The following substantive objectives are borrowed from Laird (1993) and Smith (1984), and supported by the EA literature on public participation programs:

1. Participation Beyond Voting

- Legislative basis for public participation; and
- Legal right and opportunity to participate
(Lucas, 1977; Brenneis and M'Gonigle, 1992; and Smith, 1993).

2. Representation

- Public had equal access and opportunity to participate; and
- Representation entailed a full range of values and interests on a topic
(Beresford and Croft, 1993; MacLaren, 1995).

3. Participant Learning and Understanding – of the issues and of the process

- Public actively participated and was well informed of issues;
- Public gained new sets of skills, ideas, and values; and
- Public gained an understanding of the decision-making process
(Lucas, 1977; Brenneis and M'Gonigle, 1992; and Beresford and Croft, 1993).

4. Resource Provision

- Inequalities that existed between participants were balanced by resource provision; and
- Continuity of participation ensured by resource provision
(Brenneis and M'Gonigle, 1992; Beresford and Croft, 1993; and Smith, 1993).

5. Participant influence

- The limits of public authority in the process are defined;
- Participant preferences are combined in a way that demonstrates how input was considered and used to affect the decision-making process; and
- Written feedback from input into the process is received by the public and demonstrates the reasoning behind decision (Knopp and Caldbeck, 1990; Beresford and Croft, 1993; Parenteau, 1988; MacLaren, 1995; Brenneis and M'Gonigle, 1992).

The extent to which these substantive objectives are achieved by a First Nations' participation process in EA for mine development determines the substantive efficacy for British Columbia's EA policy.

Transactive Criteria

Transactive efficacy for British Columbia's EA policy for First Nations' participation in mine development is determined by the extent to which the policy achieves the following criteria (Sadler, 1996):

1. Time Management

- Process managed without undue delay or cost to proponents and others
- Timelines and schedules negotiated up-front
- Completion of process in accordance with these negotiated timelines and schedules

2. Cost Management

- Objectives were achieved at least cost as shown by use of the appropriate consultation technique(s)
- Objectives were achieved at a reasonable cost as estimated by informed judgement

This approach to measuring transactive efficacy is not as developed in the literature as the aspects of procedure and performance, yet it is an important component to overall policy effectiveness.

Application of the framework (figure 2.2) for EA policy effectiveness using these procedural principles, substantive objectives, and transactive criteria, allows measurement of how the policy works from practice, performance, and proficiency. These measurements allow the determination of policy effectiveness for First Nations' participation in EA of mine development in British Columbia. Determination of how well the policy works from each aspect (efficacy measurement) is used to formulate policy adjustments that will aid in improving policy effectiveness for First Nations' participation in mine development in British Columbia in future applications.

Chapter Three

Methodology and Analysis

Chapter Three

Methodology and Analysis

3.0 Methodology

The research design and methods chosen for the study use the proposed evaluation framework (Figure 2.2) to determine policy effectiveness for First Nations' participation in British Columbia's EA process. Comparison among cases of mine development determines what changes occurred as a result of the proclamation of the EAA and what recommendations can be made to improve policy effectiveness.

3.1 Research Design

The design for the research is the case study. The case approach was chosen because it is a design that has the capacity to accommodate many more variables of interest than the ones being explicitly examined. The case study allows the use of triangulation and convergence of multiple sources of information within cases, which tends to ensure validity. The case study is also appropriate when the research design is focussed on contemporary issues and seeks to answer questions of "how" or "why" (Stakes, 1995). In short, the case study approach is most appropriate in situations where exploratory or descriptive research on contemporary issues involves variables which may not be quantified or even identified (Yin, 1994).

The research questions for this study are of a descriptive nature and focus on a contemporary issue, thereby validating the use of the case study design. This design will consist of three descriptive cases involving First Nations and mine development. The cases will involve First Nations Tsay Keh Dene and Takla people from the area of the Kemess mine, the Cheslatta people from the area of the Huckleberry mine, and the

Nak'azdli people from the Mt. Milligan mine area (figure 3.1). The three cases have been chosen based on a number of similarities:

- they have porphyry copper/gold deposits indicating similar construction, operation, and closure guidelines;
- they have similar environmental hazards;
- they are located in the same biogeoclimatic zone; and
- they are located in Carrier-Sekani First Nations' traditional territories.

The Kemess and Huckleberry mining operators have both experienced conflicts with First Nations concerning issues that the environmental assessment process should have addressed during mine development. Both of these mine developments were initially assessed under the *Mine Development Assessment Act* and subsequently moved into the *Environmental Assessment Act* when proclaimed in 1995. Mt. Milligan was assessed under the environmental assessment process involving the *Mine Development Assessment Act* in 1993.

3.2 Methods

Methods used to determine First Nations' participation for each case of environmental assessment are: a literature review; post-hoc analysis; and observation of First Nations' community events and meetings. Comparative analysis is used to determine policy effectiveness for each case and the impact of the proclamation of the EAA on policy effectiveness.

3.2.1 Literature Review

Articles taken from newspapers, magazines, government publications, and refereed journals, pertaining to each case of EA, are reviewed to evaluate First Nations' participation in the environmental assessment process. Each source of information for each case is subjected to questions derived from the evaluation framework (section 2.6). This provides information that is used to determine the policy effectiveness for each case of First Nations' participation.

3.2.2 Post-Hoc Analysis

The post-hoc analysis includes evaluation of EA process documentation and structured formal interviews for each case. The mode of analysis chosen for the post-hoc assessment is interactive-interpretative.

Interactive-interpretative post-hoc assessment involves reviews of past documentation and uses interviews to look beyond the data in a systematic way, thus providing for the discovery of different perspectives. The interactive-interpretative approach uses a range of "objective" and "subjective" information in the assessment of how differing groups interact in working towards different objectives and goals (Nelson and Serafin, 1995). This mode is pursued in public policy and thesis research. It is used when literature or data is scarce, as well as when there are time and funding constraints. Although the mode involves interviews – so does not rely on expert judgment - it encounters problems in trying to identify the "right" perspective for a situation (Serafin et. al., 1992).

The documentation review included correspondence, for each EA case, between First Nations' bands and mine developers, as well as between First Nations' bands and government officials. Additional documentation reviewed includes other information that resulted from the original EA processes. Documentation is subjected to questions derived from the evaluation framework to provide information to determine the policy effectiveness for each case of First Nations' participation.

Formal interviews involve First Nations representatives from the Cheslatta, Tsay Keh Dene, and Nak'azdli bands, as well as government officials who were involved with the assessments of the Huckleberry, Kemess, and Mt. Milligan mine developments. A planned interview with a representative from the Takla Lake Band did not occur as the Chief cancelled an initial appointment due to family illness. Thirteen phone calls were made and messages were left at the Band office in the following four weeks, in search of other appropriate interviewees. In the fourth week an appointment was made with an interviewee but this was subsequently cancelled due to perceived time constraints. Representatives that were interviewed were as follows:

- Leonard Thomas - Nak'azdli Band Chief during Mt. Milligan assessment
- Mike Robertson - Cheslatta Band Senior Policy Advisor during Huckleberry assessment
- Gordon Piere - Tsay Key Dene Band Chief during Kemess assessment
- Alan Young - Environmental Mining Council; Involved with Kemess and Huckleberry assessments

- Joe Harris - Ministry of Mines; Involved with all three mine assessments
- Ed Beswick - Regional Director of mines and mineral resources
- Norm Ringstad - Regional Assessment Office

Interview questions were derived from the evaluation framework to determine policy effectiveness for each case of First Nations' participation.

3.2.3 Observation of Community Events

Technically, *observation* is the systematic recording of behaviors and events in a social setting chosen for a study. It is through observation that the researcher learns about behaviors and the meanings attached to those behaviors. The assumption is that behavior is purposive and expressive of deeper values and beliefs (Marshall and Rossman, 1989).

It is well acknowledged in the literature that cultural differences between First Nations and Western European communities exist and that these result in differing values and knowledge bases. Given this acknowledgement, the observations of First Nations' community events and meetings in this study is not focussed on the identification of individual behaviors, their meanings, and expressed values. Rather, it assists in the description of community character in regard to environmental and resource values. Observation at these events also provided the opportunity for informal questioning of Nak'azdli band members and representatives from the Carrier-Sekani Tribal council. These interactions aided in the description of their cases.

Preparation for observation of First Nations' events and meetings was a one-day cross-cultural training session, provided by the Nak'azdli Treaty office, and enrollment in an environmental assessment course that focussed on mine development in First Nations' traditional territories. Course guests involved with providing First Nations' perspectives included Professor Heather Harris (UNBC), Kevin Ward (Carrier-Sekani Tribal Council), and Anne Sam and Tina Erickson (Nak'azdli First Nation).

Community meetings attended include the Nak'azdli Band Annual General Assembly, the Carrier-Sekani Tribal Council Annual General Assembly, and a meeting of Keyoh (traditional family land-use area) holders for the territory containing the Mt. Milligan Mine. Community events attended included a four-day gathering of Keyoh holders and elders in a traditional territory at Nation River and Chuchi Lake, and a two-day gathering of Keyoh holders and elders at Beaver Lake.

3.3 Comparative Analysis

Validation of how First Nations' participated in each case occurred by triangulation of information derived from each methodology (see figure 3.2). These results were then subject to comparative analysis. This is meant to determine three things. The first is the effectiveness of the policy for First Nations' participation in each case. The second is the impact that the proclamation of the EAA has had on policy effectiveness for First Nations' participation. And last, what recommendations can be made to increase policy effectiveness for First Nations' participation in the current EA process for mine development.

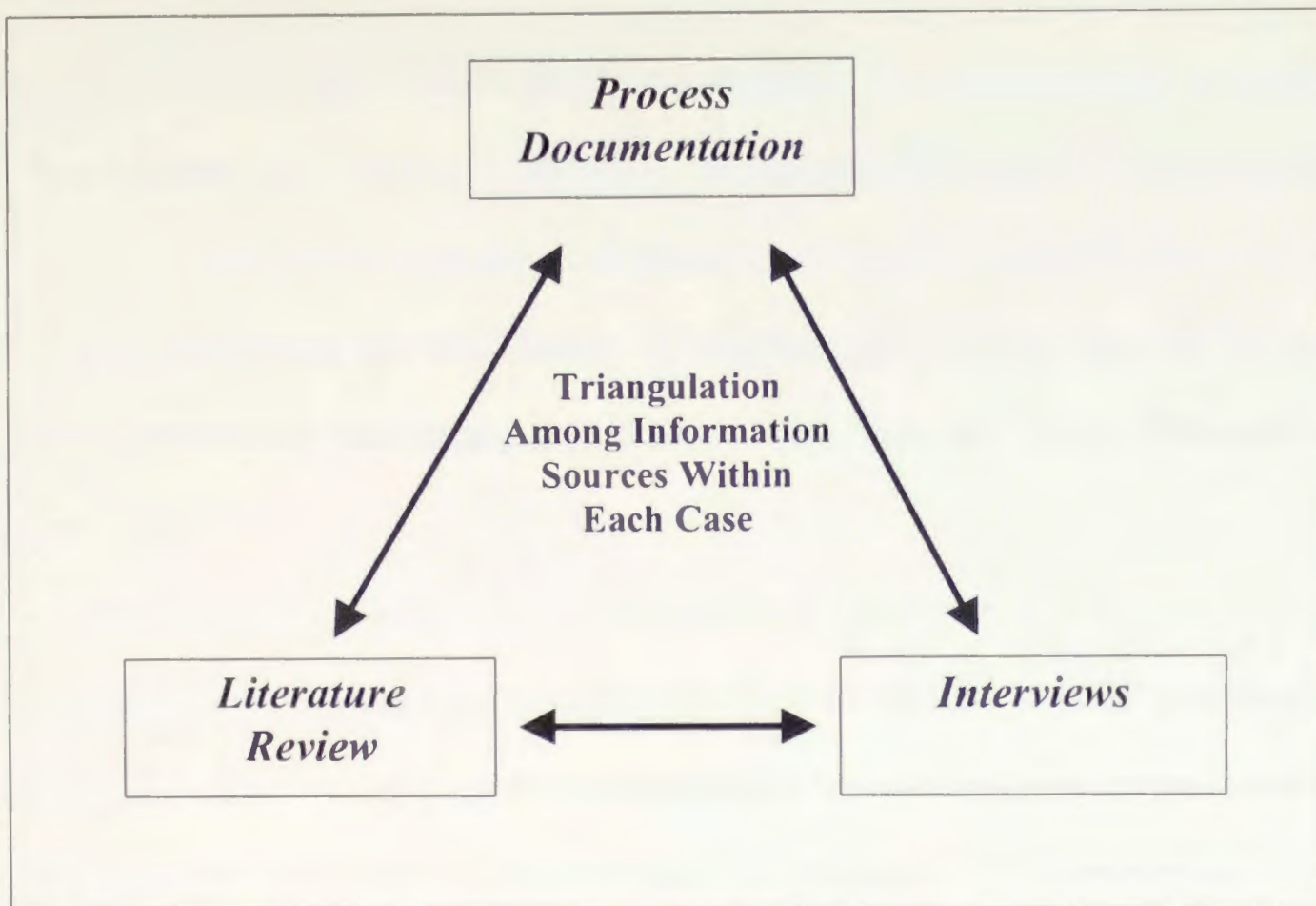


Figure 3.3 Validation of First Nations' participation through triangulation within cases

Comparative analysis in this study uses two methods of comparison. The method of *parallel demonstration* of theory is used to determine policy effectiveness for each case and the method of *macro-causal analysis* is used to determine the impact that the proclamation of the EAA has had on policy effectiveness for First Nations' participation. The method of *parallel demonstration* is used primarily for comparing case studies to a theory to demonstrate its ability to place order on the evidence (Skocpol and Somers, 1980). Similarly, Bonnell (1980) uses the term "illustrative" when making comparisons between cases, on the one hand, and theory on the other. Therefore, in this study the three cases of mine development are compared to the theory - as discussed in section 2.6 - concerning what principles and objectives a public participation process should achieve.

Within the method of *macro-causal analysis*, two basic analytic designs are employed: "Method of Agreement" or "Method of Difference". "Method of Agreement"

tries to establish that cases - with common phenomena to be explained - have in common the hypothesized causal factors. Conversely, "Method of Difference" contrasts negative and positive cases that are similar in all respects, except that in the negative case, the phenomena and causes are both absent. Of the two methods, the latter is the more powerful method for establishing causal associations than the former (Skocpol and Somers, 1980).

The "Method of Difference" was used to determine the impact that the proclamation of the EAA has had on policy effectiveness for First Nations' participation. Policy effectiveness was taken as the phenomenon to be explained, and the proclamation of the EAA was considered as a causal agent in changing this phenomenon. It was observed that there were contrasts in participation effectiveness between the EA case assessed under the *Mine Development Assessment Act*, as compared to the cases that were moved into the EAA. From this it was determined what effect the proclamation of the EAA had had on policy effectiveness for First Nations' participation in the EA process for mine development.

Policy recommendations were arrived at using the assessment of policy effectiveness for all cases, combined with the change in effectiveness as a result of the EAA proclamation, to increase the policy effectiveness for First Nations' participation in the EA process for mine development.

Chapter Four
First Nations' Participation
in Mine Development:
Case Descriptions

4.0 Introduction

Environmental assessment of mine development is a decision-making process used to identify, predict, and evaluate environmental impacts of a mine proposal. In this chapter the concept of mine development is introduced with a focus on environmental impacts and the difficulties associated with impact prediction. This is followed by a discussion of the history of EA for mine development in British Columbia and includes a review of recent policy changes for First Nations' participation in the EA process. The chapter concludes with an introduction to each case of mine development, which provides contextual background information. In the following chapter, First Nations' participation from each case of mine development is subjected to the analysis framework (Figure 2.2) to determine policy effectiveness.

4.1 Mine Development and Environmental Assessment

Although mine development is often characterized as a matter of interim land use in British Columbia, it is subject to an environmental assessment to reduce the risk of unfavorable environmental impacts. A mine, in this context, is a place where there is a disturbance to the ground by mechanical means to explore for or to extract coal, mineral bearing substances, placer minerals, rock limestone, earth clay, sand or gravel (British Columbia *Mines Act*, 1997). Exploration or extraction includes activities such as drilling, excavation, processing, concentrating, waste disposal of ores, and reclamation (Sengupta, 1993). Marshall (1982) divides mine development into three broad stages that involve the following activities: *pre-production*, *production*, and *post-production*. The *pre-production* stage is when most of the capital cost is incurred, for several reasons: the time

lag from discovery of the deposit to operation of the mine can take years; the planning process must evaluate all potential concerns of production; and planning for reclamation and closure must be performed.

The *production* stage is the operational period. The ore is mined and the mine plans are adjusted as changes occur in the grade, quantity, and physical nature of the ore, as well as changes in technology, management, and market conditions. The ore itself is subject to extraction and concentration and then transported for further processing by smelting and refining.

The *post-production* stage involves the closure and reclamation of the mine site. In cases of temporary shut down (sometimes due to market fluctuations) the site is maintained and monitored until market conditions are favorable for resuming production. If the ore is exhausted, permanent closure and site cleanup occurs, reclamation is carried out, and environmental monitoring continues to ensure that all possible effects have been mitigated. Mitigation planning and land reclamation are the main focus of the post-production stage.

Environmental impacts resulting from these stages of mine development are created by the release of pollutants in varying quantities into the surrounding environment, which may cause immediate and visible changes to the landscape. A simplified form of the interaction between the various mining phases and the environment is illustrated in Figure 4.1. Although recognition of environmental impacts of mining has increased significantly in the last two decades, the ability to predict impacts continues to be constrained by several factors (Marshall, 1982 and Draper, 1998):

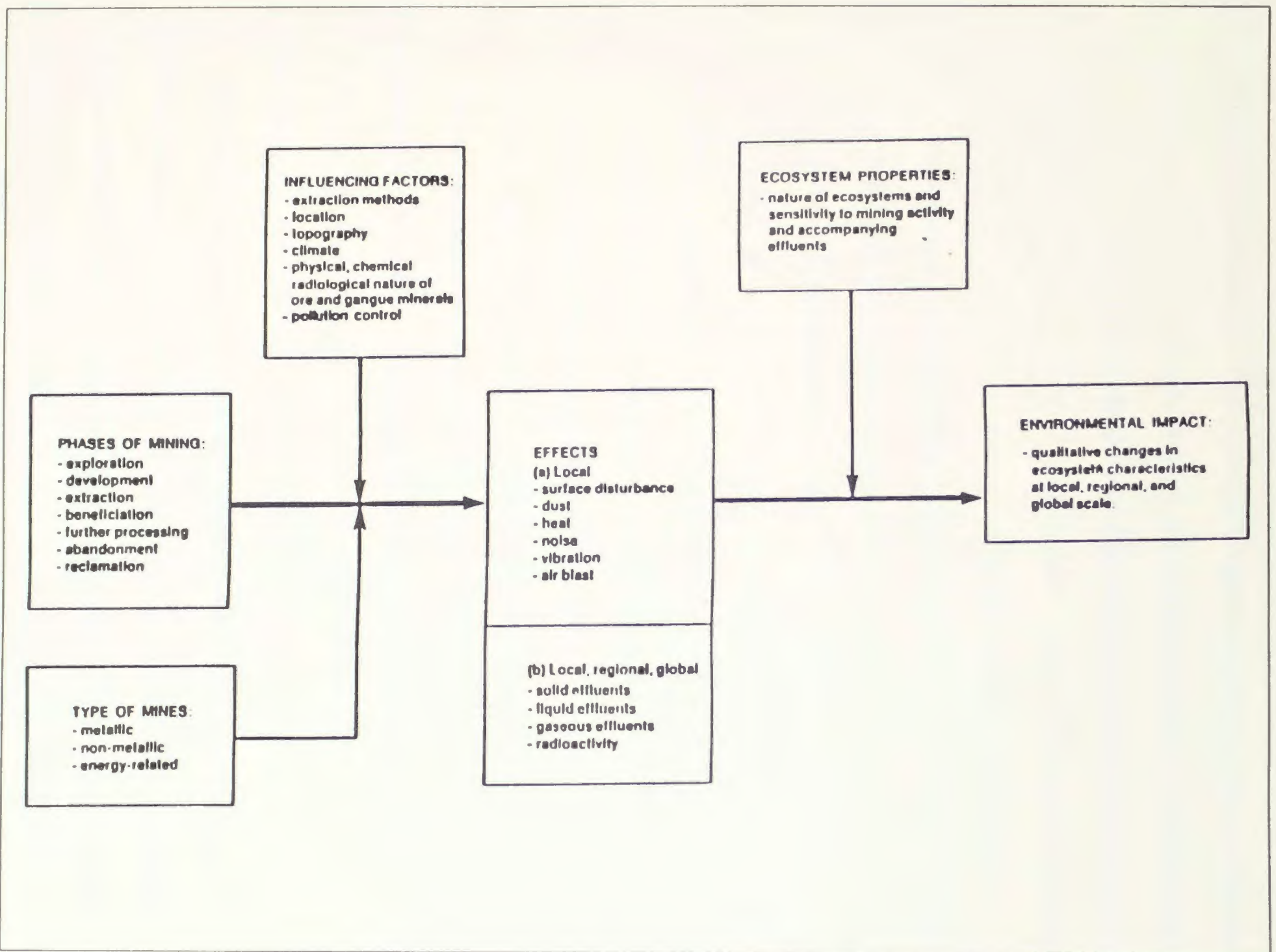


Figure 4.1 Interaction between mining phases and the environment (Marshall, 1982)

- Each mine is unique. Because of the uniqueness in the physical and chemical nature of ores, mining methods used, mine location and topography, predicting the type of pollutants, and their dispersal characteristics, is very site specific;
- The climate at each mine site is different. Variables such as strong winds and precipitation can further compound the difficulties in the prediction of dispersal of pollutants; and
- Current understanding of how the combination of released pollutants causes ecosystem alteration on a local, regional and global level - as well as the possible effects on long term human and ecosystem health - is in its infancy.

Notwithstanding these predictive difficulties, environmental impacts from mine developments are classified as *primary*, *secondary*, and *tertiary* (Sengupta, 1993).

Primary Impacts

The most common primary impacts of mining are air pollution, water pollution, and surface disturbances. Air pollution is caused by liquid, solid, or gaseous phases of pollutants. Most common are emissions from smelters that release air-borne metals, which affect plant and animal health. In British Columbia most metal mines ship their ore-concentrate off-site for smelting (Hart, 1998).

Water pollution can occur if there is a release of contaminated water. Because mining operations use large quantities of water during the mining process, water is usually the main vector of contaminant transport (Hart, 1998). Water contamination commonly occurs during the transport of crude ores (as a slurry medium), mineral transport through the “benefication” process, and the disposal of waste slurry (tailings). Usually, contaminants are transported to the receiving environment via site runoff. Water pollution may also occur when sulphide-bearing minerals are present in waste rock or tailings, producing acid drainage and entrained metals that are released to the receiving environment. Surface disturbances such as the direct removal of soils and sub-soils produces noise and ground shock. These disturbances cause many primary impacts such as changes in vegetation, wildlife, soil quality, and the visual landscape (Sengupta, 1993).

Although primary impacts can cause changes in the ecosystem, many of the impacts can be reduced or eliminated through mitigation measures, provided they are addressed during planning and pre-production stages of the mine development. Even if the mitigation of primary impacts is addressed and planned for, a mining operation will result in degradation that is visible and immediate. That is to say, there is still a major impact.

Secondary and Tertiary Impacts

Secondary and tertiary impacts are impacts that result from primary impacts. For example, if the soil on a site is disturbed (primary impact) and erodes, depositing soil in a nearby stream, fish habitat is affected (secondary impact). The impacted fish habitat may

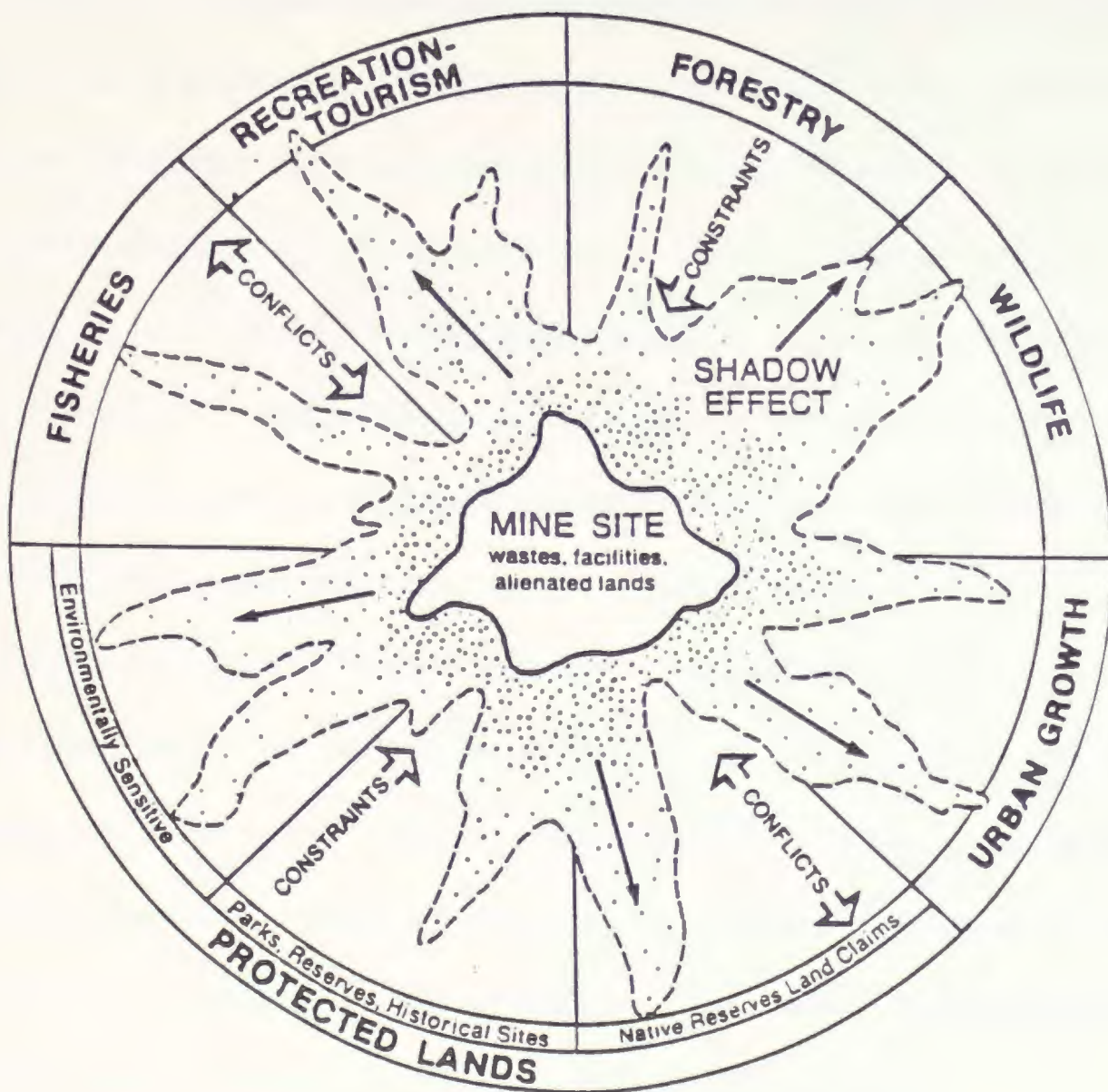


Figure 4.2 The "Shadow Effect" for mining (Marshall, 1982)

then affect fish populations, which could then affect people (tertiary impact) who are dependent on the fish for food or employment. Secondary and tertiary impacts are not visible nor immediate and commonly constitute what is termed the "Shadow Effect" of a mine (Figure 4.2) (Marshall, 1982). These effects extend far beyond the mine site and are usually harder to predict than primary impacts. The extent to which a mine generates secondary and tertiary impacts is highly influenced by the amount of infrastructure (roads, rail, housing, water storage, power plants, and other facilities) that is developed for the mine. Although the "Shadow Effect" provides an accepted illustration of the effects of secondary and tertiary impacts, the boundaries are difficult to predict. Because of such difficulties in prediction, government regulations have changed to make operators more responsible for secondary and tertiary mine impacts (Sengupta, 1993).

In British Columbia, mine development and its associated impacts are presently assessed under the *Environmental Assessment Act* (EAA) and, if triggered, the *Canadian Environmental Assessment Act* (CEAA). Although the EAA is the current approach for environmental decision-making in British Columbia, there is a history of policies and legislation, dating from 1976, that attempts to balance mine development and their associated environmental impacts.

4.1.1 History of Environmental Assessment and Mine Development

The first official government reviews for mine developments in British Columbia date from March 1976, when the provincial Cabinet's Environment and Land Use Committee published the *Guidelines for Coal Development*, instituting a comprehensive review process for coal mining developments. Following these initial guidelines, in 1979

the Ministry of Energy, Mines and Petroleum Resources instituted a parallel metal mines review process for hard rock mineral mining operations. It published the *Procedures for Obtaining Approval of Metal Mine Development* (Ministry of Energy, Mines and Petroleum Resources and Ministry of Environment Lands and Parks, 1992).

In 1984 the two review processes were combined by the Environment and Land Use Committee to form the *Mine Development Review Process* which was established by the proclamation of the *Mine Development Assessment Act* in August of 1991. The goal of the *Mine Development Assessment Act* was to provide a review process that promoted and implemented a comprehensive procedure that would integrate environmental management with economic development. This was to facilitate environmentally acceptable and technically sound mining ventures for British Columbia (Ministry of Energy, Mines and Petroleum Resources and Ministry of Environment Lands and Parks, 1992).

Although the *Mine Development Assessment Act* promoted the objectives of environmentally acceptable and technically sound mining ventures, weaknesses in the process were recognized. For example, Soehl (1993), found that although public participation was mandatory in the *Mine Development Assessment Act*, it failed to provide a public governmental consultation policy, thereby leaving the design of public participation programs for individual projects to the discretion of the government and project proponents. Similar weaknesses in the *Mine Development Assessment Act* were identified in the *Energy Project Review Process* and the *Major Project Review Process*, which at that time combined with the *Mine Development Assessment Act* to form the basis for environmental assessment in British Columbia. The result of this recognition

was the proposal of the *Environmental Assessment Act* (EAA). The EAA was proposed as a single legislated environmental assessment process for all types of development, that would strive to overcome the weaknesses of existing environmental assessment processes (Ministry of Environment, Lands and Parks and Ministry of Energy, Mines and Petroleum Resources, 1992).

In addition to development of a public consultation process the EAA faced the challenge of integrating First Nations' participation. The government recognized that aboriginal rights and interests were significant factors in the allocation of resources and needed to be incorporated with other land use interests (Ministry of Environment, Lands and Parks and Ministry of Energy, Mines and Petroleum Resources, 1992). In response to this challenge, the EAA, which was proclaimed on June 30, 1995, included specific provisions for First Nations' participation.

4.1.2 First Nations' Participation: The *Mine Development Assessment Act* and the *Environmental Assessment Act*

The *Mine Development Assessment Act* provided opportunities for First Nations' consultation at all stages of the *Mine Development Assessment Process*. This consisted of consultation at the pre-application stage, during the review of an application, and during an inquiry by an assessment panel (see Figure 4.3).

At the pre-application and application phase First Nations were provided with the opportunity to view the project prospectus (document of intent), and application, and were asked to submit comments on the project. Comments from the prospectus were used to formulate terms of reference for the application. Comments from the application were used by the Management Committee to make recommendations to the Ministers. The Act

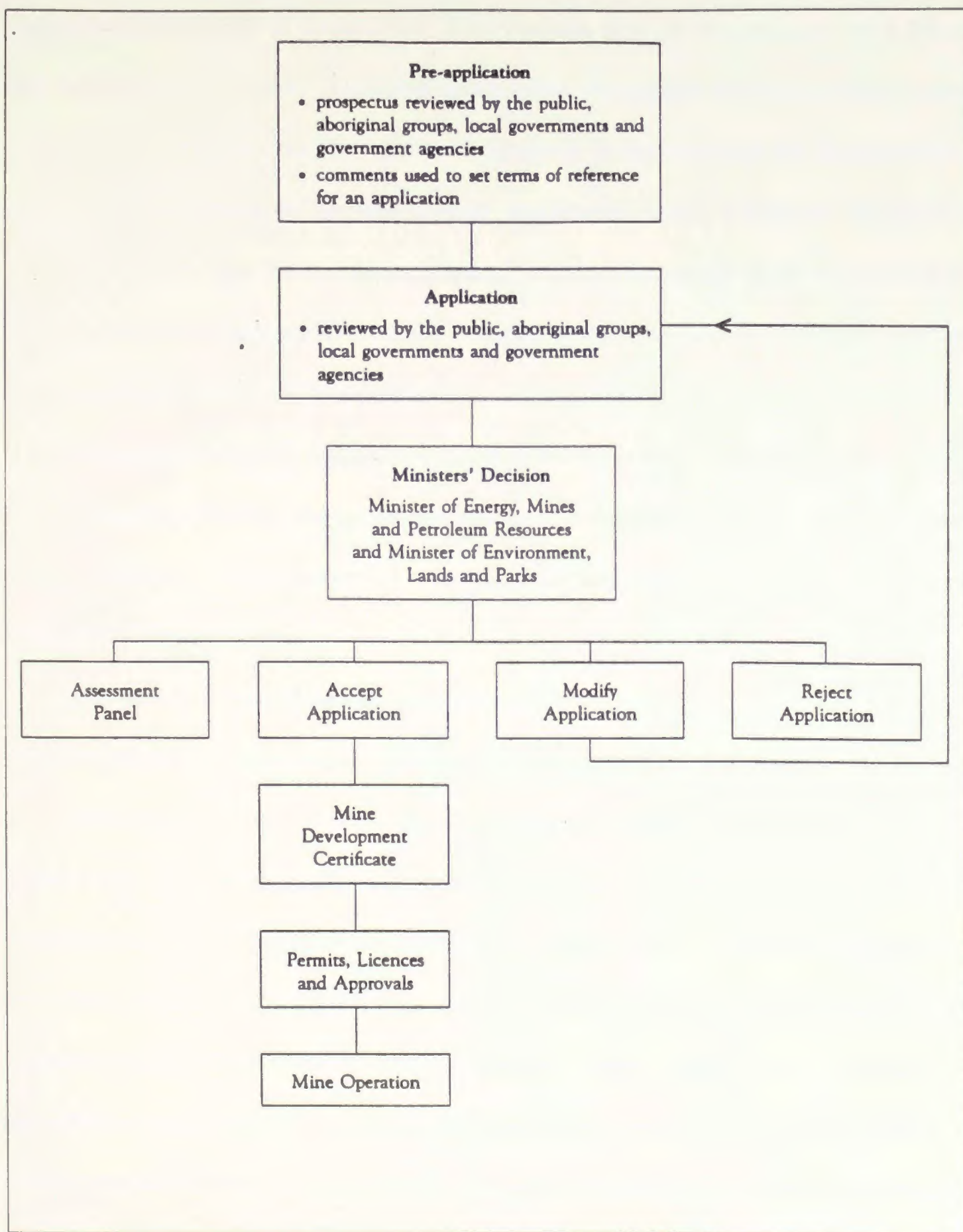


Figure 4.3 Flowchart outlining Mine Development Assessment process (Ministry of Energy, Mines and Petroleum Resources and Ministry of Environment, Lands and Parks, 1992)

encourages proponents to consult with First Nations early in the pre-application phase and includes provisions for additional consultation during the application phase when considered necessary by the Management Committee. In the event that the Ministers refer the project application to an independent assessment panel, provisions for further consultation with First Nations through formal or informal hearings exist within the Act, but are discretionary in nature. Generally, although public and First Nations' participation was mandatory, the *Mine Development Assessment Act* determined public and First Nations' consultation on a project-by-project basis. This was promoted on the grounds that it allowed a flexible design for involvement programs that were tailored to each project (Ministry of Environment, Lands and Parks and Ministry of Energy, Mines and Petroleum Resources, 1992).

The EAA differs from the *Mine Development Assessment Act* in that the EAA uses three stages: the *Application*, the *Project Report*, and the *Public Hearing* (see Figure 4.4). The EAA built upon the provisions for First Nations' consultation in the *Mine Development Assessment Act* in several ways (Environmental Assessment Office, 1995). First, in section 9.2d the Act invites First Nations to be members of a Project Committee. The Project Committee is established by the Executive Director for the project and is composed of members from provincial agencies, federal departments, municipal or regional districts in vicinity of the project, First Nations, and any of British Columbia's neighboring jurisdictions. As described in section 10 of the Act the purpose of the Project Committee is to provide technical and policy advice, perform analysis and make recommendations concerning the assessment of the project (Environmental Assessment Office, 1995).

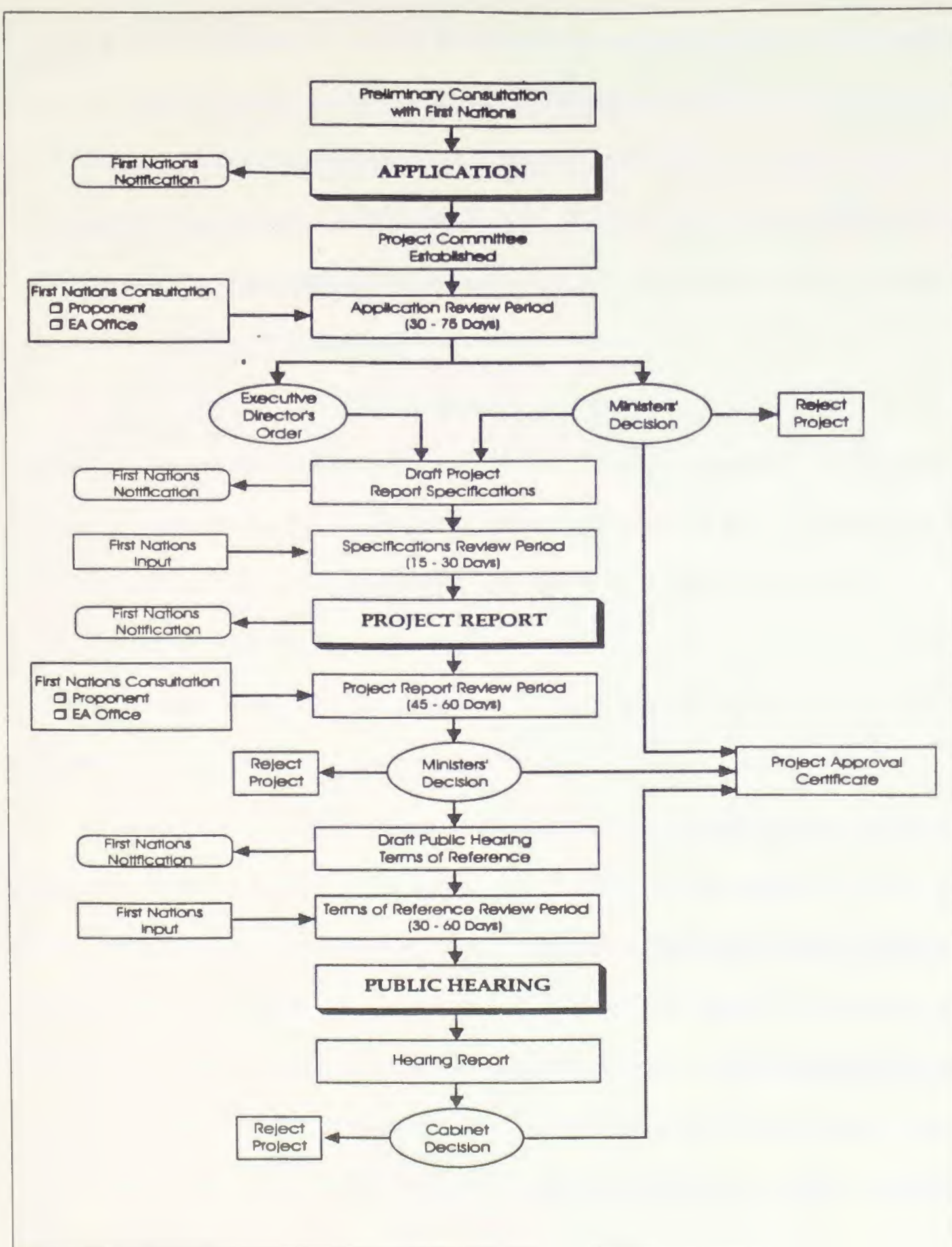


Figure 4.4 Flowchart outlining First Nations' input into the Environmental Assessment Process (Environmental Assessment Office, 1995)

Second, in sections 22 and 23 of the Act, the project proponent is required to undertake studies to identify aboriginal rights, any infringement of those rights created by the project and means of mitigating project impacts on such rights and First Nations' communities. The act also has the potential to establish, upon project certification, conditions and terms that provide for the protection and monitoring of effects on these rights and communities (Environmental Assessment Office, 1995).

Last, the Act provides additional provisions beyond those of comment by First Nations in the pre-application and application phase as prescribed in the *Mine Development Assessment Act*. At all three stages of the process the project committee and First Nations have access to information, and this is facilitated through the use of a project registry (section 61 of the Act). All applications, comments, recommendations, and decisions must be placed in the registry in a timely manner that allows viewing and comment by the First Nations to occur (Environmental Assessment Office, 1995).

Prior to the Application stage proponents are encouraged to use pro-active participation techniques for consultation with First Nations and are required to submit an outline for First Nations' consultation, and for information distribution, that is evaluated and monitored throughout the assessment process by the Project Committee. In submitting a project application, at the first stage the proponent must include the issues identified by the consultation program and provide responses to these issues. The consultation program is continued through the application review to address potential effects of the project.

If the project is referred to the second stage, the Project Report, the Project Committee (with First Nation's representatives) develops report specifications and invites

First Nations' communities to comment. In compiling the project report the proponent may be required to include measures proposed for further consultation with First Nations. During the review of the project report the proponent is required to conduct consultation with First Nations to resolve outstanding issues raised during the application review phase. In cases where the Ministers refer the project to the third stage, a public hearing by an Environmental Assessment Board, First Nations are invited to comment on the terms and conditions for the hearing (Environmental Assessment Office, 1995).

In summary, the *Mine Development Assessment Act* lacked in its provision for specific measures for First Nations' participation. Those that existed were limited to a commentary format, aided by discretionary provisions for informal or formal hearings. The EAA, on the other hand, provides specific provisions for First Nations' participation. The Act provides First Nations with representation on the Project Committee, the requirement of the proponent to undertake studies to evaluate and mitigate project impacts on First Nations' rights and communities, and a process design that monitors, requires, and responds to First Nations' participation at all stages of the process.

In the following sections, the Mt. Milligan, Kemess, and Huckleberry mine developments are described. The case details include a general overview of mine location and description, surrounding resource values and land uses. Then follows a description of the EA process applied, potential environmental impacts, and the nature of First Nations' participation in the EA process for each mine development.

4.2 Mt. Milligan Mine Project

4.2.1 Project Location and Description

The Mt. Milligan project is situated on Crown land and is located approximately 86km northwest of Prince George and 95km west of Mackenzie in north central British Columbia (Figure 4.5). The Mt. Milligan project proposal is to design, construct, operate, dismantle, reclaim, and eventually abandon, an open pit copper/gold mine that produces and processes 60,000 tonnes of ore per day. The expected life of this mine is approximately fourteen years. The project would provide 600 jobs for two years during construction and 369 jobs during operation.

4.2.2 Resources and Land Use

The Mt. Milligan project area lies within the Rainbow Creek watershed, which is an important fish recruitment tributary for the Nation River system. To date, twenty-one fish species indigenous to the Nations River system have been identified. Wildlife species present include ungulates such as moose and mule deer. Carnivores such as black bear and grizzly bear are not common to the project area but other species such as lynx, wolves, and fox are present. Small fur-bearers such as marten, mink, and beaver are present, as well as porcupines. Vegetation in the higher sub-alpine elevations of the project area consists of spruce and fir while at lower elevations there are spruce, fir, and lodge-pole pine. Archaeological surveys indicate a low potential of heritage resources for the project area.

The project area in the past has been used by outfitters for guided hunter harvests and is considered to have a high value for trapping and hunting. Both the

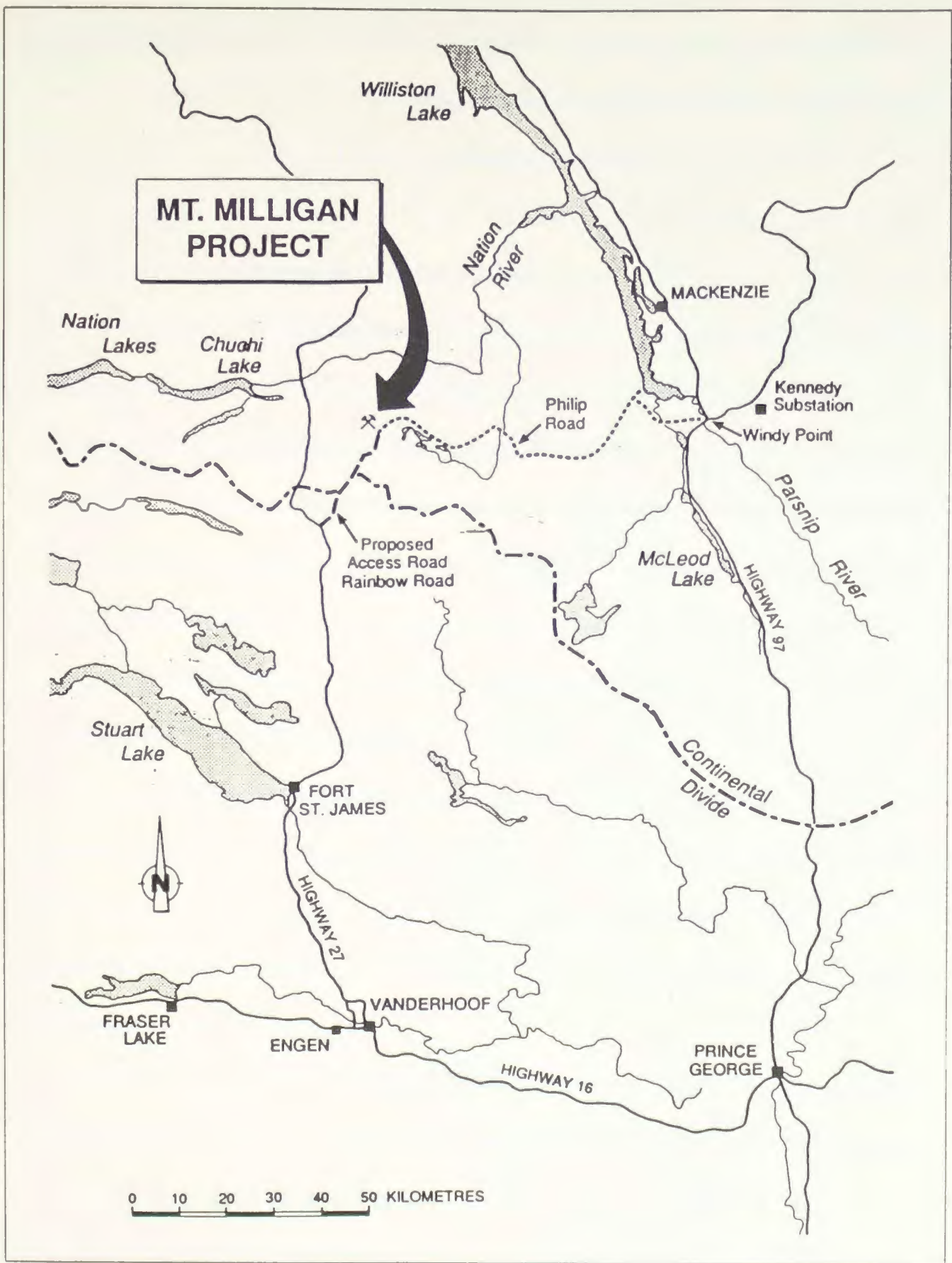


Figure 4.5 Mt. Milligan Mine Development Project Location

Nak'azdli and Mcleod Lake Bands use the area for hunting, fishing, berry picking, and recreation. The area has a low value for agriculture due to poor soils and a short growing season and it has a moderately low to low value for recreation.

4.2.3 Environmental Assessment Process

In February 1990, Continental Gold Corporation submitted a prospectus (pre-application proposal) outlining the Mt. Milligan project to the Mine Development Steering Committee. In September of 1990, Placer Dome Inc. acquired controlling shares of Continental Gold Corp. thereby becoming the primary proponent and continued the process of seeking regulatory approval for the Mt. Milligan project. In April of 1991, Continental Gold Corp. (now a subsidiary of Placer Dome Inc.) submitted a "stage one" report for a Mine Development Certificate for the Mt. Milligan project and so initiated the Mine Development Review Process.

In August of 1991 the British Columbia *Mine Development Assessment Act* was proclaimed. At that time the Minister of Energy, Mines, and Petroleum Resources accepted previous submissions for the Mt. Milligan project filed under the Mine Development Review Process as an acceptable Mine Project Application for the *Mine Development Assessment Act*.

In November of 1992, ownership of the Mt. Milligan Development changed from Continental Gold Corp. to Placer Dome Inc., who received a Mine Development Certificate under the *Mine Development Assessment Act* in November of 1993. The EA process for First Nations' participation in the Mt. Milligan project was therefore guided

by the Mine Development Review Process initially, and completed under the *Mine Development Assessment Act*.

Potential impacts from the Mt. Milligan project were identified by the Mine Development Review Committee, and focussed on the following items. Mitigation of acid rock drainage from mine wastes, mercury bio-accumulation in aquatic ecosystems, management of fisheries and aquatic resources, and air emissions resulting from the electric generation facility. First Nations bands identified as claiming the Mt. Milligan project area as traditional territories are the Nak'azdli Band, who are a part of the Carrier-Sekani Tribal Council, and the McLeod Lake Band.

4.2.4 First Nations' Participation

As part of the Stage One assessment (application), Placer Dome Inc. conducted a First Nations consultation process that was assisted by Mine Development Review Process representatives. The EA process for First Nations' participation consisted of the following:

- February 1990 – the project prospectus was submitted to the government and distributed to the Carrier-Sekani Tribal Council along with a letter asking for their comments - and a meeting, if required.
- August 1990 – The Carrier-Sekani Tribal Council, Nak'azdli, and McLeod Lake Bands received copies of the Government's review of the prospectus. They were asked for their comments and given an opportunity to meet and discuss the report.

- November and December, 1990, and January through April of 1991 - Continental Gold representatives met with the Carrier Sekani Tribal Council and the Nak'azdli and McLeod Lake Bands in their communities to discuss project details, economic opportunities, and a socio-economic study that the Bands requested for the Stage One (application) report. Workshops were also held within First Nations' communities, explaining employment opportunities, the project development plan and potential impacts.
- April 1991 - Placer Dome Inc. held open houses in Fort St. James, Vanderhoof, Mackenzie, and Prince George to which First Nation Bands were invited. All information submitted to First Nations for review was also placed in the public libraries of these local towns prior to the open houses, for public access.
- May 1991 – Stage One (application) report was released and sent to First Nations Bands for review and comment.

Issues of concern raised by First Nation Bands during the EA process for the Mt. Milligan project included: economic opportunities, uncertainty of acid rock drainage in the future, over-hunting and poaching due to increased access, trap-line compensation, and socio-economic impacts. Resolutions were presented by the proponent and/or Government and were carried forward and included as conditions for approval of a Mine Development Certificate.

On November 3, 1993, the Mt. Milligan project was granted a Mine Development Certificate. The Minister of Energy, Mines, and Petroleum Resources, with the concurrence of the Minister of Environment, Lands, and Parks, determined - based on the

full technical review and public and aboriginal consultation programs - that the potential adverse environmental impacts could be managed through existing programs and legislation.

Although Placer Dome Inc. was granted a Mine Development Certificate for the Mt. Milligan project, the company decided in mid 1992 to postpone construction for economic reasons. Upon proclamation of the EAA in 1995 the Mine Development Assessment Committee converted the Mine Development Certificate to a Project Approval Certificate. The project, to date, has not proceeded but its development certificate was renewed on November 3, 1998, for a period of five years.

4.3 Kemess Mine Project

4.3.1 Project Location and Description

The Kemess South Project is situated on Crown land and is located approximately 300km northwest of Mackenzie and 370 km west of Fort St. John in the Peace River Regional District (Figure 4.6). The Kemess South project proposal is to design, construct, operate, dismantle, reclaim, and eventually abandon an open pit copper/gold mine that produces and processes 40,000 tonnes per day of ore, for fifteen years. The project would provide 500 jobs during the two year construction phase and 350 jobs during mine operations.

4.3.2 Resources and Land Use

The Kemess project area is recognized as having numerous resources. Fish species in the nearby Finlay River include rainbow trout, Dolly Varden char, mountain

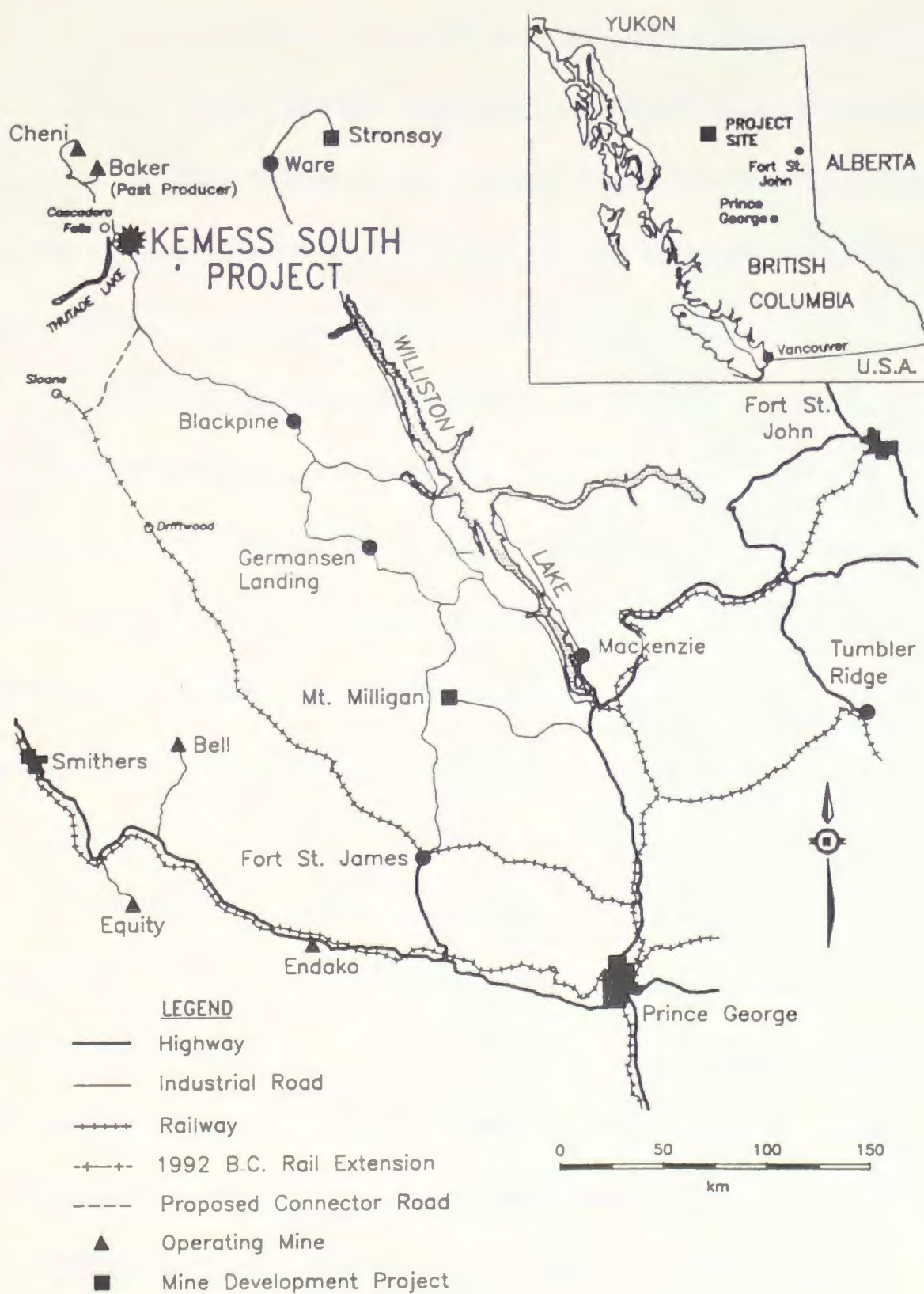


Figure 4.6 Kemess Mine Development Project Location

whitefish, arctic grayling, and burbot. Wildlife species present include ungulates such as moose, caribou and mountain goats. Carnivores such as grizzly bear, black bear, Lynx, wolf, coyote and red fox are also present. Registered trappers in the area harvest small fur-bearers such as fisher, martin, mink, and weasel. Vegetation in the area is characteristic of northern regions of the province where the climate is more severe. Valley bottoms consist primarily of white spruce and sub-alpine fir. The sub-alpine regions are composed of deciduous shrubs including birch and willow, while red and white heather, herbs, mosses, and lichens dominate the alpine. Archaeology surveys indicate that heritage potential is very low.

The project area in the past has been used by outfitters for guided hunter harvests and is considered to have a high value for trapping and hunting. The area has a low value for agriculture, due to climate and poor soils, but has a high value for outdoor recreation and opportunities for stream and lake fishing.

4.3.3 Environmental Assessment Process

In 1992 the proponent of the Kemess South gold/copper project was El Condor Resources Ltd. (60% owner) and St. Philips Resources Inc. (40% owner) with El Condor being the operator/manager. In March of that year the proponent submitted a pre-application proposal outlining the Kemess South project to the Mine Development Assessment Process. In March of 1994 an application for a mine development certificate for the Kemess South project was submitted by the proponent and was subject to the *Mine Development Assessment Act* as it exceeded the 10,000 tonnes per day threshold for an open pit mine.

On June 30, 1995 the British Columbia *Environmental Assessment Act* was proclaimed, replacing the Mine Development Assessment Process. The Act required that any application that was undergoing a review under *the Mine Development Assessment Act* immediately before June 30, 1995, be continued and completed under the new Act as an application for a project approval certificate. On the basis of a review of the Mine Development Assessment Process submission, the Kemess project was accepted for review under the step known as "accepting a project report for review". The existing Mine Development Review Committee was accepted as the Project Committee to continue the review under the Act and to provide recommendations to the Executive Director of the Environmental Assessment Office, upon completion.

In August of 1995, Royal Oak Mine Inc. purchased all the issued and outstanding shares of both El Condor Resources Inc. and Philips Resources Inc., becoming the proponent of the Kemess South Mine Development project. On April 11, 1996 the Kemess South Project received a mine development certificate from the British Columbia Government, since the Project Committee had concluded that First Nations and public participation, conducted under the Mine Development Assessment Act and under the EA process, had fulfilled the requirements of the Act.

The EA process for First Nations' participation in British Columbia for the Kemess South project was primarily guided by the *Mine Development Assessment Act*. As the Project Committee had finished its review of the stage one application and did not meet again after the transition order had been issued, the EAA was only involved in the tail end of the review process.

Potential impacts from the Kemess project were identified by the Project Committee and focussed on the following: impacts from the construction of transportation and power options; impacts from the tailings pond and waste rock dump; impacts to fisheries and wildlife from acid rock drainage and water management; archaeological impacts; and impacts concerning First Nations issues. Impacts on First Nations' interests such as hunting, fishing, berry gathering and preserving sacred sites, had to be identified during the EA process so that the project committee could make recommendations concerning compensation, mitigation, or avoidance of those impacts.

First Nations identified as claiming the Kemess South project area as traditional territories are the Carrier Sekani Tribal Council and the Kaska Dene. First Nations which could potentially be impacted include the Takla Lake and the Tsay Key Dene Band of the Carrier Sekani Tribal Council, and to a lesser extent, the Fort Ware, Nak'azdli, and McLeod Lake Bands.

4.3.4 First Nations' Participation

The Project Committee that reviewed the Kemess South project consisted of representatives, from federal and provincial agencies, that continued on from the former Mine Development Review Committee. One of the committee's responsibilities was to coordinate a comprehensive First Nations participation program for the EA process, which consisted of the following:

- April 1992 – the pre-application report was distributed to First Nations Bands identified as claiming the project area as their traditional territory. Following the

distribution of the pre-application report, representatives from the Mine Development Assessment Process and staff of the proponent met with the bands within their communities to present the project, discuss the review process, and request a response. At this time the proponent held an open house presentation in Fort Ware and open houses for the pre-application report in Smithers, Fort St. James, Mackenzie, Prince George, and Fort St. John.

- July 1992 – A meeting was held between the proponent and the Tsay Key Dene and Fort Ware Bands - in their respective communities - and the Land Claims coordinator and the General Manager of the Carrier Sekani Tribal Council, to present and discuss the Kemess project.
- Spring 1993 – Ministry of Energy, Mines, and Petroleum Resources and Ministry of Environment, Lands, and Parks met with representatives from the Carrier Sekani Tribal Council, including representatives from the Nak'azdli and Tsay Key Dene Bands.
- May 1993 – terms of reference for aboriginal related studies for the application were distributed for comment and review to all First Nations groups. The proponent at this time conducted site tours for the Chiefs of the Tsay Key Dene, Takla Lake, Nak'azdli, and Fort Ware Bands.
- February 1994 – An independent consultant was chosen to conduct the ethnographic studies and this person directly asked the aboriginal people to identify traditional uses. This additional study is in response to a court clarification of aboriginal rights, which places fiduciary responsibility on the government to identify and take steps to avoid infringement on these rights. The study is specific to the terms of reference for

the assessment and is mutually accepted by the proponent, the affected First Nations Bands and the staff of the Mine Development Assessment Process.

- April 1994 – The proponent conducted a second set of open houses for the recently released application report in Fort St. John, Prince George, Mackenzie, Fort St. James and Smithers. Prior to the open houses copies of the application were placed in the public libraries of these urban centers. The proponent contacted all Bands, requesting the opportunity to meet with them in their communities to discuss the application and the required work concerning Aboriginal impact studies. Mine Development Assessment Process staff also met with the Tsay Key Dene, Takla Lake, and Fort Ware Bands in each of their communities to discuss the project application.

At this time the Tsay Key Dene Band advised that it would not participate in the ethnographic interviews used to identify potential aboriginal rights, due to concerns they had with the Province's land claim settlement. The proponent subsequently opened communications with the Tsay Key Dene Band and kept them advised as to the status of the project. The Takla Band and the Fort Ware band agreed to actively participate in the aboriginal impact study.

- September 1995 – the results of the aboriginal impacts assessment was submitted and concluded that the Takla Lake people demonstrate the strongest historical and traditional use of the project area.
- July 1995 – Takla Lake Band representatives, the proponent, and provincial review agency staff met in Vancouver and discussed issues of concern that the Takla Lake Band had regarding the Kemess South project. The proponent at this time offered to

provide an update on the project to the Tsay Key Dene at the convenience of the Band.

- October 1995 – proponent representatives provided presentations of the project to the Fort Ware Band, including helicopter flights over the project area and verbal project descriptions.
- November 1995 – proponent met with McLeod Lake Band in their community regarding impacts of the power-line.
- January 1996 – The Tsay Key Dene Band requested a meeting with the proponent (now Royal Oak) as they still had concerns with the project. The parties fail to meet, due to time limitations on the part of the Band, but the Band requests that the proponent keep them advised on the status of the Kemess project.

Issues of concern raised by First Nations during the EA process for the Kemess South project included: increased settlement of crown lands resulting from the power-line construction; loss of moose habitat to a section of the power-line corridor; encroachment of hunters and poaching of fish and wildlife as a result of increased access; economic opportunities for contracted work in regards to the Kemess South project development; compensation to trap-line holders; uncertainty about the tailings dam construction; and land claims.

Resolutions to each of these concerns were presented by the government and/or proponent and were accepted by First Nations, except for the issues of the tailings dam construction raised by the Tsay Key Dene, and land claims settlement raised by the Takla Lake and Tsay Key Dene Bands. Concerning land claims settlement, the Tsay Key Dene

were opposed to the development unless there was some form of revenue sharing with the Band. The Takla Lake Band expressed the need for compensation for the area of the mine site from the Government, but considered that a package of opportunities for contracts and jobs in addition to trap-line compensation, would satisfy their compensation needs. In response to these requests, commitments were made by the proponent and carried forward as conditions for approval of a Mine Development Certificate.

In March of 1993 the Project Committee concluded that the proponent had addressed the issues raised through the terms of reference of the Mine Development Assessment Process, as well as those arising during the review of the 1994 application and any other issues raised as further information was collected and submitted by the proponent during 1994 and 1995. Although the Tsay Key Dene Band withdrew from the final ethnographic and related studies, the Project Committee felt that the interests of the Tsay Key Dene were considered in the overall review and assessment of First Nations' concerns. Therefore the Project Committee determined that First Nations and public participation conducted under the Mine Development Assessment Act and under the EA process had fulfilled the requirements of the Act. On April 11, 1996 the Kemess South Project received a Mine Development Certificate from the British Columbia Government.

In February of 1997 the Tsay Key Dene Band filed a petition asking the British Columbia Supreme Court to reject the Mine Development Certificate that was issued in April of 1996 for the Kemess South project. The petition claimed that because the project is almost entirely within their traditional territory and the Tsay Key Dene had never ceased to assert their rights and practices in relation to the territory, the mine would destroy or impair the Band's rights and practices without providing compensation for the

damages. The Band wanted the project stopped until such time as their rights could be reviewed and taken into account. The petition also claimed that the environmental assessment review process was influenced by an informal deal between the Province and Royal Oak. The Band claimed that the British Columbia government violated its own provincial environmental assessment laws by fast-tracking the environmental assessment of the Kemess project, without the required public notice, consultation, comprehensive studies, and declaration of conflict of interest.

After two years of trying to get the courts to suspend the Mine Development Certificate the Tsay Key Dene Band and the Provincial government came to an out of court settlement involving a land swap and monetary settlement.

4.4 Huckleberry Mine Development

4.4.1 Project Location and Description

The Huckleberry project is situated on Crown land and is located in west central British Columbia approximately 86 km southwest of Houston (Figure 4.7). The Huckleberry project proposal is to design, construct, operate, dismantle, reclaim, and eventually abandon a copper mine that employs two open pits. The mine would produce and process 13,500 tonnes per day of ore for a period of eighteen years and the resulting copper concentrate would be trucked to Houston for further transportation to a west coast port for overseas export or eastward to a Canadian smelter. The project would provide 220 jobs during the construction phase, which would last eighteen months, and between 180 and 200 jobs during the life of the mine.

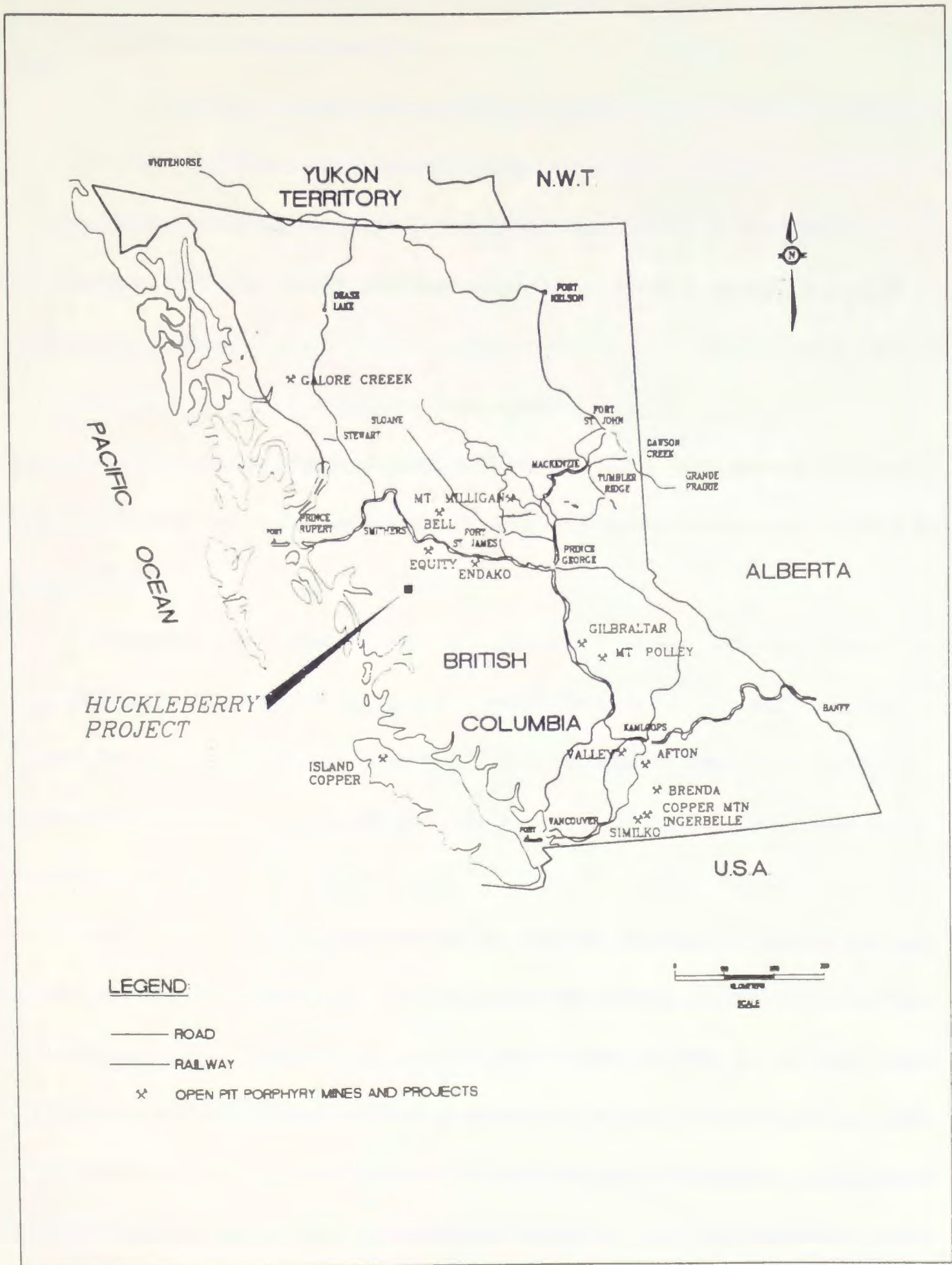


Figure 4.7 Huckleberry Mine Development Project Location

4.4.2 Resources and Land Use

The Huckleberry project area lies within a watershed that feeds the Tahtsa reach of the Nechako Reservoir. Nearby creeks contain no fish species due to their size and variable flows, yet downstream the creeks contain fish species such as rainbow trout, slimy sculpin, red-sided shiner, and long-nose sucker. Wildlife species present in the project area include ungulates such as moose, mule deer, and mountain caribou. Carnivores such as black bear, grizzly bear, coyote, and lynx are present. Small fur-bearers such as marten, fisher, beaver, and weasel, along with snowshoe hare, red squirrel, southern red-backed vole, and a number of different bird species reside in the project area.

Vegetation in the project area is divided into a sub-boreal and a sub-alpine zone. Tree species of the sub-boreal zone includes spruce, lodge-pole pine, and sub-alpine fir, whereas the sub-alpine zone includes sub-alpine fir, lodge-pole pine, and mountain alder. Numerous plant species are present in the sub-boreal zone, the sub-alpine zone and the non-forested wetlands.

The project area has been used in the past by outfitters for guided harvests, primarily of moose and black bear. Records indicate that marten, weasel, and beaver have been the main species trapped in the area. Forestry values are poor due to steep slopes and thin soils and agricultural potential is limited due to a cool climate and poor soils. Recreational use has a moderate potential for activities such as camping, boating, sport fishing, and nature study, while archaeological values are rated low within the project area.

4.4.3 Environmental Assessment Process

In January 1993 the proponent, Princeton Mining Corporation, submitted a prospectus for the Huckleberry project with the Mine Development Assessment Process. In September 1994 the proponent submitted a pre-application to the Mine Development Assessment Process and was subject to the *Mine Development Assessment Act* as the project exceeded the threshold of 10,000 tonnes per day of ore mined. In March of 1995 Princeton Mining Corporation amalgamated with Mitsubishi Materials Corporation of Japan to form Huckleberry Mines Inc. and filed a Project Application with the Mine Development Assessment Process in May of 1995.

On June 30, 1995 the British Columbia *Environmental Assessment Act* was proclaimed, replacing the Mine Development Assessment Process. The Act required that any application that is undergoing a review under *the Mine Development Assessment Act* immediately before June 30, 1995, be continued and completed under the new Act as an application for a project approval certificate. On the basis of reviewing the Mine Development Assessment Process submission, the Huckleberry project was accepted for review under the step known as "accepting a project report for review", following a similar process to the Kemess project.

On December 22, 1995, Huckleberry Mines Inc. received a Project Approval Certificate under the *Environmental Assessment Act* for the Huckleberry project. The Project Committee concluded that the review process involved an extensive review of the project and that all concerns raised during the review process had been adequately addressed.

British Columbia's EA process for First Nations' participation in the Huckleberry project was therefore shared between the *Mine Development Assessment Act* and the *Environmental Assessment Act*. The *Mine Development Assessment Act* guided the process up to the Project Report review stage and the *Environmental Assessment Act* guided the process from this stage through to project review completion.

Potential impacts from the Huckleberry project were identified by the Project Committee and focussed on the following: impacts from acid rock drainage; impacts to fish habitat; impacts from the construction of a port load-out facility on the west coast; and impacts concerning First Nations' issues. First Nations' interests such as hunting, fishing, berry gathering, and the preservation of sacred sites, were recognized as being potentially impacted from the project and therefore needed to be identified during the EA process.

First Nations identified as claiming the Huckleberry project area as traditional territories were the Cheslatta Carrier Nation, the Office of the Wet'suwet'en Hereditary Chiefs, and the Nee Tahi Buhn/Skin Tyee (Frog Clan). The Broman Lake Band and the Haisla First Nation were identified in regards to potential secondary and tertiary impacts from the project.

4.4.4 First Nations Participation

As the Huckleberry project was accepted for project review under the *Environmental Assessment Act*, the Act provided for the establishment of a Project Committee that allowed for representation of provincial government ministries and agencies, federal government representatives, municipal and regional government

representatives from the vicinity of the project, and representatives for First Nations Bands identified as being potentially impacted by the project.

As part of its participation program for First Nations the proponent conducted open houses in aboriginal communities and hosted field tours of the proposed project area. The following events were held with First Nations and provided the opportunity for input:

- January 1993 – The proponent submitted a project prospectus and sent copies to all potentially affected First Nations Bands, asking for comments and the opportunity to meet with them.
- March 1993 – proponent met with Cheslatta representatives in Burns Lake and sponsored open houses in Burns Lake, Houston, and Smithers to discuss the release of the project prospectus.
- September 1994 - In response to the issues raised during the review of the prospectus, which was released in January, 1993, the proponent made changes to the development plan and submitted a pre-application report. The was forwarded to all First Nations, followed by a letter requesting comment and meetings in their communities to discuss the information.
- November 1994 – proponent met with Cheslatta representatives in their community and sponsored open houses in Burns Lake, Houston, and Smithers. The Cheslatta at this time were offered a seat on the Mine Development Review Committee, if they wished, even though this right was not yet legislated.
- March 1995 – proponent held an open house in Moricetown, the administrative headquarters of the Wet'suwet'en to discuss the project. The Project Committee,

including First Nations' members, had its first meeting to review the status of the project, to discuss the forthcoming submission of the project report and identify emerging issues.

- May 1995 – The proponent met with Cheslatta Band representatives in North Vancouver to further discuss issues of the project. At this time the Project Report was submitted by the proponent and copies placed in the Environmental Assessment Office project registry in Victoria, as well as in satellite repositories in Houston, Burns Lake, Smithers, and Terrace.
- June 1995 – The proponent hosted a tour of the project site for the Project Committee, with only the Wet'suwet'en present. Open houses were also held in Burns Lake, Houston, and Smithers to present and discuss the Project Report.
- July 1995 – The Project Report review period ended. Comments from the Project Committee, First Nations, and the public were submitted and compiled in a document that was placed in the Project Registry.
- August 1995 – proponent met with representatives of the Frog Clan in Burns Lake to discuss the project. Additional comments on the project report were submitted by the Wet'suwet'en and discussed at the August Project Committee meeting.
- September 1995 – proponent met with representatives of Cheslatta and Frog Clan and Wet'suwet'en Band in their respective communities. The recommendation and report step for the Project Committee was set for September 15 but not all technical and substantive policy issues had been resolved. Therefore, a ministerial order was acquired, giving a forty five day extension, till October 30.

- October 1995 – proponent met with representatives of the Wet'suwet'en Band in Vancouver. The Office of the Wet'suwet'en Hereditary Chiefs submitted a cultural and traditional use report based on discussions with the Wet'suwet'en people. The report outlined potential impacts that the project would have on the Wet'suwet'en people. Due to further delays in resolving issues at the Project Committee level another extension was granted for recommendations and reporting, till November 27.
- November 1995 – proponent met with representatives of the Broman Lake Band in Prince George. Project Committee recommendations and reporting was granted a third extension, until January 15, 1996.

On December 13, 1995, the Project Committee approved the Huckleberry project. However, the support for project approval was not unanimous among all committee members. Formal representatives of the Federal, Provincial, and Local government that sat as active members, including the Frog Clan First Nation, supported the conclusions in the Project Committee's report. Other members simply monitored the review and most of these members, including the Haisla First Nation, took no position on project certification. The Office of the Wet'suwet'en Hereditary Chiefs and the Cheslatta Carrier Nation opposed the certification while the Broman Lake Band failed to provide comments. The Cheslatta Carrier Nation indicated that their technical concerns had not been addressed to their satisfaction and also raised concerns with respect to the functioning of the review process itself.

Issues of concern raised by the Cheslatta included:

- Impacts to aboriginal interests such as trapping, hunting, fishing, water quality, animal and fish habitat, berry and medicinal plant picking, and spirituality.
- Environmental issues such as the safety of the tailings impoundment and other structures, impacts of the power corridor, impacts of the port load-out facility, water quality concerns, acid rock drainage impacts, impacts to trap-lines, and impacts to wildlife.
- Issues relating to culture and heritage, including impacts to traditional activities and archaeological values.
- Socio-economic concerns such as the need for training and training assessment, employment opportunities, contracting opportunities, revenue sharing, and mitigation and compensation for losses of traditional food sources.

In response to these concerns the proponent and/or government proposed resolutions which were accepted by some First Nations. However, many of the resolutions were deemed inadequate by the Cheslatta and Wet'suwet'en and led them to take the position of non-support for the project.

Although the proposed resolutions failed to satisfy the concerns of the Cheslatta and Wet'suwet'en, resolutions made by the proponent were carried forward and included as conditions of approval for the Project Approval Certificate. On December 22, 1995, Huckleberry Mines Inc. received a Project Approval Certificate under the *Environmental Assessment Act* for the Huckleberry project. The Cheslatta Carrier Nation and the Office of the Wet'suwet'en Hereditary Chiefs opposed the project approval while the Broman Lake Band had concerns regarding the lack of consultation, as well as the proposal to use

the road right-of-way which runs through their reserve for the electric transmission line. The Frog Clan supported the project and the Haisla First Nation took no position on the project.

All other members of the Project Committee concluded, based on a full technical and environmental review and public and aboriginal consultation programs, that any adverse environmental impacts that resulted from the project could be managed through existing legislation and through the commitments and requirements identified in the Project Approval Certificate. On December 13, 1995, Huckleberry Mines Inc. accepted the requirements and commitments as stipulated in the Project Approval Certificate.

Although the Huckleberry project received a Project Approval Certificate from the British Columbia government, the Cheslatta Carrier Nation, in opposition to the project, retained the Sierra Legal Defense Fund in preparation for legal proceedings. In March of 1996, the Cheslatta made their intentions formal, stating that they were going to challenge the Huckleberry project approval before the British Columbia Supreme Court. They filed a lawsuit seeking to put a halt to the project on the grounds that it was on their traditional territory and subject to a land claim. They also believed that there were too many outstanding issues to give the project approval. Such issues included the structural safety of the mine, risks of contamination to fish-bearing water, and human health concerns. They further claimed that the social and economic costs to the Cheslatta had been ignored, insignificant compensation had been paid to the Cheslatta for the use of their land and that the proponent had provided inadequate information for impact prediction. During the ensuing months after the Cheslatta filed their lawsuit, claims that the EA process had been fast-tracked as a result of government and industry pressure

were made by the Cheslatta and other opponents to the Huckleberry project. After almost two years of court proceedings the British Columbia Supreme Court made a final judgement. In the end the Cheslatta failed to have the Huckleberry project halted but the judge ruled that the proponent failed to provide adequate information for impact prediction on certain wildlife issues. The proponent was ordered to provide this information and consult with the Cheslatta in a meaningful and timely manner in regards to their concerns.

Chapter Five Analysis

5.0 Introduction

This chapter analyses the three cases of First Nations' participation in the EA processes of the Mt. Milligan, Kemess, and Huckleberry mine developments described in chapter four. Application of the effectiveness framework presented in section 2.6 (Figure 2.2) to each case of First Nations' participation provides a measurement of procedural, substantive, transactive, and overall policy effectiveness. The Mt. Milligan and Kemess projects were primarily regulated by the *Mine Development Assessment Act* and the Huckleberry project review was regulated by the *Mine Development Assessment Act* and the *Environmental Assessment Act*. Therefore, a comparative analysis of the efficacy measurements between and among these cases allows the determination of the impact of the proclamation of the *Environmental Assessment Act* on the effectiveness of EA policy for First Nations' participation in British Columbia.

Recommendations to improve British Columbia's EA policy effectiveness for First Nations' participation in mine development are discussed in the final chapter with concluding remarks.

5.1 Procedural Policy Effectiveness

Notification

A letter, followed by a meeting in the First Nations' community when the project prospectus was released, gave notification in preparation for participation in all cases. Notice given for First Nations to prepare for participation was well in excess of forty-five days as it encompassed the major part of the project review period for all cases - at least three or more years. However, if EA is viewed as a process that strives towards accepting

local knowledge and experience by incorporating traditional ecological knowledge (TEK), the principled forty-five day notification may not be sufficient. Observation of Nak'azdli community events revealed that very little traditional ecological knowledge is documented. The knowledge base has remained oral and is possessed by the Elders, of whom few speak English. Therefore if EA is to incorporate TEK, the amount of notification time must depend on the extent to which TEK documentation is available or how much time is required to collect and document the information.

Access to information

Information in all three cases was provided directly to First Nations. In the Mt. Milligan and Kemess projects the project prospectus and application were distributed directly to the First Nations' Band Offices and they also had the right to request any documents at the Project Committee Level. The project prospectus, project application, and other documents relevant to the project review were also housed in local libraries, thereby providing an alternate means of accessing the information.

First Nations accessed information in the Huckleberry project by the same means as the other two cases, and they also had access to all the internal discussions and deliberations of the review, since they sat as members of the Project Committee. In all cases the majority of documents received by First Nations and housed in the public libraries were written in a highly technical form. However, the prospectus and application executive summary were written in a non-technical form. The proponent and/or government, meeting repeatedly throughout the review process, addressed any questions arising from First Nations' review of the project prospectus and application with First

Nations in their communities. These meetings were held to discuss, explain, and answer any questions regarding the information. In the Huckleberry project, First Nations, sitting as members of the Project Committee, also had access to the technical expertise of other members and were invited to attend sub-committee working groups in which their questions could be answered.

However, the provision of information does not necessarily mean that access is attained. Information should be of immediate relevance, be attractive and brief, and be appropriate to the peoples' abilities, experience, knowledge, language, and culture. It is questionable whether the information provided to First Nations conformed to these criteria. In all cases First Nations expressed the view that the majority of information provided was too technical and hard to understand. In defense, according to one government respondent, technical information was summarized into an "easily understandable form" - the project prospectus and executive summary. Also, according to government respondents there seems to be little need to provide any information in the native language for First Nations as their "primary language is English". Observation of community meetings revealed that this assumption is not valid. For example, Elders primarily speak their native language and a few speak English. Middle-aged community members spoke both languages and the majority of the younger generation spoke only English. All community meetings were conducted in both English and the native language. Therefore, providing information in the English language for the Mt. Milligan project was not appropriate, considering these differences in language usage within the community. Furthermore, for those individuals whose language is English it may be false to assume that their oral ability is matched by their reading ability. If information access

is to occur for First Nations in EA, it must be provided in a form that is appropriate to the peoples' language and their reading abilities.

Consultation techniques

Methods used to involve First Nations in the Mt. Milligan, Kemess, and Huckleberry projects involved numerous meetings in First Nations' communities, including presentations by the proponent and/or government using visual aids such as pictures and models, phone calls, written correspondence, field trips, and open houses in local communities. The choice of consultation techniques used for First Nations' participation, as well as the timing and location of meetings, was agreeable to First Nations and the government and/or proponent. Additionally, the Huckleberry project included First Nations as members on the Project Committee, thereby providing them with immediate and direct access to all discussions of the project review.

Notwithstanding the fact that the numerous meetings and presentations were agreed to by First Nations' representatives, they did not consider these methods to be of their choice. Rather, they perceived them as the government's choice of how consultation should occur. For example, respondents expressed views such as " They didn't listen to us...they just came and talked for twenty minutes and nothing else". "If they had come to us at the beginning we could have told them how we wanted to be consulted". "The government chose the ways of consulting...we were never asked how to be consulted. If so, we would have liked the proponent to come in and sit down to discuss the project". Therefore, it appears that the choice of consultation techniques in the EA processes may not have been appropriate or preferred by First Nations.

Reporting

In all cases a draft of the Reasons for Decision was sent to First Nations for review and comment. This draft of the Reasons for Decision included a chronology of the First Nations' participation process, the concerns raised by First Nations during the process, and resolutions to their concerns. In the Huckleberry EA First Nations members of the Project Committee participated in the review and formulation of the Project Committee report. The report outlined all issues that were discussed at the Project Committee level and the reasoning used in determination of project approval.

Attention must be drawn to the fact that the Reasons for Decision was written in English. Therefore, considering the differences in language usage that were observed in the Nak'azdli community, it is questionable whether the provision of this document informed First Nations as to how their input affected the decision making process.

Guiding principles – Openness, Fairness, and Objectivity

There are some grounds for concern about whether First Nations' participation in the EA's of the Mt. Milligan, Kemess, and Huckleberry projects were conducted in an open, fair, and objective manner. Recognizing that each one of these criteria, if examined in depth, could represent a single study in itself, the following discussion is directed towards general traits of the three cases, which raise doubt as to their adherence to these criteria.

First, in all three cases First Nations felt they had little or no influence over the decisions that were made in the EA process. For example, interviewees expressed opinions such as “there wasn't any communication as they (government and proponent)

didn't listen to us...essentially they came and talked, nothing else". "The town wanted the mine and we felt that no matter what we said it would go ahead". "We had no input, we were just an afterthought...the government and proponent got together to make it a quick and dirty process and the proponent refused to negotiate an impacts benefit agreement with us". This perception of not having influence over the decision-making process could be a result of not understanding how their participation would be used in the process or it could be a result of having expectations of decision-making power that are not compatible with the EA process. Either way, the process appears to have failed to provide, convey, and/or clarify how the results of First Nations' participation in the EA process would be used to affect decision-making.

Second, although the participation techniques used for the Mt. Milligan and Huckleberry projects were agreed upon by all parties, First Nations indicated that they would have preferred the time spent by the proponent and/or government to be longer. Rather than the iterative one-day meetings they would have preferred a process that spanned several days or longer. According to one respondent "The government chose the ways to talk with us, they never asked how we wanted to be consulted". Another interviewee commented that "If they had come and sat down with us at the start we could have told them how we wanted to be consulted. They need to get to know us as a people by spending time in our community." One First Nations' respondent felt that "The government and/or the proponent should have spent time in the project area with family members participating in traditional activities as part of the process". Notwithstanding the fact that First Nations accepted the participation techniques used, it appears that some

preferred First Nations' methods were not used. Therefore, First Nations, in these cases, appear to not have been consulted about how to be consulted.

Third, in the Huckleberry project, allegations were made that the proponent gave helicopter trips over the project area and preferential treatment to First Nations groups that supported the project. According to one respondent, the proponent essentially used the "divide and conquer technique within our community to get support for the project". "The proponent made promises of jobs and benefits to some of our people to gain support for the project, causing conflict between community members. What do we have now? No employment and no benefits and wounds that need time to heal". This "divide and conquer technique" served to further differences in opinion between and among First Nations' community members, rather than building consensus, thereby aggravating First Nations' community conflict. According to one government respondent "They were shooting at one another with guns over whether the mine should go in". It appears that preferential treatment was possibly prevalent in the other projects as well. One First Nations interviewee knew of instances where "people were given money in the past (from companies) if they supported the project". Also within the Huckleberry project, one respondent felt that "there was a lot of manipulation by the proponent and the government because the Cheslatta and Wet'suweten Project Committee members took a stand that was in opposition to the project".

These traits raise doubt as to whether the EA processes were open, fair, and objective; however, all three cases did facilitate First Nations' participation to varying degrees. The Mt. Milligan EA process provided the least assistance in facilitating participation, whereas the Huckleberry EA process provided the most. In the Mt.

Milligan EA process, First Nations gained access to personnel for technical support, information, and funds for the implementation of a socio-economic study, which was done by First Nations, on their communities. The Kemess EA process provided First Nations with funding for transport and travel expenses, information, funding for third party technical reviews and personnel for technical support and guidance. In the Huckleberry EA process, First Nations were provided with the same resources as in the Kemess EA process, in addition to having positions on the Project Committee.

Summary

In summary, First Nations' participation in the EA process for the Mt. Milligan, Kemess, and Huckleberry projects adhered to the principles of *notification*, and *reporting*. However, in considering notification time, adjustments must be made to allow First Nations to prepare for participation if TEK is to be incorporated. The reporting of results must also take into account that the information should be appropriate to the peoples' language and abilities. All of the cases displayed characteristics that question how well the EA processes met the principles of *access to information*, *consultation techniques*, and *openness, fairness and objectivity*. Real access to information does not appear to have been achieved due to the fact that the information was not appropriate to the peoples' abilities and language and the consultation techniques employed do not appear to be preferred by First Nations, even though they agreed to them. Other features of these assessments, such as the finding that First Nations limits of authority were not defined, and instances where proponents of the projects supported division rather than the building of consensus among First Nations, brings into question the openness, fairness, and

objectivity of the EA processes. For these reasons, none of the cases of First Nations' participation in EA are found to have procedural policy effectiveness.

The influence of the proclamation of the EAA on procedural policy effectiveness for First Nations' participation appears to be minimal. One result of the proclamation was the addition of First Nations' members to the Project Committee for the Huckleberry project. Although this change does not influence the procedural policy effectiveness for First Nations' participation in the Huckleberry - as opposed to the Mt. Milligan and Kemess projects - it does ensure that First Nations representatives are provided with information, technical personnel to aid in the understanding of information, and a role in the reporting of the results of the project review. This does, however, promote the facilitation of participation in striving towards an open, fair, and objective process.

5.2 Substantive Policy Effectiveness

Participation Beyond Voting

In the Mt. Milligan project the proponent was directed by government policy to ensure that First Nations participated in the EA process, however there was no legislated right for First Nations' participation. The Kemess project was very similar to the Mt. Milligan project, in that First Nations participation in the EA process was supported only by government policy until such time as it was moved into the EAA. Upon the issuance of the transition order, First Nations had a legislated right to sit on the Project Committee. However, First Nations never realized this right, because the project application (project report) had been reviewed prior to the issuance of the transition order and the Project Committee had concluded its meetings. The issuance of the transition order into the EAA

for the Huckleberry project, on the other hand, occurred prior to the project report review. This enabled First Nations to realize their legislated right to sit as members of the Project Committee.

Representation

The objective of *representation* was achieved in the Mt. Milligan, Kemess, and Huckleberry projects through various means. Initially, Bands that could be potentially affected by the project were identified through examination of lands claims maps. The Bands that chose to be involved were met with, in their respective communities, at the onset of the EA process. Numerous meetings and consultation techniques such as workshops, open houses and field trips were used, and these provided the opportunity for the Bands to participate. In addition to the numerous consultation techniques, the Huckleberry EA process provided First Nations the right to sit on the Project Committee after the project was transitioned into the EAA. In fact, prior to the transition order being issued (legislating First Nations representation on the Project Committee), the Cheslatta Carrier Nation were invited to sit on the Project Committee.

However, it must be noted that, in all cases, potentially affected First Nations were not identified and given the opportunity to participate at the beginning of the EA process. For example, in the Mt. Milligan project during the initial stages of the process, one respondent expressed the view that the proponent should have provided the opportunity for Keyoh holders (families who traditionally used the project area) to participate along with the representative for the Band.

In the Kemess project, the Bands initially identified by the government as potentially being affected by the mine and wishing to participate were the Tsay Key Dene and the Takla Lake Band. At that point in time the government understood that the Carrier Sekani Tribal Council would represent the Takla Lake Band. It wasn't until further on in the EA process that the government recognized that there was a split between the Carrier Sekani Tribal Council and the Takla Lake Band. Thus the Takla Lake Band did not have the opportunity to participate in the early stages of the EA process. It must also be noted that the Tsay Key Dene terminated their representation in the process due to issues they had concerning land claims. According to government, even after this occurred, attempts were made to include the Tsay Key Dene and provide them with representation in the process.

In the Huckleberry project, identification of potentially affected First Nations occurred through the same process of checking with land claims maps as in the Mt. Milligan and Kemess projects. However, it was not until later in the process that the Frog Clan and Broman Lake Band came forward, were identified as potentially being affected, and gained representation.

Although Nak'azdli Keyoh holders and representatives for the Takla Lake Band, the Frog Clan, and the Broman Lake Band did not initially have the opportunity to participate in the EA processes, it does not appear that their representation was compromised as they were included later in the process. Although later additions of Bands and/or Band members appear not to have compromised First Nations' representation, the government and/or proponent should not rely on this procedure in

future EA processes, but should make extra efforts to ensure that First Nations' representation is correct and complete.

Representation not only entails that First Nations have the access and opportunity to participate, but also that their values and interests are considered in the process. Although First Nations appear to have had representation in the EA processes, it is questionable whether their views and values were considered. Opinions expressed by First Nation respondents, such as "we had representation but what is the opportunity if no value is placed on your concerns?", "our comments on environmental issues were overruled" and "they ignored all our input", question whether First Nations' values and interests were taken into account in the decision-making process.

Participant Learning and Understanding

In all three cases First Nations actively participated in the EA process, with the exception of the Tsay Key Dene who withdrew from the Kemess project. One result of participating was an increase in their knowledge and understanding of the EA process. The government continually used a portable display during meetings held in First Nations communities to reiterate and explain the stages of the EA process. Whether or not First Nations gained new sets of skills, ideas, or values as a result of participating is questionable. The only indicator of gaining new values was that First Nations attained an appreciation of the monetary value of gold and copper, thereby coming to understand the reasoning that drives the development of mines. In respect to gaining new sets of skills and ideas this study was unable to make a determination.

However, it appears that First Nations were not well informed, nor did they obtain a clear understanding of the issues of the EA processes, for the Mt. Milligan and Kemess projects. In both projects, First Nations expressed the opinion that the prospectus and executive summary for the technical volumes of the project report/application were insufficient in providing an understanding of the information they required to inform themselves about the issues raised by the projects. One government interviewee commented that First Nations nick-named the technical volumes “plant-stands”, as that is about the only use First Nations can find for them when they are stacked one on top of another. Furthermore, “we (the government) have a hard time trying to explain it (the technical information) to First Nations, let alone understand it ourselves”. Given that the information provided to First Nations appears to be too technical, inappropriate to their abilities and language, along with government’s difficulty in understanding and conveying the information, it is questionable whether First Nations were well informed and obtained an understanding of the issues in the Mt. Milligan and Kemess EA processes. Beyond these characteristics, each EA process possessed additional traits that cast doubt on whether or not First Nations were informed and obtained an understanding of the issues.

In the Mt. Milligan project, First Nations expressed the view that the EA process did not increase their understanding of the environmental impacts of the mine. According to one interviewee “ they put on a meeting in our Band hall but only talked about jobs and benefits of the mine and didn’t talk about the impacts”. According to the same respondent a request was made to the proponent to tour existing mine operations that were similar to the proposed Mt. Milligan project so they could gain a greater

understanding of the size and function of an open pit mine. "We wanted to see other mines to get an idea of what it would be like, but it never happened".

First Nations appeared to have had a better understanding of the issues for the Kemess project, as compared to the Mt. Milligan project. This appears to be the case because of the technical level of questions they asked, throughout the process, which related to issues. One respondent commented that "we still have issues with the tailings dam and its effects on the environment if it breaks". However, it appears that their understanding of the issues was restricted in two ways. First, it was discovered that some of the information that was submitted by the proponent was incomplete or of poor quality. This may have been a result of different information requirements between the *Mine Development Assessment Act* and the *Environmental Assessment Act*. Yet, as one respondent suggested, "even if First Nations had the power and capacity to understand the issues, they didn't have sufficient information to determine impacts from the project". Second, during the latter stages of the Kemess EA process it appears that the proponent withheld information. The withholding of information influenced the potential ability of First Nations to predict potential impacts of the project and compromised their ability to understand the issues.

First Nations involved with the Huckleberry project, when compared to First Nations in the Mt. Milligan and Kemess projects, appear to have gained an even greater understanding of the issues, considering the technical level of the questions they asked during the EA process. The Huckleberry project presented a problem similar to the Kemess project in that some of the information submitted by the proponent was insufficient for impact prediction. However, First Nations sat as Project Committee

members and therefore were directly informed of these deficiencies. Not only were they informed, but they also participated in the ensuing information requests to satisfy the deficiencies and in the re-organization that enabled impact prediction to occur, thereby clarifying the issues.

However, whether or not their understanding of the issues was increased as a result of sitting on the Project Committee is questionable. According to one First Nations interviewee "we learned that the government is ugly and some about the EA process and the issues as we participated", but "we had to spend our own money to get an understanding of the issues. The timeframes were compressed and we needed more time or more money to review the information". In this case, the Cheslatta used in excess of \$150,000 to fund the exercise of educating themselves about the process and the issues. This reinforces the previous discussion of *notification* and *access to information*. If the process fails to provide the necessary time for First Nations to prepare for participation, and the information provided is inappropriate to their abilities, then the level of resources provided becomes a limiting factor in increasing First Nations' learning and understanding.

Resource Provision

Resources were provided at a minimal level for the Mt. Milligan EA process and to greater degrees for the Kemess and Huckleberry EA processes. First Nations participating in the Mt. Milligan project were provided with funds from the proponent to implement a socio-economic study of their communities and also with government personnel, if requested, for technical assistance. According to the government, First Nations involved

in the Kemess and Huckleberry projects were similarly offered government personnel for technical assistance and in addition were provided funds for travel expenses and independent technical assistance.

Although resource provision increased in the EA processes - from the Mt. Milligan project to the Kemess and Huckleberry projects - First Nations expressed the opinion that in both the Kemess and Huckleberry projects the level of funding for independent technical assistance was insufficient. According to one interviewee "we were only given \$20,000 for third party technical reviews and we ended up spending \$150,000 of our own money. We needed more money to learn about the impacts". Another factor that contributes to the perceived lack of support is the need for time. According to one respondent "we needed more money or more time". If First Nations are provided with minimal amounts of notification time, and with information which is not appropriate to their abilities and language, they require funding to prepare for participation, so that they can increase their learning and understanding of the issues and the process and thus influence the decisions that are made.

Participant Influence

First Nations, in all three cases of EA, received written feedback from the process which, according to government respondents, included resolutions to their voiced concerns. Also, according to government respondents, First Nations had an influence on the design of the projects in ways that tried to avoid or mitigate impacts to aboriginal rights. For example, according to one respondent, "the proponent changed the proposed power-line path to avoid moose habitat that First Nations identified". In the Huckleberry EA process

one respondent commented that "First Nations participation on the Project Committee aided in improving the rigor to which the project was reviewed".

There is, however, some doubt as to whether the objective of *participant influence* was achieved. For example, one interviewee commented that "First Nations in the Kemess and Huckleberry projects had little influence over the process" because "there was no negotiation with First Nations and most of the process was internal to the government". Although First Nations received written feedback that provided them with resolutions to their concerns in a way that appeared to demonstrate how their input was used to affect the decision-making process, it did not appear that the limits of First Nations' authority were defined in the process. As was discussed previously, First Nations expressed the opinion that they felt that they had no influence over the EA process. This comment leads to the question of whether or not the limits of First Nations authority in the EA processes were conveyed and adequately defined.

According to one government respondent, the context in which First Nations can influence the EA process is very simple. In the case that the Crown owns the land, First Nations input and influence is directed to issues that involve impacts to First Nations' rights and communities. Essentially, as another government respondent commented, "what we are trying to do is balance the mineral rights of corporations with First Nations' aboriginal rights". Within this context it appears that First Nations' influence is restricted to situations where their aboriginal rights or their communities are potentially impacted. If EA is a process that strives to incorporate concepts such as cultural diversity, social self-determination and equity and social justice, the degree to which First Nations have influence must expand. In this event, EA will have to move beyond a balancing of rights

that the Crown has granted and is trying to honor. If First Nations are to have this kind of influence in the decision-making process the limits of their authority must be clearly defined. With no clear definition of authority, First Nations are forced to accept proposed resolutions to their concerns because they have no power to contest them other than in a court of law.

Summary

In summary, First Nations' participation in the EA processes for the Mt. Milligan and Kemess projects achieved the objectives of *resource provision* and *representation*. The Huckleberry EA process for First Nations' participation achieved the objectives of *participation beyond voting, representation, and resource provision*. However, it must be noted that in all cases the achievement of *resource provision* and *representation* is weak. First Nations did receive resources; however, they appear to have lacked sufficient time for preparation and were supplied with an inappropriate form of information. Representation occurred in that First Nations' representatives attended meetings and presentations, but according to First Nations' respondents "no value was placed on our concerns". At this point in time it appears that none of the EA processes for First Nations' participation attained the objectives of *participant learning and understanding* and it is unclear whether the limits of First Nations' authority were defined and to what extent they actually influenced the decision-making process. For these reasons, none of the EA processes for First Nations' participation are found to have substantive policy effectiveness.

The proclamation of the EAA influenced substantive policy effectiveness for First Nations' participation in three ways: First, legislating First Nations representation on the Project Committee satisfies the objective of *participation beyond voting*; second, the recognition by First Nations that they have a legal right to sit on the Project Committee may encourage potentially affected, non-identified First Nations to come forward, thereby aiding in the achievement of *representation*; and third, the inclusion of First Nations on the Project Committee keeps them informed about changes in information. This may aid in providing a learning forum that strives towards the achievement of *participant learning and understanding* of both the issues and the EA process.

5.3 Transactive Policy Effectiveness

Time Management

First Nations' participation in the EA process for the Mt. Milligan project was managed without undue delay or costs to the proponents or others. Any delays or costs that occurred during the process were not attributed to First Nations' participation in the process but were a result of the proponent taking time to finish studies and prepare reports for the project review. However, the Mt. Milligan EA process did not have established timelines for project review.

Similarly, the Kemess EA process failed to have established timelines for review, but conversely, was managed in a manner that caused undue delays or costs to the proponent or others. First Nations involved with the Kemess EA claimed that the government failed to inform them of what seems to have been a "fast tracking" of the

decision-making process during the latter stages of the project review. Because the process appears to have been rushed, and the Tsay Key Dene felt that they had been given insufficient funds to help with technical review, they incurred additional costs as a result of the manner in which the process was managed.

The Huckleberry EA process had no timelines initially, but after being transitioned into the EAA, the process followed legislated timelines for the project report review. Although these timelines were followed, the Project Committee required three extensions, of forty-five days each, to complete their report. This was because information that was submitted by the proponent was insufficient for resolving issues of the review. Other variables that may have also contributed to the need for these extensions include the fact that the Cheslatta Carrier Nation chose an adversarial stance against the Huckleberry project, which may have caused delays. Also, having First Nations sit on the Project Committee further contributed to a large and cumbersome working group, which was difficult to manage.

Although the management of First Nations' participation on the Project Committee may have contributed to the need for the extensions to complete the project review, the proponent experienced no undue delay or costs. According to one interviewee, the contribution First Nations provided at the Project Committee level "improved the project design, which in the long run may have saved the proponent approximately ten million dollars". However, the legislated timelines of the EA process, according to First Nations, contributed to undue costs to the Cheslatta. The Cheslatta were forced to spend Band funds in order to review the technical information, as the legislated timelines for the project were too restrictive.

Cost Management

The results of this study indicate that it is questionable whether project management in the achievement of objectives in all three cases of First Nations' participation in EA was at least cost and was reasonable. Costs can be viewed from two perspectives: costs incurred by the government and/or proponent resulting from implementation of the participation program for First Nations; and, costs incurred by First Nations resulting from participation in the EA process.

Whether or not the costs incurred by the government and/or proponent to conduct the program for First Nations' participation in the EA process were minimal is questionable. As was discussed previously, First Nations accepted the consultation techniques employed, but it is unclear whether these techniques were their preferred choice. If the techniques employed were not their preferred choice, the cost of achieving the objectives could potentially have been less for the government. In the Kemess EA, according to government officials, least cost was not achieved because extra time and money was required to try and get the Tsay Key Dene to participate, following their withdrawal from the ethnographic study. Additional costs were incurred to inform Band members, as their representatives failed to convey information presented by the government and/or proponent during meetings concerning the project.

According to the government respondents, costs incurred by First Nations in all three cases were minimal, as they went to First Nations' communities, provided personnel for technical assistance and, in the EA cases of Kemess and Huckleberry, furnished funds for travel expenses and third party technical reviews. However, according to First Nations, the costs that they incurred as a result of participating in the

EA processes were not minimal. First Nations that participated in the Huckleberry and Kemess projects expressed the view that the amount of funding for technical assistance was inadequate for them to participate in the process, given the amount of time that was allowed for participation. Therefore, "we had to use Band funds so we could learn about the process". This greatly exaggerated their costs. Also, the time that First Nations expended to participate in the many meetings and, especially in the Huckleberry case, to sit on the Project Committee, was substantial and had an associated cost attached to it. In the case of the Tsay Key Dene, one respondent commented that "we spent half a million in litigation so we could have some say" while another respondent expressed the view that their litigation costs were costs they incurred as a result of participating in the EA process for the Huckleberry project.

First Nations in all three cases incurred non-monetary costs. For example, in the Mt. Milligan EA process, the Nak'azdli First Nations observed an increase in the building of cottages by outsiders within their traditional territory in anticipation of the commencement of the project. According to one interviewee, this increase in building on the Nation Lakes caused "concern and stress within our community and especially to the Keyoh holders that use the area for traditional activities".

In the Kemess EA process, the Tsay Key Dene recalled the impacts of a large dam that the government constructed three decades ago, which flooded some of their traditional territory. The prospect of another large project that could potentially affect their traditional territory caused concern and stress within the community. "If that dam breaks it will ruin our river and then we have nothing," one interviewee commented. Additionally, the Tsay Key Dene claimed that in the latter stages the EA process was

fast-tracked, causing additional stress. "We were worried, as it looked like the mine was going in and there was nothing we could do about it" one interviewee commented.

In the Huckleberry EA process there was conflict between and within First Nations' communities, as some First Nations were in support of the project and others were against it. According to interviewees, the "proponent supported this division among First Nations by providing helicopter trips over the project area and preferential treatment to certain First Nations groups". This conflict caused unnecessary stress for the communities involved, according to one respondent, as the proponent used "the divide and conquer technique within our community to get support for the project. They made promises of jobs and benefits to some of our people to gain support for the project, causing conflict between community members".

The degree to which each of the cases of First Nations' participation in EA for the Mt. Milligan, Kemess, and Huckleberry projects achieved the objectives at a reasonable cost is difficult to determine. According to government interviews, the cost associated with facilitating First Nations' participation in all three cases was considered reasonable, given the fact that in the Kemess project the costs were increased. This was due to associated problems with the Tsay Key Dene's withdrawal and the perceived lack of communication between First Nations' representatives and their Band members. However, according to First Nations, the costs they incurred, both from a time/money and community stress/conflict perspective, were not reasonable.

Reasons for the difference of opinion between the government and First Nations on whether the costs were reasonable may be due to the government being unaware of these costs to First Nations. However, according to interviews, First Nations tried to

make the government aware of the costs they were incurring, both from a financial and a community stress perspective. Government officials tended to view costs strictly in monetary terms, whereas First Nations viewed costs not only in monetary terms but also with non-quantifiable components such as stress and conflict.

Summary

In summary, First Nations' participation in the EA processes of the Mt. Milligan, Kemess, and Huckleberry projects did not achieve the objective of *time management*. The Mt. Milligan EA process avoided delays to the proponent and others, but failed to provide up-front timelines. Similar to Mt. Milligan, the Kemess EA process failed to provide up-front timelines, but due to what appears to be fast-tracking in its later stages, caused undue costs (stress) to First Nations as a result. The Huckleberry EA process, on the other hand, was subjected to a legislated timeline, which due to compressed timeframes, caused First Nations to experience undue costs, as they had to use Band funds for technical assistance

First Nations' participation in all three cases of EA failed to attain the objectives at the least cost, because it is unknown whether participation techniques preferred by First Nations could have cost less and the costs incurred by First Nations (time, money, and stress) do not appear to have been minimized. Whether or not the cost of achieving the objectives for First Nations' participation in the EA processes was reasonable is questionable. The monetary cost to the government/proponent, in this process, appears to be reasonable. However, the monetary and non-monetary costs incurred by First Nations appear to be unreasonable. Therefore, due to the uncertainty in achieving least

cost and the fact that reasonable cost was not attained, none of the EA processes for First Nations' participation are found to have achieved the objective of cost management. As none of the EA processes for First Nations' participation achieved the objectives of time and cost management, all cases failed to have transactive policy effectiveness.

The proclamation of the EAA did not influence the transactive policy effectiveness for First Nations' participation in EA of mine development in British Columbia. However, it must be noted that the proclamation of the EAA did initiate legislated timelines in the Huckleberry EA process, which provided certainty for First Nations as to the pace of the EA process. Although the timelines provided certainty of the pace of the process for the Cheslatta, they did not possess the capabilities to review the project within these timelines and were forced to incur undue costs.

5.4 Overall Policy Effectiveness

Figure 5.1 provides a summary of procedural, substantive, and transactive policy effectiveness for the three case studies. Of the three cases of First Nations' participation in the EA processes of the Mt. Milligan, Kemess, and Huckleberry projects, not one was found to have overall policy effectiveness. This reasoning is based on the previous results, which indicate that all the cases failed to achieve procedural, substantive, and transactive policy efficacy.

However, although there were no cases of overall policy effectiveness, the proclamation of the EAA resulted in gains towards the achievement of overall policy effectiveness for First Nations' participation in EA. Essentially, the proclamation of the EAA influenced First Nations' participation in the EA process in a number of ways.

EFFICACY CRITERIA	MT. MIILIGAN CASE STUDY	KEMESS CASE STUDY	HUCKLEBERRY CASE STUDY
<i><u>Procedural</u></i>			
Notification	yes	yes	yes
Access to Information	no	no	no
Consultation Techniques	no	no	no
Reporting	yes	yes	yes
Open, Fair, and Objective	questionable	questionable	questionable
<i><u>Substantive</u></i>			
Participation Beyond Voting	no	no	yes
Representation	yes	yes	yes
Participant Learning and Understanding	no	no	no
Resource Provision	yes	yes	yes
Participant Influence	no	no	no
<i><u>Transactive</u></i>			
Time Management	no	no	no
Cost Management	no	no	no

Figure 5.1 Summary of Procedural, Substantive, and Transactive Policy Effectiveness

First, the legislating of timelines informed and made First Nations in the Huckleberry EA process aware of the decision-making pace, whereas in the Kemess EA process First Nations experienced stress, because they felt as if the decision-making had been fast-tracked in the later stages of the process.

Second, and more importantly, First Nations were given a legislated right to sit on the Project Committee for the Huckleberry EA process, which they utilized. First Nations' participation at the Project Committee level provided information and technical support. This may have aided in their learning and understanding of the information that dealt with the EA process and the project itself, and gave First Nations a role in the reporting of the results of the project review. Last, the inclusion of First Nations on the Project Committee for the Huckleberry project aided in the rigour with which the project was reviewed, resulting in design improvements and possibly long term cost savings to the proponent.

It must be noted that, in this study, the use of the analysis framework (Figure 2.2) can be applied to disprove, but not confirm, overall policy effectiveness. If, for example, all three cases of First Nations' participation had been found to possess efficacy from the three perspectives examined, overall effectiveness could not be established, due to a lack of analysis from a purpose perspective. However, in this study, certain observations suggest that, from a purpose perspective, efficacy would not have been attained. First, there appears to be little evidence to suggest that the government or proponent acquired traditional ecological knowledge (TEK) with the purpose of combining it with expert knowledge to improve the decision-making process. Rather, it appears that TEK was only accessed and combined in situations where it aided in avoiding infringement on

aboriginal rights. Second, the governments' definition of First Nations' influence in the EA process appears to be driven by a fear of litigation, if infringement occurs on aboriginal rights. From a purpose perspective, the government should derive its motivation to provide power in decision-making to First Nations to promote such things as social self determination, cultural diversity, equity and social justice (Gardner, 1989). Therefore, these observations suggest that at a purpose perspective efficacy would not be attained.

Chapter Six

Conclusions and Recommendations

6.0 Conclusions and Recommendations

This study has shown that the environmental assessment processes for First Nations' participation in the Mt. Milligan, Kemess, and Huckleberry cases of mine development in British Columbia were not effective. All three cases failed to achieve procedural, substantive, and transactive efficacy and thereby failed to meet overall policy effectiveness.

Although overall policy effectiveness was not achieved for any of the cases, differences indicate that the proclamation of the *Environmental Assessment Act* resulted in gains towards the achievement of overall policy effectiveness. Essentially, the proclamation of the *Environmental Assessment Act* influenced First Nations' participation in the environmental assessment process by providing legislated timelines - thereby providing definite process timeframes - and the legislated right for First Nations to sit as members of the Project Committee. The right for First Nations to sit as members of the Project Committee provided them with additional information, access to additional technical support, a role in writing the project report review, and a greater opportunity to influence the decision-making process.

However, this study found that British Columbia's environmental assessment policy for First Nations' participation in mine development must evolve further to achieve overall effectiveness. Recommendations are arrived at using the present assessment of policy effectiveness for all cases, combined with the change in effectiveness as a result of the proclamation of the *Environmental Assessment Act*.

It must be noted that at the onset of this study certain other cases of EA of mine development in British Columbia, involving First Nations, were in progress. However,

the results of these were not known. To date, one of these cases - the Tulesequah Chief project - has been concluded. If studied in the future, the Tulesequah Chief project may provide further insight into the influence of the proclamation of the EAA on First Nations' participation in EA of mine developments in British Columbia, as it was transitioned into the EAA at an earlier stage than the Huckleberry project.

In consideration of this, it is possible that some of the recommendations resulting from this study may have already been implemented. However, based on the cases examined in this study, the following recommendations are made:

- In order for the EA process to achieve procedural effectiveness it must be open, fair, and objective. Certain traits displayed within the EA processes studied raise questions about whether the process in fact achieved these criteria. First, it was found that the government/proponent needs to provide, convey, and clarify how the results of First Nations' participation in the process will be used to affect the decision-making. Also, First Nations must be informed about how to become involved, so that they can provide this influence.

Second, First Nations must be asked what participation techniques they prefer, rather than what techniques are acceptable. Just because meetings and presentations take place in First Nations' communities and, are accepted by First Nations, this does not mean that these techniques are the preferred choice for First Nations. Third, the government needs to find a way to minimize potential for preferential treatment of groups of First Nations by the proponent. This tends to create a division between First Nation groups, rather than a consensus, increasing the costs to First Nations as a result of participating in the EA process.

Last, the findings of this study should be taken as tentative and preliminary. Applying the criteria of openness, fairness, and objectivity is a complex matter, and since this study was unable to provide an in-depth measurement of these, further research is needed to determine whether these criteria were satisfied and to provide additional recommendations.

The results also show that, if procedural policy effectiveness is to be attained, the EA process must provide information that is appropriate to the abilities and language of First Nations, in order to achieve the goal of access to information. Also, the period of notification could be re-examined. In order to realize the access to information objective it is also recommended that, prior to the commencement of an EA process, the government and/or proponent should determine what form (written or oral, the language to be used, and the amount of explanation to include) is most suitable to the First Nations' community involved. If British Columbia's EA process moves toward accepting and incorporating TEK, the amount of notification time must depend on the availability of this source and, how much time is required to collect and document the information.

- In order for the EA process to achieve substantive policy effectiveness, the government/proponent must address needs in regard to representation, participant learning and understanding and participant influence. When potentially affected First Nations people are identified via land claims maps, or come forward requesting representation, it must be verified that they in fact are representing the First Nations bands that the government/proponent accepts them in this role. This can be complicated, since there exist three potential representative systems for First Nations:

the Tribal Council, which is a political body that usually represents one or more Bands; a Council that represents its own Band; and a traditional land tenure system where a family (Keyoh holder) has used a specific tract of land for traditional activities. Therefore, it is crucial that First Nations' representation encompass individuals from these three different systems, to ensure proper representation. It was also observed that First Nations hold the perception that no value is placed on their concerns and opinions. In order for representation to be achieved, First Nations must not only be physically participating in the process, but their concerns and opinions must be accepted as being legitimate.

In the attainment of participant learning and understanding, the government and/or proponent must provide more information that is appropriate to the abilities of First Nations. The application and project report executive summary are not sufficient, if First Nations are to gain an understanding of the issues of the project. Along with the provision of more information that simplifies technical matters, the level of participant funding must be increased in relation to the technical capability of First Nations, to allow the hiring of independent technical personnel. This would further their understanding of the issues. The provision of funding is even more critical when fixed timelines for the process are legislated. Although First Nations have a right to sit on the Project Committee - which may provide access to government technical assistance, inform them of the issues, and enhance their ability to learn - they cannot utilize this opportunity to their benefit if they do not have adequate information and adequate participant funding. Concerning the achievement of participant influence, the government must define First Nations' limits of

authority; otherwise, First Nations will be forced to accept the decision-making process without having an influence on it. Achieving participant influence requires not only defining the limits of First Nations' authority. It also necessitates providing, conveying, and clarifying how the results of First Nations' participation will affect decision-making, and how they can become involved to exert their authority in the process. If EA in British Columbia is to incorporate concepts such as cultural diversity, social self-determination and equity and social justice, First Nations' influence must expand beyond its current level.

- In order for the EA process to achieve transactive policy effectiveness the government must address issues dealing with time and cost management. The use of legislated timelines in the EA process may provide certainty for First Nations as to the pace of the process. However, if provided resources, such as funding, are not adequate to compensate for the lack of technical knowledge that First Nations may possess, First Nations will incur undue costs in trying to participate within these legislated timelines. Therefore, if the EA process is to continue within existing legislated timelines, the technical capability of First Nations must be evaluated to determine what level of funding should be provided in order to avoid undue costs to First Nations.

Whether or not the cost of First Nations' participation in the EA process is the least cost, or reasonable cost, the government must re-define its definition of cost. The cost of First Nations' participation in the EA process it is not limited to the monetary costs incurred by the government/proponent, but must also include the monetary and non-monetary costs to First Nations. First Nations' monetary costs need

to be minimized, especially in cases where Band funds are used to enable adequate review of technical information. This cost is dependent on time management, as was previously discussed. Non-monetary costs to First Nations are difficult to determine and are subjective, therefore complicating evaluation. However, although there exists this inherent difficulty in measurement of non-monetary costs, one can say that costs such as community stress and conflict, if not minimized, cannot be considered reasonable. If the EA process is conducted in way that promotes stress and conflict, it is unacceptable.

In conclusion, if First Nations' participation in environmental assessment for mine development in British Columbia continues to be applied in a similar manner to that of the three cases examined, the environmental assessment process for First Nations' participation will fail to be effective. First Nations require not only the choice of methods that provide access and opportunity for their participation, they also require means such as limits of authority, adequate funding and understandable and appropriate information that allows them to take advantage of the opportunities to influence the decision-making process. As one respondent commented "In theory the Act provides the opportunity for First Nations to participate, but in reality they need the resources to take advantage of the opportunity".

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