DISCONNECT:
Assessing and Managing the Social Effects of Development in the Athabasca Oil Sands

by

Robert James Earley

A thesis
presented to the University of Waterloo
in fulfillment of the
thesis requirement for the degree of
Master of Environmental Studies
in
Planning

Waterloo, Ontario, Canada, 2003

AUTHOR'S DECLARATION FOR ELECTRONIC SUBMISSION OF A THESIS

I hereby declare that I am the sole author of this thesis. This is a true copy of the thesis, including any required final revisions, as accepted by my examiners.

I understand that my thesis may be made electronically available to the public.

Acknowledgements

Many people deserve thanks for helping me complete this work. I am indebted to my supervisors, Mike Lazarowich, who got me off on the right foot, but retired at the midpoint of my studies, and Mark Seasons, who poked and prodded me to an on-time completion. My thanks also go to Bob Gibson, who offered his expert advice throughout my writing process, and finally to my readers, Laura Johnson and Steve Murphy for their useful comments at my defense.

On the personal side, I owe a lifetime of gratitude to my parents, whose confidence in me has been unwavering. Thank you for the moral and financial support that kept me afloat. I also owe much to Alison, my sounding board, draft reader and cheerleader, who kept me moving through slow times.

Last, but certainly not least, thanks to all in Fort McMurray for taking the time to participate in my study, and for informing me about how SIA works in your city. Thank you for making Fort McMurray an interesting place to study and to live in, and more welcoming than it at first seemed to be.

Abstract

This research investigated the system by which the social effects of oil sands development on Fort McMurray, a city in northeastern Alberta, are assessed and managed. The research focused on Social Impact Assessment (SIA), Strategic Environmental Assessment (SEA), and the work of an industry initiative, the Regional Issues Working Group (RIWG). The oil sands industry, which involves large, labour-intensive mining and drilling operations in a boom-bust cycle, places considerable pressure on Fort McMurray, a city of approximately 50,000 inhabitants and the only urban area within 350 km of the oil sands. The social effects experienced there include exorbitant housing prices, shortages in service industry labour, insufficient social services, at times, to assist individuals and families who can no longer cope with the difficult conditions in the area, and a variety of other negative effects.

Sixteen key informant interviews were conducted with urban planners, municipal politicians, provincial employees, a spokesperson for one of the First Nations in the area, community NGOs, and oil sands industry representatives. Data from the interviews were combined with a literature review and a document analysis. A modified McKinsey 7S Integrated Management Framework was used as a structure for describing and analyzing the Social Effects Assessment and Management System (SEAMS) in Fort McMurray.

The SEAMS was found to be weak in comparison to the needs of the community. Project-by-project assessment of oil sands development was found to downplay the cumulative nature of social effects. Furthermore, no legislation or regulation existed that demanded action based on the findings of SIA. As a result, mitigation and management of social effects was insufficient, often occurring only when it was directly in the interests of the oil sands industry. While government and industry have plans in place to resolve some of the negative social effects, their actions were criticized by informants as being uncoordinated, inconsistent and often ineffective.

The findings indicate that a strategy for exploiting Alberta's oil sands is necessary. The project-by-project evaluation of oil sands development proposals is not addressing the important long-term and regional social issues that arise as a result of construction and operation of the mines and facilities. A tool recommended for incorporating resolutions to long-term, regional social effects into the development plan is SEA with an explicit Strategic Social Assessment component. This strategic assessment and planning process should be undertaken by a publicly-accountable government body empowered to regulate the pace of oil sands development based on social, environmental and economic effects, and to coordinate long-term responses by government and industry.

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Chapter 1
Introduction

Fort McMurray, Alberta is one of the most closely watched areas of natural resource development in Canada today. Extraction of bitumen, a black, sticky hydrocarbon that can be converted into crude oil, from the Athabasca oil sands in the region has become one of the priorities for the domestic and North American energy industry. Underneath the region lie an estimated 1.3 trillion barrels of bitumen. Over 300 billion barrels of these – one of the largest single known reserves of oil in the world – are extractable using current technology (Petroleum Communication Foundation 2000). Over 80 billion dollars worth of capital investment in mines, wells, processing plants, pipelines and associated infrastructure is proposed for the region within the next decade (See Appendix B).

Oil sands development is not an innocuous activity for people in the nearby communities, or for the local and global environments. Development of the oil sands region has sent the population of Fort McMurray soaring from just over 1,000 in the late 1960s to nearly 50,000 in 2002 (Fort McMurray Historical Society 2003; Regional Municipality of Wood Buffalo 2002). Along with this dramatic increase in population have come many of the effects associated with boom-town style development including inflation, extreme housing shortages, labour shortages in all sectors, family stress, drug and alcohol abuse, increased crime and unsafe traffic (Gartrell, *et al* 1980; Lang and Armour 1981; Regional Municipality of Wood Buffalo 2000, 2002; *Calgary Herald* 2002). Despite these problems, the community continues to grow because of opportunities in oil sands development; the population is expected to rise to 60, 000 people by 2010 (Skidnuk 2001).

While many people involved in the oil sands have a high standard of living in Fort McMurray, with an average family income of over $80,000 per year, many who do not work in the industry are struggling (Statistics Canada 2001). Social services

providers are overworked, social housing is in desperate shortage; small businesses cannot compete with oil sands companies for labour, and many teachers cannot afford comfortable accommodation because of its high cost (Anon 2002a; Anon 2002b; Converge Consulting 2002; Cook 2002b). Lack of adequate daycare in the community has at times even threatened to slow the aggressive growth of the oil sands industry because potential employees might have had nowhere for their children to stay during workdays (B. Almdal, Pers. Comm., Executive Director, RIWG[1], 5 Oct 2001).

These social effects, however, have not been unexpected. Social Impact Assessments (SIAs) have been performed regularly as essential components of oil sands development applications. Government regulators have reviewed and discussed many of these impacts in their approval reports; the media have reported on the hardships experienced by some people in Fort McMurray and the surrounding area; the impact assessment literature has been documenting these sorts of impacts in other places for decades (for example, Lucas 1971; Susskind and O'Hare 1977 quoted in Lang and Armour 1981; Interorganizational Committee on Guidelines and Principles for Social Impact Assessment 1995).

The situation in Fort McMurray leads one to wonder why, after nearly forty years of oil sands development, and despite the continuous use of SIA, these problems exist. Why have policies, programs, plans at the provincial and regional levels not been able to mitigate or manage the harsh local effects of this industry that brings so many benefits to the rest of the province and country? What has gone wrong?

1.1 Assessment, planning and management

There is unlikely to be a single or simple answer to these questions. There are many possible explanations. Perhaps the community has had a history of incompetent politicians; maybe civil society is not contributing what it should to help the community

[1] RIWG is the Regional Issues Working Group, to be discussed in later chapters

adapt to the dramatic social and socio-economic effects of oil sands development – many possibilities, however unlikely, exist. Yet, planning tools and decision-making systems exist that are designed specifically to prevent circumstances like these from having severe effects. Some such processes that have been in use in resource development include SIA, mitigation planning and broader regional planning, or social program planning at other levels of government .

After forty years of persistent negative social and socio-economic effects of oil sands (among many positive ones), the likelihood of circumstantial reasons for persistent negative social effects of oil sands development is low; there is likely a systemic problem. There are two likely sources of this problem: improper *anticipatory* work in planning, and improper *management* of social effects through plan implementation. Anticipatory work involves the assessment of social effects of development (i.e. SIA). It also involves the planning done in hopes of helping the community cope with the effects of development before it is actually undertaken.

Poor monitoring and management of problems that are realized *during* and *after* implementation may also result in failure to prevent negative social effects. Systems for monitoring the cumulative effects of multiple developments may be flawed, so effects are not observed by decision-makers who have the power to help. Perhaps there are no decision-makers who have the power to help, or maybe their roles are unclear. These problems could be called failures in the *management* of negative social effects.

1.2 Terminology

SIA is the term most commonly heard, and the process most written about, for dealing with social effects. SIA, however, is not often useful or comprehensive over the life of long-term developments. It is usually carried out as a small appendage to Environmental Impact Assessment (EIA), and lacks regulatory significance (Burdge 2002, Barrow 2000, Vanclay 2003, etc.). Over the course of this investigation, the need to look more comprehensively at all the possible ways of dealing with social effects

became apparent. A term for a system that could deal with social effects was needed. Various authors have suggested more comprehensive systems and terminology. For example, Halstead, *et al.* (1984) describes a management regime called Social Impact Management which attempts to address management of social effects beyond the anticipatory scope of an SIA, including assessment, monitoring, mitigation and management.

In this report, the term "Social Effects Assessment and Management System" (SEAMS) will be used to describe a comprehensive system[2]. The purpose of this research, then, is to study the SEAMS in Fort McMurray, looking in particular at the role of SIA and the RIWG in Fort McMurray.

1.3 Research Questions

The perspective taken in this thesis is that SIA, both as a planning tool, and as a contributor to planning processes unrelated to oil sands development, should have been able to predict the social effects of oil sands development and make useful contributions to mitigation plans and management schemes. Yet, many of the negative effects experienced when the oil sands were first developed can still be observed in the community. For the purposes of evaluating the SEAMS, there are several specific questions that will direct this research:

1. What are the major social effects observed in Fort McMurray as a result of oil sands development?
2. What system is in place to help the community manage negative social effects and enhance positive ones?
3. What is the role of SIA in this system?

[2] The word "impact" has a particularly negative connotation to me, associated with the immediate aftereffects of, for example, a highway collision, or the catastrophic arrival of an asteroid at the surface of the Earth. It is felt to be inaccurate for two reasons: First, development need not be catastrophic – it can have many positive effects on people and communities. Second, the effects of development may not be as sudden as the word "impact" implies. Effects may take time to develop, and may be subtle. They may also accumulate over time, as will be discussed in the next chapter.

4. How is the management of social effects perceived by different stakeholder groups? What are the perceived strengths and weaknesses of the present system?
5. How could the present system be changed to help the people whose lives are or will be negatively affected by oil sands development, or to even enhance the positive effects of development?

1.4 Study location

The case of social effects of development in Fort McMurray is unique, and has not been studied comprehensively in recent decades. Over the past forty years of oil sands development, dozens of SIAs have been conducted on the same resource body, in the same region, including the same communities, and many of the same stakeholders. Thus, there is a relatively small region in which to study the cumulative effects of development, with a consistent set of parameters. With such a confined study area and group, the conditions that allow negative impacts of oil sands development to continue over the long run may be easier to detect than in more complex scenarios.

1.5 Methodology

The approach taken to address the questions was a qualitative one. The justification for this approach is straightforward. Social effects are already known to have occurred as a result of oil sands development. Many of these social effects have been negative ones, and they have been well documented in a number of quantitative and qualitative studies (Gartrell, *et al* 1980; Converge Consulting Group 2002). There is no need to reanalyze these statistics quantitatively here. Rather, it is important to obtain a picture of the SEAMS at work from the limited number of people in the community who know the system well, and from the documents produced as part of the official SIA process. A complete picture could lead to an understanding of what can be improved in the management of social effects. It was expected that the number of people who have

detailed knowledge about SIA and SEAMS in the community would be so low that no statistical testing would be valid.[3]

Because statistical analysis was not felt to be possible for this study, some other means of validating data collected from participants was required. One concept known as *triangulation of data*, means having several sources of information and several different perspectives on the same system (Denzin 1978, quoted in Berg 1998:5). This study will use triangulation of data to provide some means of verification of data contributed by participants.

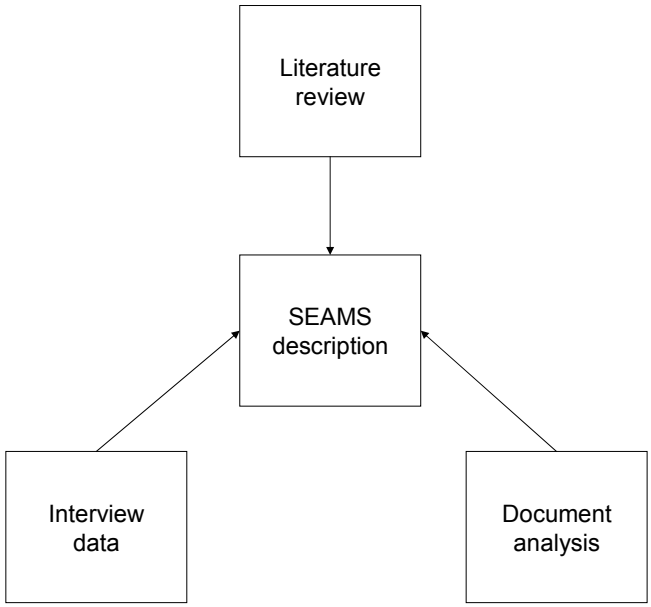

Figure 1.1 Triangulation of data leads to a comprehensive understanding of the SEAMS in Fort McMurray

The first perspective used in this study is a literature review, determining how the literature has approached SIA and the governance structures that surround it. The second perspective is a community and context description based on reports from news

[3] Based on a brief review of SIA documents, I estimated that 15 – 25 people would have adequate knowledge to participate

media, secondary sources of data, and other public, anecdotal information. The third set of perspectives includes information from key informant interviews. These informants are people who have been intimately involved in the SIA and social effects management processes in the region. They were chosen to represent a variety of different viewpoints, including those of industry representatives, municipal staff and politicians, provincial staff, and NGOs. Finally, a document analysis was completed, which offered more official perspectives on the SEAMS from the stakeholders and development proponents (using SIA documents), and regulators (using Alberta Energy and Utilities Board (AEUB) approvals notices).

Interview protocol development

This research did not start with the intent to document and comment upon the SEAMS in Fort McMurray. The original concept was to evaluate the utility of the information generated through SIA for urban planners in Fort McMurray. After several interviews, the answer was obvious: urban planners do not use SIA information in any significant way, because they rarely have time to read the information, and if they have an opportunity to read the reports, they are often out of date because of the fast pace of change in the oil sands industry. They had mentioned, however, significant ongoing participation with an industry group called RIWG that provides demographic data about Fort McMurray in response to predicted oil sands development. At that time, I decided to begin asking questions about RIWG and other groups that might play a part in the management of social effects of oil sands development in Fort McMurray.

Interview methodology

Interviews were conducted both in person in Fort McMurray and on the telephone. The site visit to Fort McMurray took place in October 2001. Since many key informants were very busy during the time of the site visit, telephone interviews continued over the period of the following year, according to their availability. Interviewees were initially selected based on participant lists in SIA submissions and Alberta Energy and Utilities

Board (AEUB) hearings for oil sands developments. They were interviewed using an interview protocol with open-ended questions about their participation in SIA, their use of SIA, and the general state of dealing with social effects in Fort McMurray (see Appendix C). Participants were offered both anonymity and confidentiality in their responses because it was hoped that this would allow participants to offer frank and honest criticism. For this reason, no participant list is provided in this report. The participants have been organized into general groups, however, that are listed in Chapter Five.

After several interviews, it became apparent that some of the participants selected had little or no knowledge about SIA, some not even remembering the details of their role in the SIA process. Thus, knowledgeable participants I had already interviewed were asked to refer me to other people, specifically to those they thought would offer a similar perspective, and those they thought might offer a different perspective on SIA than their own. Some people who had appeared in many SIA reports and hearing proceedings – and thus were felt likely to be knowledgeable – were also selected for interviews. The remainder of participants were selected using these approaches.

Community and context description and document analysis

The community description and context, and the document analysis, used many common documents. Some were selected opportunistically based on internet searches using, Google.com. Others were obtained through library indices. Newspaper clippings were found in newspapers such as the *Calgary Herald,* the *Globe and Mail,* and the *Fort McMurray Today*. Finally, SIA documents were obtained through the AEUB library, which allows the public to view documentation about approvals processes on microfiche for free, and allows microfiche copying for students at a

reduced rate, or for free. The National Energy Board (NEB) library also had some documents from older oil sands developments.

Data Management and Analysis

The data was managed and analyzed using the modified 7S integrated management framework (IMF) first described by Pascale and Athos (1981). The relevance of this approach to the implementation and management of policies and resources, and the modifications made to it for the purposes of this thesis will be developed in the next two chapters, and discussed in detail in chapter 4.

1.6 Conclusion

SEAMSs are made up of three components: (a) SIA, (b) mitigation and (c) monitoring planning, and management. SIA has been used by oil sands developers and the AEUB for four decades. Yet, significant negative social impacts persist in the community. SIA, part of a system designed to help alleviate the pressures of negative impacts on individuals and communities where development is occurring, is not fulfilling its goal. This thesis will examine how the SEAMS works – and does not work – in Fort McMurray, as well as the response to management efforts from stakeholders and regulators. It is hoped that the research will help to identify specific strengths and weaknesses of the system, and lead to recommendations for change.

1.7 Thesis overview

This first chapter has introduced the reader to the case of Fort McMurray and the social effects it is experiencing as a result of development of the Athabasca oil sands. It has outlined the concept of SIA, and a place for it in the SEAMS. Formal research questions were raised, and finally, the case study methodology was outlined.

The primary goal of chapter two is to discuss in detail the literature about to SIA, planning for, and management of natural resource development in isolated areas,

in the interests of understanding these concepts better, and further developing the data analysis framework.

Chapter three is the detailed introduction to the context of the impacts of oil sands development on Fort McMurray. A brief discussion of the community, the effects of oil sands development, and the laws and practice of SIA and planning in Fort McMurray will be presented.

Chapter four will bring together the ideas raised in the literature review, and the information presented in the context chapter, to concisely define the framework according to which collected data will be analyzed.

Chapter five will present and analyze the data collected in interviews and through document analysis using the analysis framework presented in chapter three.

Chapter six will discuss the results of the interviews in the context of the other information found through the case study. It will also put this work in the context of other research that has been done on SIA and SEMS, and draw on other research to formulate recommendations and options for change.

Finally, chapter seven will draw conclusions about SIA and SEMS in Fort McMurray as well as about these concepts at a more general or global level. Recommendations for change to the system of SIA and planning in the oil sands region will be made based on the contributions from the literature and data analysis.

Chapter 2
A Review of the Literature on SIA

2.1 Introduction to the literature

Social Impact Assessment is a technique, planning tool, and discipline that that makes use of a broad array of social sciences to help governments and project proponents determine the best way to undertake projects that affect society and the environment. SIA has been evolving from its modest beginnings in the early 1970s when few guidelines were available, and it was generally done as an afterthought to Environmental Impact Assessment (Barrow 2000:43). Today, many oil and gas companies consider SIA and the management of social effects to be of considerable importance to their operations (International Association of Oil and Gas Producers and the International Petroleum Industry Environmental Conservation Association 2002:1; Joyce and MacFarlane 2001).

Burdge (1994:v), one of the leading contemporary researchers in SIA, has noted that this process has become an interdisciplinary science. "By the mid-1990's, social impact assessment was a recognized sub-field of the social science disciplines of sociology, geography, political science, anthropology, psychology and the planning arts." This view is supported elsewhere in the literature (Amos 1983:10; Goldman and Baum 2000:1). Others have noted that economics and corporate relationships are also an important part of SIA (Canadian Environmental Assessment Research Council 1985:2; May, et al 2002. See also, Bailey 1997). The diversity of the literature demonstrates the complexity of SIA, as well as the many forces which can influence it.

This diversity in SIA literature might be considered healthy development considering the meager beginnings of the field. Shortly after the advent of the National Environmental Policy Act of 1969 (NEPA) in the United States, people defending

social interests of communities were not even sure if SIA was valid for inclusion under the new law. It was only after several high-profile development cases such as the Trans-Alaska pipeline EIA and the MacKenzie Valley Pipeline Inquiry, that in 1978 the Council on Environmental Quality in the USA decreed that more attention needed to be paid to socio-economic impacts. Since then, its theory, practice, and even purpose has expanded and evolved greatly (Barrow 1997:229).

Diversity in the discipline has in recent years, however, caused the entire SIA literature to be called into question. Barrow (2000:4), for example, has noted that there is little consensus on the definition, or even a consistent name for SIA. Burdge (2002) suggests that SIA is inconsistently applied across different project and policy assessments. Furthermore, he believes the entire literature on SIA is flawed because in a vast majority of papers, authors have failed to consider past literature, and thus are not building an accumulated body of knowledge on SIA - only a series of isolated and uninformed reports about SIA experiences and theories. Goldman and Baum (2000:3) note that work done by researchers on SIAs will often remain unrefereed because the SIA documents and the evidence within are already in the public realm, released for public comment during the impact assessment process. Furthermore, practitioners do not have time to publish their findings. I also experienced difficulty in the literature due to differing terminologies or methodologies. Nonetheless, some legitimate and informative research does exist, and will be used to build this literature review.

There are 5 major segments of the SIA literature that will be relevant for a discussion on SEAMS for mining communities, and will be reviewed in this section:

1. The definition of SIA in theory and practice;
2. Types of social impacts including cumulative impacts;
3. Methods of SIA and public participation;
4. Theoretical basis for SIA in the planning literature;
5. Responsibilities of the proponent and regulators/government.

2.2 What is SIA?

The definition and role of SIA remain controversial in the literature (Geisler 1993; Barrow 1997, 2000; Lawrence 2000; Burdge 2002). Each author and practitioner seems to have his or her own definition of SIA to work from (see Barrow 1997:227 or 2000:4 for extensive lists).

SIA in theory and practice thus far, has been considered to be very similar to Environmental Impact Assessment (EIA). They share several characteristics, (adapted from Barrow 1997:227):

- A proactive approach (in theory) – SIAs seek to be assertive in the interests of social and cultural development in the face of economic development. SIA helps society use economic development as a tool for advancing the greater goals of society (Mitchell 1997);
- An attempt to conduct structured assessment;
- Efforts to be as objective and systematic as possible (a subject hotly debated – see Lang and Armour 1981; Joyce and MacFarlane 2001);
- Efforts to be as comprehensive as possible (or necessary);
- Consideration of development alternatives (in theory);
- Production of a clear, concise, balanced impact statement;
- Involvement of the public in the planning and decision-making process; and
- A growing concern for the goal of sustainable development.

Like SIA, EIA does not have a clear definition in the literature. However, at a general level, it is said to be, "an approach which seeks to improve development by *a-priori* assessment." (Barrow 1997:2), rooted in the notion of the old saying, "an ounce of prevention is worth a pound of cure."

SIA is considered by many to be an extension of, or a more specific case of EIA. Thus, SIA has been defined as, for example, the assessment of "…all social and

cultural consequences to human populations of any public or private actions that alter the ways in which people live, work, play, relate to one another, organize to meet their needs, and generally cope as members of society." (Interorganizational Committee on Guidelines and Principles for Social Impact Assessment[4] 1995). Burdge (2002) defines SIA as "the systematic analysis, in advance, of the likely impacts a proposed action will have on the day-to-day life of individuals and communities." Finally, the recently released *SIA – International Principles* document, by the International Association for Impact Assessment (IAIA) defines SIA as "the processes of analyzing, monitoring and managing the intended and unintended social consequences, both positive and negative, of planned interventions (policies, programs, plans, projects) and any social change processes invoked by those interventions" (Vanclay 2003).

There is a barely-perceptible difference in the definitions presented above. The former two definitions focus on the *a priori* nature of SIA – that SIA is a process conducted *before* an action is taken so that its impacts can be predicted, the community can be consulted, and potential impacts can be mitigated.

The third (IAIA) definition, however, while incorporating the concept of *a priori* assessment of social impacts, also includes two other concepts thought to be essential for *dealing* with the social effects of development: *monitoring* and *management*. The difference between making a technical report about future social effects of a project (the former two definitions), and starting a process to *manage* social effects of a project (the latter definition) involves several different sets of perspectives in the literature. One set of perspectives is between the technical and political approaches to SIA. Another set of perspectives has to do with whether or not SIA should occur only as an *a priori* process, or if it should also contain a *post facto* component. A final set of perspectives contrasts the role of the community in SIA:

[4] The ICGPSIA was a group of leading SIA researchers attempting to offer a synthesis of understanding on SIA up to 1994.

whether SIA is solely for decision-making, or if it is also for the purposes of empowering affected communities in the decision-making process, and beyond.

2.2.1 The technical and political approaches to SIA

Lang and Armour (1981) described two perspectives, the technical and the political, as seen in Table 2.1. It is felt that most impact assessments conducted in practice make use of these two perspectives in varying proportions, even though Lang and Armour (1981) as well as Joyce and MacFarlane (2001) would suggest that *most* SIAs are carried out as technical exercises intended to arrive at permit approvals and possibly, in the process, rational decisions.

Table 2.1 The technical and political approaches to SIA (Lang and Armour 1981:113)

	Perspective	
	Technical	Political
Focus	Improved public decisions via improved social impact studies	Improved public decisions via improved socio-political processes
Key assumption	Better information inputs lead to better decisions	Open participative process leads to better decisions
Faith in:	Rationality Processed knowledge Science/scientific method Etc.	Innate "wisdom" of the people Participation Pluralism Etc.
Reacts against:	Overlooked social issues, the result of uninformed, arbitrary, narrow, short-range "political" decision-making.	The technical approach and rule by experts (technocrats); basic problems in the political system.

2.2.2 The technical approach

As noted in Table 2.1, the technical approach to SIA clearly relies on the scientific method to prove that certain effects will be felt by communities due to development, and the degrees to which they will be felt. The purpose is to recommend the development alternative that will cause the smallest negative effect on the community,

and to calculate the amounts and costs of mitigative factors that will be required once the development is approved. Because calculation is central to the technical approach, inputs into the assessment process must meet several criteria. For example, they must use quantified data, so that calculations can be performed. Furthermore, the data must be as politically neutral as possible so that the assumptions of statistical calculations can be satisfied (Lang and Armour 1981:114-115; Joyce and MacFarlane 2001).

The common result of the nearly complete reliance on quantitative data is that studies are conducted on variables that are easily quantified – in particular, economic variables that have a direct dollar-value conversion. Employment figures, numbers of displaced families (Vanclay 2001, quoted in Joyce and MacFarlane 2001:16), or value of required infrastructure (Joyce and MacFarlane 2001:20). More importantly, they tend to miss important effects on the community such as cultural change, changes in relationship networks, social structure and other very important effects that might be felt due to an action. Like Freudenburg said (1986, quoted in Joyce and MacFarlane 2001:20),

> One scarcely needs to be a sociologist to know that people rarely attempt or commit suicide because of inadequate sewage treatment facilities yet recognition of that fact in EISs has at times been painfully slow.

Unfortunately, as Lang and Armour (1981) note, the focus of the technical approach becomes one of perfecting methods of assessment and searching for perfect data, rather than the investigation of the most important social effects that will happen to a community.

2.2.3 The political perspective

At the other end of the spectrum of approaches to SIA lies the political approach; what Peterson and Gemmell (1977:377) describe as an approach that looks at ideological issues, rather than issues that can be resolved using techniques. These ideological

issues are ones that require questions to be answered about social values in development such as:

- What types of social effects are tolerable to the local community? …to society at large? What levels of those effects are acceptable?
- What do we want the local community to be like when development is being undertaken? …when it is over? How do we want the community to stay the same, and how do we want it to change?
- How will we detect unintended social effects? Who should help make decisions about how social effects are dealt with?
- What is the role of the proponent in dealing with social effects? …the funding agency? …the government? …the community?
- How do we know when we have done enough development? How much is too much?
- What does sustainability mean here, and how do social effects of development fit in?

These questions cannot, for the most part, be answered by collecting and processing numerical data from independent, unbiased sources. It does not make sense to collect data about these questions, make projections based on those data, and try to tell decision-makers what the *morally* correct answers are. In reality, answers to these questions require *decisions* that must be addressed in the political sphere, often far away from the narrowly rational world of the technical perspective to SIA (Lang and Armour 1981:116).

> More than twenty years of research on the decision-making process of public bureaucracies have adequately demonstrated that decision-makers do not and cannot operate as rational decision-makers under a scientific management rationality. Their world is far too complicated…. The many desirable environmental consequences which have occurred because of the preparation of environmental impact statements have not occurred because of the compelling analyzes presented in the statements themselves. (Friesema 1978, quoted in Lang and Armour 1981:116).

Ultimately, environmental permitting – the decision to proceed with a development or not – is "a political decision, influenced by societal attitudes and expectations, and by changes in social values." (Joyce and MacFarlane 2001:4). An SIA conducted with the political perspective in mind, then, will be more conscious of the context in which it is being undertaken. Traditional methodologies for SIA will not be appropriate. Rather, SIA will need to focus on the social, economic, and cultural assets of all the involved stakeholders, and measure and enhance their abilities to deal with change.

2.2.4 Ex ante vs. ex post facto

The question of *ex ante* versus *ex post facto* SIA is a methodological one. The methodology for a typical SIA is in an *ex ante* approach. The ICGPSIA (1995) delineates ten steps that are followed, more or less, in most contemporary SIAs (Joyce and MacFarlane 2001, for example):

1. Public involvement – *Develop an effective public involvement plan to draw in all potentially affected publics;*
2. Identification of alternatives – *Describe the proposed action or policy change, review its purposes and identify reasonable alternatives*;
3. Baseline conditions – *Describe the relevant human environment/area of influence and baseline conditions;*
4. Scoping – *After obtaining a technical understanding of the proposal, identify the full range of probable social impacts that will be addressed based on discussion or interviews with numbers of all potentially affected;*
5. Projection of estimated effects – *Investigate the probable impacts;*
6. Predicting responses to impacts – *Determine the significance of the identified social impacts;*
7. Indirect and cumulative effects – *Estimate subsequent impacts and cumulative impacts*;
8. Changes in alternatives – *Recommend new or changed alternatives and estimate or project their consequences;*
9. Mitigation – *Develop a mitigation plan;*
10. Monitoring – *Develop a monitoring program.*

In a simple project-based scenario, the typical SIA, focused on the *ex ante* prediction of impacts and prescription of mitigation, may be sufficient. However, as Geisler (1993) suggests, once projects or systems become more complex, uncertain, or long in duration, foresight is not enough to sufficiently protect the interests of people who may be affected by development. He argues that in complex, uncertain, or enduring situations, a sufficient number of social impacts will escape detection to justify additional *post facto* assessment. Cumulative impacts (discussed below)[5] in particular tend to be unpredictable, and demonstrate that "there are some unintended consequences of development which are knowable in the short run and other which are not." (Geisler 1993). He concludes that complex projects and systems of development need to be approached with an explicitly adaptive management style which includes critical review of *ex ante* SIAs, as well as the development of comparative data bases so that changes in communities can be adequately detected. Thus, two extra steps are added to the SIA process given by the ICGPSIA:

11. *Post facto* Review – *Examine the* ex ante *assessment and the mitigation program once the project has been undertaken, and evaluate it for accuracy and to ensure that issues are being addressed.*
12. Management – *Using information from the* ex ante *and* post facto *assessments, and from the monitoring program, use an adaptive management approach to address new and cumulative social effects of the development as they arise over the lifetime of the project.*

2.2.5 Decision-centered assessment vs. community-building and empowerment

Another important set of perspectives on SIA is whether assessment is done mainly for the purposes of helping decision-makers make project approval decisions, or to help communities contribute meaningfully to the decision-making process and prepare for unintended impacts that may occur as a project moves through its life cycle. Decision-centred assessments have been heavily criticized in the literature. Typically, they have

been undertaken using *ex ante* methodologies, employing a technical approach in a formal, inaccessible format that emphasize the production of the impact assessment document as the goal of SIA; community empowerment approaches, in contrast, have taken on the goal of iterative process and improvement, in a combination of the *ex ante* ***and*** *post facto* styles (Geisler 1993).

The distinction between decision-centered assessment and community-building and empowerment based assessment is the difference between SIA as a product and a process (Wolf 1983:16; Rakowski 1994; Gagnon 1995; ICGPSIA 1995). The latter option is relatively easy to describe. SIA as a product is meant to determine the impacts of a project, present possible alternatives and mitigation strategies, and make that information available to decision makers in the form of a one-time document. While undesirable in terms of the long-term planning of communities or regions, this is the form that most SIA has taken (Burdge 1995:1, Gagnon 1995).

The other choice, that SIA is a process, is an idea that SIA is more than an opportunity to document and assess the potential impacts of a project; it is an opportunity to involve communities, proponents, and other stakeholders in a long-term, iterative process of information collection, public comment and participation, alternative presentation and decision making, mitigation and monitoring, and making necessary changes. In this mode, SIA is integrated in the policies, programs and plans of local, regional, and provincial governments (Burdge 1994:41). Granted, the process results in documents and decisions being made, but it also explicitly involves building a future for (a) policies related to environmental and social change; and, (b) communities and individuals affected by environmental changes, including iterative evaluations of the impacts of projects and policies throughout their implementation cycles.

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[5] Geisler (1993) calls cumulative effects "incremental events which grow over time and space into an unforeseen cluster of impacts exceeding the sum of its parts."

2.2.6 SIA and economic variables

King (1998) quotes Gold (1978:109) as saying, "One of the most common mistakes in the social science area of impact assessment is to confuse socioeconomic with social phenomena…A study which focuses on the hyphenization of the social is not an SIA." Yet, often in the practice of SIA, socioeconomic impact assessment has become interchangeable with social impact assessment.

Socio-economic impact assessment (SEIA) should be an important component of SIA that reflects on the social and economic impacts that may occur as a result of development. King (1998) makes the important distinction, however, that SIA should focus on people's lifestyles, relationships, cultures. While SEIA focuses on information such as demographics, employment and economic statistics that, while they can help make some inferences about general changes in the community, it cannot make direct predictions about changes in the lifestyles of individuals or groups of people. Socio-economic variables, however, are often those that are easily quantifiable, easy to monitor, easy to reproduce, and are thus more trusted by the natural scientists and engineers who dominate the impact assessment profession. In 69 EISs evaluated in King (1998), it was found that over 90% focused on socio-economic impacts in lieu of what Gold (1978) called "social" impacts.

In this report, the definition of SIA will include what King (1998) calls "social" issues, as well as what he calls "socio-economic" issues. While all the documents reviewed in the report are called **SEIA**s in practice, they will be referred to in this document as **SIAs,** and they will be evaluated against this more stringent definition.

2.3 Types of Impacts

In order to talk about *assessing* social impacts, it is essential to have an understanding of what social impacts are, and how they develop in people and communities affected

by planning interventions or developments. Greider and Little (1988) describe social understanding of change as something that isn't important until some subjective meaning is associated with the change. That is to say, change must cross a social barrier of some sort, including barriers set by mores or values, goals or objectives, etc. This is an important revelation in social impact assessment, as it describes the actual origin of impacts – not from the development itself, but from the meaning or understanding that each individual assigns to the environmental change, and the action they choose to take based on those meanings.

The contemporary literature has arrived at several general definitions of social impact. The ICGPSIA (1995) notes that social impacts include:

> …all social and cultural consequences to human populations of any public or private actions that alter the ways in which people live, work, play, relate to one another, organize to meet their needs, and generally cope as members of society. Cultural impacts involve changes to the norms, values, and beliefs of individuals that guide and rationalize their cognition of themselves and their society.

Vanclay (2002) notes that social impacts include all human impacts including:

> …aesthetic, archaeological and heritage, community, cultural, demographic, development, economic and fiscal, gender, health, indigenous rights, infrastructure, institutional, political (human rights, governance, democratization etc.), poverty-related, psychological, resource issues (access and ownership of resources), the impacts of tourism and other impacts on societies.

Social impacts, thus, fill a broad spectrum. In the following sections, social impacts will be described more functionally. First, a general discussion about the temporal occurrence of social impacts will be undertaken. Then, more specific impacts that would be expected in a resource-based community will be briefly discussed.

2.3.1 Temporal impacts

There are four major phases of social impact in every natural resource development project: the pre-development or planning period, the construction period, the operations period and the abandonment/decommissioning period (Burdge and Johnson 1994, ICGPSIA 1995). Each period has its own unique characteristics, and each requires different types of attention in terms of assessment and mitigation.

2.3.1.1 The pre-development period

As the name suggests, the pre-construction period is the time between when the decision is made to pursue a project by the proponent or responsible government agency, until the ground is first broken for project construction. Walker, *et al.* (2000) have noted from their experience in Indonesia that several systems can be affected the moment that a new project is announced, including the political/legal, economic, social, cultural and psychological. In contrast, the biophysical impacts are felt shortly *after* people begin dealing with the announcement of a new project.

The first impacts likely to be felt by the public at large are psychological. Burdge and Johnson (1994) suggest that the first impact that arises when a project is announced is that people will want more information about it, in particular if it is close to them. Economically, people will try to profit from the announcement financially, through land speculation both at the site where the development may occur, as well as in nearby places where businesses and services will be required to support the project and house workers who are relocating to that area. As the time for a permit decision comes closer, politicians and other elected officials are likely to gauge the support for the development and begin lobbying government decision makers and proponents to meet their political goals (Walker, *et al* 2000; Burdge and Johnson 1994). In the meantime, people who need to be relocated will begin to grieve the loss of their property, and will need to start finding other communities to live in (which they will inevitably affect). Some people, not wanting to have to wait for the decision-making

process to finish, will begin leaving the community, disrupting community relationships and causing further distress for those who have remained.

It is easy to understand how people could be affected by these impacts before the decision to allow the project to continue is even made. Obviously, once the decision has been made to allow the project to be undertaken however, different impacts will occur. The most obvious, in many cases, is the actual relocation of people off the development site. A particularly extreme example of this type of impact might be the relocation of 1.3 million – 1.9 million people from area where the lake behind the Three Gorges Dam on the Yangtze River in China before it was filled (Long Li 1990). Others include those noted above from Vanclay (2002).

There is an important distinction to be made between planning impacts and project impacts, as noted by Wolf (1974). On one hand, he proposes that all the impacts that are felt by people and communities before the first shovel of soil is turned are *planning* impacts. Project impacts, on the other hand, are the impacts that happen once construction and operation of the development actually occurs. The reason for this distinction is that the pre-construction period impacts of a development will happen *regardless* of whether the development actually comes to fruition. These impacts are related to land speculation, personal migration stress and community investment/ redevelopment amongst others, in the anticipation of development and change (Walker, *et al* 2000). Project impacts are those that can only occur if the project goes ahead. These could include, for example, relocation, occupational changes of present residents, social ties being geographically severed, and many others. Unfortunately, SIA often does not begin to take these pre-construction, planning impacts into account - particularly the ones that happen soon after the project becomes public knowledge, because the impact assessment process simply has not often begun by that time.

2.3.1.2 The construction period

The construction period is the time in the development process when people are moved, land is cleared and facilities are constructed. Often, there is a large influx of construction workers to a community, or several communities in the surrounding area. Those communities are often required to expand their services so that construction workers may work there, but also for the services such as commercial enterprise. It is imperative, however, for communities to control the pressure to develop permanent infrastructure and services, because once their construction is finished, the debt resulting from the unused, but costly, infrastructure would be devastating (Burdge and Johnson 1994:29).

2.3.1.3 The post-construction/operation period

The post-construction period is also known as the project operation period. Often, during this time, construction workers lose their jobs on the project, and take several different routes. The mobile construction workers will leave the community or construction camp, and take jobs elsewhere. Some construction workers may have transferable skills and may work for the company as regular operations workers. Yet other construction workers will choose to stay in the community and obtain other employment (Lucas 1971:26). This is the phase of development during which the most positive effects, such as community stability, wealth generation, quality infrastructure, and employment opportunities, can be realized (ICGPSIA 1995).

2.3.1.4 The decommission period

Once a proponent has concluded the project in the area where it is operating, it has no choice but to decommission its project. The impacts begin, as within the pre-construction period, when the announcement to discontinue work is made (ICGPSIA 1995). Depending on the community's or region's situation, some obvious impacts can occur. Property values may decline as the real estate market detects that people will be leaving the community. Sometimes, operational-phase workers will be replaced by

decommission/clean-up workers. Community composition will change, local industry will need to adapt. Sometimes, if the community is based on the development of a single resource, and decommission is not labour intensive, the community will simply run out of people, and thus cease to exist.

2.3.2 Cumulative impacts

Rare is the case when a project is undertaken in isolation from other undertakings in a community or surrounding region. It is far more realistic to assume that a region will have a number of different projects, plans, programs or policies being undertaken or implemented, and that the impacts of these disparate actions will interact in unexpected ways (Barrow 1997:112). Alberta Environment (n.d.:2) defines cumulative effects as, "changes to the environment caused by an activity in combination with other past, present, and reasonably foreseeable human activities."

Geisler (1993) notes that cumulative impacts take on increasing importance as the life of a project is extended, because as a project moves further away in time from its initial SIA, more external factors (such as new projects or plans, programs and policies – "PPPs") could be undertaken or implemented, and interact with the existing impacts in unpredicted ways. He concludes, that as a result, "…there are some unintended consequences of development which are knowable in the short run and others that are not."

Tollefson and Wipond (1998) raise the concern that cumulative effects can have long-term impacts on the social characteristics of a place, both through the incremental change in the natural environment, thus indirectly affecting culture, as directly affecting culture through forever increasing exposure to southern/western culture, amongst other reasons.

Barrow (1997:113) cites a typology of cumulative impacts as devised by Smith (1993:27). There are four major categories of cumulative impacts:

1. linear additive effects – incremental additions or subtractions from the regional environmental/social action scene (i.e. projects and other PPPs). Each action has a fixed effect that contributes in an additive fashion to a total effect. Time is an important variable, because if these impacts accumulate slowly, they may be easier to adjust to; but if they accumulate quickly, there may be a problem;
2. amplifying or exponential effects – effects where each increment of impact has a greater effect than the one preceding it;
3. discontinuous effects – a social threshold exists for a particular variable. For additive or amplifying projects or PPPs that occur before the threshold is reached, there is no practical change in the system. However, once the threshold is crossed, the system may undergo serious or drastic changes;
4. structural effects – other types of cumulative effects may develop to encompass a range of physical, social, economic, and other factors.

Barrow (1997:111) also discusses the notion of *synergistic* effects, where the effects of one or many projects interact with each other to produce impacts that are greater or less than the sum of their parts.

Assessing cumulative effects of developments can be considerably more difficult than assessing the simple stand-alone effects that a project is expected to create. However, as the Cumulative Effects Assessment Working Group (CEAWG) and AXYS (1999:3) note, "CEA is environmental assessment as it should always have been: an …impact assessment done well." Some of the characteristics they have identified of cumulative effects assessment (CEA) include:

- assessment over a larger, regional, area;
- assessment of effects during a longer period of time into the past and future;
- assessment including other past, existing and reasonably foreseeable actions;
- establishment of value to society of components of the human environment that may be affected by cumulative impacts, not just the impacts of the project under review; and
- evaluation of significance in consideration of more than just local, direct effects.

Since CEA involves the identification of valued components of the environment, members of the local and regional communities will need to be consulted and engaged in the process. Valued components are obviously based on societal values, and thus society should be actively involved (CEAWG and AXYS 1999:12).

One complicating factor about cumulative effects is that no single project is responsible for effects as they accumulate, even if a cumulative effect is only felt after a particular development threshold is passed by a new development in an area. Thus, the cooperation of all proponents and regulators in a region is essential for dealing with these effects. The most important step that can be taken by government and proponents of projects in regions where cumulative effects are significant is the establishment of regional land use committees to act as forums for negotiation and cooperation. However, our governance system is not well adapted to this style of effects management – so it is also the most difficult step (CEAWG and AXYS 1999:C2).

The purpose of CEA is essentially the same as the Alberta Government's definition of EIA or SIA: to predict potential adverse impacts of development and to design remedies to prevent or mitigate them. However, "the complexity, scale and inherent uncertainties associated with predicting future activities are greater." (Alberta Environment, n.d.:4). The prescription from Alberta Environment is for "…proponents [to] describe how they plan to adaptively manage possible future outcomes identified in SEA…" including influences of other projects that have are approved, currently undergoing regulatory review, about to be submitted for review, officially announced by a proponent, directly associated with the project under review, not directly associated but induced if the project is approved, or identified in a development plan for the area. Regional CEA, however, is not prescribed.

2.3.3 Boom town impacts

Fort McMurray has been characterized as a boom town (see Chapter 3). It was built up very quickly in order to accommodate the huge numbers of oil sands employees and service people who have moved there during the development of the oil sands. Lang and Armour (1981: 88) have noted a characterization of impacts that occur frequently in boomtown situations like those of Fort McMurray. This checklist, developed by Susskind and O'Hare (1977), guides practitioners to expect SIA of boomtown situations to include the analysis of eight major variables, including:

- Social disruptions: "Increased rates of alcoholism, drug abuse, mental illness, divorce and juvenile delinquency, especially among long-time residents, frequently accompany the sudden changes in population mix and patterns of everyday life;"
- Public service needs: "In the period of rapid growth, services become overburdened or unavailable to some groups. If the community builds the required services in advance of the expected boom, the costs in the form of increased tax rates have to be borne by those who now live there;"
- Shortage of private goods and services: "The private market rarely keeps pace with the demands for goods and services, especially housing;"
- Inflation: "Excess demand triggers inflation in prices, wages and rents, leading to hardships for senior citizens and others on fixed incomes;"
- Revenue shortfalls: "even though growth expands sales and property tax bases, revenues increase more slowly than costs in the short run due to (a) delays between the time development begins and property or sales tax revenues are realised; (b) delays in raising capital for constructing and improving public facilities; (c) capital needs beyond local government's legal borrowing capacity; and, (d) location of high tax-yielding properties outside the communities hosting the newcomers, with resulting public costs;"
- Resource loss to other uses: industry and its workers are notable consumptive of water, land, and labour – resources often needed by other industries;
- Aesthetic deterioration: "Boomtown developments tend to sacrifice amenity to economy and ease of construction;"
- Fundamental change: "An important cost of boomtown development borne by the original residents of the community has nothing to do with conventional indicators of stress or inadequacy since it results from the change itself rather than what the town changes to. When development occurs, the appearance, social structure, friendship patterns, style of life, and nearly everything else

about the community changes, and the community that supported the residents disappears."

2.4 SIA Process and Theory

> *The "bottom line" question for SIA is "Who benefits and who loses?"* – C.P. Wolf (1983:15)

SIA was assigned its contemporary meaning by an Inuit elder after the EIA of the Trans-Alaska Pipeline had been completed in 1973, when he said "…now that we have dealt with the problem of the permafrost and the caribou and what to do with hot oil, what about changes in the customs and ways of my people…" (Dixon 1978:4 quoted in Burdge 1994:4). Even though the effects were not measured in that instance, the message was certainly heard.

Shortly thereafter, Justice Thomas Berger, the commissioner appointed to carry out the MacKenzie Valley Pipeline Inquiry noted that with respect to the pipeline, "The North is a region of conflicting goals, preferences and aspirations," (1977:viii) and that, "…the future of the North ought not to be determined only by our own southern ideas of frontier development. It should also reflect the ideas of the people who call it their homeland," (p. xix), and finally that, "[t]he social costs of building a pipeline now will be enormous, and no remedial programs are likely to ameliorate them. The expenditure of money…will not begin to solve the problem" (p. xxii). Ultimately, he recommended that the pipeline should not be built for ten years. His recommendation stood until 2002, when developers in partnership with aboriginal groups in the area have begun the application process to attempt oil and gas development in the MacKenzie Delta, including a MacKenzie Valley pipeline (Shell Canada 2002a).

The MacKenzie Valley pipeline inquiry was a defining moment for SIA. It brought social concerns of development to light – it was one of the first times that development had ever become a victim to concerns over changing cultures or society in general, and it was one of the first times that these concerns were acted on *before* the development occurred (Barrow 1997:244). Indeed, it highlights several critical characteristics of SIA as it was viewed at the time, and which have endured in theory and practice:

- Social and cultural issues are an important issue in development;
- Potential impacts need to be assessed before the development occurs;
- Data collected can be qualitative as well as quantitative;
- SIA is an opportunity for significant public input into the decision-making process.

2.4.1 Planning Models and SIA

Theory in SIA developed as researchers had an opportunity to analyze the policy which defined it, and as they observed it in practice. As a tool to be used for the planning of projects, plans, programs and policies (PPP), SIA and IA in general naturally developed along with planning theory. The incremental, rational-comprehensive (R-C), transactive and adaptive theories of planning will be applied to various theories and methodologies of SIA.

SIA was developed both in response to, and in accordance with, various planning models. Rational – comprehensive planning is the style of planning that has historically been used in land use, resource use, social, and infrastructure projects, etc., it has been observed that, in practice, decisions are made on a daily, incremental scale, limited by human and financial resources, and based largely on political desirability (according to those in power).

2.4.1.1 Incremental Planning Model

> A pragmatic planning process involves negotiation and bargaining among a plurality of competing interests and values. The process lacks a coherent set of goals. Ends and means, process and context, analysis and synthesis, and experience and knowledge are so intertwined that they can only be addressed simultaneously. Proposed changes are tested for feasibility and for likelihood of implementation (Lawrence 2000).

Incremental planning is a common type of pragmatism, and recognizes that in many cases, it is impossible or impractical to create plans that have all the answers, right away. Coined "The Science of Muddling Through" by Lindblom (1959), incrementalism sheds the idea that people always behave rationally, and that problems can be solved as long as there is enough information and enough technology to analyze it. Incrementalism does not advocate rational perfection, but seeks to 'satisfice'[6] (Simon 1976 noted in Friedman 1987:150).'

This theory of 'muddling through' accepts that societal values are an important part of decision making, that planning is taking place within a short time frame, that financial and human resources are limited, and that by reducing the scale of individual problems to be solved, day-to-day life can still take place without a seizure of the entire planning system. Complex problems are brought down to a scale that can be solved in pieces just large enough to keep things moving, and problems in the process are solved by comparing past decisions to the current situation, i.e. by using experience as a measure of a plan's potential to solve a new problem.

Lawrence (2000) and Friedmann (1987:83) identify several assumptions commonly associated with pragmatism:

1. Each planning situation is unique;

[6] 'Satisficing' is a term coined in Simon (1976).

2. Planning is partisan, partial, collective and highly constrained;
3. Individuals in society aggressively maximize their own ends – society is fragmented and pluralistic;
4. The planning environment is complex, unstable, and uncertain. Yet, this uncertainty is associated with normal times, rather than times of need for significant change;
5. The potential for controlling the planning environment is limited; and
6. Access to power, including information, is evenly distributed to all actors in the decision system so that none of them dominates, and that none are permanently disenfranchised.

A similar list of steps to be taken in the incremental planning process can be devised (cf. the synoptic planning process), based on Lindblom's (1959) description:

1. Identify the principal objective of the plan to offer general direction;
2. Outline alternatives that are available and likely to be implemented;
3. Use past experience, current trends, and limited theory to choose the appropriate plan.

Of course, this process only partially meets the goals of the planner, and the process must be repeated endlessly as conditions, aspirations and assessment technology changes.

There is some debate over the value of pragmatic planning in reality. Friedmann (1987:133) warns that the model is ill-advised for use because many of its assumptions can never be met. Both Friedmann (1987) and Lawrence (2000) agree that pragmatism may be weak in addressing major or long-term choices. Inequalities, and social and environmental concerns and objectives may not receive sufficient attention. In fact, inertia and inequities can sometimes be reinforced. Friedman (1987:37) goes so far as to say that incremental planning is planning theory in its most apologetic form, seeking to keep things exactly as they are. In contrast, Lawrence (2000) expresses some optimism in this theory of planning. While recognizing its weaknesses, he noted

that pragmatism is "efficient, adaptable, relevant, realistic and grounded in experience." Difficult and controversial objectives can sometimes be achieved piecemeal through bargaining amongst the various interested stakeholders.

Lawrence (2000) notes that IA has come closer to pragmatic planning theory through the introduction of streamlining, harmonization, procedural integration, and scoping. In situations like Fort McMurray, where it is expected that there will be a series of many development approvals through to the completion of the development of the oil sands, project-based, *ex ante* SIA can *only* contribute to an incremental style of planning. Whenever new projects are proposed, they have largely been considered on their own merit, rather than in the wider context of long-term oil sands development, and when approved, incrementally contribute to both positive and negative cumulative impacts in the region.

2.4.1.2 Rational – Comprehensive Theory of Planning

Rational – comprehensive (R – C) planning has been the dominant model of planning since its formal development in the 1960s. R – C planning came out of a belief formed during the Enlightenment, that understanding all the parts of a particular planning issue, then formulating a plan that could address all of those issues in an expected way would generate ideal plans for every situation (Saul 1993). Indeed, it is a style of planning that requires a high level of knowledge about every topic, and the technological ability to use it (Campbell and Fainstein 1996:9). As a result of the emphasis on modeling and the technical approach, quantitative analysis is often a central element of analysis (Mitchell 1997:85).

R – C planning, in theory, is to be accomplished by planning in a number of well-established steps (Mitchell 1997:84; Lew 2000):

1. Identify or define the problem;
2. Establish goals and objectives;
3. Collect background data;
4. Identify alternative means of achieving the goals and objectives, and a means of assessing each alternative;
5. Assess each alternative;
6. Select the preferred alternative;
7. Implement the plan; and
8. Monitor, evaluate and revise the plan.

Furthermore, R-C planning is only theoretically valid when it occurs under a particular set of assumptions (Lew 2000):

1. People behave rationally: people behave as ideal "Economic Persons" who are capable of identifying and ranking goals, values, and objectives and can make consistent decisions based on the systematic collection and analysis of all necessary data (Mitchell 1997:85);
2. Assumes perfect information: the cost of information is affordable, and that it is in fact even available;
3. Only facts exist: all information exists as unbiased, valueless information. Furthermore, the problem is assumed to exist in a closed system where all variables can be identified;
4. Events will occur in a rational-deductive sequence: there is no need for political strategy, and unforeseen events will not occur because all events have been accounted for.

R – C planning aims to use all the information available or necessary in order to develop one perfect plan that can be used in the long term. The monitoring in step eight is necessary to ensure that the plan is working, but logically (and *ideally*), a planner working with this approach will assume that major changes will not have to be made to the plan through to its completion.

Despite the ability of the R – C model to help planners synthesize large amounts of information in order to try and predict the future and to develop plans for that predicted future, it has been criticized by both researchers and practitioners alike. The biggest criticism has been that humans simply cannot meet its assumptions; people do not often behave rationally, information is not always available or unbiased, and there are always events that do not occur in a way that can be predicted. The model clearly does not accept the concept of chaos or even extremely complex situations (Mitchell 1997:86). Although in theory the R – C model can analyze data until it produces "the right answer," it is often impossible to come to an unbiased conclusion in solving all but the simplest of problems (Lindblom 1959).

Some of the major negative tendencies that have been attributed to R – C planning include (Lawrence 2000; Saul 1993; Tester 1981):

- Expert-driven processes with only a peripheral public role;
- Failure to consider the limits of resources and information processing;
- Overestimated ability to predict and control the environment;
- Ignorance or cynicism towards creative or synthetic solutions, or of non-technical and nonscientific knowledge, experience or wisdom;
- Inadequate consideration of the central role of dialogue in planning;
- Lack of respect for the political nature of planning;
- Failure to design the process to suit contextual characteristics;
- "Devoid of memory, anchored in the past, inescapably optimistic about the future, rational models always have great difficulty adjusting themselves to simple reality." (Saul 1993:88);
- Studies have focused on measurable impacts such as economic and demographic changes, and/or politically convenient indicators such as job creation or use of services, while impacts that do not meet these criteria are ignored, despite their potential contribution because they do not fit into the technocratic approach of the R – C model of planning (Vanclay 2002:185).

In the majority of the literature, IA and the R – C planning model have had parallel and intertwined development (Tester 1981; Barrow 1997; Lawrence 2000). The eight-step R – C planning process outlined above, and the typical ten – step SIA process outlined in section 2.2.4 are remarkably similar. Significantly, authors have been calling for change in both disciplines for many years. SIA and IA in general needs to begin addressing the above problems, involving the public in a more equitable manner, and start making plans that can make effective decisions about the impacts of decisions on society and the environment (Wolf 1977; Carinol, *et al* 1981, others including Tester 1981, Barrow 1997, Barrow 2000 and more).

2.4.1.3 Transactive planning model

The transactive model sheds the notion that planning needs to be expert or technocrat driven, and accepts instead that everyday citizens have a part to play in the decision making and the design of their community; the public's role is a large and meaningful one in the planning and SIA processes of development. The planner's role changes from that of a scientist making the best technical decision for a community, to a facilitator of mutual understanding and learning (Lew 2000). In the transactive mode, the planner will approach the community, mediate community desires and concerns, and in conjunction with the community, will develop plans that are both desirable from the community's perspective, and functional from realistic and legal perspectives. This humanistic perspective in planning encourages a more organic and less mechanistic and hierarchical image of organizations and development (Lawrence 2000).

> [Transactive planning] is visionary, value-full, creative and substantive. It recognizes the value of integrating into planning holistic organizational, environmental and societal images, especially with reference to interrelationships among the human, built, and natural environments (Lawrence 2000).

While the introduction of SEA (discussed below), as well as recent efforts to include information about cumulative social, economic and ecological impact

assessment represent a movement in IA towards the transactive or socio-ecological idealism planning model, the approach has been criticized for its neglect of "specific methods, intermediate steps, small changes, implementation, conflict, inequities, and overcoming resistance to change" (Lawrence 2000).

2.4.1.4 Adaptive management

Unfortunately, despite the development of various rigorous theories and methodologies in SIA, "Many SIA studies have substantially underestimated the social impacts that have been experienced by affected communities." (Vanclay 2002:184). Geisler (1993) suggests that an *adaptive approach* is necessary for SIA to be effective, particularly in complex situations. The adaptive approach places an emphasis on management as a learning experience which can be critically reviewed and adjusted, iteratively over the life cycle of a project or PPP (Geisler 1993; Mitchell 1997). Thus, monitoring is a critical component of SIA using this approach, as is a management regime that is able to undertake monitoring and continuous research and decision-making with respect to future objectives. By allowing for adaptation in the management and planning process, complexity and uncertainty in the future can be reduced, leading to somewhat increased predictability, and a greater chance for stability.

2.5 Strategic Environmental Assessment (SEA)

"The simple definition of SEA," says Thérivel and Partidário (1996:4), "is that it is the environmental assessment of a strategic action: a policy, plan or programme (PPP)." Specifically, it is "…the formalized, systematic and comprehensive process of evaluating the environmental effects of a policy, plan or programme 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" (Thérivel *et al* 1992, quoted in Thérivel and Partidário 1996:4). The "strategic" part of SEA "…refers to the set of objectives, principles and policies that give shape to the vision and development intentions incorporated in a PPP" (Thérivel and Partidário 1996:5).

Strategic assessment, particularly of the social environment, allows governments and decision-makers to better understand subjects of decision-making from their outset, then plan and manage a wide variety of issues such as community change, socio-economic-environmental interactions and the institutions that shape resource use (Barrow 2000:43). As an analogue to the strategic-planning process, it can be said that that SEA should be expected to be able to facilitate other important considerations such as more meaningful communication with, and participation by stakeholders, the accommodation and balancing of diverging interests and values, the institutionalization of analytical and orderly decision-making, and ultimately, improve the chances of successful implementation of projects that occur under the SEA (Bryson *et al* 1986:65).

A major benefit of SEA is that it helps counteract the limitations of project EIA and SIA (Thérivel and Partidário 1996:8). EIAs usually only take place *after* strategic decisions have been made with respect to the project being implemented. Thus, the project-based process is largely reactive. SEAs are done alongside the policy-making process, thus ensuring that values such as community development or sustainability are incorporated in all projects beneath that policy. Furthermore, SEAs are better able to take into account the impacts of an entire PPP. Where a project SIA can only deal with the impacts of that particular project, SEA deals with the interactive, cumulative impacts that can occur between projects.

There are some limitations to SEA. For example, SEAs typically cover a large spatial area. Identification of variables, definition of criteria, and collection and management of data can be extremely complex. Furthermore, while able to incorporate many differing values, at some point, SEAs may force decision-makers to favor

particular values in places or at times when they are not applicable or desirable (Thérivel and Partidário 1996:10).

Finally, the policy environment is not static. Like the rational-comprehensive planning process, SEA is vulnerable to changing values and circumstances. Furthermore, policy development and implementation is simply not as precise as would be desirable. Some decisions need to be made at lower levels in order to ensure that policy fits the context at the lower level.

2.6 Responsibility for action

This section will focus on the responsibility that resource companies face to mitigate social effects of their actions, and practical means by which they can fulfill those responsibilities. A discussion on the responsibilities of corporations, governments, communities and other relevant stakeholders to deal with social impacts of development is an important facet of SIA. In order to plan communities and projects around social impacts, it must be known how corporations will approach responsibilities towards the changes in the communities that their developments directly or indirectly cause.

Resource development – mining in particular – has experienced significant changes that started in the 1960s and 1970s with the environmental movement (Clarkson 1991, Barrow 1997). Indeed, Clark and Clark (1999) contend that even until the 1990s the global mining industry was able to develop mines solely on the basis of economic arguments. However, through the '90s, due to the further development of the news media and the internet, different factions have been able to organize to quickly respond to proposals for mine development and call on mining corporations to be more accountable for the impacts which their operations have had both on the local and global environment and the communities of people in which they operate. In a world

with stakeholders and influences other than shareholders, including indigenous minorities, local communities, global environmental and developmental treaties, sustainable and intergenerational equity and concerned, informed, and organized NGOs (Macfarlane and Akabzaa 1999), mining companies and governments face nothing less than what Clark and Clark (1999) call the "New Reality of Mineral Development". The new reality is so different, in fact, that the World Bank has identified the assessment and management of socio-economic impacts and risks as the primary concern of the private mining industry (Macfarlane and Akabzaa 1999; Davy 1999).

Macfarlane and Akabzaa (1999) and Clark and Clark (1999) list some of the major reasons for this shift in focus:

- Mining is occurring more and more frequently in places that are remote and more likely to encounter communities with incongruous lifestyles;
- NGOs are more knowledgeable and organized – their opinions carry more weight with regulators and the print media;
- Government decentralization, combined with a global trend towards 'people empowerment' is leading to more issues of land tenure, indigenous rights, revenue sharing and alternative land use at the regional and local level;
- Mining companies are being left more directly accountable for their social impacts and are required to take more proactive measures to avoid possible future litigation;
- Stakeholder groups are more organized and often join forces against government and industry to ensure issues are addressed;
- Further development of communications technology has allowed the public to become aware of poorly managed mines faster than ever; and
- Financial institutions are increasingly aware of the liability associated with poorly operated mines and are demanding more attention paid to social impacts.

Unfortunately, as Clark and Clark (1999) note, companies are not equipped to deal with such a reality, due to three major factors:

1. A lack of "tools" to deal with the individual problems;
2. A lack of trained staff capable of functioning in the New Reality; and
3. A lack of experience…by both government and industry.

At this point, it seems useful to undertake two discussions on how response to social impacts can be improved. The first will be a discussion on the ways in which governments can respond to decisions that are made through IA processes. The second will be how proponents can respond.

2.6.1 Corporate Social Responsibility

Decentralization of government in recent years has left corporations in an awkward position. Governments are shedding responsibility for the types of social issues they have typically taken care of, and are avoiding intervention in the marketplace (Moffet and Bregha 1999). As responsibility slides down the levels of government towards the regional and local, there is an increasing absence of financial and human resources available, capable of dealing with the issues that arise in society because of development. This has led companies to begin to question exactly what their role in the communities in which they operate is, and leads the debate into different perspectives on what is referred to as Corporate Social Responsibility (CSR).

Clark (cited in Clark and Clark 1999) has noted that there are eight major groups of social impacts that take place in the development of minerals:

1. Disruption of the physical environment and environmental degradation;
2. Disruption of societal organization and cultural values;
3. Inequitable revenue distribution;

4. High inflation or even hyper-inflation;
5. Increased and unresolved issues of land access/loss of compensation;
6. Adjustment problems of relocation and migration;
7. Increased costs to government of providing services; and
8. Loss of control by local people over major decisions.

Complaints about these impacts, and other more general trends in society, have caused companies to consider what the limits of their responsibilities should be to society. Significant debate in academic and management circles has ensued, and the term Corporate Social Responsibility (CSR) has emerged.

> Corporate social responsibility…is a form of self-control which involves elements of normative constraint, altruistic incentive and moral imperative in the quest for corporate nirvana…[it] is the notion that corporations have an obligation to constituent groups in society other than stockholders and beyond that prescribed by law or union contract (Jones 1980).

In other words, the CSR is voluntary, and it extends beyond simple responsibility to shareholders, to responsibility to customers, employees, suppliers, and neighbouring communities as well as the global community and society at large (Jones 1980, Clarkson 1991).

While it seems as though corporations are currently at a point where they are readily accepting CSR as a new way of running their day-to-day operations (see, for example, the case of May, et al 2002), it has, however, not always enjoyed this level of acceptance in the business community. Shrivastava (1995), for example, has identified three popular positions that have been taken over the years with respect to CSR:

1. The responsibility of business is to make profit (i.e. Classical 'Invisible Hand'/Adam Smith economic theory). The free market is responsible for, and can handle all environmental problems. Economic incentives and disincentives can be used to elicit appropriate business behaviour (economic theory of corporations).

2. Corporations have significant environmental and social side effects. Products, production systems and waste management processes are the responsibility of companies, governments and communities through the use of regulations and some voluntary measures (socioeconomic theory of corporations).
3. Modern corporations are the root cause of the current environmental 'crisis'. They exploit natural resources to make products, and that basic characteristic can not be reformed or modified. This view, known as *radical transformation*, calls on society to reject corporations and industrialization in general.

It seems reasonable to say that for the time being (and certainly in the context of this thesis about the development of oil sands), corporations are not going to shut down and leave, so the third position seems unrealistic and will not be discussed further. Furthermore, in the case of Fort McMurray, it is given that the free market planning theory has failed because despite many years of development in the region, the impacts introduced in Chapter 1 are still being experienced. It is thus difficult to ignore the conclusion that the activities of corporations, while contributing to the local and national economies and tax base, have had significant direct environmental and social side effects, and these effects need to be dealt with actively, by the corporations themselves, or through partnerships with government or other NGOs.

2.7 Weaknesses in SIA

Burdge (2002) has recently described SIA as the orphan of the impact assessment process. Unfortunately, SIA has some serious weaknesses that have prevented it from becoming a mainstream process like EIA has become. The weaknesses Burdge (2002) has noted as being most significant are:

- Terminology: SIA does not have a consistent definition, nor does it have consistent terminology. Social Impact Assessment, Social Assessment, Socio-economic impact assessment and other terms cloud the issues around SIA, and thus dilute its potential to be applied effectively;
- Primacy of SEIA: Socio-economic impact assessment is the term used in EIA guidelines, rather than the more inclusive term, SIA. The use of economic

indicators has displaced the use of social indicators in assessment, thus, serious social effects of development are often neglected;

- Public involvement displacing SIA: Inviting members of the public to bring their issues up during impact assessment is a valuable tool for identifying negative social effects of development, and has an important place in impact assessment. However, equally important is the work that social scientists do to identify and evaluate social effects; the public may not have all the information it needs, or experience from other similar projects in different places to be able to identify all the issues that may arise in the present development. The social scientist, however, is neglected in practice.

Other authors have identified further weaknesses in the practice of SIA. Lang and Armour (1981) and Barrow (2000:68) have observed that SIA and EIA methodologies are well developed in textbooks, but they are not being practiced in reality. An example is the step in IA where alternatives to the development are investigated and evaluated: tradeoffs are to be weighed, impacts are to be communicated to decision-makers and informed choices are to be made. However, by the time a development application has been made, the decision to do one type of development has already been made by the proponent. The impact assessor works for the proponent and thus has a limited scope on the types of alternatives that may be under consideration. While some technical alternatives may be assessed, there is no consideration of a different type of development, or of no new development at all. Often, these are the types of alternatives that cannot be addressed adequately at the project level – rather, they must be addressed at the regional, or strategic level.

Another important weakness documented in the literature is the role of social impacts in the political arena. Lang and Armour (1981:75) quote a study finding that politicians and civil servants often feel that social impacts belong in the political arena – not in the development decision-making arena, and thus there is "little room for a new field that seeks to provide a more informed basis but not a substitute for political decisions."' While these authors feel that SIA has a place in informing the political

debate, they have noted that politicians are more likely to see this as an infringement on their turf. Barrow (2000:69) notes that for this reason, SIA is simply not often taken seriously by established administrations.

2.8 SIA and SEAMS

The absence of clarity about terminology within SIA is as problematic in practice as the differences in definitions of SIA itself, as discussed at the beginning of the chapter. While the practice of SIA seems focused on the production of reports for the approvals process, and the facilitation of *ex ante* assessment processes, the literature continues to push for monitoring and management (*post facto*-type activities) to be part of SIA. It is no wonder there is confusion and an absence of change in SIA practice.

After having discussed various themes in SIA, I propose a model that helps short circuit concern about changing the practice of SIA. As discussed briefly in chapter 1, Halstead, *et al.* (1984) differentiate between SIA, monitoring and mitigation, and social impact management. They suggest that SIA is strictly a tool for identifying and evaluating the potential effects of an action on people, and that SIA is not useful for managing effects after the decision to allow an action has been implemented. This seems to be what Burdge (2002) and others are saying is happening in practice.

I agree that SIA should remain an *a priori* assessment tool. It seems as though IA practitioners associate the word "assessment" with "beforehand assessment," and to try to change the definition of SIA without changing what it is called, will be futile. I propose that assessment, monitoring and management of social effects be enveloped as three processes within a system called a Social Effects Assessment and Management System (SEAMS). My justification is as follows:

1. SIA, after thirty three years of practice as an *a priori* exercise is unlikely to change significantly to accept *post facto* management as a significant component;
2. *Post facto* assessment and management of social effects is found to be increasingly necessary, especially with recent revelations about cumulative effects of development;
3. Information gathered, and relationships fostered as a result of SIA should not be squandered after the permitting process is complete and an action approved. Information and relationships should be carried forward from SIA into a management system so that effects of development can be efficiently monitored and dealt with in a manner that is predictable and respectful to those people involved.

As mentioned in the introductory chapter, this report will examine SIA and some cooperative industry organizations that deal with social effects. These will be evaluated as parts of a SEAMS in Fort McMurray.

2.9 Conclusions

Arriving at useful definitions for SIA and SEAMS is difficult because both as a concept, and a decision-making tool in practice, it is still being developed. However, for the purposes of evaluating data collected in this research, I suggest that a complete SEAMS should meet several criteria:

1. SIA is a process to be undertaken *before* development occurs. Its basic function is to anticipate the social effects of a project, determine the significance of those effects, and suggest possible mitigation programs. From a political perspective, issues need to be identified for study in the SIA, and prepared for decision-makers to discuss. From a technical perspective, relevant studies need to be done to ensure that political issues have sufficient, balanced information to help decisions to be made.
2. The process of information collection in SIA should lead into the development of a monitoring system that can assess the effect of mitigation measures after the project has been undertaken, and to detect unintended or unpredicted consequences of development.
3. SIA should also lead to the establishment of an effects management system that can assess the status of the affected community on a regular basis using the monitoring system, and make use of information sources, decision-

makers and service organizations identified in the SIA to deal with social effects on a long-term basis.

The concept of a SEAMS was introduced so that these ideals of SIA can be advanced without changing the practical definition of SIA. The SEAMS is an integrated system incorporating the findings of SIA with the mitigation and monitoring of social effects, and the long-term management of social effects.

Chapter 3
Fort McMurray: Case Context

3.1 Fort McMurray as a case study

Fort McMurray is an apt site for studying SIA and SEAMS for several reasons. First, the amount of large-scale oil sand development in the Athabasca oil sand region is enormous. For the past forty years, there has been tremendous pressure on the community of Fort McMurray as the base for all this development, as employees and construction workers move in and out of the community. With many known and established impacts, over a long period of time, SIA has had the *opportunity* to make a real difference in the lives of residents there. Second, development in the oil sands expands to new locations frequently. EIAs (of which SIA is a part) are required in order for the developments to be approved by the government. As such, there is a long history of SIAs that have been conducted for various projects, each of them documenting social conditions in Fort McMurray, as well as trends in SIA practice during their respective times. Finally, many of the social impacts of oil sand development are not felt directly on the development sites, but rather in Fort McMurray, which is 50 to 100 km away[7]. Thus, no one project can alone be blamed for any particular impact. All projects, cumulatively, are responsible for the social impacts on the community.

[7] Some of the most significant impacts are also felt in communities closer to the work sites such as Fort McKay and Fort Chipewyan. These other communities primarily support the First Nations, which have different social networks and population dynamics, not to mention legal status and sources of funding. Their experiences have been different from those of Fort McMurray, which has seen highly transient population, exorbitant real estate prices, and other effects which will be discussed later in the chapter. As the administrative centre of the Regional Municipality of Wood Buffalo, Fort McMurray also has many more social organizations, community groups, and government departments which work together in dealing with social issues. Fort McMurray is different enough as a community that it alone will be dealt with in this thesis.

3.1.1 Location

Fort McMurray is a small city in the Regional Municipality of Wood Buffalo (RMWB), a large municipality at the northeastern corner of Alberta (56º 39' N, 111º 13' W; see Figure 3.1). Located about 450 km north east of Edmonton, and approximately 60 to 100 km away from the major oil sand developers operating today, Fort McMurray is the major staging point for social and economic development in the region. The RMWB exists mostly on marshy wetlands and muskeg, which has been easy to clear for the purposes of oil sand development, but has at times been difficult to prepare for urban development. The climate in the RMWB is harsh in the winter, with an average temperature around -17 ºC and snowfall of 155.8 cm in the winter season. The summer season is temperate, with average temperature around 20 ºC and precipitation of 300 mm (Environment Canada 2002).

Figure 3.1 Location of the RMWB in the Province of Alberta. No scale was provided with the original map, but it is approximately 1:5,658,500. Source: RMWB 2000a.

Fort McMurray is the largest centre in northern Alberta. It is accessible by regularly scheduled flights from Edmonton, and by road on various highways. Within the RMWB, many places are accessible by road year round; however, only a winter road goes to Fort Chipewyan, one of the larger villages in the region.

3.1.2 The History of Fort McMurray[8]

Fort McMurray is often thought of as a modern boom town that started with the discovery of the oil sands. Fort McMurray area, however, was actually occupied by the Cree people for millennia. It is also a city with a long European history and heritage that dates back to the 1700s, when the Athabasca River was a major attraction for fur hunters and explorers. It was conveniently located at the convergence of the Athabasca and Clearwater Rivers.

By 1778, trading posts had opened in the area, and the fur trade flourished; in 1870, the Hudson's Bay Company established a post named Fort McMurray after its Chief Factor. Although the fur trade soon became unprofitable, Fort McMurray survived as a river, road and rail transportation hub to the North, in particular during the Klondike.

As early as 1719, samples of oil sand had been brought to entrepreneurs by aboriginal people of the area, but 1917 marked the first study of the oil sands in northern Alberta. Sidney Ells produced two volumes on the potential commercial development of the bituminous sands there, and in 1921, a quarry was opened by The McMurray Asphaltum and Oil Company. By 1923, engineers had built an experimental oil and sand separation unit at the University of Alberta, but it was discontinued because of frequent operational problems and high heating costs. Several

[8] The primary source for this section is the Fort McMurray Historical Society website. http://www.fortmcmurrayhistory.com/

commercial plants were built, but were too inefficient to operate commercially, or were destroyed by fire. In the meantime, the salt, fishery and forestry industries were developing.

In 1947, Fort McMurray and the settlement of Waterways amalgamated as the village of McMurray; the village was incorporated as a town of about 600 people in 1948. By 1962, the town's name had been changed from McMurray to Fort McMurray, and the population was over 1,200.

The beginnings of substantial commercial development of oil sands were seen in 1953 with the formation of The Great Canadian Oil Sands Consortium (GCOSC), which constructed its large-scale plant north of Fort McMurray between 1962 and 1964. It officially opened in 1967. Syncrude Canada, Ltd., the other major oil sand producer in the region opened in 1974 after four years of construction. In 1979, the GCOSC was renamed to Suncor Inc, Oil Sands Group, as it is known today. Between 1966 and 1981, the population of Fort McMurray ballooned from 2,614 to 30,772. In the meantime, an all-weather highway from Edmonton was completed, and significant annexations had taken place from nearby provincial lands. In 1980, Fort McMurray was incorporated as a city. As population continued to increase, on April 1, 1995, the City of Fort McMurray and Improvement District No. 18 merged to become the Regional Municipality of Wood Buffalo, the largest land area municipality in North America.
(The Fort McMurray Historical Society, 2002)

3.1.3 Present Community Description

Today, Fort McMurray is a modern city of approximately 47,300 people, and is the seat of government for the RMWB, which itself has a total population of approximately 58, 000 (RMWB 2002). Fort McMurray is made up of seven major development areas (suburban and acreage developments) that were constructed by the residential

development divisions of major oil sands companies, as well as private development firms as the population grew over the past forty years.

There are some unique features of the RMWB[9] that are a result of its one-industry, boomtown-style development. Statistics Canada (2001) reveals, for example, that the community consists of 52.5% males, 98% of whom are under 55 years of age, which is high considering the provincial average of 50% males, 82% of whom are under 55 years of age. This gender imbalance in the community is likely due to the construction and heavy machinery jobs that are ubiquitous in the oil sands, and it has been thought to be responsible for the higher rates of crime, alcoholism, and substance abuse in the community (RMWB 2000b; Gartrell 1980). The imbalance is pictured in Figure 3.2, below. Curiously, this population is very well educated (Statistics Canada 2001). While university degrees were not found as commonly in Fort McMurray as in

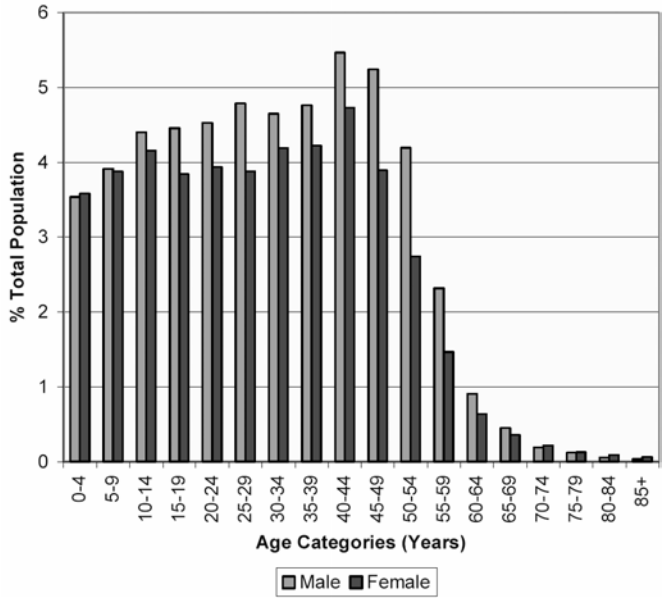


Figure 3.2 Percentage of residents by sex and age in the Regional Municipality of Wood Buffalo. Source: RMWB 2002.

[9] The RMWB is the smallest unit of analysis available from Statistics Canada. Therefore, some statistical information is not readily available on the population of Fort McMurray. However, the Urban Service Area of Fort McMurray accounts for 81% of the population of the RMWB, and transient work camp employees account for another 14% of the population (which are not included in the National Census). Therefore, the statistics about the RMWB are somewhat representative of Fort McMurray.

the rest of the province, considerably higher rates of people under 45 had some type of post-secondary education. Possibly as a result of the high levels of educated people found there, as well as the availability of high-paying oil sands jobs, the labour force participation rate was nearly ten percent higher in the RMWB than in the rest of the province, as was the employment rate. The unemployment rate was nearly one percent lower than that of the rest of the province.

Another important feature of Fort McMurray is its high growth rate. Between 2000 and 2002, Fort McMurray's population grew by 12.0%, while the province of Alberta grew by only 10.3% (RMWB 2002; Statistics Canada 2001; see Figure 3.3). Housing, however, has remained in very short supply (see, for example, Figure 3.4). In September 2001 for example, there were literally no apartments available for rent. Even though some apartment complexes have been completed in recent months, somewhat relieving the vacancy rate, it still remains remarkably low. In May 2002, Anon. (2000a) reported that, "[t]here are currently 80 listings in Fort McMurray. 20 are more than $300,000. 20 haven't yet been built." Construction workers were building at full capacity and there was still a six to eight months waiting list for new homes.

A short supply of housing in a community of oil sands workers with very high salaries means that people have a lot of money to compete for a limited number of houses, resulting in very high house prices (average salary in the community was $60,413 for full-time workers in 2001, compared to $44,080 for the rest of the province – the median household income was $90,223, nearly $30,000 higher than the rest of the province; Statistics Canada 2001). Costs of single family homes, for example, have been increasing annually since at least 1995 (see figure 3.5), and as of July 2003, a new single family home's average price was $270,342.

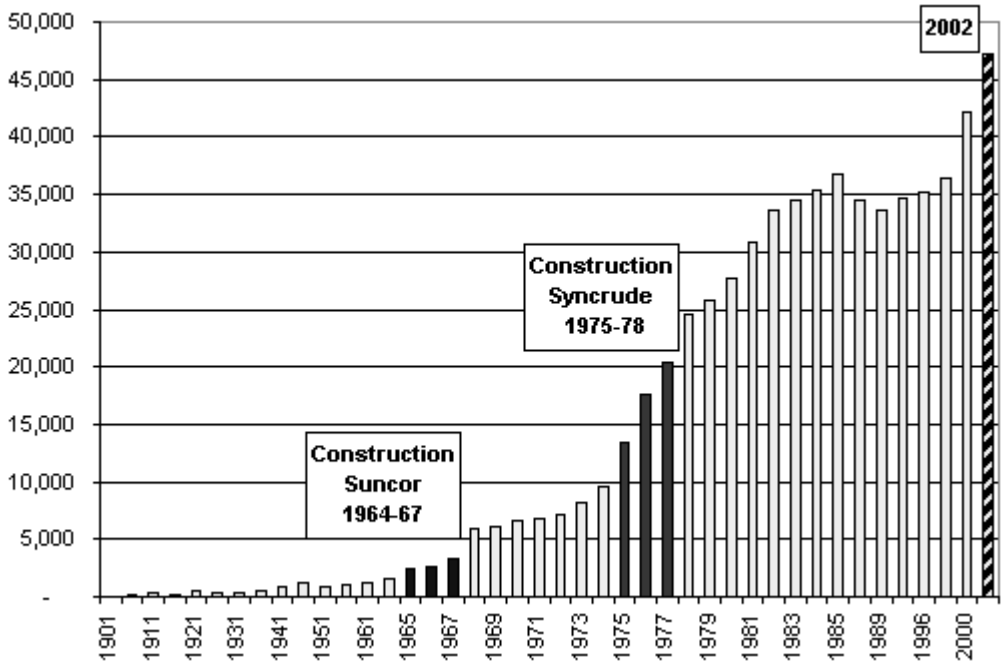


Figure 3.3 Fort McMurray population growth, 1901 – 2002. Source: RB Research and Display 2003b.

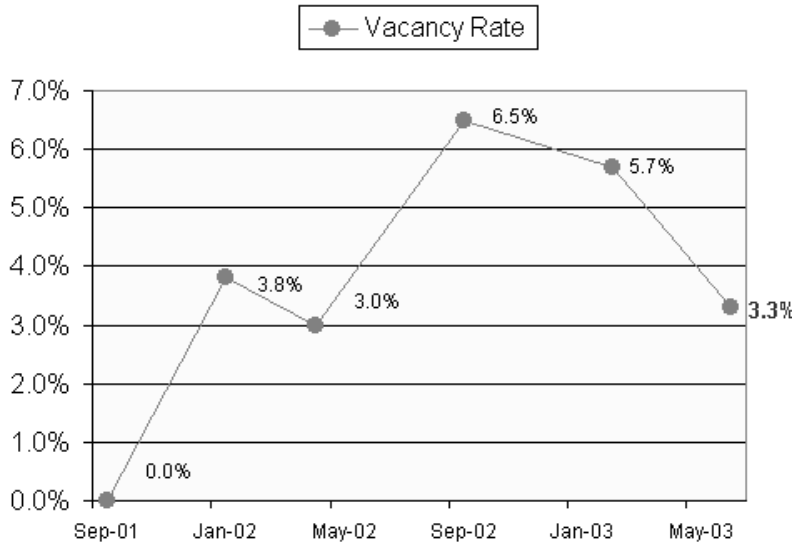


Figure 3.4 Fort McMurray apartment vacancy rate, Sept/01 to May/03. Source: RB Research and Display 2003c.

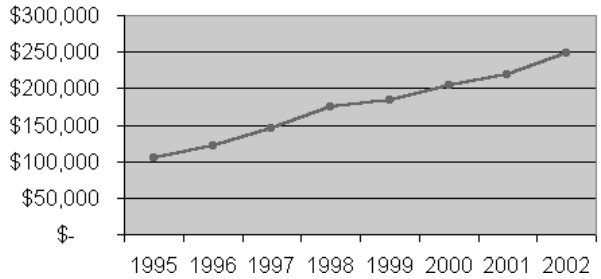


Figure 3.5 Average price for a single family dwelling – Fort McMurray 1995 – 2002. Source: RB Research and Display 2003d.

3.1.4 Planning bodies in the region

3.1.4.1 Regional Municipality of Wood Buffalo (RMWB)

The RMWB has the same responsibilities as other municipalities in Alberta. However, when it was formed, it was considered a "specialized municipality" in Alberta, designed to provide, "…for the unique needs of a municipality including a large urban centre [Fort McMurray] and a large rural area with a small population." (Alberta Municipal Affairs 2003a:13). Council is responsible for making decisions for the communities within the area of the region, and for ensuring that the purposes set out for municipalities in the Municipal Governments Act are acted upon. They are to:

- Provide good government;
- Provide services, facilities or other things that, in the opinion of council, are necessary or desirable for all or a part of the municipality;
- Develop safe and viable communities (Alberta Municipal Affairs 2003b).

Municipalities also provide essential, local services such as road maintenance, water and sewer services, and garbage collection. Municipalities have land and boundaries, provide residents with ways to make decisions about local issues, and are a focus for community activities. Fort McMurray, as a specialized municipality, manages local issues for the areas of land in which communities can be found.

However lands outside the community (and the natural resources to be found in those areas) remain crown lands, and are the responsibility of the province.

The community services department is made up of several important planning and service provision groups (RMWB 2003):

- Planning and development is responsible for land use and development planning, ensuring that enough land will be available for homes to be built for people who can afford housing, and the enforcement of development by-laws and building permits;
- Family and Community Support Services (FCSS) is a department of the RMWB funded by the province to "…enhance the well-being of individuals, families and communities." For example, the Family Services Agency provides subsidized counseling to individuals, couples and families. Besides the services this department provides, it is also responsible for the long-term planning of the provision of these services;
- Parks and recreation maintains and services non-provincial park areas in the city (sic). Furthermore, it plans for recreational facilities such as swimming pools, outdoor and indoor rinks and tennis courts, park land in the city, and the urban trail system;
- Engineering and Public Works plans and maintains the water supply and the sewage system as well as roads and transportation services, and the waste disposal system for the municipality.

Finally, the municipality is responsible for managing the cumulative environmental impacts it contributes to the region related to drinking water supply, sewage and storm water disposal, transportation and urban development (Alberta Environment 1999:10).

3.1.4.2 Provincial government of Alberta

Alberta Environment (1999:10) identifies four major planning and regulatory bodies that represent the province in planning for oil sands development. They include:

- Alberta Environment: responsible for the province's air, land and water, as well as the management and conservation of renewable resources such as forestry,

fish and wildlife. The Environmental Protection and Enhancement Act gives it seven core responsibilities: project assessment and evaluation, approvals, monitoring, enforcement, setting standards, objectives and guidelines, and decommissioning and reclamation. Alberta Environment is also responsible for the Regional Sustainable Development Strategy (RSDS), and managing the relationship between the Cumulative Effects Management Association (discussed in Section 3.4);

- Alberta Health and Wellness: develops standards and policies that contribute to improving health for all Albertans. Furthermore, it helps promote heath and safety in the region through the Northern Lights Regional Health Authority;
- Alberta Energy: Through the AEUB, ensures that development and transportation of energy is in the public interest. The AEUB also plays a key role in resource appraisal, application review, monitoring and surveillance. Decisions made by the AEUB, however, must be authorized by the Alberta Cabinet.
- Alberta Sustainable Resource Development: Through the Natural Resources Conservation Board (NRCB), ensures that major natural resource development not related to energy, such as forestry, mining, recreation, tourism and water management is undertaken in an environmentally sustainable fashion. Furthermore, this ministry is responsible for the development of Integrated Resource Plans for various regions in Alberta, including the Fort McMurray-Athabasca Oil Sands area.
- Alberta Children and Family Services, Alberta Learning, Alberta Seniors, etc.: These ministries are responsible for many of the social services that are provided in Fort McMurray. While they do not have regulatory roles in the region, they are the ministries responsible for providing social services and welfare to the community, and are therefore important to helping people who are subject to the social effects of oil sands development. They need information to help them undertaken budget and staff planning, as well as special programs planning for addressing social issues in the population at large.

3.2 The Oil Sands Industry

The oil sands industry is based on the extraction of the bitumen. However, bitumen is not easy to extract directly from the ground as it is often mixed with sand, clay, and water – a mixture known as "oil sand" that requires significant processing. Bitumen is then converted into synthetic oil by the two current major operators, Suncor and Syncrude, which is sold alongside conventional crude oil in North America (Alberta Economic Development 2002). Other operators in the construction phase of new

facilities will extract the bitumen, but process it at other locations. There are an estimated 1.7 to 2.5 trillion barrels of bitumen in the Athabasca oil sands, and about 315 billion barrels can be extracted using current technology (Burton 2002). It is predicted that by 2010, oil sands production will reach 2.2 million barrels per day.

There are two major methods for extracting bitumen. The original method is open-pit mining. Major current developments are open-pit mines, and are capable of high levels of bitumen production. Mining activity includes removal of overburden, using a truck and shovel mining technique to remove the oil sand, followed by processing in a plant using steam and hot water to separate the bitumen from the sand. Surface mining is typically undertaken when the overburden and top waste (the soil above the bitumen-producing formation) do not exceed 75 metres in depth (Alberta Environmental Protection 1996:10). These mines and plants require thousands of people to construct (Suncor originally required about 3 000 while Syncrude originally employed about 8 000 construction workers at its peak), and employ up to 5,500 people each during operation phases (Syncrude, n.d.).

The second major technology of bitumen extraction, more popular in recent years, is called Steam Assisted Gravity Drainage (SAGD). This method requires that two horizontal wells be drilled underground. One well, situated several metres above the other, is pumped full of very hot steam which melts the bitumen in the surrounding formation, causing it to drain into the lower hole, which can then be pumped to the surface. This method does not require movement of large tracts of overburden, nor does it require as intense a process to remove particles from the bitumen, as the steam loosens the bitumen from the sand *in situ* (Alberta Economic Development 2002:2). These developments require fewer construction and operations staff than do the mines. The Petro-Canada Meadow Creek SAGD project (2001:6-9), for example, is projected have a peak construction force of 665 people during one month of the two-year construction time, and other months require between 50 and 640 workers. These

projects are viewed by the community to contribute less to total social impacts, even though cumulatively, they may contribute more than is perceived (Petro-Canada 2001).

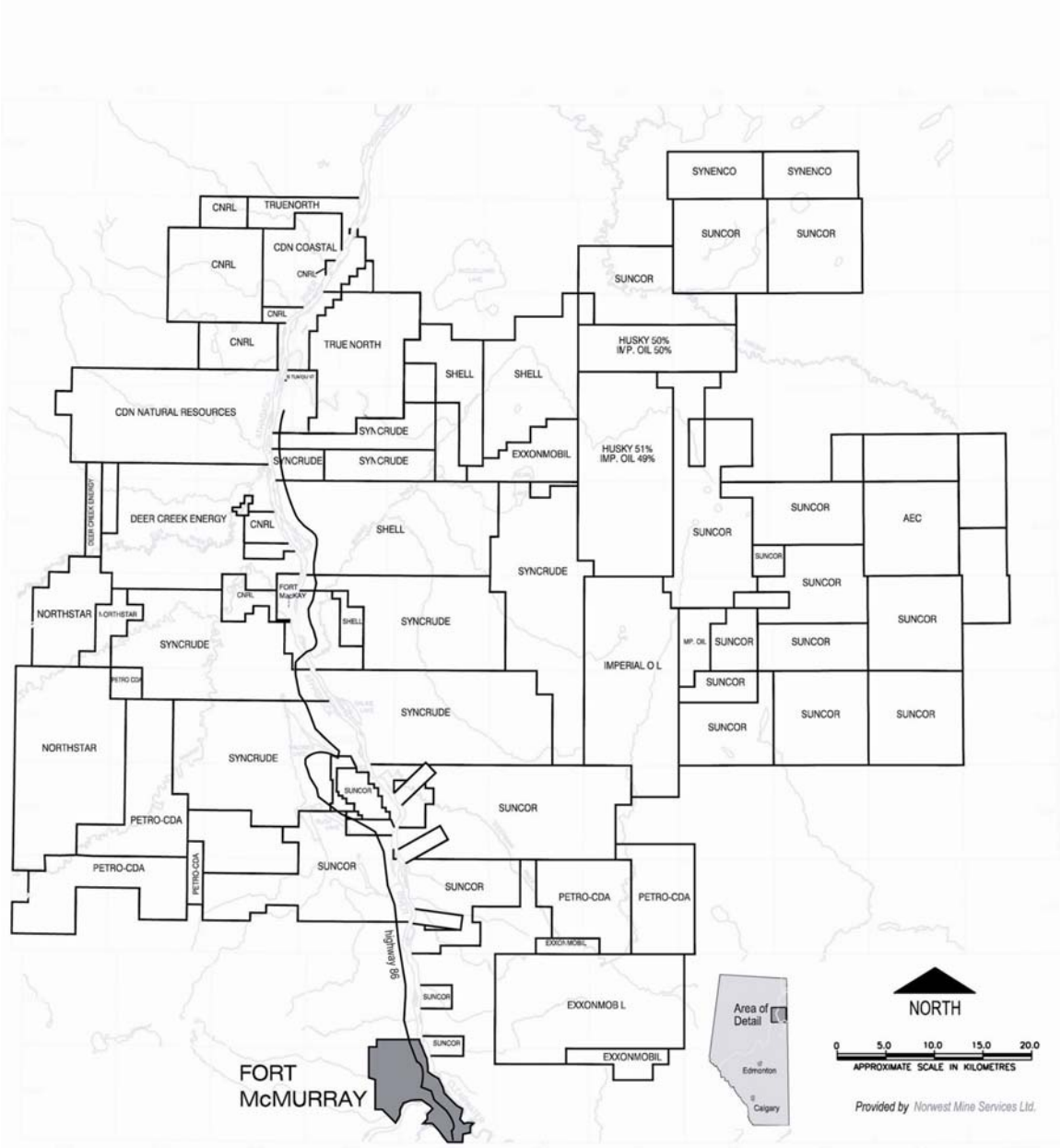


Figure 3.6 Location of oil sands leases in relation to Fort McMurray (Adapted from TrueNorth 2001).

3.2.1 Socio-Economic Impact Assessment

Like in other jurisdictions, the term socio-economic impact assessment (SEIA) describes that process that is required by law in Alberta. However, since the goal of this research was to investigate if the goals of *SIA* are being achieved in Fort McMurray, descriptions of the process are called SIA, unless other literature or personal communications are being quoted.

The foundation on which SIA was built in Fort McMurray was developed by the Alberta Oil Sands Environmental Research Project (AOSERP). It was a research group established by the Government of Alberta in 1975 to "direct and coordinate research projects concerned with the environmental effects of development in the Athabasca Oil Sands in Alberta," (Peter C. Nichols & Associates 1979:ii). Part of the AOSERP, called the Human System, was established to evaluate the impacts of oil sand development on people and the human environment. This major part of SIA in the region was not meant to be conducted before any development was undertaken. Rather, it was conducted well into the construction and operational phases of oil sand development in the Athabasca oil sands region to examine the impacts of current development (Parker 1980). Gartrell, *et al* (1980:v) in their "Study of Human Adjustment in Fort McMurray," report that their study was made more difficult because of the limitations posed by past and retrospective data when attempting to assess changes that had occurred in the community since construction began.

3.2.2 SIA in Alberta

In Alberta, social impacts are assumed to be part of the overall environmental impacts of a project. Thus, SIA is incorporated in the EIA process. The main piece of legislation governing EIA in Alberta is the Environmental Protection and Enhancement Act (AEPEA; RSA 2000 E-12). Part 2, which sets out the Environmental Assessment Process and identifies which regulations control the process, Part 3, which determines

the types of projects that automatically qualify for assessment, and Part 4, which delineates the role of the Environmental Appeals Board in environmental appeals are the most important parts of legislation.

The purpose of the Act, as defined in the preamble is to, "support and promote the protection, enhancement and wise use of the environment while recognizing that:

1. A healthy environment is an essential part of society and human health;
2. Economic growth must be balanced with environmental protection and conservation;
3. The needs of future generations are to be considered in today's decision making;
4. Government decisions can affect the environment, and need to be reviewed;
5. Research is essential in maintaining a healthy environment;
6. Protecting a healthy environment is a responsibility shared by all;
7. Citizens have an important and useful role in environmental decision making;
8. Polluters have a responsibility to pay for environmental damage; and
9. There is a need for comprehensive response to environmental concerns.

In the body of the AEPEA, Section 40 describes the purpose of the EA process as:

> (a) to support the goals of environmental protection and sustainable development,
>
> (b) to integrate environmental protection and economic decisions at the earliest stages of planning an activity,
>
> (c) to predict the environmental**, social, economic and cultural consequences** of a proposed activity and to assess plans to mitigate any adverse impacts resulting from the proposed activity [emphasis added], and
>
> (d) to provide for the involvement of the public, proponents, the Government and government agencies in the review of proposed activities.

Significantly, in Alberta, the "environment" as defined by the Act includes,

> 1 (t) the components of the earth and includes
>
> (i) air, land and water,
>
> (ii) all layers of the atmosphere,
>
> (iii) all organic and inorganic matter and living organisms, and
>
> (iv) the interacting natural systems that include components referred to in subclauses (i) to (iii).

Humans and their social, economic, and cultural systems seem to be left out of this definition of the 'environment.' These types of effects have been specifically mentioned in the procedures to be carried out in an EIA. Section 49(d) of the AEPEA requires in an EIA,

> (d) a description of potential positive and negative environmental, social, economic and cultural impacts of the proposed activity, including cumulative, regional, temporal and spatial considerations.

Furthermore, Sections 49 (e) and (f) demand:

> (e) an analysis of the significance of the potential impacts identified under clause (d); and
>
> (f) the plans that have been or will be developed to mitigate the potential negative impacts identified under clause (d);

However, monitoring of mitigation plans is restricted to only the negative effects on the environment:

> 49 (i) the plans that have been or will be developed to monitor environmental impacts that are predicted to occur and the plans that have been or will be developed to monitor proposed mitigation measures;

The absence of required monitoring of mitigation of social, economic, and cultural effects due to actions is a serious flaw in the legislation supporting the existing "SEAMS."

3.2.3 Phases of SIA in Alberta

Since SIA is most often one of the components legislated in an EIA, the phases conform to the EIA process. Figure 3.7 shows the EIA process that is undertaken in Alberta.

The Alberta model of EIA is quite representative of the EIA process that is seen both in other jurisdictions, and in the literature. Goldman and Baum (2000:19), Barrow (1997:101), and others describe EIA processes nearly identical to this one, and since the Alberta model is the one that governs EIA and SIA in Fort McMurray, it is the model that will be used in this report.

The major parts of the EIA process are (1) initial review; (2) screening; (3) determination of Terms of Reference (TOR); (4) EIA report submission and review; and (5) regulatory approval. During all phases of the process, documents and decisions are open to public input, review and scrutiny, so that members of the general public may have an opportunity to have their interests represented in the final decision on the EIA.

In Alberta, the initial review is the period in any EIA when the proponent informs Alberta Environment of a new project. Many projects, including oil sands mines, are described in and regulation (AR 111/93) as being mandatory review projects. Depending on the scale and other attributes of the project, the Director of the EIA review and approvals process may require an EIA to be conducted at the outset of any project.

If a project is neither exempt nor required to undergo an EIA by regulation, but there is some question over whether an EIA is necessary, The Director conducts a screening process to see if the project merits assessment. By enquiring about the dimensions of the impacts of the project both in terms of both space and time, screening ensures that unnecessary EIAs are not undertaken, but that EIAs that are necessary are indeed done (Barrow 1997:106). The findings of screening are released to the public to ensure that The Director's decision has not missed any important stakeholders.

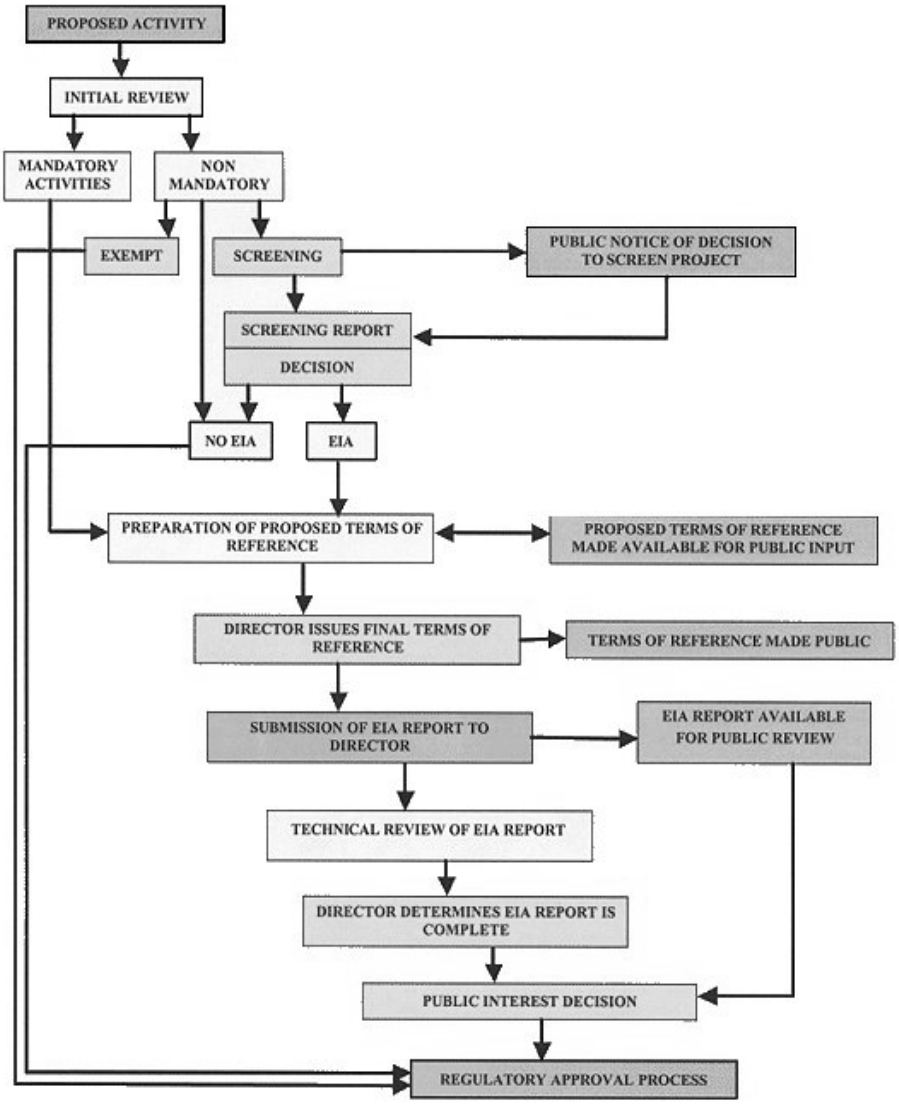


Figure 3.7 The Environmental Impact Assessment process in Alberta (Government of Alberta 1999).

The first step taken is the development of a statement of the Terms of Reference (TORs) of a project. TORs are developed cooperatively between the proponent and Alberta Environment. The TORs delineate what will be studied in the EIA, and usually includes sections on:

- project overview;
- project description;
- details of the environmental (biophysical) assessment;
- historical resources and traditional use assessment;
- public health and safety issues;
- public consultation; and
- socio-economic assessment.

(Based on a brief survey of TORs acquired for this research: Alberta Environmental Protection 1998a, 1998b; Alberta Environment 2000, 2002a, 2002b, 2003)

Each category has a number of detailed sections, but this thesis focuses on the last four in the list, and particularly on the socio-economic assessment and public consultation.

The TOR for SIA in the oil sands has remained essentially the same from 1998 to 2003, with slightly more emphasis on cumulative effects in the latter years. The requirements quoted in each of the five oil sands development applications are:

- the selection of the Study Area(s), information sources and assessment methods;
- the number and distribution of people who may be affected by the proposal;
- the social impacts of the project on the study area(s) and on Alberta including:
    - Local employment and training

    - Local procurement
    - Population changes
    - Demands on local services and infrastructure
    - Regional and provincial economic benefits
    - Construction camps
    - Trapping, hunting and fishing
    - Effects on First Nations and Metis; e.g. traditional land use and culture
- The economic impacts of the project on Alberta including information about capital and labour and other operating costs and revenues from services
- The use of local, Albertan, and Canadian goods and services
- Employment opportunities for local and regional residents
- Strategies to mitigate socio-economic concerns raised by the RMWB and other regional stakeholders including a discussion on the potential impacts to housing availability and the social ramifications of that impact. These impacts are to take into account the impacts that can be reasonably expected in the future.
- Support work with other industry partners and the RMWB to develop and use the urban population prediction model.

(Alberta Environmental Protection 1998a, 1998b; Alberta Environment 2000, 2002a, 2002b, 2003).

Other sections of interests include the health and safety issues, which include requirements for a report on affordable housing and changes in medical care. The public consultation section is also important, as it delineates the various publics to be represented in the EIA, and in later years, this section has emphasized the importance of bilateral and multilateral agreements between oil sands developers and stakeholders in the region.

Once the Terms of Reference are finalized, the proponent (again, often through a contractor) conducts a comprehensive SIA and composes the SIA report, addressing the TORs. Often, a group of specialists are employed to undertake specific technical

work. Meanwhile, the contractors and proponents also arrange the public consultation program at various stages of the process (see figure 3.7).

3.2.4 Social impacts experienced in Fort McMurray

The impacts experienced in Fort McMurray are not unusual, or even unexpected for a place undergoing rapid change (Susskind and O'Hare 1977; ICGPSIA 1995). A human needs services assessment conducted in 2002 revealed that there are several major human needs that need to be addressed in the community (Converge 2002:4). On the top of the list is the affordability of living in the community, in particular, the affordability of housing. Numerous news reports, government agencies and interviews for this research have also identified the cost of housing, and the high cost of living in general, as the most significant effect of oil sand development (Skidnuck 2001; Anonymous 2002b, 2002c, 2002d; RB Research and Display 2003a). As mentioned earlier, the cost of housing has been increasing over the years (see Figure 3.5). As of July 2003, the average price for a single-family home in Fort McMurray cost $270,000. Other issues that were considered a priority in the report included general cost of living (Fort McMurray, because of housing costs, is one of the most expensive places in Alberta to live), illegal drug use, alcohol abuse, children receiving inadequate care, family stress and breakdown, gambling addictions and unaffordable daycare, among others (Converge Consulting 2002:4).

Municipal debt is an important socioeconomic impact felt in Fort McMurray. Figure 3.8 demonstrates the pattern of boom-and-bust that the oil industry is faced with, and the population flux that it causes. Because infrastructure is so expensive to build, and provincial funding does not come soon enough before new booms occur, there are periods of infrastructure lag, then infrastructure surplus in the community. According to Alberta Economic Development (2003:14), RIWG predicts that between 2003 and 2007, $620 million in infrastructure development may be necessary for the community to support the growing oil sands industry, yet normal funding sources will render only

approximately $210 million, leaving a deficit of $410 million. While the municipality goes into debt to build infrastructure for the future, it may be forced to cut social programs unless alternative sources of funding are made available by the province or industry. The cascade of other impacts that are a result of oil sands development and municipal infrastructure development are seen in Figure 3.9.

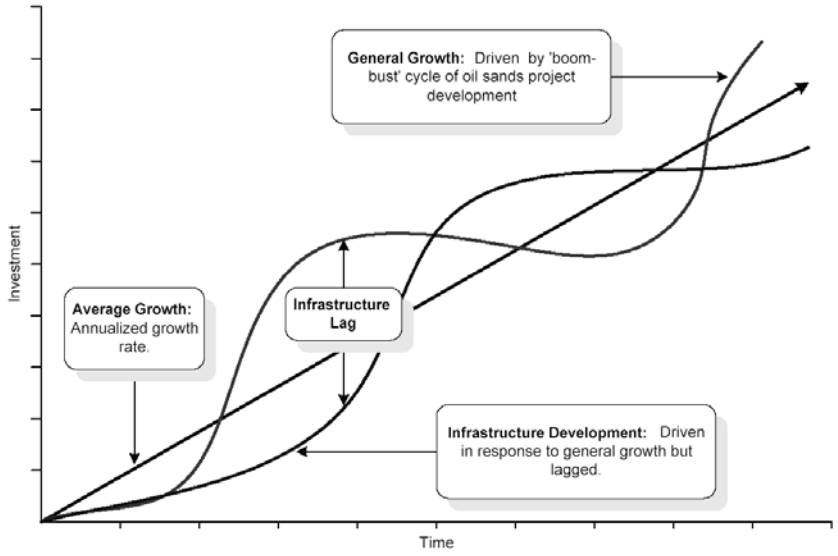


Figure 3.8 The gap between infrastructure development and population growth is a major driver of negative social effects in Fort McMurray. While this diagram shows infrastructure lag, the lag can also apply to a number of social services and wages for government employees. For example, the school board is required to make three year plans to justify funding levels, but by the time the plan is approved, the population has changed significantly and made the plan obsolete. Source: Human Services Needs Assessment, Converge Consulting 2002:6.

The provincial government also reports difficulties in undertaking work in the community. Alberta Economic Development (2003:18) reports issues faced by provincial government departments in Fort McMurray including:

- Difficulty in recruiting and retaining staff despite $400/month subsidy, due to high cost of living and competitive wages from other employers;
    - Relying on junior staff to do jobs that senior staff would be more apt to do;
- High costs of contracted services;
- High office and maintenance costs; and,

- High costs of capital projects.

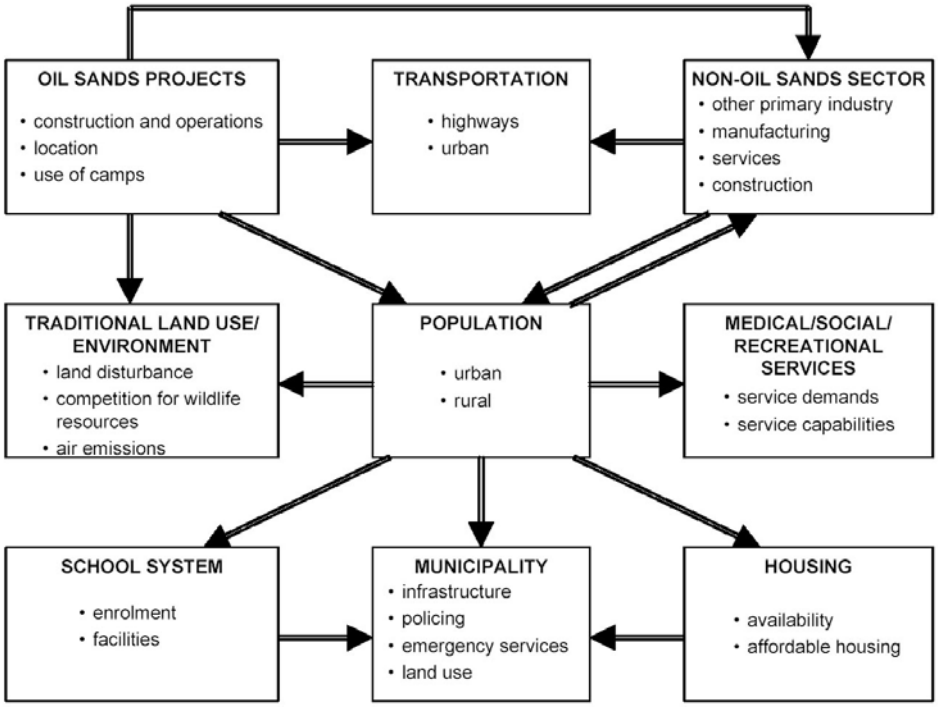


Figure 3.9 Integrated social and economic effects on the RMWB. Source: Alberta Economic Development 2003:13

Another major impact that has been reported numerous times is the shortage of both skilled and unskilled labour in the community. The high cost of living is a deterrent to people who might otherwise work in the sales and service industries, or NGO organizations, to move to Fort McMurray. Public education, municipal services and medical services are even subject to shortage of labour due to high cost of living, combined with the isolated nature of the community (Alberta Economic Development 2003:15). Finally, there is intense competition from oil sands companies for skilled tradespeople. Garages, plumbers, residential and commercial construction companies and other trades-related businesses in Fort McMurray suffer frequent turnover of employees to the oil sands companies because of the high wages that the oil sands companies can provide (Cook 2002a; Brethour 2002). A similar phenomenon is

happening with skilled managers in other businesses, government agencies and volunteer/NGO service providers (Alberta Economic Development 2003:18).

3.3 The Regional Issues Working Group

SIA is not the only contributor to the evaluation and management of social impacts in Fort McMurray. One of the most unique innovations developed to address social impact assessment and planning in the Athabasca oil sands region is the Regional Issues Working Group (RIWG). RIWG was established in 1997 under the name, Regional *Infrastructure* Working Group, as a point of information exchange for the RMWB and the oil sands industry, but changed its name in 2001 because it found that its scope had changed. It presently operates with an Executive Director, and a staff of three. It facilitates a coordinating committee with 15 sub-committees, as seen in Figure 3.10. The membership consisted of representatives from 23 industrial operators in the RMWB, and included non-voting representatives from the provincial and municipal governments, and relevant community organizations as consultative members. The group was formed when the province and managers from resource developers agreed that the RMWB did not have the expertise to predict the regional population based on economic data from oil sands companies, or the infrastructure that would be needed in order to facilitate further oil sands development (Pers. Comm. Oct 5, 2001).[10]

RIWG operates with the vision, "To provide a pro-active process which promotes the responsible, sustainable development of resources within the Regional Municipality of Wood Buffalo for the benefit of all stakeholders" (Pers. Comm. Oct 5, 2001). RIWG's goals and values are stated in Table 3.1.

[10] Pers. Comm. Anon. RIWG, October 5, 2001.

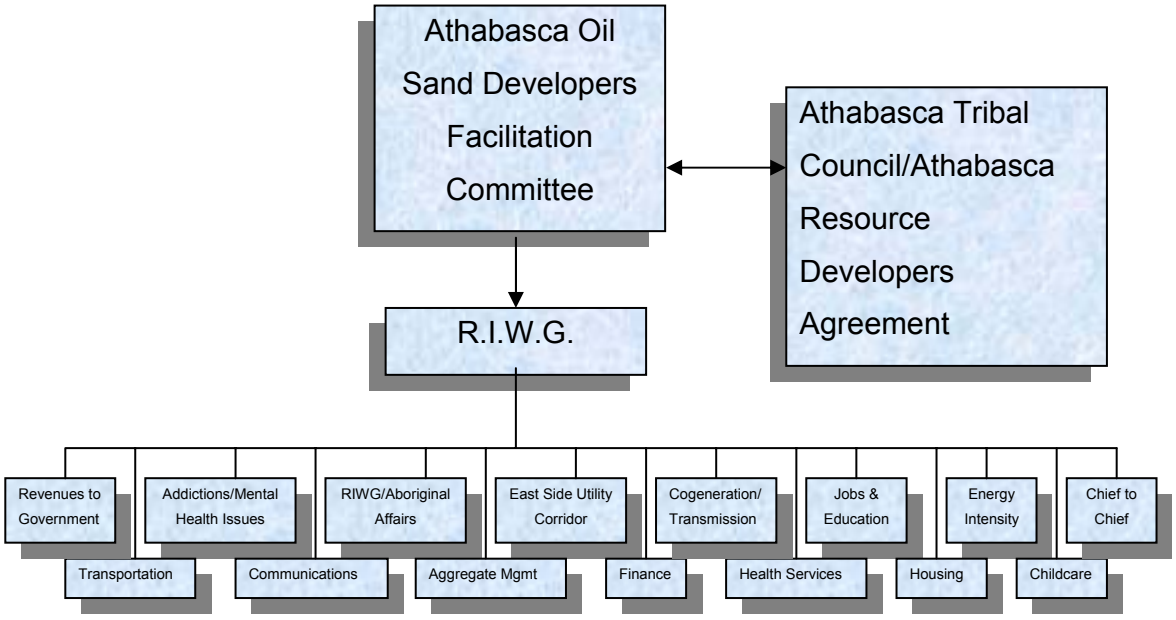


Figure 3.10 Regional Issues Working Group – Draft Current Operating Model, August 2002. Arrows indicate flow of decisions at higher levels, while lines indicate subcommittees of the RIWG committee. Source: Personal Communication, RIWG, 2002

Its main purpose has been described as, "to identify priority items with respect to physical and social infrastructure, scope out the challenges, and identify the responsible authority" (Alberta Economic Development 2002:7).

Upon formation in 1997, one of the first actions RIWG took was to begin collecting expected employment needs data from each of the major oil sands developers in the region. This information was collected in complete confidence, and only reported in aggregate form. The aggregate information was made available to the public so that the community and stakeholders could plan for development that was expected to occur, while ensuring that the specific development plans of each participating developer would remain confidential. It then employed the services of Nichols Applied Management to develop and maintain an urban population model that could predict population dynamics in the urban service area of Fort McMurray based on changes in

employment activity of the oil sands producers. "'We predict the population with all the demographics so that the hospital boards and Keyano College and the school boards and the municipality all work from the same scenario,'" said Bill Almdal (Cook 2002a).

RIWG has a comprehensive methodology for addressing issues that arise with respect to oil sands development. Figure 3.11 demonstrates the steps that RIWG takes from the time it receives information about an issue in the community, and the time it releases this information to the public. It then makes recommendations for action to the appropriate parties.

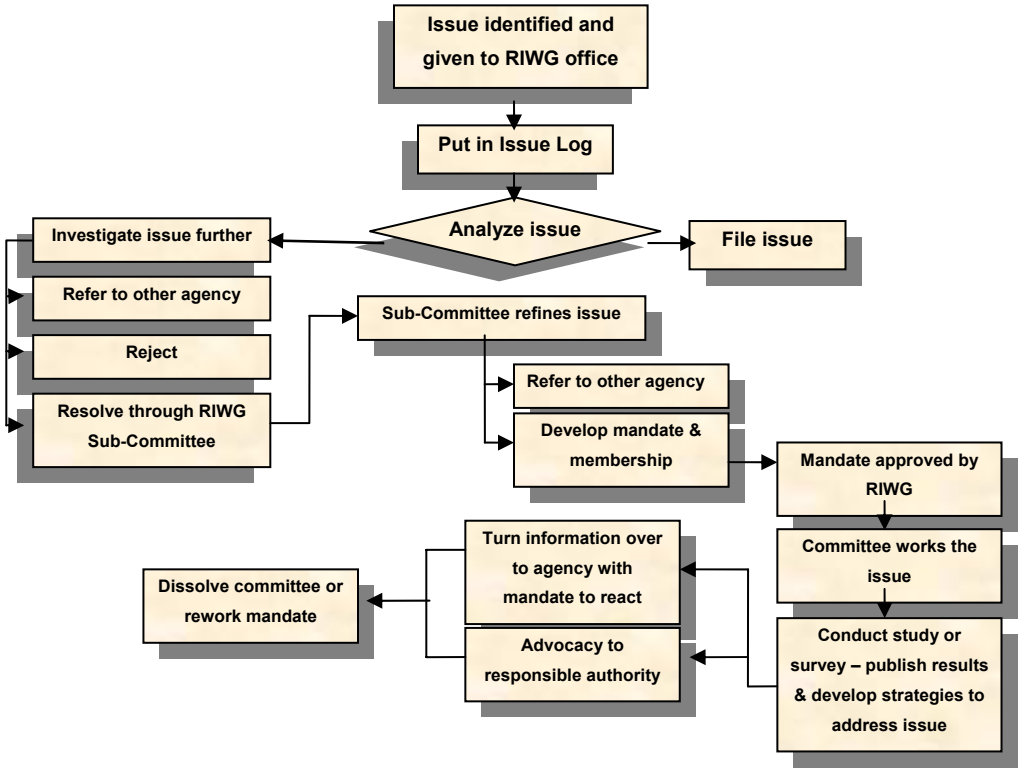


Figure 3.11 The RIWG issue management process. Source: Pers. comm. anon. RIWG, Oct. 4, 2002.

Table 3.1 RIWG values and goals. Source: Anon. Pers. Comm. RIWG, 2002

Statement of Values	Statement of Goals
To be inclusive – involve all interested and affected stakeholders	Provide information to interested parties
Recognize that resource development is occurring on lands that the aboriginals consider traditional	Provide leadership on issues related to development of resources in the RMWB
Committed to the identification and breaking down social barriers to participation of all stakeholders in the development of the region and its resources	Facilitate resolution of issues in a timely and effective manner with minimal duplication
Strive for consensus in all decisions and solutions	One hundred percent (100%) participation of resource developers in RIWG
Respect for culture and values of all stakeholders	Include all relevant affected stakeholders in effective resolution of issues
Ensure confidentiality of stakeholder information collected	Develop a plan for sharing of benefits with aboriginal peoples
Shared responsibility of resolution of issues	Adapt to the changing needs and issues of the region
Fairness in distribution of cost and work associated with resolution of issues	To be recognized as a respected and trusted organization
Work in co-operation with other organizations	Break down barriers to participation by stakeholders
	Ensure new industry players understand the needs and issues of the RMWB
	Identify communication, human and physical opportunities and challenges to facilitate planning for growth
	Identify opportunities for cost effective resolution of issues
	Responsive to regulatory requirements

Figure 3.11, above, illustrates that RIWG is an issues *management* forum. It seeks to research issues and refer them to appropriate actors, rather than actually solving problems or coordinating solutions themselves. Within the RIWG management process, an issue may be rejected, monitored, or researched resulting in RIWG's

informed opinion being communicated in some way to a person or group who can effect change. The Athabasca Oil Sands Developers Facilitation Committee (AOSDFC; Figure 3.10), a group made up of senior officers from each oil sands operator, ensures that RIWG's outputs or other issues are directed to the appropriate authorities for expedient resolution (AEUB 1999). The AOSDFC also lobbies various levels of government to address significant issues in the RMWB.

A popular example of an issue managed through the RIWG process is the chronic shortage of affordable daycare in Fort McMurray. This management issues was cited by several informants as a successful response by industry to a problem that was arising in the community. The issue was identified in 2001 and was logged with RIWG as a lack of affordable, high quality childcare in the RMWB. In fact, oil sands companies were having trouble hiring new staff because potential newcomers could find nowhere to send their children during the workday once they arrived in Fort McMurray. RIWG set up the childcare sub-committee, seen in Figure 3.10, and that sub-committee served as a negotiation forum that allowed companies and community organizations to form a partnership.

As a result of this partnership, Suncor and Syncrude together donated the use of a unit in a housing complex they have leased at Keyano College towards daycare for five years. The Ohpikowin (meaning 'Growing Up' in Cree), Childcare Centre will be operated by the YMCA and accommodates up to 40 children 18 months of age and older (RIWG, 2002a). It is open to anyone in Fort McMurray, and helps meet the need for child care in downtown Fort McMurray. In this case, it was felt that the responsible authorities able to assist in this matter were in fact oil sands producers, in partnership with Keyano College and the YMCA. This sub-committee continues to monitor child care in the RMWB, and has worked on the issue in Fort Chipewyan, Fort McKay, Anzac, Conklin and Janvier (RIWG 2002b).

RIWG also undertakes some annual surveys. As of November 2001, topics of the surveys included production, investment, environment, employment, government revenues and safety (Pers. comm. anon. RIWG, Oct 4, 2002). A full list of the surveys is included in appendix D. Furthermore, on a quarterly basis, the number of aboriginal apprentices hired and the number of people in work camps is tracked. Monthly, the number of child care spaces in Fort McMurray is documented.

RIWG, however, is not primarily a forum for resolving issues of a social nature. One informant reflected in a conversation that RIWG is a group designed to ensure the smooth continued development of the oil sands, and in most cases tends to focus on economic and industrial infrastructure issues that arise and need to be addressed. Stakeholders from outside industry are only allowed to participate in a non-voting, and invited-guest capacity. The informant also noted, however, that RIWG's mandate can change as necessary, to fit the issues that face the oil sands industry. Social issues may be addressed in the future if they have a direct impact on the oil sands industry, but many social issues simply do not fall into this category.

3.4 The Cumulative Environmental Management Association (CEMA)

CEMA is a significant multi-stakeholder group that has arisen in recent years to help address the cumulative environmental effects of oil sands development in the oil sands region (CEMA 2003a; Spaling, *et al* 2000). It also arose in response to a the possibility of a federal environmental assessment being undertaken because of a perception that cumulative environmental effects were not being adequately addressed in the region (Alberta Environment 1999). Incorporated as a not-for-profit association in 2000, CEMA is a voluntary partnership that seeks to (CEMA 2003b),

> Provide a forum for regional stakeholders to facilitate discussion and make consensus-based decisions forming the basis for actions by members, and recommendations to Alberta Environment's Regional Sustainable Development Strategy (RSDS) as appropriate, on

> managing the region's cumulative environmental effects, thereby forming the core of a proactive regional environment management system that addresses cumulative biophysical, health and resource use impacts of regional developments.

It also seeks to accomplish several other objectives (CEMA 2003b; Spaling *et al* 2000):

- Develop and apply environmental management tools, thresholds, guidelines and objectives for an effective and efficient stakeholder-driven environmental management system in the region;
- Respond to issues brought forward by stakeholders. Issues not within the mandate of the Association will be referred to an appropriate organization for a response;
- Work cooperatively with other activities and organizations which also have responsibilities with respect to managing the regional environment including establishing linkages to other environmental management initiatives or activities in the region;
- Effectively communicate the need, activities, and results of the Association related to managing cumulative environmental effects to internal and external stakeholders;
- Ensure regional environmental guidelines, objectives and thresholds are in place or established and recommend to RSDS where appropriate for effective implementation;
- Develop the basis for the ongoing management of impacts of industrial development on the regional environment including by recommending the priorities and objectives for and content of monitoring and research, and both employing and recommending mitigating options;
- To develop and apply appropriate environmental tolls for the management of cumulative environmental effects in the region;
- To receive, sell, manage, lease, mortgage, dispose of or otherwise deal with the property of the Society.

These objectives are all to be carried out while respecting the 13 principles established by CEMA (Table 3.2).

Table 3.2 Principles guiding CEMA decision-making (adapted from Spaling, *et al* 2000).

Principle	Description
Inclusive	Allow for the participation of all stakeholders, and strive to have broad representation from all sectors
Representative	Represent the broad range of interests in the region
Responsible	Operate in a way that meets the needs of participants, including the discussion of all issues brought to the table, some of which may be referred to other organizations
Supportive	Ensure support mechanisms are in place to allow for meaningful and effective involvement of stakeholders
Broad-scope	Address biophysical and health aspects of cumulative and environmental effects management in the region
Sound science	Utilize the best-available western and traditional science in decision-making
Independent	Operate independently; decisions will be made in a collaborative manner, will not be biased in favour of a particular sector and will represent the consensus of all stakeholders
Open	Operate in a transparent manner, with information being openly shared among stakeholders and communities in the spirit of cooperation
Accountable	Accountable for its activities and decisions to all its stakeholders
Precautionary	Where there are threats of serious or irreversible damage, lack of scientific uncertainty shall not be used for postponing cost-effective measures to prevent environmental degradation
Proactive	Act to prevent rather than fix or mitigate problems
Responsive	Able to respond to emerging issues in a timely manner
Holistic	Environmental, economic, social and technical aspects will be considered when making decisions.

CEMA, in its "holistic" principle claims to take into consideration "social" aspects of the cumulative effects of oil sands development. The definition of "social" in this case, however, seems to be narrow. As seen in figure 3.12, one subcommittee of CEMA works on cultural and heritage resources. This group's objectives are to "develop recommendations for management objectives and management options for (CEMA 2003c):

- Sustaining sites of significant cultural or spiritual meaning;
- Sustaining areas of natural beauty;

- Protecting historical resources;
- Ensuring availability of wilderness experiences;
- Sustaining recreational capability and opportunities;
- Sustaining aesthetic values;
- Managing access to water; and,
- Managing access to areas of cultural, historical and spiritual significance.

While these cultural and historical aspects of the environment are important to consider in cumulative effects decisions, they do not represent the full spectrum of social effects that could be taken into consideration such as, for example, cost of living effects, housing availability, and the other major social effects that have been observed in Fort McMurray.

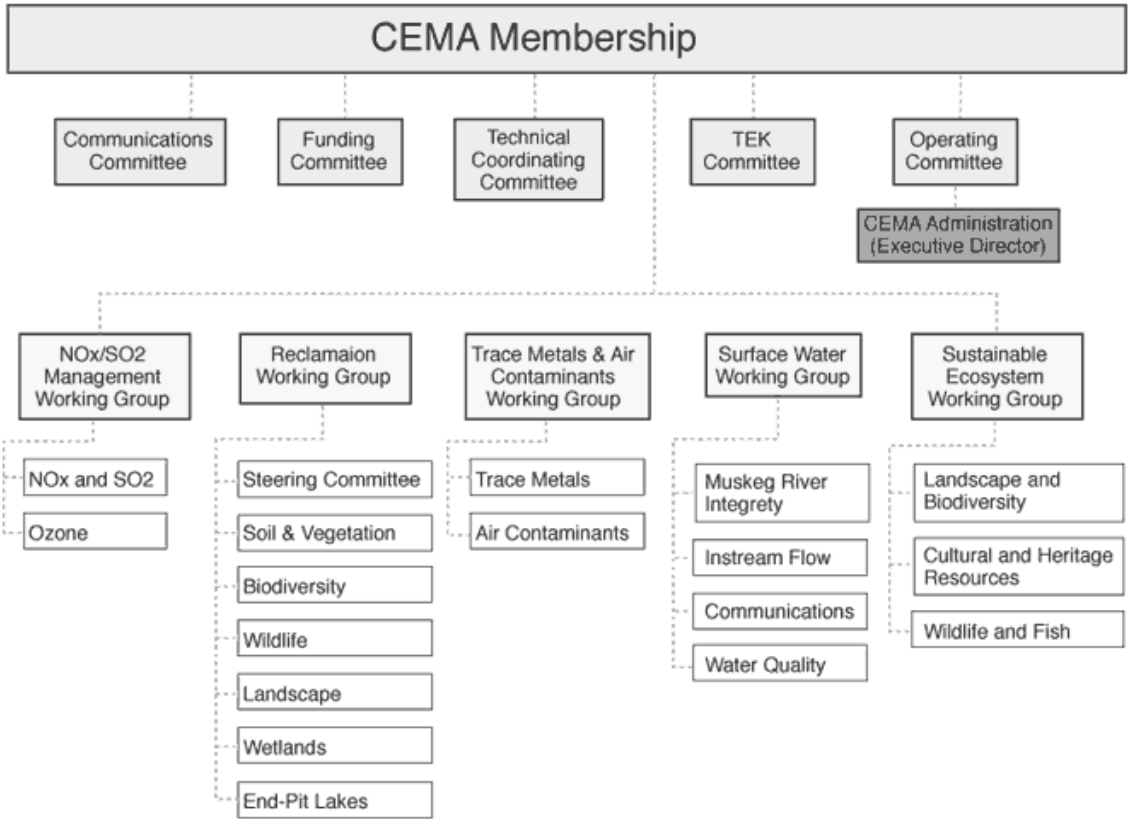


Figure 3.12 Organizational structure of CEMA (Source: CEMA 2003d)

CEMA does, however, have significant advantages over the RIWG process. The most important advantage is that CEMA has some regulatory relevance through an alliance with the RSDS. RSDS is, "a provincial policy for gathering environmental information, identifying priority regional environmental issues for research and action, and co-ordinating multi-stakeholder decision making (Spaling, *et al* 2000)." Its administrative and regulatory powers come from Alberta Environment's Board of Directors for the northeast Boreal Region. By nurturing this alliance with the RSDS, CEMA (including all the stakeholders in the region, along with industry) is regarded as the expert team responsible for the development of indicators and thresholds for environmental parameters that are to be used, while the provincial and federal governments (depending on areas of jurisdiction), act as the regulatory and enforcement agencies according to law (Spaling *et al* 2000; Alberta Environment and Alberta Sustainable Resource Development 2001:7).

CEMA and the RSDS are not without their challenges, however. As of 2001, difficulties were recognized in the timing of working groups; while several management objectives were to have been set by the time of the 2001 report, none of them had been completed. It was found that significant complexity, combined with the consultative, interactive nature of the objective development process, "…make the strategy's original targets unrealistic (Alberta Environment and Alberta Sustainable Resource Development 2001:12)." Indeed, the AEUB had found that CEMA and the RSDS were not working fast enough to identify critical objectives for the management of cumulative effects in the region. This may be one reason that the Canadian Environmental Assessment Agency has entered a joint assessment agreement with the Province of Alberta.

3.5 Groups addressing specific issues

While SIA addresses information needs for decision-makers and, to an extent, planners in the region, and RIWG addresses coordination of efforts of complex social issues to

do with oil sands producers, there is a wide variety of organizations that administer front-line human services. A recent SEIA report completed by Petro-Canada (2001:Appendix V) identified and contacted 86 organizations ranging from municipal departments, school boards, community associations, First Nations organizations, family crisis centres, homeless shelters, women's shelters, youth organizations, and others. All these organizations are important for the long-term management of social effects in Fort McMurray and throughout the RMWB.

Yet, their resources are limited. Surprisingly, many of these organizations do not need more money – rather, they need human resources, which are in short supply (Petro-Canada 2001:II-13). Indeed, the United Way of Fort McMurray, which funds many of these organizations, is one of the best funded, per capita, in Canada. Last year, over $1.5 million was raised to be donated to these front-line organizations (United Way of Fort McMurray 2003), but the money often cannot be used fast enough because the organizations simply do not have enough volunteers to make decisions and administer help. A list of organizations funded by the United Way is included in Appendix E.

Finally, the Mayor of the RMWB is capable of striking *ad hoc* task forces on certain subjects that are of concern to the community. Recently, a Mayor's task force on social housing, with the assistance of RIWG, was able to cause the development of 120 social housing units – a significant and important development in this community where such a shortage of affordable housing exists (Pers. comm., anon. RMWB. May 14, 2002).

3.6 Conclusion

In summary, Fort McMurray is in a locally unprecedented situation of rapid growth based on a single, high-paying industry that requires highly-trained workers. Though

the city has a population of almost 50,000, its service industry and social, medical, entertainment and other services are understaffed because salaries in these areas are insufficient to match the high cost of living in the area, and Fort McMurray in particular. Various other social effects are experienced in the city. Several mechanisms exist to deal with these, and other social effects, but despite years of assessment and awareness, they have not been successfully mitigated.

The primary mechanism used to assess the social effects of oil sands development is SIA, or SEIA as it is known in Alberta. These studies are conducted for each oil sands development application. Another important organization for coordinating responses to social issues related to oil sands development is RIWG. RIWG is a group of industry representatives, regional and provincial government officials, and representatives from relevant NGOs that strikes subcommittees to address issues that threaten the smooth operation of oil sands projects, and these issues sometimes include social effects. Its capacity to help in addressing, mitigating or managing social effects is considerable because of the knowledge and experience of its members, and its connections to industry and government. Other groups exist which could take part in a coordinated effort to address social effects, but coordination has yet to be achieved.

Chapter 4
Analytical Framework Development

The literature review established a model of SIA and how it can be incorporated into a system of social effects assessment and management. It was concluded that SIA, planning and management need to be performed in an integrated fashion to help ensure that maximum positive effects of development are realized by as many people as possible, and negative effects of avoided, mitigated or at least known and understood. The description of the context of oil sands development and its effects on Fort McMurray has illustrated the SIA, SEAMS and planning regime in the region, and delineated some of the real limitations on the SEAMS there. This chapter will link this SEAMS to a management framework to help sort data, separate and resolve ideas, and make recommendations for action along specific lines of reasoning.

4.1 Qualities of the Analytical Framework

As discussed earlier, SIA, planning, implementation, and monitoring and management of those processes are often thought of as discrete steps in development. However in theory, they should be part of a system that can assess social effects of a plan, change the plan accordingly, then implement the plan and evaluate it according to criteria designed in the assessment process. The system should be pragmatic, integrated, and should actively and iteratively, acquire, process and distribute information to all who need it or want it. They should help ensure that social effects of development are as positive as possible before the project implementation, during its operation and after decommission. In the case of Fort McMurray, unique effects in the community that can be traced back to many individual projects; the community needs to prevent, mitigate and adapt to negative effects that accumulate from the planning phases of the first development, through to the economic exhaustion of the resource body, while enhancing the positive effects.

One of the key objectives of this research is to evaluate the different parts of social effects management in Fort McMurray as a system, or a diffuse organization. A framework or model for a system is needed in order to undertake this evaluation. There are several characteristics this model should have in order to characterize and help analyze SIA and social effects management in Fort McMurray:

1. It must be able to accommodate an integrated, but decentralized system;
2. It must be able to accommodate a management system with a wide variety of stakeholders;
3. It must not be specific to any one sector or type of organization;
4. It must be able to accommodate an management system with a variety of data sources and types;
5. It must be a model that is used for clarifying and understanding how the system works; and,
6. For data analysis, it must be open enough to accept information from a variety of sources, yet specific enough to sort the information into meaningful groups that will lead to useful recommendations for change.

4.2 The 7S Integrated Management Framework

The McKinsey 7S Integrated Management Framework (7S IMF) is a model of organizational management devised by Pascale and Athos (1981) after detailed discussion and comparison of successful Japanese and American businesses (Buller and Timpson 1986). In their analysis, Pascale and Athos realized that ineffective management, especially in the West, has been the result of gimmickry and quick fixes that have been ineffective. "The problem isn't simple, and neither is its solution…" they note. "*No quick introduction of uncoordinated parts will address the whole problem*. [emphasis added]" (201). They did not recommend quick fixes for management. Rather, they realized that "…regardless of our society or culture, mankind has discovered only a limited number of tools for making organizations

work," (22) and distilled their research into characteristics that represent those successful tools.

The 7S IMF, as the name suggests, demonstrates how seven linked characteristics of organizations can be balanced to increase the potential for successful management (see figure 4.1).

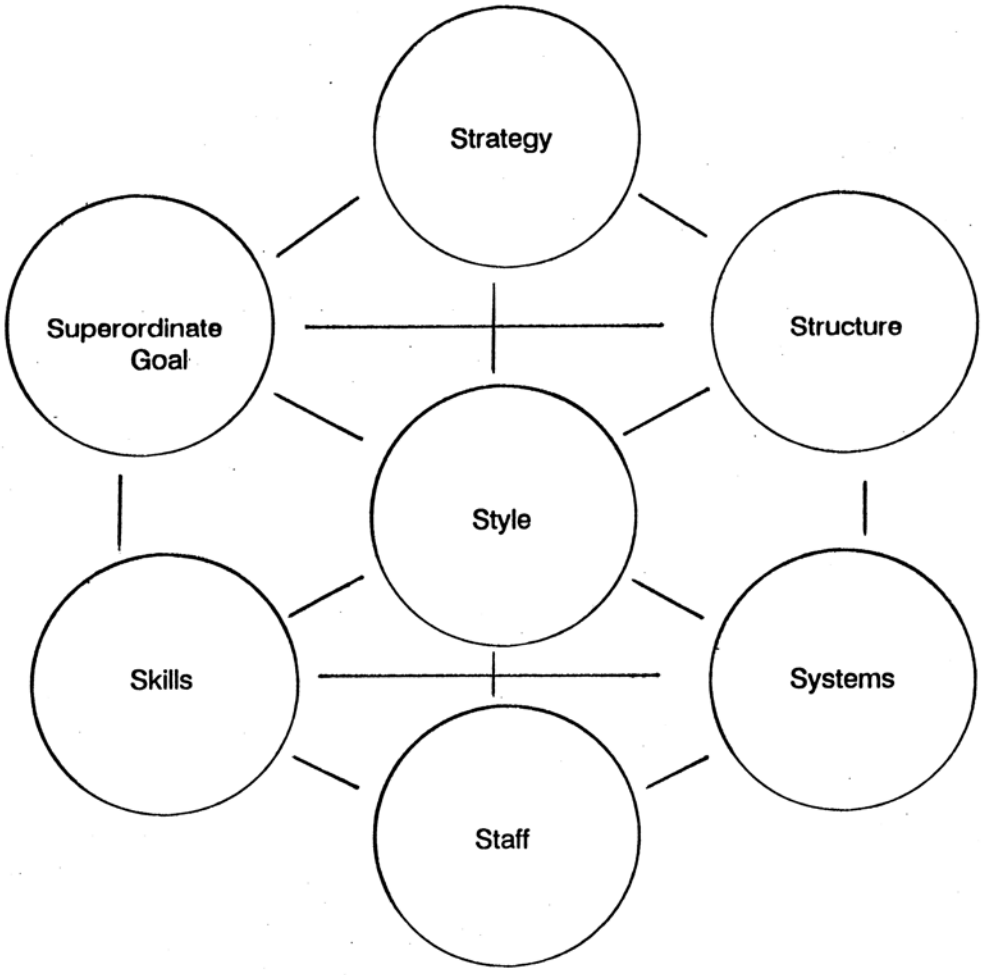


Figure 4.1 The McKinsey 7S Integrated Management Framework "molecule." Source: Pascale and Athos (1981:202).

While the Pascale and Athos model was designed for business organizations, it is easily adaptable to other types of management regimes; its components are non-

specific, and simply refer to the things needed to operate smoothly and successfully. Sargant (1996) successfully adapted this model to study environmental assessment and planning in Ontario to discover why they are not integrated. He defined each of the seven "S's" as follows (p. 28):

1. **Superordinate Goal:** The main purpose to which an organization and its members dedicate themselves;
2. **Strategy:** Plan of action that allocates scarce resources over time to get an organization from where it is to where it wants to go.
3. **Structure:** The way a company or institution is organized in terms of how the boxes in an organizational chart are arranged and whether or not a centralized or decentralized control exists.
4. **Systems:** This refers to how the information moves into, around within, through and outside of the organization in terms of formal and informal communication networks.
5. **Staff:** The number, type and characteristics of the people who are in the organization
6. **Skills:** These are the distinctive capabilities of the personnel in the organization;
7. **Style:** This refers to the pattern of behaviour of the top executive and senior management and in some cases, the entire corporate style of an organization.

4.3 Adaptation of the 7S IMF

In order to make the model relevant to the present research, each of the 7S's was redefined according to some of the concepts found in the literature, and according to some of the practical issues raised in the description of the SEMS discussed in chapter three.

1. **Superordinate Goal:** The overarching purpose of social effects assessment and management of oil sands development;
2. **Strategy:** Plan of action that will allow stakeholders to address social effects of oil sands development adequately; the strategic arrangements that have been made to ensure integration of the SEAMS constituent parts.

3. **Structure:** The way in which tasks are specialized and divided and authority is divided. The basic grouping of activities and reporting relationships into components. The mechanisms by which activities and members of the organization are coordinated;
4. **Systems:** Refers specifically to how information moves into, around within, through and outside the SEAMS;
5. **Staff:** The number, type and characteristics of the people who are work to address social effects of oil sands development;
6. **Skills:** These are the distinctive capabilities of the personnel in the system;
7. **Style:** This refers to the overall behaviour of parts of the system or organization, particularly of higher-level or coordinating parts.

4.4 Specific Use of the 7S IMF

It was established in the literature review that better integrated programs and processes are desirable for facilitating good decision-making and effective management regimes. The 7S IMF offers seven components of good management systems. They were used as guidelines for evaluating the SEAMS in Fort McMurray. This framework was particularly useful for categorizing data from interviews and documents into manageable sets. It was also useful for making comments on particular components where strengths and weaknesses in the system of managing social effects of development were most obvious.

4.5 Post-analysis changes to the 7S IMF

During a preliminary analysis, it was found that the data did not completely fit the proposed framework. There was duplication between the categories of Structure, Staff, and Skills. The SEAMS in Fort McMurray is not coherent enough to be able to describe specific skills, personalities and behaviour of people in the system outside of their desired role in the system's structure. Therefore, these three categories were consolidated into the "Structures" category.

Thus, the 7S IMF has become a 5S IMF. In order to sort the data into each of these categories, several questions were developed for each of them. The Structures category is now defined as follows:

Structures: The way in which tasks are specialized and divided and authority is divided. The mechanisms by which activities and members of the organization are coordinated, and the types and numbers of people necessary to fill conduct those activities.

Chapter 5
Results and Analysis

5.1.1 Interview Results

In total, 16 key informants were interviewed in order to gain an understanding of SIA and its relationship to planning in Fort McMurray. These key informants consisted of:

- Six officials from the RMWB including two planners, one council representative, two representatives from Family and Community Support Services, and one representative from Community and Social Services;
- Three officials from the Province including one from AWASAK Family and Social Services, and two from Alberta Environment;
- Four representatives from the oil sands industry. The representatives were from executive and managerial levels, related to community affairs and stakeholder relations, as well as from an industry group;
- Two representatives from their respective prominent community NGO social service providers;
- One representative from a First Nations industry relations group.

Data is organized using the modified Integrated 7S Framework (5S) discussed in the chapter four. The 5 S's include: Superordinate Goal, Strategy, Structure, Systems, and Style. Each section includes the perspectives from the Municipality, social service providers, and industry, plus any special groups that may have arisen in specific parts of the framework.

Direct quotations may have been modified to preserve the anonymity of the participant, as guaranteed in their agreements to participate in the study. However, any information critical to the spirit of the quotation has not been changed.

5.1.2 Document Analysis

The document analysis takes a broad perspective on SIA and SEAMS in the oil sands region, both temporally, and from a variety of sources. The following documents have been selected for analysis:

- Twelve social impact assessment reports, Alberta Energy and Utilities Board (AEUB) decision reports, and terms of reference over a period of 39 years of development;
- Two Fort McMurray population studies;
- Provincial policy and analysis documents;
- Municipal Documents including municipal plans and policy documents;
- An independent human services needs assessment commissioned by the RMWB.

In order to highlight the progress SIA has made in Fort McMurray, and to indicate where SIA policy may be headed, it was practical to organize the documents by date, according to the three major phases of development of the oil sands. The groups of documents include those from:

Phase 1: The first boom (1964 – 1984): This phase includes the initial development of the two major oil sands producers (Suncor and Syncrude) in the Athabasca oil sands. It was characterized by large construction forces, and a boom town atmosphere.

Phase 2: The slowdown (1984 – 1996): Capital investment in the oil sands decreased significantly between 1984 and 1996. Any investment made was to increase the efficiency of current operations, resulting in a smaller operational workforce and layoffs. Solve-Ex proposed to construct a new mine, but could not raise sufficient capital to undertake the project. Generally, morale was low in the community at this time.

Phase 3: Contemporary development, the new boom (1996 – present): New interest in oil sands as a reliable, domestic energy source, and improvements in extraction and processing technology has led to increased interest. Dozens of projects have been proposed and

remain under regulatory review. More than $60 billion in capital investment is planned between 2002 and 2012. Fort McMurray expects to grow quickly and reap the benefits of renewed prosperity.

5.2 Results

5.2.1 Superordinate Goal:

The overarching purpose of social effects assessment and management of oil sands development.

5.2.1.1 Superordinate Goal - Interview Results

Industry Perspective – Superordinate Goal

Some participants from the oil sands industry believe that the goal of SIA in the RMWB is not so much to identify and solve problems at the time of the assessment, but to ensure that the right contacts are made with the community so that long term concerns can be solved cooperatively. "You want to have everyone lined up for the right reasons, as opposed to per project. You want to be dealing with longer term issues…it's more of a corporate relations exercise."

In contrast, another representative believed that SEIA specifically is most prominently a regulated function. The participant said that SEIA is implemented in three components:

1. the project application and management plan (of which consultation is a significant part);
2. EIA – which usually includes impacts on human health; and
3. SEIA – which reflects the amount and type of consultations that have gone on with stakeholders.

Furthermore, it serves two official functions, regulated by the Alberta Energy and Utilities Board:

1. help ensure the orderly development of Alberta's energy resources; and
2. making sure that development is in the public interest of all Albertans.

"…SEIA is an iterative process. Lots of what is done in SEIA is not just done by a consultant, but is done as a result of feedback by stakeholders, which is generated by company efforts. Thus, [we] are very involved in the way that SEIA is conducted, and the topics which it covers."

Finally, another participant felt that SIA can have the effect of making local and provincial governments dependent on companies for funding anything from recreation facilities, to housing projects, to hospitals, which he didn't think was right.

Municipality's Perspective – Superordinate Goal

Although the planners in Fort McMurray do not have sufficient time to review SIA reports adequately, they felt that SIAs are definitely necessary. "We still need that kind of assessment. It looks at projects on their own terms." Another planner said, "[SIA] is intended to reflect social impacts of a particular development itself without the other surrounding impacts, including housing, community impacts, and others such as teenaged prostitution."

For planners, SIA is primarily useful in terms of providing population estimates, which are used for calculating temporary and permanent labour force, housing needs, school requirements and demographics.

Social Services Providers' Perspective – Superordinate Goal

The social services providers interviewed had a diversity of responses about what the goal of SIA should be. One participant felt that Fort McMurray is the size that it is because of the oil sands companies, and therefore impacts related to population or infrastructure shortfalls should be addressed by them. SIA should help them determine

which impacts are occurring, and should help develop concrete plans for mitigating them. "SIA plays a role in ensuring that industry defends the community's right to benefit [from resource extraction]." In fact, another participant felt that "…whereas environmental issues face lots of mitigation, social issues do not…. I don't know why – *simply, no one requires it*."

Some of the participants felt that SIA in the community focused on the economic benefits of oil sands development, and not enough on the other quality of life issues. "…for example, [SIA] doesn't speak to the issue of potential for increased crime as development increases."

SIA Practitioners' Perspective – Superordinate Goal

"[SIA] is an interesting combination of disciplines, including the political, sociological, and economic perspectives that together address very real problems. It is to provide information to communities that can be of real benefit to them," said one practitioner. Another noted, "…there are a few levels of meaning. On a more formal level, SIA is taking a look at the impacts of a project on all areas of individual and community life. At a different level, a project level, it can be a means for a proponent to become involved in the community – it regulates the nature of the relationship between the proponent and the community."

In terms of the way SIA addresses cumulative impacts, both of the informants agreed that there are certainly problems. One expert said, "We're way past the point at which [project SIAs] make sense. This is a major loophole in legislation. There used to be mechanisms for addressing cumulative impacts, but now total impact has been intensified by 1000% [thus, the mechanisms aren't effective anymore]." The other expert said, "There is no counterpart [to EIA] on the social side to monitoring. SEIAs are snapshots at the moment….This is a weakness in the system." There is a general concern that if SIAs stopped occurring, there would be a shortage of information about

Fort McMurray and the ongoing cumulative impacts of projects. They agree that this must change.

5.2.1.2 Superordinate Goal - Document Analysis

Phase 1 – Superordinate Goal

The goal of SIA was rarely discussed in length in documents during this phase of development. Gartrell *et al* (1980:iv-v) notes that it was important for the Alberta Oil Sands Environment Research Program (AOSERP)[11] to obtain as much information as possible about social impacts of commercial development to date, so that a dynamic baseline about the social impacts in the community could be developed for future studies of impacts to be based upon (Gartrell *et al* 1980:16).

Phase 2 – Superordinate Goal

The "bust" phase of oil sands development lead to the development of different methods of SIA, and more contemporary attitudes about the social impacts in the community. Syncrude (1992:2) states that the "…process is designed to facilitate an appropriate level of public participation in the identification, evaluation, and resolution of impacts on, and benefits to, the human environment…" It states the following objectives:

- "Identify the issues which are likely to be of significance, so as to focus the efforts of both the study team and stakeholders and, therefore, best use available resources;
- "Identify the potential benefits and adverse impacts that may occur as a result of the project on the specific issues previously identified;
- "Determine the significance of such impacts;

[11] The AOSERP was a large research program that existed from 1975 until 1982. It was funded by the Alberta government and the Federal government for the purposes of determining the long-term environmental effects of oil sands exploration and development. It was expanded late in its existence to include long-term effects on people and the community (AOSERP 1983).

- "Recommend ways to enhance the positive effects, and reduce or eliminate the negative impacts through the development and implementation of mitigative measures;
- "Determine the significance of impacts that remain following these mitigative efforts; and,
- "Recommend ways to monitor and report the benefits and adverse impacts."

However, the same report found there would be no negative impacts on the community, despite potential losses of jobs (i). In fact, it implied that the community and local business had become accustomed to the cyclical nature of the oil sands industry (14).

Later reports have taken a more direct approach to negative impacts. The Solv-Ex proposal and SIA (1995), a much larger project than the above-mentioned Syncrude proposal, clearly indicated that Fort McMurray, Fort McKay and Fort Chipewyan were expected to be impacted (ix). Since this project did not come to fruition, it is impossible to know how their predictions would have affected how social effects were dealt with in Fort McMurray.

Phase 3 – Superordinate Goal

The most recent phase of development in Fort McMurray has demonstrated yet another leap in the goals of SIA. In 1997, the AEUB noted, "If Syncrude had begun [the Aurora Mine] consultation with other firms earlier, fewer amendments to the application would have been required, and the time to process the application would have been significantly reduced (23)." The board emphasized that "…the difficult issues associated with developing one of the most significant resources in the world are best resolved though a process that looks at the total regional picture, as far in advance as is reasonable and possible (34)." Clearly, cooperation is an important goal of SIA in the region.

Recent SIAs have focused on the cumulative nature of impacts, rather than on the particular negative impacts of any one project. "Stakeholders tend to focus on oil sands industry expansion as a whole and the SEIA similarly focuses on the cumulative effects of a number of oil sands projects proceeding," claims one report (CNRL 2002:6-6). The AEUB has reinforced this view by saying, "Significant delays in the process or the failure of the process to begin to establish…guidelines for management of cumulative effects within the oil sands region in a timely manner could eventually force the Board to revisit its previous decisions (AEUB 2000:14)."

5.2.1.3 Superordinate Goal - Summary

The official purpose of SIA in Alberta is to help regulators of projects make decisions about whether the project in question is in the interest of the public. After the decision is made, the conclusions and agreements made during the course of the SIA are not enforceable by the government, except in decisions about the approval of future projects. The AEUB has used this possibility as a threat against the oil sands industry and the government in the past, in an attempt to have some regional planning completed, but to date has not followed through on that threat because it does not seem to have a good mechanism for addressing cumulative social effects of development.

At the same time, it is also an important tool for municipal and social services planners, who need demographic information about the community at different stages of a project's development. This type of information can be useful for planning necessary physical infrastructure and community services that will be necessary in the future.

Unofficially, SIA has become more than a simple decision-making exercise. Informants from industry reveal that SIA is an important tool for building relationships with the communities they affect as a result of development – in a way, SIA contributes to a system for managing relationships with the community, and in the long-term, for using these relationships to deal with unforeseen issues that may arise. Syncrude has

stated that SIA is designed to facilitate public participation in all stages of planning of, and decision-making, about oil sands projects.

However, there are important details that some people think are missing from SIA as it is today. Most importantly, the process does not seem to adequately address socio-cultural issues; as a result, economic benefits of projects are highlighted in SIA reports, and issues that are not easy to quantify, such as changing relationship/friendship networks or family stress, and the causal relationships between oil sands development and these changes. SIA should be addressing all these types of social effects. Furthermore, some people feel that mitigation of the negative effects of oil sands development is not done effectively. SIA should not only be assessing the project-based *and* cumulative social effects of oil sands development, but it should be leading to the creation of specific plans for the mitigation of negative effects, and the enhancement of positive ones.

Second, there is no reliable or institutionalized monitoring system for social effects. It is difficult to know if predictions made in SIA are being adequately managed or mitigated, and unintended effects of development cannot be measured. While SIA may be able to prepare proponents, stakeholders and regulators for changes that could occur due to development, it does not lead to actually *doing anything* about social effects information once it is reported, and effects are observed. Monitoring is essential to an effective SEAMS.

5.2.2 Strategy:

Plan of action that will allow stakeholders to adequately address social effects of oil sands development; the strategic arrangements that have been made to ensure integration of the SEAMS constituent parts.

5.2.2.1 Strategy - Interview Results

Industry perspective - Strategy

Industry representatives experience frustration when they are approached by communities to solve all the problems that oil sands development can cause. "Industry can't do a lot," said one representative, "It's not a development policeman. These things are the responsibility of municipal affairs, the province, and the federal government." It is felt that industry pays a fair amount of tax, and in return, the province should be taking a closer look at funding programs in the community. "…in other words, the government of Alberta, and policy, needs to change as to how it allocates royalties back to the community. It requires change from the demographic-driven allocation to actual impact-driven allocation," said another participant.

The participants also felt that senior infrastructure working group committees, such as RIWG, can help meet a lot of needs. One participant specifically mentioned workforce education, the environment and housing as three areas which can receive specific attention. He noted that these groups can also be used to help improve community, facilitate capacity building, and help groups work together to make progress on broad issues. These committees are where companies and their employees can help "give back" to the community. "There is plenty of in-kind contribution to the community, and what really gets the most mileage is talking to the people in the community," he said.

While industry recognizes that it has a part to play in helping the community, it is difficult to achieve consensus with all the groups that need to work together. "These are very important subjects, and there is not much time to address many issues. It's hard to get all the levels of government at the table, and everyone expects industry to solve these problems."

Municipality Perspective - Strategy

The municipality is very concerned about how all the various stakeholders and proponents can work together to solve problems that arise as a result of oil sands development. Individual *in situ* projects, which are becoming more common, tend to hire between 100-500 employees per project, which at first does not seem to be a large workforce. However, as more projects are proposed, effects begin to add up and accumulate in ways that are detrimental to the community.

It is felt that companies need to be serious about mitigating impacts of their projects. "…if they're going to affect health care, for example, they need to offer solutions. It must be done formally, as informal agreements are less likely to stick." The same planner felt that if companies have approval to develop before they enter formal agreements, then they have little motivation to honour their commitments, although she realizes that they probably already want to be good corporate citizens.

Strategically, SIA is important in terms of providing demographics, time horizons for projects, and development of mitigation plans. However, it was felt that SIA could only do this on a project-by-project basis. A weakness was felt in that SIA was not perceived to deal with "soft" issues like health care, social care, schools or traditional activities. Instead, RIWG was felt to be a better or more appropriate approach for dealing with cumulative or integrated impacts. "RIWG doesn't supply the same information as SIA," said one informant. "It is cumulative information, not project based…[and] the Municipality has good access to this information. It's a communications centre, and it is like a 'one stop shop' for industry actors."

Social Services Providers' Perspective - Strategy

There is a range of opinions about the future of SIA and social impacts in Fort McMurray. The respondents all recognized that the oil sands industry is in the business of producing oil, not building communities. However, their opinions about industry's

goal of only producing oil varied. One informant said, "Companies need to sit down with the municipal government and talk about the [social and socio-economic] costs, like recreational space, and both for today and in the long term. This allows for an increase in infrastructure now, instead of reviewing development fees, which just end up hurting the buyer….Industry must play a role in defending the community's right to benefit [from oil sands development]."

Other participants were more satisfied with the way the SIA process is evolving in the community. "SIA seems to be moving toward something collective, like RIWG." Another participant said, "…earlier on, the process was frustrating, but now companies seem to be working together as best they can." She agreed that if this trend were to continue, it might be easier and more useful from her perspective to participate annually or semiannually in some sort of assessment, rather than simply whenever a new project was proposed.

However, people acknowledge that RIWG is "…an independent effort financed by the industry." Participants realise that RIWG exists to satisfy oil company needs, rather than community needs. At the same time, some felt that various levels of government have been slow to change because first of all, they stand to lose money if royalties are directed back towards Fort McMurray. Secondly, it was perceived that the municipality in particular was afraid of losing power or influence if it was to share information and responsibility with outside groups.

SIA Practitioners' Perspective - Strategy

"…there is a certain cross-section of organizations willing to just do the work to jump through regulatory hoops. SIA really should, however, be the beginning of a long-term relationship." This quotation summarizes the opinions of the informants who are SIA practitioners in the oil sands area. It was felt that SIA should be a partnership between the proponent and the community, as well as the proponent and the government. One

of the practitioners says that RIWG, at one time, could have been an ideal forum for these partnerships to be nurtured, but because it is controlled by industry, "…it has gotten out of the 'doing' part of the equation due to the costs [of helping mitigate social impacts]….Can it assure community issues will be addressed? No – it's simply not complete." He went on to say, "Companies need to recognize there is a cost of doing business, and it is unreasonable to say that [social issues] are not within their domain."

It was felt that the root of the problem lays in the way license approvals are decided upon. "Mitigation measures require stronger involvement for the provincial government….The stakeholders say it's insane, but [the provincial government and regulators] don't have to put the project in any sort of context of other developments. The context tends not to be addressed by anyone but the community groups who are being impacted."

The other practitioner believed that it is very imported to have a well established social monitoring program in place in order to detect detrimental effects in the community as they occur. "There is no easy place to check, [for example,] what is the housing situation in November 2002. This is a weakness in the system….[There needs to be] something like an indicator report card."

5.2.2.2 Strategy - Document Analysis

The strategy behind both SIA and planning in Fort McMurray are very long-term issues, and they do not appear to change from phase to phase. Thus, they will be discussed together.

Cooperation has always been part of successful development, even if it has not been expressed explicitly for a long period of time. A unique property of the oil sands is that it is a single ore body, albeit of enormous proportions, whose boundaries, unlike conventional oil deposits, can be clearly and easily defined in advance. There is no

competition to find out where the oil sands exist. The competition exists in finding more efficient ways in which to extract and process the ore, attract the necessary labour and capital, and market the product. "It was obvious that Syncrude's success would be closely tied to the success of the community (Syncrude 1984:98)." Furthermore, because oil sands operators have realized that their impacts are cumulative, they each have a responsibility to be accountable in order to ensure success. Inadequate cooperation could prove "detrimental to ultimate recovery, the environment, and the treasury of the Province (AEUB 1997:31)."

The second postulate presented in early SIAs is that in order to buffer itself against infrastructure shortfalls during growth spurts in the future, Fort McMurray would have to build excess infrastructure, despite the costs to current residents (Syncrude 1978:32). Even in 1977, however, this imbalance had lead to a deficit of over $700, 000, extremely high in relation to other comparable communities in Alberta.

Today, the Alberta government is investigating the possibility of instituting more efficient infrastructure development. The concept of "Growth Corridors" has been discussed in recent discussion papers for the Province (Das and Chapman 2002). Growth corridors are described as groups of communities that are within particular economic and growth areas that expand beyond the boundaries of any particular settlement or municipality. Thus, jurisdictional boundaries can be set aside, and inventories and needs assessments can be undertaken for entire economic areas. This type of organization is noted to have the following benefits (Das and Chapman 2002:2):

- "Ensure **just-in-time delivery of infrastructure and services**, commensurate with growth;
- "Enable Alberta to **optimize growth** by making sure growth and investment are not hindered by a lack of the necessary infrastructure;
- "Enable Alberta to **manage prosperity** by ensuring a steady and smoothly flowing revenue stream from the economic activity generated by existing and new investment."

This policy of growth corridors may be linked to an idea that has been circulating in the RMWB: the return of the concept of the Northeast Alberta Commissioner's office (AEUB 2002:60). "The Board acknowledges the important role the regional issues management forums such as RIWG and the AOSDFC have played in advancing knowledge on socioeconomic issues and through advocacy. However, it is the Board's view that a process is needed that provides a more coordinated and effective channel through which regional and cumulative socioeconomic impacts can be addressed in a meaningful way." At the same time, the AEUB believes that no one company can be responsible for addressing any issues that are cumulative. While the government of Alberta recommended that TrueNorth have the requirement to take a leadership role on the issue of affordable housing, the AEUB noted that it would be unfair to put the burden of addressing a regional planning issue on an individual applicant (AEUB 2002:60).

One opposed opinion to the idea of a new provincial coordinating body for planning in northeast Alberta is that the RMWB is becoming increasingly sophisticated in its ability to govern. In fact, the role of Alberta Municipal Affairs in the community has been significantly reduced (Alberta Economic Development 2002:23). If the provincial government creates any regional planning or social action coordination groups in the region, it will have to be careful to negotiate jurisdiction with the RMWB and other provincial planning bodies. Like in the 1970s and 1980s, a provincial coordinating body may overlap with the responsibilities given to the RMWB for planning, leading to conflict with the province and an unclear division of power in the area.

Finally, the Ministry of Sustainable Development is responsible for the Fort McMurray – Athabasca Oil Sands Subregional Integrated Resource Plan (Alberta Environmental Protection 1996). This plan claims to make land and natural resource use compatible with environmental and social considerations in the area. However, like

SIA documents and studies, it has only included social impacts that relate directly to the areas covered by the plan such as recreational pursuits and historical use by First Nations peoples – it has not addressed the cumulative effects of integrated resource development on the people in the Urban Service Area of Fort McMurray.

5.2.2.3 Summary - Strategy

The absence of strategy with respect to social effects in Fort McMurray is conspicuous. Respondents seem to feel it is obvious that project-by-project SIA is ineffective for dealing with the worst social effects in the community, and that public institutions in particular need to change in order to start helping people in Fort McMurray.

First, industry representatives feel that even though their companies have some responsibility to assist the community though hard times, they do not have community building specialists in their staff to make decisions and "do the right thing." Rather, companies pay taxes to the provincial government, and in return, expect that the Province, which does have social well-being in its mandate, to take care of significant social issues in Fort McMurray.

Unfortunately, it is felt that the province is not capable of adequately addressing Fort McMurray's ills at this time because it does not have policies that are ideal for dealing with regional problems. The first weakness of provincial policy is that places are funded on a per capita basis, rather than on a needs basis. Therefore, despite the fact that the entire province benefits from oil sands development, the RMWB is the only community that feels the drawbacks. The second weakness is that provincial departments do not work easily with other levels of government, or with other departments in the provincial government. Instead of developing integrated response plans to problems in Fort McMurray, provincial departments each develop a plan, often creating inefficiencies, to the frustration of social service providers and residents in the community. A third weakness is that provincial departments are not coordinated with

SIA in the community. Data generated for SIA, and recommendations developed through SIA are not transmitted well to departments, so the effort put into SIA is lost.

One important strategy that has appeared in the RMWB has come from industry. RIWG is an organization that can identify issues, do research on them, make recommendations, and act as a forum for negotiation between oil sands developers, stakeholders, and various government institutions. Measuring the individual and cumulative social impacts of projects is also made possible largely by the work of AOSDFC and RIWG through its data collection and urban population model. Most respondents were interested in seeing RIWG succeed, but recognize that it has industry's interests at heart. Many were hoping that an independent, public institution could fill RIWG's role and become an issues management forum that would operate a comprehensive social monitoring program, and coordinate the efforts of government departments, NGO/social service providers, and industry. It was felt that this effort could reduce dependence on project-by-project SIA to identify social issues in the community, and contribute to long-term solutions to existing social problems.

Finally, there have been rumours that the province is considering reinstating a Northeast Alberta Commissioner's office, which would be responsible for integrated regional planning. Other government reports indicated interest in the development of provincial "growth corridors" that would identify economic regions in the province and direct the efforts of provincial departments within those corridors to maximize economic growth and social health.

5.2.3 Structures

Structures involve the mechanisms by which activities and members of the organization are coordinated, and the types and numbers of people necessary to fill those positions and conduct those activities.

5.2.3.1 Structures - Interview Results

Industry Perspective - structures

In 1997, the oil sands companies in the Athabasca oil sands area saw that investment in the industry was going to increase dramatically. They saw a need to develop the Regional Infrastructure Working Group, because managers from resource development companies and the provincial government decided the City did not have the expertise to predict population changes so that the appropriate infrastructure could be developed. In fact, RIWG was created as a fact finding and organizing group to deal with any issue related to the orderly development of the oil sands. It has recently been renamed the Regional Issues Working Group to more accurately reflect its role in the development of the oil sands industry. One SIA practitioner described RIWG as, "…a collaboration between proponents and the RMWB. Essentially, it is an industry group[;]…a concerted and genuine effort to analyze and come up with a way to bring issues up with the appropriate authorities." For example, when RIWG analyzed industrial housing subsidies, it found that, "…[housing subsidy policies] destroy the housing market, because as soon as a housing allowance is added for employees, housing prices rise the same amount, making housing very unaffordable for everyone, especially non-employees." RIWG has also helped develop skills in determining the differences between perceived impacts and actual impacts. RIWG is discussed in section 3.3.

Another group that was formed is the Athabasca Oil Sands Developers Facilitation Committee (AOSDFC). This is a group of high-level officials (i.e. presidents and vice-presidents) from the oil sands developers in the region, as well as high level officials from the municipal government (the Mayor of the RMWB and one or two councilors), plus the Member of the Legislative Assembly (MLA) for the area. The AOSDFC is considered to be highly effective because it has access to the highest levels of decision-makers in both industry and government. Furthermore, because it represents the oil sands industry, and the tremendous contribution it makes to Alberta's economy, it has considerable lobbying power, if wielded responsibly. "Instead of

having to approach issues…from outside the government, we can sit down with [Alberta Premier] Ralph Klein, or whoever, and talk directly to them." Coordination of efforts by government and industry was considered to be of utmost importance to the industry representatives, and skills and social networks that would facilitate this coordination are valued.

This group meets periodically in order to solve problems that are blocking the success of the industry in general. According to one of the members, it rarely deals with social issues; rather, it deals with issues of large-scale economics and infrastructure related to transportation of construction and refined materials.

Municipality Perspective - structures

From the perspective of the Municipality representatives in Fort McMurray, the most important information with respect to the social impacts of the oil sands on the city flows from RIWG. One planner noted that, "SIAs would only be looked at if there was a development application in the affected area". "RIWG is an important player these days that includes all industry players, operations and planning groups, municipalities and First Nations…it's a great idea. Industry has a central communications point…and it's good that industry is committed to that." This communications point is essential, from the municipality informant's perspective, because RIWG has people who have the time, skills, and knowledge to read complex documents such as SIA and access to confidential industry information, to offer high-quality, synthetic information to people who need it, such as planners or social services providers. Unfortunately, the Municipality is at a disadvantage because it does not have enough staff in order to do this sort of analysis itself. This opinion was presented along with the caveat that the organization tends to be a little closed or private because it deals with large amounts of confidential data.

However, there has been major concern in the past about the place of RIWG in the decision-making system.

> …they're concerned about their bottom line. From time to time, they try to exert power over the municipality, and it has had to have been reigned in once in a while. [RIWG] has been very political in the news media, but the Mayor should be the spokesperson for the municipality. [RIWG] is very ambitious and outspoken, but it has leveled off – it has figured out its boundaries.

The Municipality certainly understands the role of RIWG. One prominent official said, "Its purpose is to keep projects moving forward…it has a facilitation role in the process…" The Mayor and council have seats on the RIWG committee, ensuring that the RMWB's interests can be taken into account in industry decision-making.

Social services providers' perspective - structures

Service providers had a slightly different perspective on the structures through which social impact information flows, as they are not as intimately involved in the industry-based groups such as RIWG and the Athabasca Oil Sands Developers Facilitation Committee (AOSDFC). Therefore, the official SEIA process is much more important to these groups as a means of having their interests presented to industry. However, there is a feeling that the regulatory-based SEIA system is not working well for service providers.

"We used to have the North East Alberta commissioner's office to coordinate efforts before RIWG. Now, however, it's an independent effort financed by industry. It seeks to satisfy oil company needs, and it doesn't really address community needs…it's falling short of its intent."

She also noted that the private development sector said, "We will satisfy the needs of the community," thus giving government and the oil sands companies the impetus to get out of the provision of housing and services they might otherwise

provide. In theory, this approach should have worked. There is a very large market for housing and social services in Fort McMurray. The municipality no longer has the capacity to do this scale of development anymore; local taxpayers do not want to be responsible for it. Yet, due to the amount of uncertainty experienced in the oil sand industry (due to fluctuating oil prices, availability of capital and labour, etc.), the housing development industry is not taking risks. Thus, there is a severe housing shortage.

One service provider noted that the SIA process should be resulting in a commitment by the proponents to do something for the community to mitigate social impacts. However, she also noted that this process often results in frustration because while SIAs are conducted in a satisfactory way, proponents often contracts jobs out to companies that are unaware of the agreements. When things don't work out properly, the government is blamed because it is the government regulator which approved the project according to the plan delivered by the oil sands company. Another informant felt that because there is no mechanism for reviewing public consultation or SIA, the government is able to simply ignore impacts and put responsibility back on affected individuals, and those who can't afford to solve problems in the community.

Another participant noted that "the aboriginal people did it right," meaning that she felt that the aboriginal people had a great deal of power and influence in the development of the oil sands, especially due to their ability to their advantage in law. Had the non-aboriginal people adequate funding, she thought they would have tried to do it the same way, bringing the best lawyers and the best experts to the EUB in order to have their viewpoints represented and ensure increased local employment, preservation of the service industry and provision of affordable housing, etc.

SIA Practitioners' Perspective - structures

SIA is required by the AEUB in Alberta before any operator can begin work on an oil sands project. It is required as part of the EIA. Alberta Environment and other Alberta regulators are involved in ensuring that the project is in the public interest of Albertans, but the AEUB is the ultimate decision-making body that approves projects, and sets restrictions for the project. The public is involved through consultation meetings that are offered by the proponent, and often facilitated by a contractor. Furthermore, SIA reports are often written by consultants employed by the proponents, although they are always approved by the proponents before submission.

What is lacking in the RMWB is a structure that can coordinate response to information found in SIA. Generally, government departments are subject to a "silo" effect, says one informant, and therefore responses are not coordinated. Furthermore, current provincial policy for funding public services is on a strict per-capita system, rather than a needs-based system.

RIWG was perceived by one of the informants as a group whose "…original intent was to have a mechanism that would allow for long-term interface between project proponents and stakeholders." However, he said, "…it became an organization almost focused on information exchange and collection instead of addressing problems."

The other practitioner noted that instead of an action group, RIWG is "…a concerted and genuine effort to analyze and come up with a way to somehow bring issues up with the appropriate authorities." He was very careful to note that it is not RIWG's place to be organizing or being a leader in dealing with problems. "It is NOT…a multi-stakeholder initiative. It is NOT a substitute for the Ministry of Learning, or of Health and Wellness…" The problem, he believed, is that these important ministries do not fit well into the SIA process. "They are shielded and poorly

equipped to deal with the special situation of Fort McMurray, as they need to weigh Fort McMurray's needs versus those of other communities'." His solution would be to modify the "one-size-fits all" approach that is being taken by the province, to some sort of way for the province to give special attention to areas that are being particularly affected by adverse social impacts. He was pleased to know that the concept of a Northeastern Alberta commissioner is being considered by the provincial government to help coordinate provincial response to impacts in the community.

"[RIWG] is a collaboration between proponent sand the RMWB. Essentially, it is an industry group. It is different from CEMA, which is not 'owned' by industry. It is a concerted effort to analyze and come up with some way to bring issues up with the appropriate authorities."

Thus, it appears that there is no official link between SIA reports and stakeholders who have to work and live within the context of new development, other than for people who read the reports. "Unfortunately, the major responses to social problems thus far in Fort McMurray are operated by volunteers." This view was confirmed with an informant from Alberta Environment.

5.2.3.2 Structures - Document Analysis

Phase 1 - Structures

There was potential during the first major phase of development for the formation of a strong, formal planning structure that would have used SIA information and integrated it into planning decisions for Fort McMurray. A Town Board, for Fort McMurray, and the Northeast Alberta Commissioner's Office acting on a regional basis, wielded significant decision making power. However, because this authority was divided and uncoordinated, there was a lack of focus, the community's best interests were not properly represented. Van Dyke and Loberg (1978:53) reported that the Province had

emasculated the Town Board by taking over too much of the decision-making responsibilities there. Many people in Fort McMurray felt that the town councilors had been placed in positions where they had very limited power, and they were frustrated that mistakes were being made in town and regional planning (60).

Fort McMurray also experienced financial difficulties in this phase because the municipality received no tax revenue from the major industrial developments. At the time, the oil sands operators were located in Improvement District (ID) No. 18, rather than in the municipal area. Later, agreements were made with the ID to transfer $50 per person who works outside, but resides in Fort McMurray, plus $50 for each member of their respective families. A further $20 per person supported the team of planners administered by the Alberta Planning Board in the Town's administrative offices.

Phase 2 - Structures

The second phase Fort McMurray's relationship with the oil sands did not see any new development in the structure of the SEAMS. Syncrude (1992:17) found that traffic on the highway to the oil sands plants was becoming dangerous, and that some sort of regional coordination would be needed including all stakeholders and the provincial government in finding a solution. Suncor (1996), in the meantime, developed a unilateral issue management database for its own social impacts. This database is useful for tracking the status of acknowledged impacts, and is available for the public to view the status of specific issues, on request. The company was using bilateral agreements with local groups and agencies and politicians, and supported local initiatives with donations and by encouraging employees to volunteer.

Phase 3 - Structures

Unfortunately, during the most recent phase of development, it has been reported by many people and organizations that there is simply no effective coordination of authority or governance over resource development activities in the RMWB (Petro-Canada 2001:5-4). While it has been noted that SIA identifies problems due to oil sands development, "…no coordinated approach appears to be in place at the present time to comprehensively address these matters." (Petro-Canada 2001:5-7). This has led some organizations to call for "more generic planning work," as opposed to project-by-project assessment (Petro-Canada 2001: AIII-3). This view has been confirmed by other SIAs (CNRL 2002:6-93), by the AEUB (2002), as well as by external independent researchers (Converge Consulting 2002:2).

Volunteer organizations that are shouldering many of the negative social effects on the community are also suffering. While funding through the United Way is some of the highest per capita in Canada, people are too busy with their jobs working overtime at the oil sands projects to be able to volunteer their time and skills. "Volunteer systems are stretched to the max…We do not need money. We need human resources." (Petro-Canada 2001:II-13). In the meantime, the RMWB has not been able to keep up with the rapid pace of development; development applications are sometimes not processed fast enough to build necessary housing (Shell Canada 2002:58).

5.2.3.3 Structures - Summary

The SEAMS that deals with issues in Fort McMurray is made up of five major components (See fig. 6.1). The major components are all individual organizations or processes that make decisions or process information. They are as follows, and will be discussed in detail, below:

- Social Impact Assessment;
- The Alberta Energy and Utilities Board (regulator);

- The Athabasca Oil Sands Developers' Facilitation Committee;
- The Regional Issues Working Group;
- Front-line service organizations, including the RMWB.

There are several inputs into the SEAMS that are expressed as well:

- Industry: Companies propose projects, provide information to SIA and RIWG, and make partnerships with other companies, the provincial and local governments, and with community stakeholders such as front-end social service groups;
- Community stakeholders: provide information about social effects of development they are concerned about. Some of these stakeholders also serve the public;
- The RMWB conducts Human Services Needs Assessments to try to obtain an objective understanding of the social effects Fort McMurray is experiencing due to economic development, and to prioritise those issues for their own policy-making purposes.

Finally, there are groups through which the SEAMS outputs to the community:

- Community Stakeholders: Issues of concern are analyzed or partnerships are formed to resolve community stakeholder issues – this includes the RMWB and front-line social service providers, as well as the public at large;
- Industry: Companies are informed about issues that need to be resolved, and can enter partnerships either through a forum like RIWG, or independently;
- Higher levels of government: Information about issues analyzed through RIWG are passed on to appropriate Provincial or Federal departments that may respond with financing, infrastructure, support, services, or partnerships to help resolve negative social effects.

Social Impact Assessment

Based on the interviews and document analysis undertaken on the SEAMS structure encountered Fort McMurray, SIA has four major relationships.

1. SIA and community stakeholders: This relationship is about the collection of issues and concerns from community stakeholders. This relationship is

particularly important because community stakeholders do not feel particularly well represented in other forums;

2. SIA and industry: Issues and concerns are brought from the stakeholders to industry so that mitigation measures can be developed, so that partnerships can be forged with community stakeholders, and so that networks can be assembled with community stakeholders in case of future conflict or concern;
3. SIA and the regulator (AEUB): SIA brings community concerns to the attention of the oil sands regulator so that decisions can be made about the public interest of the proposed projects, and so that mitigation measures can be evaluated and imposed on the proponent;
4. SIA and RIWG: While SIA does not contribute significantly to the RIWG processes, RIWG maintains an urban population model that takes into account different development possibilities when calculating the future population of Fort McMurray and surrounding communities. It also contributes information about the cumulative effects of industry on the labour market and capital markets.

While SIA is important in some of these individual roles, it has been found that within the system where it exists, it is not well positioned to deal with cumulative social effects of development because the main institutions it serves (the AEUB and industry) are operating on a project-by-project scale.

The Alberta Energy and Utilities Board

The AEUB has a broad regulatory role over the oil sands industry. However, in terms of social effects, it seems to have one major relationship in the SEAMS. SIA brings information to the AEUB about the social effects of development. In particular, about socioeconomic factors, and about some of the issues raised by stakeholders who are acting as interveners in the approvals process. The output of the AEUB is a permit with conditions for oil sands developers. These conditions may be related to social issues, but most often, social issues (especially those felt in Fort McMurray) are thought to be cumulative in nature, and not the responsibility of any one developer alone to solve.

The Athabasca Oil Sands Developers' Facilitation Committee

The AOSDFC is a committee made up of high-ranking decision-makers from the oil sands industry, along with government officials such as the Mayor of the RMWB and the MLAs for the region. It is designed to address issues of pressing concern to the industry.

This committee has a strong relationship with RIWG. For example, the AOSDFC, along with other stakeholders in the region, helps identify issues that RIWG should research (see figure 3.4). Furthermore, once RIWG has researched an issue, recommendations are often made the AOSDFC, which through its high-ranking networks, can bring issues and recommendations to the attention of relevant organizations.

AOSDFC has other relationships within the SEAMS:

1. AOSDFC and industry: as the AOSDFC is made up of industry representatives, it has easy access to the social issues affecting its members. At the same time, it provides an opportunity for high-level coordination of responses, if appropriate;
2. AOSDFC and government: similarly, with MLAs, the Mayor, and one or two members of the municipal council on the committee, there is easy access to municipal and provincial issues with the oil sands industry. Those politicians are also available to facilitate lobbying and discussion of solutions for those issues in their respective governments;

The Regional Issues Working Group

RIWG also addresses issues of concern to the oil sands industry, in particular those that are related to social effects and infrastructure shortfalls. Like the AOSDFC, it has connections to the oil sands industry and to government.

Another important function of RIWG is to maintain the urban population model, designed to provide demographic and industry-related data to government and industry planners, and other end-users in the community. Thus, RIWG has relationships with:

- SIA: the urban population model is used in SIAs to predict possible demographic impacts of projects alone, and cumulatively;
- Provincial and municipal planners: demographic information is used to project necessary services, infrastructure, etc.;
- Industry: this model uses information about the plans of various industry members (collected in confidence, reported in aggregate) to make demographic and economic predictions. This helps companies time developments so that labour and capital will be available when they want to develop;
- Interested publics.

Front-line service organizations

Front-line service organizations are often the inputs into the system, as they have to deal with social issues on a day-to-day basis. They are also often the final action-related outputs of the system for the same reason: they have expertise and community networks because of their day-to-day activities in the community. Unfortunately, this part of the system feels that they are often left to deal with the social issues that industry is not interested in, and that various levels government will not take responsibility for.

Occasionally, the RMWB is able to strike *ad hoc* groups, such as the Mayor's Task Force on Housing, to deal with specific problems. Partnerships through RIWG with government and industry have helped make this program a success. Other problems such as municipal debt due to future infrastructure planning needs (in case of continued boom-type development), remain unresolved.

Overall Structures Summary

While the structure of the SEAMS at first seems to be sound, the characteristics of the major components of the structure make it less effective than it could be. For example, the structure is only complete when RIWG decides that a social issue is in its interests to analyze and deal with. If RIWG does not decide to address a cumulative effect, it is left to the RMWB and the Province which are poorly equipped to deal with because the

RMWB does not have the human or financial resources to undertake mitigation and monitoring of many social effects, or because the province is not coordinated enough to deal with cumulative effects in a meaningful, integrated fashion.

5.2.4 Systems

How information moves into, around within, through and outside the social effects assessment and management system.

5.2.4.1 Systems - Interview Results

Industry Perspective - Systems

There are two major themes about information flow in the interviews with industry representatives. First, industry prefers to have individualized contact with stakeholders. "…what really gets the most mileage is talking to people in the community." Companies want to have a "personal" relationship with the community so that they can gauge what the community needs, and respond in a way that both satisfies that community need, and remains in line with the company's vision and corporate objectives. It was noted that SIA helps maintain good relationships with the community, provides mutual benefit to both the companies and the communities involved, and finally, produces an SIA document that can be used by policy makers for high-level decision making.

The second major theme is that companies must work together to address cumulative issues. There are two major groups to which companies belong to that end. The first is the Athabasca Oil Sands Developers Facilitation Committee (AOSDFC). It is an organization made up of senior executives from each of the major development companies. They meet with the Mayor of the RMWB, and council representatives to develop a list of concerns, then assign evaluation and exploration of these issues to RIWG.

RIWG is the second major group that companies are represented in. Specifically, this group funds studies about concerns from stakeholders, hires consultants, and makes recommendations to responsible authorities for action. One of the members interviewed noted that "…the government can use this information in policy decision making," in particular. RIWG operates by first identifying or accepting an issue from the AOSDFC, determining exactly what the problem is, and identifying the stakeholders and responsible authorities. Second, it sponsors a survey or research program to find out what can be done about the issue. Finally, it brings together oil companies to help change issues (sometimes by financing, or sometimes by political pressure). Once the stakeholders and companies are brought together to resolve the issue, RIWG's mandate is fulfilled, and it moves on to a new issue.

One of RIWG's ongoing responsibilities is to maintain a population database and model for the urban service area of Fort McMurray. Companies provide, by trade year, the numbers of people in various skill sets that they will hire. The population model is updated regularly with these data, and predictions about the future population of the region and Fort McMurray can be made. One participant, affiliated with RIWG said that this is not really done through the SIA process, but rather is done annually on a less formal or regulated level.

Municipality Perspective - Systems

The informants from the municipalities could think of advantages and disadvantages of SIA, RIWG, and other systems for addressing the social impacts that affect Fort McMurray.

In general, planners were convinced that SIA can offer pertinent information for planning the community. One planner said, "While going for approvals, companies often ask for problems or troubles," although he expressed concern that they often did not ask municipal staff, who he felt would know more about the problems people in the

city were facing. "…if this is done at all, it is late in the process," he said. He also noted that while SIA reports often present good background information about the projects, and that it was good to keep the reports on hand, he also could not think of a particular instance in which it was used.

"RIWG," says one high-level informant, "is an industry-government liaison of sorts. Its purpose is to keep projects moving forward. It is informed as to everything related to the oil industry, and gives an idea of what is coming down the tube. It is a facilitation role in the process. It deals with aboriginal affairs, municipal affairs, jobs and education." Another participant said that RIWG is a great idea. It serves as a central communications point for the oil industry, and it provides demographic studies. The municipality has good access to this information, and in exchange has offered the organization an office in the municipal building. RIWG makes regular reports from its various committees, and the municipality has members on many of those committees so that it can both have influence and direct access to necessary information. Contrary to this, SIA is still felt to be necessary so that projects can be examined on their own terms.

Finally, in 1997, the issue of affordable housing came to a head. Therefore, the Mayor struck a task force on housing. This task force made use of information from sources like RIWG and municipal studies to justify and coordinate the construction of 120 social housing units. This task force was cited as an example of how *ad hoc* groups can make use of SIA information to deal with social issues in the community. The other appointed committee of council noted was the Oil Sands Facilitation Committee, which is said to look at what a company should do for the community, and for the relationship with the community. The informant thought that in terms of housing, proponents need to provide some, and at the same time, make a greater acknowledgement that there are undesirable impacts of oil sands production on the community.

Social Services Providers' Perspective - Systems

A representative from the provincial government said that, "The framework of EIA in Alberta is to try and get the proponent, public interest groups and the municipality into some direct linkages to try and solve problems…[and] to make sure that the information people say the need is brought to the table."

Participants interviewed who were in management positions with the RMWB and the provincial social services departments seemed to be somewhat satisfied with the products of SIA thus far. One noted that she has used SIA information to look at population change, the timings of developments, park issues and amenities, numbers of schools and school sites needed, and the numbers of oil sands employees who come from the worksite camps to town for amenities. However, she said with some frustration, "…the EUB should be requiring very specific plans on how housing will be provided for the community."

Another participant who deals regularly in the SIA process expressed more frustration by saying, "In reality, regulatory agencies have enough information about the community and its issues that you'd think by now they could incorporate some of that information in the process….regulators should ask the proponents specifically how they will deal with known issues. Instead, every time, there is this 'chicken dance.'" A different informant noted a related problem: often, she felt, even if a company or group of companies committed to resolving a social problem in the long term, they would award contracts to companies who did not fully understand the commitment, resulting in incomplete improvement programs. She noted that she felt the government isn't holding companies to their commitments.

One interesting development that arose as a result of recent SIAs is that companies have developed a system of matching jobs with people or companies in Fort McMurray who could fill the contracts. Part of Trans-Canada Pipeline's strategy, for

example, identifies "local work opportunities," sends contracts to the local Chamber of Commerce, who sends them to local businesses. This has been a successful way of awarding contracts locally. While this has been the results of efforts through SIA, it is an agreement made directly between TCPL and the Chamber of Commerce.

SIA Practitioners' Perspective - Systems

There are three major current audiences of SIA in Fort McMurray, and one that is becoming increasingly important. The first is the regulator, the AEUB. Alberta Environment and other regulators ensure that the project is undertaken in the public interest, and that some context is set under which the work is undertaken. The second audience is the community. SIA helps the community make informed decisions, with the public consultation program being particularly useful and important in that respect. The third major audience includes specialists who need to plan for things "coming down the pike," as one informant said. These include the social services, and health agencies, among other service providers. This is the most direct link for data in SIA. The fourth, and more upcoming audience includes investors of companies who want to know that the company they have invested in is treating the community properly and ethically.

One of the practitioners made the obvious, but important, observation that "…you can only deal with the problems you identify." To clarify, he was noting that in SIA, perhaps there is no real system for adequately identifying and addressing social issues that arise as a result of development. "Too often, SEIA is looked at in a specific period of time, and due to the regulatory process, an SEIA becomes a document, not a process. The moment it comes off the press, it is sealed in time," he said.

The other issue this participant addressed was that of the use of the context of the proposed development in SIA. "[The AEUB] focuses on the project's specific licensing process….they don't have to put the project in any sort of context of other

developments. The context tends not to be addressed by anyone but the community groups who are being impacted." He said that first, the Province needs to be more involved in the mitigation of impacts, and that second, development should be considered on a broader scale for approval, not on just a project-by-project basis.

The other participant in this category agreed that the provincial government does not play a strong enough role in SIA, precisely because it does not fit into the information-sharing and decision making systems in the region. "The ministries do not fit well into any of the [SIA] audiences….They are shielded and poorly equipped to deal with the special situation of Fort McMurray, as they need to weigh Fort McMurray versus other communities." He also reinforced the idea that corporate initiatives in Fort McMurray are *not* substitutes for the Ministries of Learning or of Health and Wellness or Municipal Affairs. "All Albertans benefit from the oil sands," he said, "but negative impacts are felt only by the RMWB including Fort McMurray and its aboriginal people." The Provincial government, thus, has a responsibility to respond with financial and legislative support to respond to social concerns in this area.

The important system for ensuring effective information transfer he referred to was the RIWG. "…it is a collaboration between proponents and the RMWB;…it is an industry group,…a concerted and genuine effort to analyze and come up with a way to bring issues up with the appropriate authorities." In other words, RIWG is a group for analyzing issues that have been identified before construction or during construction, operation or decommission of projects, and bringing data to the levels and departments of government, or the NGOs that are capable of making change in the community using their own networks and methods.

The other shortfall in the system is that there is no consistent monitoring framework for social characteristics of the community. "There is no counterpart [to the natural environment] on the social side to monitoring." SIA reports and census reports provide

snapshots of the community, but they have no way of identifying acute problems that may arise over short periods of time, or that occur at a different part of the development process than what SIA can easily predict.

5.2.4.2 Systems - Document Analysis

Phase 1 - Systems

In 1964, Fort McMurray was approved for "New Town" status by the Alberta government. While this supplied new capital for infrastructure construction, it also meant that the town lost its autonomy to the provincial government, which established a Town Board to deal with municipal issues (Fort McMurray Historical Society 2003). At the same time, regional planning was being conducted by the Northeast Alberta Commissioner's office (Syncrude 1978:44). Unfortunately, these two boards were not well coordinated, resulting in poor planning decisions for the region (Van Dyke and Loberg 1978:60). In fact, at the time, residents were not concerned that the burgeoning oil sands operations were causing social upheaval in the community – they were concerned that the provincial government could not handle the impacts, and that local councilors had been put in a position where they had little decision making power, or ability to help the town's situation (Syncrude 1978:44; Van Dyke and Loberg 1978:52, 60; Dale 1980:4). By 1980, however, Fort McMurray had been incorporated as a City with an independent council, and the ability to collect municipal taxes.

Phase 2 - Systems

During this period, operators started to recognize the cumulative nature of socio-economic factors in oil sands development. The first mention of such recognition was by Syncrude while it was discussing municipal tax assessment, and that even though it is the largest operator in the region, it is only one of the major operators in the region, and ought to share the costs of new infrastructure fairly (Syncrude 1992:15). Furthermore, when discussing traffic volumes in the region, the same report suggests that "…the combined effect [of oil sands and other natural resource operations] would

suggest the need for a coordinated regional transportation assessment and plan involving all stakeholders including the provincial government (17)." Clearly, industry felt that information needs to flow better between all parties involved in development in the region.

At the same time, industry also perceived a need to distribute responsibility for mitigative action in the community. "The formula which leads to good impact management involves parties other than the proponent…There must be a recognition and acceptance of the responsibility of [the proponent], all levels of government, and especially area residents to cooperatively work toward this goal (Solv-Ex 1995: 9-43)." Indeed, in order to facilitate this, consultation programs are utilised by companies to help ensure that community, the government and proponents can work from a common set of knowledge and thus cooperate in achieving solutions.

By 1996, coordination of information and activities started to occur through the Standing Committee on Oil Sands Development, a group set up by the RMWB meant to help define social monitoring parameters, and take a leading role in identifying issues in the community, and actions to take to resolve those issues (Suncor Energy Ltd. 1996:A4.0-26, E3.0-29).

Phase 3 - Systems

By 1997, it had become clear that a regional approach to oil sands development and impact minimization would be ideal. "Efficiency of the application process for individual developments could be greatly enhanced by the adoption of a regional development approach that had the support of various corporate interests in the region, and other stakeholders (AEUB 1997:29)." While Syncrude supported a regional review undertaken by the oil sands companies, the AEUB suggested that the most effective way to ensure a complete and acceptable review was through the early involvement of

stakeholders, although decision making from the provincial government was not specifically mentioned (29). The AEUB felt that the role of government was instead to ensure that agreements made between industry and stakeholders be in the broader public interest, and that they are protected. "That responsibility is best discharged through an early involvement with the review process rather than by having a complete plan handed over at the end of a process that involved only a few players…The importance of the resource…may require the broader ongoing participation of governments in the discussions that lead up to any recommendations (34)."

Henceforth, a significant portion of SIA and impact management has been done through collaborative groups such as the AOSDFC, RIWG, and the Cumulative Effects Assessment Working Group (CEAWG) amongst others (AEUB 1999, Petro-Canada 2001:2-6, Canadian Natural Resources Limited (CNRL) 2002:1-38).

> Regional cooperative initiatives are increasingly important with respect to mitigating the socio-economic effects of oil sand industry expansion. Reasons for this include, (1) Many socio-economic issues are outside the normal scope of activities of individual private sector oil sands companies; and (2), company-specific impacts are increasingly difficult to separate from cumulative impacts (CNRL 2002:6-11).

These are parts of stakeholder input systems that involve both unilateral and multilateral approaches by oil sands operators that also include self-supported open houses and stakeholder agreements.

Unfortunately, these systems do not seem to be translating into useful information for planners in the community. A recent Human Services Needs Assessment study conducted by independent contractors implied that information from SIA is not useful for planning against social problems in the community, mostly because it is done in one-shot increments, whenever new development is planned.

Furthermore, there has been confusion over leadership, cooperation and coordination of action against impacts in the community (Converge Consulting 2002:69). "Roles and responsibilities of the various organizations within the social and human services needs system must be clearly defined and communicated. …some structure for maintaining the management control system itself must be defined, that is, some group must be assigned the task of ensuring the control system functions are conducted." This view was also put forward by the Government of Alberta, and the AEUB, who reflected that current initiatives have not been successful in taking leadership roles in acting against social, economic, and cultural impacts in Fort McMurray (AEUB 2002:59).

Finally, the RMWB Municipal Development Plan has some connection with data collection associated with some of the SEAMS related to the oil sands. The document bases its future size on predictions made by the Urban Population Model administered by RIWG. While an important connection to the social impact management process is made, SIA itself is conspicuously absent in a document that identifies oil sands development as the dominant economic driver in the region for the foreseeable future (RMWB 2000a:10).

5.2.4.3 Systems - Summary

The structure section identified the parts of the overall SEAMS. The systems section has identified how each of those parts behaves on its own.

Social Impact Assessment

SIA, the first component of the SEAMS, has three major audiences. The first is the regulator (the AEUB) along with Alberta Environment, who work together to ensure that a project is in the public interest. The second is the community, including businesses and provincial and municipal social services providers who require information to plan staffing and funding needs for the future through the life cycle of

projects, and finally, interested individuals and families who may or may not be directly affected by projects.

SIA is criticized for looking at too small a field of topics. To meet regulatory needs, it must discuss socioeconomic indicators, but many people in Fort McMurray feel that these indicators are insufficient for describing the meaning of certain impacts to people in the community. For example, even though SIA discusses the price of housing, and the absence of available affordable housing, it does not address how these facts translate into the real lives of people who do not have affordable housing. It does not accurately transmit the *meaning* of poor quality of life issues to regulators.

SIA has also been criticized for looking at the wrong temporal and spatial perspectives. Project-by-project SIA is the required scale of analysis, yet impacts are occurring at a cumulative scale over time and across a large region. Assessment that better addresses the cumulative and strategic nature of impacts has been recommended by some informants.

Industry groups – AOSDFC and RIWG

"RIWG," said one informant, "is an industry-government liaison of sorts…it is a facilitation role in the process." RIWG and the AOSDFC work together to investigate issues that are of concern to the oil sands industry, and ensure that projects will continue smoothly. Each group has a membership consisting of oil sands representatives, RMWB council representatives, and RIWG has other stakeholder representatives. The AOSDFC operates at a more executive-to-executive (Vice-Presidents/Presidents/CEOs) level of decision-making and negotiation in order to ensure that priority issues are resolved at the highest level. In the meantime, RIWG undertakes research to support AOSDFC decision-making, takes on other community and infrastructure issues, and maintains the urban population database along with some other indicator databases.

RIWG received praise from many of the informants in this research for being an organization that can collect, analyze and distribute information about the future of the oil sands industry, and its effects on the communities in the region, particularly the effects of demographic change through the course of development. This is accomplished through the monitoring of certain industrial and community indicators (information about the future plans of oil companies is collected in confidence, then aggregated), processing it using computer models such as the Urban Population Model, and releasing the information to the public.

RIWG's information has proved useful for assessing the impact of projects on demographic properties of regional communities, as well as assessing cumulative socioeconomic effects in SIA. These data have also been used in *ad hoc* groups such as the Mayor's Task Force on Housing. RIWG has also done research to resolve industry issues such as a shortage of child care in the community, through its subcommittees (see figure 3.4).

These groups are not, however, a panacea for the community. The key shortfall they present is that they are primarily interested in problems that pose threats to the smooth operation of the oil sands industry. Where issues like child care have threatened to prevent potential oil sands employees from moving to Fort McMurray, issues like affordable housing have been less of a concern because oil sands companies pay their employees enough to live in Fort McMurray. Several informants from the oil sands industry expressed the view that their industry cannot be responsible for every ill in the community. While they accept that some problems are directly related to their operations, others are not, and they should be the responsibility of government to resolve.

Finally, RIWG has been accused by some front-line social service representatives as being too closed an organization. Even though RIWG is willing to share information through the Urban Population Model, they feel that RIWG has not been as willing as possible to listen to community concerns. These representatives attributed this perception to the fact that RIWG, as mentioned above, is interested primarily in industry-related problems. They also felt that RIWG's dealing with confidential information made it somewhat secretive.

Front-line social service providers

Social services providers include NGOs such as those listed in Appendix D (plus others not funded by the United Way), as well as departments of the municipal government such as Family and Community Support Services (FCSS) division at the RMWB that provide family counseling and other services. For the most part, these organizations are understaffed, because of the competition for labour in the region, and the absence of affordable housing for new staff from outside the community. Therefore, these organizations are, for the most part, faced with performing day-to-day tasks rather than participating strategically in dealing with negative social effects of oil sands development. Periodically, they participate in SIA studies, which they feel are somewhat effective for bringing their concerns to government and industry.

AEUB and the Provincial government

The AEUB is the main regulator of the development of the oil sands. It uses EIA and SIA, among other tools, to make a decision as to the public interest of oil sands projects. The AEUB takes into consideration the method of public consultation in its decision-making, but beyond that, is likely to find that most social and socioeconomic effects are cumulative in nature and are not the sole responsibility of the proponent in question. As long as proponents appear committed to participate in RIWG and the AOSDFC, the AEUB has been satisfied (in terms of non-First Nations social effects). In recent years, the AEUB has criticized the provincial government for not having any

bodies that can coordinate the action of departments in response to social and environmental concerns. It has noted that progress in social effects management has been too slow to occur, and needs a coordinating institution.

Some feel that the province cannot respond well because it is not designed to accept the information from SIA (or from any source with respect to social effects) and provide a comprehensive response. Rather, each department decides if it has a role to play in resolving an issue, and offers a solution in piecemeal fashion.

The province has had coordinating institutions before. In the 1960s and '70s, the Northeast Alberta Commissioner's office had considerable power in making decisions about the region and how provincial monies would be distributed to the resolution of various problems. However, these decisions were often made in conflict with the Town Council in Fort McMurray. Residents were concerned that decisions were being made without local approval, and the Town Council had essentially been put in a position where they had little power to help Fort McMurray improve its situation. The role of the Commissioner's office faded until the RMWB was complex enough to start handling the effects of oil sands development. However, in recent years, it has again been observed that the RMWB does not have the financial or jurisdictional capacity to resolve social issues, and that the province again needs some sort of coordinating body. There have been rumors of efforts to revive the Northeast Alberta Commissioner's office.

5.2.5 Style

This refers to the overall behaviour of parts of the system or organization, particularly of higher-level or coordinating parts.

5.2.5.1 Style - Interview Results

Industry Perspective - Style

If one thing is clear from the perspective of industry, it is that the regulated part of SIA is no answer to many of the social woes in Fort McMurray. As one manager of community affairs emphasized,

> …SIA is a regulated activity by the AEUB, which serves two official functions. First, that there is the orderly development of Alberta's energy resources, and second, that development is in the public interest of all Albertans.

Industry representatives see two components of SIA. First is the regulatory component, then community relations component. The community relations component seems to be emphasized as the more important part of SIA for these people. "[The regulated part of]…social impact studies are not really how you do things in the community. It's more of a corporate relations exercise…and they are 'good conscience exercises,'" said one Vice-President. "You want to have everyone lined up for the right reasons, as opposed to per project. You want to be dealing with longer term issues."

Concerns about longer-term issues are what fuel collaborative groups between industry and the local and provincial governments. "…an understanding of cumulative impact is very important, in the Athabasca region in particular...They are [impacts] that aren't just [ours], but are the responsibility of all developers in the area." Thus, these representatives reinforced the importance of industry groups such as RIWG and the AOSDFC. Within this system, regardless of the results of the regulated SIA, concerns are solicited from the community, are studied by these collaborative groups, and recommendations on behalf of the entire industry are made. The government and industry players can then use this information in their policy making.

These participants were careful to note that in terms of housing shortages and other such problems faced by Fort McMurray, there is little that industry can do. "[Industry is] not a development policeman. These things are the responsibility of municipal affairs, the province, and the federal government."

Municipality Perspective – Style

The Municipality's representatives were somewhat pessimistic about social impacts in Fort McMurray. One representative of the Municipality noted, "In terms of housing, …they [developers] need to acknowledge there are undesirable impacts on the community….They need to provide some housing." At the same time, they recognize that industry is "timid" in being involved in housing development.

The planners felt that small projects, namely those that hire 60 – 100 people are becoming problematic because the impacts are quickly accumulating across projects, even though the regulatory process does not seem to truly take these cumulative impacts into account. One planner said, "The process is breaking down." In fact, another planner noted that SIAs themselves are not even very helpful because although there is some information about demographics there is not enough detail to do very much with it as a planner.

Finally, there was some concern over the people and groups that are contacted with respect to SIA studies. Two representatives from a social service organization in the municipality said they didn't know why they were chosen to participate in one SIA. They were consulted, then never heard any feedback, and were never called to participate in an SIA again. They believe someone else in their department would have been contacted for other studies. A participant from one of the provincial social service departments noted that the only time she asked for feedback was with Suncor's Millennium project SIA. It was the only time she felt feedback was available, as they

held a public forum afterwards, and invited her, and others, to come back and see the results.

All of those interviewed seemed to be optimistic, however, about the process that RIWG was able to offer in terms of information for urban planning. "The municipality has good access to…information. It's a communications centre, and it's like a 'one stop shop' for industry players." There is an important distinction made by planners between SIA information and the information RIWG provides. "It is cumulative information, not project-based. RIWG is better from the cumulative assessment standpoint."

The provincial government representative felt that the SEAMS in Fort McMurray was adequate. The respondent noted that when the population of the Wood Buffalo region was 1500, the province's role in decision making was quite strong. However, now that the municipality is much more sophisticated, and will be working for a population of approximately 80,000 in 30 years, there should be more responsibility put on the RMWB to solve social and infrastructure problems. He also emphasized the importance of corporate participation in mitigation of social issues. "In terms of social needs, key stakeholders in the region will be identifying issues, and the companies should be dealing with them."

Social services providers' perspective - Style

Social services providers tend to be somewhat skeptical of the regulated SIA process. One participant said, "It's just a piece of paper, and [the government] is not tracking how companies actually follow through on their commitments". Another participant noted, "[it is] a checklist that companies can use to check off all the things they've done, for example, consultation. There is nothing, however, to review how effective consultation was… Fortunately, proponents in this area don't do that anymore, to their credit".

Another theme which fills the comments of social service providers is that oil sands companies *do* contribute a great deal to the community, but it is nearly always in areas that directly benefit their employees. "…the companies do make their contributions, like $1 million to Emergency Response, but it's accommodating *their* people today and in the future. They are self-serving, and the little people are forgotten." At the same time, the oil sands companies can say, "we contribute to Keyano [College]," – they contribute specifically to programs that train people who want to work with the oil sands. While one participant saw this as something that should just be part of normal business, she thought that many people saw it as part of the impact assessment process, and thus think that the impact assessment process was working well.

Finally, it was felt that the solutions to social problems in the community were going to have to be outside the SIA process. One of the representatives from a First Nations group found that his community benefits much more by working directly with the proponent than by working through the SIA process. "The regulatory process is inherently adversarial, and most people don't like that," he said. "The regulatory process is also very narrow in scope. It doesn't take all the social impacts into consideration, especially the cumulative social impacts. It is a very sterile process." In fact, it was felt that, "…things change so quickly here that it's hard for the reports to stay relevant."

In terms of the work that RIWG does in the community, the participants noted that RIWG is an effort that is meant to satisfy the oil companies' needs, and doesn't really address community needs. From their perspective, it is falling short of its intent. If a collaborative group is going to work well in solving community issues, it should be "owned" by the government or the community, and not by the oil companies.

SIA Practitioners' perspective - Style

The practitioners interviewed in this study both have long and extensive experience with oil sands SIA in the community. As such, they have a broad perspective on SIA and planning in Fort McMurray.

One of the respondents identified three major audiences for SIA. First, and most importantly, the legal audience of SIA is the regulator, which in this case is the AEUB. This is the organization that ensures the projects are undertaken in the public's interest. The second audience, increasingly important, is the community. SIA helps the community make informed decisions, and the public consultation aspect of SIA is particularly useful and important in that respect. Finally, specialist audiences including social service and health service providers pay attention to the outcomes of SIAs.

The two respondents agree that generally, most peoples' lives in Fort McMurray are satisfactory. Most people find the products and services they are looking for, and prices are reasonable, considering the high average incomes in the community. However, they have both listed several major issues with respect to the way SIA is legislated and carried out in the community, and the way people who do not work for the oil sands companies are affected.

The biggest problem with SIA seems to be that they are simply not given the same attention that biological impacts are given. One practitioner noted that the Alsands project of the late 1970s and early 1980s was the first megaproject in the area for which a reasonable attempt at SEIA was made. He contends that many of the assessments carried out until recently were simply based on that study as a template, and "proponents churned out very similar styles of documents, basically just changing the names and dates." The same person also noted that "Many SIAs…downplay the social issues, and focus on the economic [issues]," and that due to the way SIA is regulated, assessments are produced describing a particular period of time, rather than

facilitating an ongoing process of identifying and mitigating problems generated over the lifetime of the developments there.

The other practitioner discussed more about the response by government and industry to SIA and social issues. One of the more frustrating problems he identified was that provincial departments do not fit well into any of the three audiences identified above. Governments can not see problems in the integrated way that they affect people. Instead departments only address the issues they have the mandate to address. At this time, there is no coordinating body in the government, thus there is a lack of focus and coordination between government "silos" with respect to the Wood Buffalo area. There is a proposal for the government to reinstate a Commissioner of Northeastern Alberta who can coordinate government response to issues in the region.

Unfortunately, there is also no policy for areas with significantly different growth patterns from the rest of the province, such as Fort McMurray. For example, the Ministry of Learning determines funding according to three-year development plans that school boards put together in order to allocate scarce resources. Unfortunately, population changes so quickly that first of all, the school board has problems predicting what resources will be required in three years, and second, by the time the plan is complete, it is often made obsolete by changing activity in the oil sands industry. "The one-size-fits-all approach needs to be modified….All Albertans benefit from the oil sands, but negative impacts are felt only by the RMWB including Fort McMurray, and the aboriginal people."

Finally, unlike the attention paid to biological impacts of oil sands development, there is no monitoring system in place for the social impacts in the Wood Buffalo area. "SEIAs are snapshots at the moment. Other snapshots include the census from municipalities and the Feds [Federal Government]. There is no monitoring of the realty system, for example."

In fact, if there weren't continuous applications for new oil sands development, nobody would look at social changes in the community at all, he predicted.

> A set of indicators would allow us to monitor social performance. People complain a lot – that's fine and I don't dispute that they don't like it, but the proof is in [the success or failure] or whatever system they are responsible for. If teachers and schools complain, but students continue to do well, then the system is working fine.

Recently, however, it seems as though regulators have been paying more attention to social impacts. He noted that regulators seem to want to deal more with cumulative effects with something like an indicators system. Corporations are also starting to think along those lines – not only do they have regulators to report to, they also increasingly have concerned investors and customers. Furthermore, corporations are starting to see how forming long-term partnerships with communities can be beneficial for dealing with social problems as they arise. One of the participants felt that the point at which project-by-project SIAs in the Athabasca oil sands area makes sense has passed. Partnerships, and strategic-level thinking need to be applied in order to avoid undue hardship on the community.

5.2.5.2 Style - Document Analysis

Phase 1 - Style

While each study done in this phase of development described in detail the variables that it measured and how those variables contributed to decision making with respect to further oil sand development, very little in terms of commentary on the methodology was given. One detail, however, stood out from the others. "For analytical purposes, it is difficult to separate impacts originating from the new facilities from those originating

from other capital spending… Therefore, the report deals with the effects of Syncrude's total five-year capital spending program (Syncrude 1984:93)." Indeed, Syncrude recognized early on that social and economic impacts would be cumulative. They did not realise yet, however, that impacts between companies would also be impossible to distinguish.

Throughout this period, both Syncrude and Suncor supported the idea that ongoing community consultation was important for ensuring success to their respective companies. However, for much of this period, the residents were much more concerned about the actions taken by government in their community than those taken by oil sands operators (Syncrude 1978:47):

> Planning in the mid-seventies was further hampered by a…hazy line of decision-making. Cohos had been hired to be the Town's planning consultants, primarily to revise the general plan. Simultaneously, another arm of the company was working directly for AHC [Alberta Housing Corporation], preparing plans of subdivision. The situation was further complicated by the fact that decisions could only be made from head office in Calgary. This…was all happening at a time when decisions were needed quickly (Dale 1980:13).

Phase 2 - Style

Through this period of downturn in the oil sands industry, operators began to understand their cumulative impact on Fort McMurray when they were asked to pay for infrastructure and services in the community. "Syncrude is simply one, albeit the largest, of these industrial taxpayers…(Syncrude 1992:15)." The company felt that the taxes it was contributing should be enough to pay for infrastructure in the community, and at least if should not be asked alone to supply these provisions.

An SIA by Solv-Ex (1995:9-43) expressed the same understanding of shared costs of impacts. "To ensure optimum benefits and minimum costs, there must be a recognition and acceptance of the responsibility of Solv-Ex, all levels of government, and especially area residents to cooperatively work towards this goal."

Development of public consultation programs was also a highlight of this period. The community expressed concern that they were being over-consulted, and by the wrong people. Suncor (1996:A3.0-13) noted that interested parties wanted more interaction with upper level management of the company without over-consultation. This realization made an interesting change in the style of SIA reports. By focusing reports on the key concerns identified by the public and regulators, proponents began to prioritize social impacts as opposed to environmental impacts. Whereas in older EIA/SIA reports, the environmental impacts were the first chapters of reports, and were identified as the primary key concerns in the applications, by 1996, the opposite was beginning to be true. Suncor listed (in order), key concerns to be:

- Economic and employment opportunities for aboriginal communities;
- Opportunities for local business;
- Cumulative impacts on infrastructure and community services in the RMWB
- ...
- Impacts of surface disturbance on the terrestrial ecosystem…;
- Cumulative effects of oil sands development on wildlife populations…;
- Protection of water quality; …

Finally, companies devised systems of socio-economic issue logging and tracking. The lists have been used both internally and externally to promote detailed discussion on various aspects of their projects. The status of particular issues was available upon request. This allows companies to monitor certain socio-economic issues. Furthermore, the RMWB Standing Committee on Oil Sands Development was being developed and was expected to take a lead role in identifying issues and determining actions to be taken on them (Suncor 1996:A3.0-17, E2.0-29).

Phase 3 - Style

The most recent phase of development has been marked by social impact assessment that has been recognized to be nearly, if not completely cumulative in nature. "…in many ways, impacts of the Petro-Canada development cannot be separated from cumulative activities of all project proponents (Petro-Canada 2001:v1 p3-3)." Furthermore, more than ever, there is a realization that "Some social impact is an inevitable consequence of further development…[although] they can be managed within acceptable limits (AEUB 1997:22). The proponents have been told by stakeholders that "people costs are part of the legitimate costs of business. Things like increased need for housing, social services…etc. are direct impacts of projects. Project proponents must be held directly accountable to include these matters in public implementation (Petro-Canada 2001:v1 p3-3)."

This phase has also seen the most significant development of multi-stakeholder consultation and social issue management. Community participants in SIA have had an increasingly sophisticated knowledge and concern about cumulative social and economic impacts (Petro-Canada 2001:v7 p5-1). They are adamant that environmental and socio-economic impacts are given the same weight as the economic and technical benefits of development in decision making.

Proponents' responses to these changing demands have been to form multi-stakeholder and multi-proponent organizations that are capable of analyzing issues with broader perspective than any one proponent alone. RIWG and the AOSDFC (discussed in section 4.6) are the most significant organizations with respect to the changing socio-economic situation in Fort McMurray. The Athabasca Tribal Council/Athabasca Resource Developers (ATC/ARD) agreements are the significant organizations with

relation to the First Nations in the region, although they are outside the scope of this paper to discuss.

These multilateral organizations have the important ability of bringing together people from a variety of companies and levels of government (and other stakeholders when necessary). It seems as though they are important for ensuring that, as Suncor found in 1996, the community has access to high-level management of companies to voice their concerns, yet at the same time is not over consulted. They also serve as means of communication and coordination between proponents so that the competition for labour and capital in the region is clear to developers, and can be openly planned around (AEUB 2002:57, CNRL 2002:1-34). "Each of the companies supports the orderly, efficient, and economical development of Alberta's oil sands resources. This is best accomplished by oil sands developers voluntarily exploring opportunities for cooperation which enhance economic return and mitigate any potentially adverse environmental, socio-economic and cultural impacts (Syncrude, quoted in AEUB 1997:34)."

These collaborative organizations are also important for stakeholders to voice their concerns to, so that industry can present those concerns as advocates to the appropriate levels of government. In the meantime, companies, as always, have had to deal with socio-economic concerns for which they are directly and solely accountable, in particular those that occur on the actual development site, although admittedly, "Regional cooperative initiatives are increasingly important for mitigating the socio-economic effects of the oil sands industry, because (1) many socio-economic issues are outside the normal scope of activities of individual private sector oil sands companies; and (2), company-specific impacts are increasingly difficult to separate from cumulative effects (Shell Canada Limited 2002b: v7 p2-4)."

Coverage Consulting Group (2002:1) has suggested caution be taken by planners and human services providers in the area.

> Conducting special studies every so many years is a relatively inefficient way of maintaining knowledge on the current state of affairs within the community…Social Impact Assessments conducted by those wishing to pursue oil sands development, are of limited usefulness for gaining knowledge of current circumstances. For the most part, social economic impact assessments focus on projecting basic population impacts arising from proposed developments. While these projects may be a useful input to social planning, they are not in any way sufficient to base human services needs planning. Reliance on such studies is to provide indications of human services needs, therefore, is not recommended.

5.2.5.3 Style Summary

Overall, the SEAMS described so far has been implemented in a very hands-off, unprincipled, unplanned and decentralized fashion. There are two major reasons for this. First, the SEAMS has not been planned. Rather, it developed over the years in a incremental, organic style. EIA in the 1970s brought impact assessment to the area. SIA was implemented simultaneously, or shortly thereafter. The Northeast Alberta Commissioner's office was also brought into force in the 1970s, but was eventually phased out through the 1980s when the municipality was felt to have become complex enough to deal with its own issues. This, however, was not the case, and RIWG was brought to the region in 1996 by industry, the provincial government and the RMWB. While RIWG has tried to become integrated in the overall oil sands and community planning processes in the region, it only deals with industry-related problems, and is not reliable for resolving issues that are of questionable importance to the development of oil sands.

The second reason for the overall decentralized and unplanned style of this SEAMS is that environmental legislation in Alberta simply does not require action based on the findings of SIA. Assessment is required, so there is a systematic way of assessing the socioeconomic impacts of projects in Alberta. However, since no action is legally required based on the findings of SIA (unless the regulator imposes conditions of approval), systematic means of dealing with them have not been devised.

Unfortunately, because the SEAMS is not completely integrated into the way planning is done in the oil sands, participation of certain key stakeholders is not reliable. The most notably absent player is the provincial government, which most people believe should be playing a coordinating role in the development of the oil sands. Concrete plans on the part of the provincial government, or of the regulator, about the ideal intensity or total planned development of the oil sands do not exist. This disorganized approach to planning development has been criticized by SIA practitioners, the RMWB representatives and NGO representatives.

5.3 Conclusion: SEAMS in Fort McMurray

SIA is facing serious troubling issues in Fort McMurray. There are no laws or policies that require the enforcement of mitigative efforts identified in SIA. It does not have a clear objective for helping the community deal with the social impacts that inevitably arise with oil sands development. In fact, every one of the 5S framework components used to analyze SIA 'infrastructure' in the area turned up shortfalls. Private industry has developed an alternative social effects management forum that is capable of addressing social impacts that are in the interests of industry to address. While government is represented on its committees on a consultation basis, and community stakeholders may participate on an invitation-only basis, neither is allowed to vote on plans for action. Clearly, in the face of long-term development of oil sands in the RMWB, change is needed in the policies and practices of SIA, and indeed towards a more and better integrated SEAMS.

Chapter 6
Discussion

6.1 Introduction

This chapter serves two major purposes. First it discusses each of the major components of the SEAMS, and addresses problems that have been identified. Second, recommendations are developed that may help Fort McMurray take steps to incorporate the social effects of oil sands development into the decision-making process in Alberta.

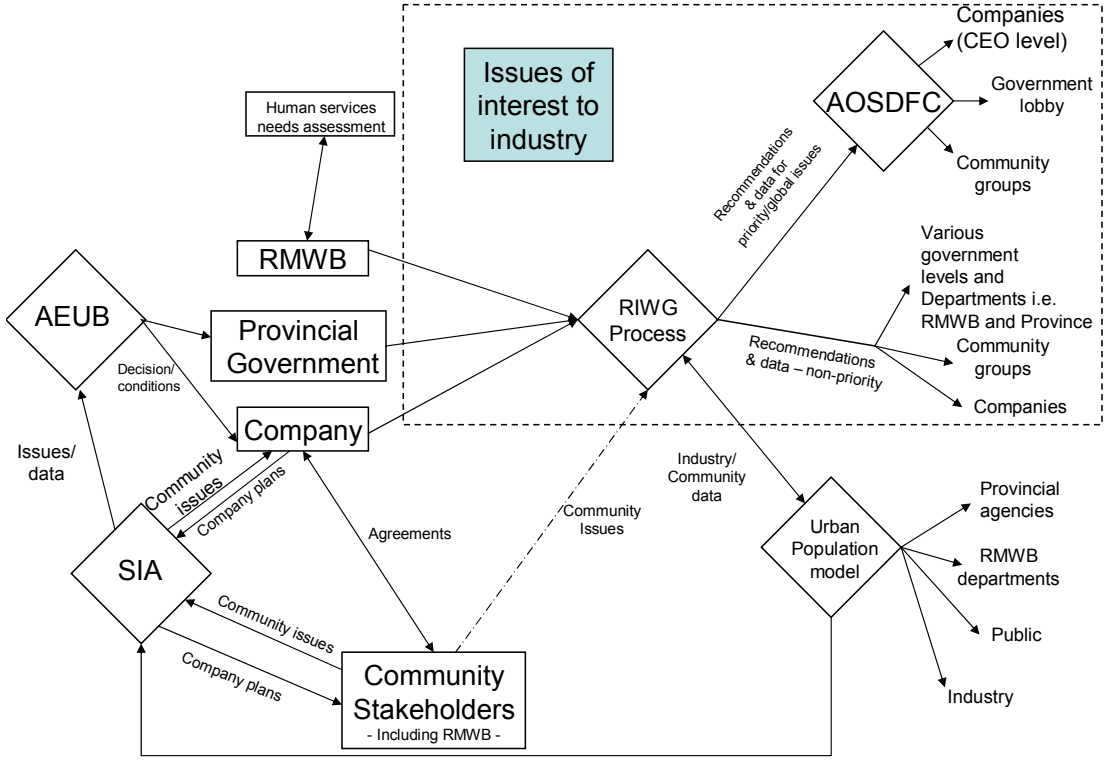
6.2 SEAMS in Fort McMurray

The SEAMS in Fort McMurray has been found to consist of four major parts. The first part is *project-by-project SIA*. The second part is an *industry-based group called RIWG*, which deals with issues that present problems for industry that no one company can or should deal with on its own. The third component is the *provincial government*, including the oil sands industry regulator, the AEUB. The fourth component consists of the *front-line organizations* that administer specific services in the community, including departments of the RMWB and some provincial department offices in the community, such as AWASAK Child and Family Services.

Through the 5S analysis in Chapter 5, it was discovered that although these four parts are linked, they are not integrated to any appreciable degree, and the links between the actors in the SEAMS only exist when industry finds that an issue is in its own best interest to address. In other words, the four parts share no useful common purpose, there is little or no structure actively linking them together, and there is no system for coordinating their activities in an efficient manner. There are no strategies for coordinating how social issues will be addressed, for identifying priorities for action, or for distributing human and financial resources on a consistent basis. Although there is a skilled set of members in each component of the SEAMS, front-line service providers are experiencing a severe shortage of staff and volunteers – the

shortage of available labour in the community and the busy lives that residents of Fort McMurray lead, simply leaves service providers short.

The SEAMS, as it was observed in Fort McMurray, is depicted in Figure 6.1.



F*igure 6.1 The SEAMS for Fort McMurray as it was observed in this study. The figure aims to show the chronological process from left to right, and highlights the part of the SEAMS that only occurs for social issues that industry is interested in resolving for its own purposes. The -.-.- line indicates a relationship that is formed when RIWG invites stakeholders into its process.*

6.2.1 SIA in Fort McMurray

SIA has typically been able to identify the major social effects associated with oil sands development. Recent SIAs have even begun to discuss and measure cumulative social

effects in the region. However, there is a major flaw in the system: there is no law or regulation requiring any *action* on the findings of SIA. Furthermore, there is no publicly-responsible authority for addressing the cumulative social effects that are discussed in SIAs. The only regulatory body that can request that companies pay attention to social matters is the AEUB, but historically it has found that social effects on Fort McMurray are cumulative and outside the responsibility of any one company to address. Because the Board feels it is not fair to burden or stop any one developer on account of cumulative issues for which all developers are responsible, it approves applications for development, while noting that something needs to be done about cumulative social effects. Therefore, while SIA is capable of highlighting negative social issues related to a project, it is incapable of causing regulatory – or other – action that will help mitigate them.

SIA is also not useful, for the most part, as a tool for providing quantitative data about social effects to stakeholders about proposed projects. Since most of the impacts on Fort McMurray are cumulative, most of the quantitative data are acquired from the RIWG Urban Population Model. These data are readily available from RIWG at any time, and unlike an SIA, which is "sealed in time," the RIWG data is kept up-to-date. Thus, in terms of demographic and socio-economic data provision, SIA is rarely useful.

Though it fails as a regulatory tool and as a source of data, SIA has been observed to be useful as an informal information gathering and networking tool. Since SIA is mandatory, oil sands companies and stakeholders alike take the opportunity to network and talk openly about concerns about development. Though regulatory response to the social issues addressed in SIA is unlikely, bilateral and multilateral agreements outside the official SIA process between industry and stakeholders have been known to arise in the past. As discussed throughout this research, projects in the

oil sands do not vary greatly. While details about new projects may vary from previous projects, the issues for Fort McMurray remain the same.

Despite the cumulative social effects that are observed in Fort McMurray, SIA is being used as a project-specific, *anticipatory* tool. Yet, in a situation where many nearly identical projects have already been undertaken or are being undertaken, one need do little more than observe present issues in the community to predict what the effects of the next project might be. When issues are so easily observed presently, and data are available from elsewhere (i.e. RIWG), SIA can hardly be expected to predict new impacts.

For SIA to be truly anticipatory, it would need to assess the social effects of oil sands development at a different scale from the simple project-by-project assessment that has been used to date. What is required is assessment and *consideration by decision-makers,* of the long-term, large scale social impacts that accumulate over time; precisely the social effects which contemporary SIAs are ill-equipped to assess or suggest mitigation for.

6.2.2 The Regional Issues Working Group

RIWG is at the heart of the system of managing issues related to social and physical planning with respect to the oil sands in the RMWB. Figure 6.1, above, illustrates RIWG's links to every other component of the system. Described below are some of the major connections:

- Social Impact Assessment in the oil sands makes use of the Urban Population Model maintained by RIWG to conduct many of the technical social studies necessary for the approvals process. The model is particularly helpful in the identification and assessment of cumulative social effects that can be measured technically;
- RIWG, through the AOSDFC, is in direct contact with major decision-makers. Research done by RIWG is used by AOSDFC to lobby government decision-makers, and to help high-ranking industry executives decide what action, if any, industry should take to mitigate or manage social and

infrastructure issues that affect the smooth operation and development of the oil sands;

- RIWG provides a forum for *ad hoc* issues to be discussed between stakeholders. An example of this role is the way RIWG supported the Mayor's Task Force on Housing. RIWG provided demographic data on housing needs and facilitated contact with relevant stakeholders, leading in part to the success of the task force. Another example is the provision of new day care facilities for Fort McMurray. RIWG acted as a forum and information provider for industry and NGO service providers (e.g. the YMCA);
- RIWG, however, only works on social issues that are of particular interest to industry. If a social effect of development does not have the potential to impede oil sands development, RIWG is not likely to analyze the problem, and the SEAMS collapses; and,
- Significantly, the membership of RIWG consists mostly of oil sands industry representatives. Outsiders, who may be legitimate community stakeholders, may participate only by invitation, and even then in only a consultative capacity.

RIWG must *not* be seen as a replacement for public provincial or regional government decision-makers. RIWG was formed by industry to ensure the smooth operation and development of the oil sands, and therefore has no responsibility to address public interests. Although it has made information available to government departments in the past, and has lobbied government on behalf of industry and community stakeholders, it has no authority in government decision-making, and no responsibility or desire to have its members provide public services. Despite their role, RIWG members feel that public services ought to be provided by government to whom the companies pay royalties and corporate taxes.

6.2.3 The Provincial Government and the AEUB

The provincial government occupies several important positions in the SEAMS. Besides the everyday services that the Province offers everywhere in Alberta, it has some particularly visible roles in Fort McMurray. The most visible one is the role of oil sands regulator, through the AEUB. The AEUB has a formal connection to the

community through SIA. It is made aware of particular issues in the community in the SIA reports about stakeholder consultation. As discussed in Section 6.2.1, however, the AEUB is only willing or able to deal with social effects that are non-cumulative in nature, because it only rules on the approval of individual projects. It may demand that project proponents participate in RIWG and the AOSDFC in order for their applications to be approved, but it does not have any direct control over the work that those organizations do to address cumulative social effects in the community. Because no individual project is alone responsible for cumulative impacts, the AEUB is not useful for solving the problems in Fort McMurray. Unfortunately, by accepting that companies' participation in RIWG (a closed, industry-based group, not accountable to the public), and not holding them to any specific actions, the AEUB is not guaranteeing that cumulative social effects will ever be properly addressed.

Another important position the Alberta government holds is that of social welfare provider, along with the RMWB. Health care, education, child and family services, seniors' services, infrastructure, and others are all at least partly the responsibility of the Government of Alberta. While some provincial government departments in Fort McMurray have been active in providing day-to-day child and family support in the region (most significantly, the AWASAK Child and Family Services Regional Authority), others, such as Alberta Learning and Alberta Health and Wellness have been slow to adapt to fast-changing local conditions, or the problems that result from the high cost of living in Fort McMurray because of their centralized planning and budgeting system.

Finally, the Province of Alberta is the owner of the oil sands resource. The oil sands developers simply acquire the right to exploit it on behalf of the Province, and then pay the province a royalty. The province thus has financial interest in having the oil sands developed. The Province benefits richly, but does not compensate the

community for the negative social effects experienced there. The shortage of action on the part of the province is not surprising. In the early 1990s, Alberta, like Ontario, actively diminished its role as a provider of social welfare (McAllister 2002:238). The province down-loaded its responsibilities to the municipalities in the province with little regard for the ability of municipalities like Fort McMurray to fulfill them. Thus, there is a shortage of capacity in the RMWB to administer all the services it has been charged with. The province has indicated some interest the possibility of greater involvement in the regional resource planning of the area by installing a commissioner to oversee development in the region, and to coordinate the response of the province to the problems associated with development.

6.2.4 The RMWB

While much of the work the RMWB does fits into the section on front-line service providers (because of the work it does through FCSS and the planning and engineering departments), the RMWB does have a significant role to play in the SEAMS. That is, it has begun undertaking independent Human Services Needs Assessments that have recommended that the RMWB not be dependent on data from industry sources, and that SIA is not a good source of information for planning human services because (1) the information may be biased because industry has an interest in how data are produced and interpreted, and (2) because SIAs are one-shot studies that cannot provide adequate continuous data for monitoring or planning actions by the region. This part of the SEAMS is the only alternative to the industry based and funded SIA and RIWG system.

6.2.5 Front-line service providers

Volunteer-based, front-line social service providers have shouldered much of the burden of trying to mitigate the negative social effects of oil sands development. Yet, homeless shelters, food banks, drug and alcohol rehabilitation centres, youth centres, etc. are stretched very thin in terms of staff and volunteers. It has been a challenge for

these organizations to ensure that they have consistent leadership, let alone provision of services.

These groups need a better base of support. While many are well funded through the United Way, they require human resources in order to operate. Like in many other sectors in Fort McMurray, insufficient affordable accommodation may be one of the serious deterrents to people moving to the community to work in these organizations. Current residents of Fort McMurray might feel free to volunteer for these organizations if they did not have to work extra hours or at extra jobs to pay for their housing.

6.3 "What went wrong?"

Many problems with the SEAMS in Fort McMurray were found through the course of this research. The most significant ones found in this research include:

- **There is no law or regulation requiring proponents or government to resolve or mitigate social issues that are identified in SIA**;
- **The effects of oil sands projects on Fort McMurray are primarily cumulative:** There are no official mechanisms for addressing cumulative social effects of oil sands developments in Alberta;
- **There is no coordinated or integrated planning**: The community feels an integrated set of social effects from various sources, notably the oil sands industry, the inadequate capacity of the municipality (especially financially), and the piecemeal, unplanned response of the Province. Some coordinated plan or planning body is needed;
- **SIA is largely inconsequential in the oil sands approval process**: Many social effects are difficult to quantify, and while they are identified, only socio-economic parameters are significantly acknowledged in the approvals process. SIA is useful for community stakeholders to express their concerns to oil sands companies, but there has been no effective regulatory action taken; and,
- **Funding policies in Alberta are felt by informants to be inequitable**: While the whole province enjoys the benefits of oil sands development, only the communities in the RMWB feel the negative social and socioeconomic

effects. While cost of living is higher in the region, welfare and government salaries are not correspondingly high, resulting in a shortage of government service providers and a high level of poverty.

These findings indicate that work needs to be done by policy makers at both the provincial and regional levels of government to develop legislation, policy and government agencies that will adequately address social effects in Fort McMurray. While the assessment of Human Services Needs is a start, more comprehensive planning and cooperation by the region and province are necessary. Some of the more powerful tools available for planning a strong, effective response to these types of shortfalls include integrated planning and Strategic Environmental Assessment (SEA).

6.4 Integrated Planning

One of the most significant issues that prevent social issues from being adequately addressed is the absence of a plan that integrates social planning with the planned development of the oil sands. The absence of such a plan has caused, and continues to cause, significant uncertainty about the long- and short-term future of Fort McMurray.

Strategic and integrated planning processes have been described in the literature as ones able to help resolve questions about the future. While they cannot tell us what *will* happen, they allow us to determine what we *would like* to happen in the long-term future. Having the *resolve* to do something, and exploring the *means* to do it in a plan have enormous potential to alleviate some measure of uncertainty in a place like Fort McMurray that presently is at the whim of the boom-and-bust oil market. At least, as Lang (1986:29) suggests, it is better than the common practice of incremental planning: "'Muddling through' is seldom sufficient to produce the multi-faceted, concerted, far-sighted action that is necessary." Even more importantly, SIA or planning alone will not result in social change (Gagnon, *et al* 1993). SIA (and EIA) must be woven into the practice and production of policies, programs and plans at various levels of government so as to consider social and environmental effects at every stage of decision-making.

6.4.1 Strategic approaches to integrated planning

Integrated planning may be a very appropriate tool for planners in the oil sands area and Fort McMurray because it is designed to address their type of situation. According to Lang (1986:36-37) and Mitchell (1986:13-26), integrated planning can be used to applying a strategic approach to situations where there is:

- Dispersed information: Information is not considered when plans are being made because it is not available to planners and decision makers. Rather, it is distributed among various groups and individuals.
    - In Fort McMurray, information is distributed between companies, RIWG, the RMWB and community groups. While some information is brought together in RIWG, and other information in SIA, not all issues and information are available to planners simultaneously;
- Shared action space: There is interdependence between agencies, stakeholders and proponents of action in an area. No one institution or person can take unilateral action. Sharing, cooperation and coordination of the legitimate interests involved is a necessary component.
    - In Fort McMurray, social issues are a "shared action space" because all oil sands operators, plus the provincial government as the owner of the resource and provider of social welfare, are responsible for social change and negative social effects on the community. No one organization should alone be responsible for dealing with social effects; coordination, shared responsibility and action will be required to have oil sands development that both reduces its negative effects on the community, and in the meantime enhances the social and cultural life there;
- Conflict: Interests of participants are in some degree of conflict. Different values and different perceptions of the resource and its use may exist. Accommodation and compromise between actors is needed.
    - In Fort McMurray, while economic and political powers have committed to the oil sands as the most important resource development activity in the area, there are debates about the pace that it should be done at, the environmental and social effects that should be tolerated, and the long-term plans for oil sands development and eventual decommission;

- Concern about legitimacy: Plans must have broad public support and acceptance. The public must have trust in the agency and its planning processes.
    - Some people in Fort McMurray have reason to believe that SIA, the Province, the RMWB, and industry are not willing or able to address all social effects for reasons discussed earlier. Planning and development decisions are carried out based primarily on economic concerns, while concerns like housing prices, homelessness, substance abuse, availability of service-sector labour and municipal debt are treated as secondary concerns, and are not adequately addressed;
- Need for behavioural change: Resource management strategies often require people and organizations to change the way they behave whether in the development of a resource or in peripheral activities that affect the environment or community around the resource they are developing. Resource development should be viewed as only one of society's legitimate concerns, and should be used as a tool to achieve society's broader and more fundamental goals such as social and economic change.
    - The overall claim of this thesis is that industry, and various levels of government need to change behavior in order to address social concerns adequately in Fort McMurray, and thus to advance society towards its more fundamental social goals.

Smith (1982, noted in Mitchell 1997:162), states that strategic planning is about determining what *can* be done in the long term in a given situation. It reduces uncertainty by at least identifying all the possibilities for action, and by discussing which values would be used to select which of those actions would be most appropriate when it was time to make operational decisions. This process is facilitated by taking strategic approaches that are (Lang 1986:32):

1. Action oriented: Addresses the needs of implementation at each stage of the planning process rather than *after* the plan is adopted, and by having the *implementers* involved in the process from the beginning, to help planners understand the practical constraints of potential plans;
2. Focused, and focused early: Scoping and overview workshops are conducted to avoid the collection of unnecessary data. Values of various parties to the planning process are also established. "Values are acknowledged to guide data collection rather than being seen as emerging from data analysis…data tend to be used not to arrive at positions but to support positions already taken. (33);"

3. Flexible and adaptive: When the external environment is highly uncertain, planning must be iterative, be able to move back and forth between steps in the process, and adapt to changing needs in data and plan options so as to remain flexible to unforeseen change; and
4. Capacity-building: Closely involve those who will implement the plan. Sharing the planning function helps develop a sense of ownership. For the organization as a whole, being able to adapt based on learning (especially from mistakes) is essential.

While Lang's characteristics of strategic plans help facilitate the production of a good strategy, Hodge and Robinson (2001:79) suggest four important concrete components of a regional strategic plan that should be considered by policy planners in order to strengthen the possibility of success for the plan:

1. Purpose or purposes: Discusses why the planning is being done. As part of the integrated planning process, mediate the conflicting values and approaches to development that are brought to the discussion by various stakeholders;
2. A mandate: A plan requires both the legal sanction to proceed with planning and implementation, and boundaries so that planners know what the limits of their planning both in terms of responsibility and space are;
3. Institutional arrangements: The plan and its implementation authority need to be set within the context of other planning and decision-making bodies. The senior level of government must ensure that the jurisdiction of the new organization, and that of the previously existing institutions, is clear and mutually exclusive. Those roles that cannot be easily delegated should be assigned jointly, or arranged through partnerships;
4. Technical capacity: the agency associated with creating and implementing the plan must be granted staff with appropriate skills. Furthermore, it must have the political commitment from the senior government to allow the agency to carry out its mandate. One part of political commitment that might be appropriate for planning to manage social effects in Fort McMurray would be giving an agency the authority and some financial support to coordinate projects on broad topics such as government job salaries. These projects may include many ministries and departments of government, and will require authority and money to coordinate each player.

Integrated planning has some resemblance to rational-comprehensive (R – C) planning. It shares the comprehensive character of R – C planning in that it seeks out information from a wide variety of sources so as to attempt to have a complete understanding of the various influences on planning and land or resource use in an area. What it shares in comprehensive character, however, it lacks in rational character. While rational planning seeks to evaluate possible options to come up with "the right answer," or the one development path that is most efficient to follow, integrated planning, as Smith (1982, noted in Mitchell 1997:162) said above is about what *can* be done in a place, not what *should* be done. It provides flexible options for various land and resource uses, rather than a rational decision on what should be done.

There are good arguments for integrated and strategic planning in Fort McMurray. These types of planning allow communities and governments to prepare for the future and to coordinate values, financial support, power and ultimately, action to address issues that may arise as a result of oil sands development, and to take advantage of development to drive social and environmental improvement. Integrated planning should identify courses of action the RMWB, the province, and other stakeholders can take given the state of the oil sands industry.

One tool that has become particularly popular in facilitating strategic planning with environmental issues in mind is Strategic Environmental Assessment (Barrow 1997:83). This tool could be modified in Fort McMurray to take into consideration social effects as well.

6.5 Strategic Environmental and Social Assessment

Just as EIA and SIA can react to project proposals, SEA, is a tool used in the development of plans before they are implemented to ensure that environmental issues are taken into account in the planning process (Sadler 1986:108). In the case of

evaluating plans for their *social* effects on Fort McMurray, I shall use the term SSA, and define it as a type of impact assessment designed to investigate the potential effects of a PPP on society before it is implemented. However, SSA, like SIA, is likely to be undertaken as part of its environmental counterpart. Therefore, when discussing general concepts of strategic-type assessments, the literature on SEA will be referred to.

6.5.1 Application of SEA/SSA in regional integrated planning

Thérivel and Partidário (1996:6) demonstrate that SEA can be used at every stage of a strategic (PPP) planning process to include environmental and issues (see figure 6.2). It gives planners formal opportunities to evaluate environmental indicators, monitoring and mitigation programs, criteria for decision-making, and roles and responsibilities of decision-making bodies. In terms of social effects on Fort McMurray, for example, it has been observed that there is no official or reliable way for provincial departments to offer integrated solutions to complex social effects of oil sands development. SEA may help policy makers devise procedures and institutions that have the ability and authority to coordinate the efforts of provincial departments, or even different levels of government, keeping in mind the environmental and social perspectives necessary. Another situation in which this analysis may be helpful is if the Northeast Commissioner is re-introduced to the region, policy would need to ensure that its role and the role of the RMWB remain compatible and functional, and that it has sufficient technical capacity to coordinate environmental and social programs in the region.

Sadler (1986:117) has illustrated the effects of regional and strategic plans and assessments (Figure 6.3). Identified under the heading, "Strategic and Class Assessment," are some of the changes found to be needed in Fort McMurray: Development guidelines, management principles, impact zoning, land use allocation/planning and cumulative impact screening. A significant addition to this list that is important for management of social effects in Fort McMurray would be

"development of social sustainability-focused planning and decision-making authorities."

6.6 Weaknesses of SEA and integrated planning

SEA and integrated planning, regardless of their virtue on paper, face some significant threats in practice. Stinchcombe (2000:162), for example, found both in theory and in application (during the Salmon Aquaculture Review in British Columbia) that effective integration of environmental and social concerns using SEA faced several challenges:

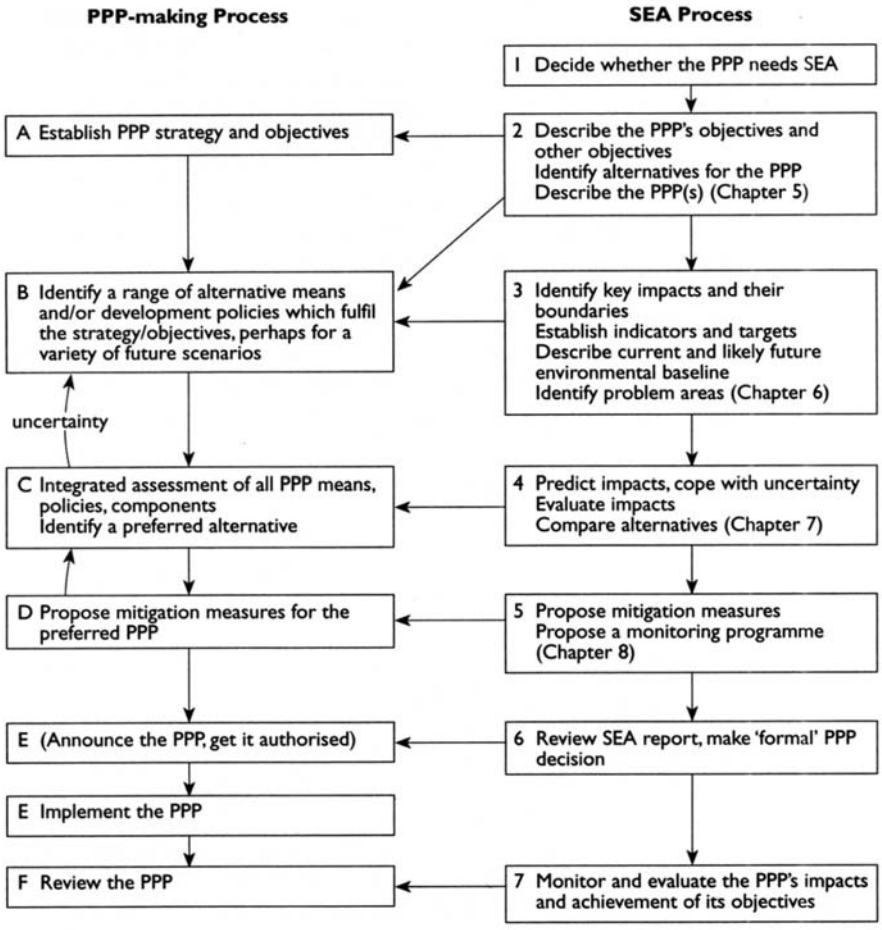


Figure 6.2. Synchronized planning and SEA processes. "PPP" refers to the development of Policies, Programs or Plans (Source: Thérivel and Partidário 1996:6).

- Uncertainty about the future and inadequate information about future development
- Scoping difficulties
- Methodological difficulties
- Ineffective inclusion of the public
- Complexities in tiering and coordinating SEAs and project EA

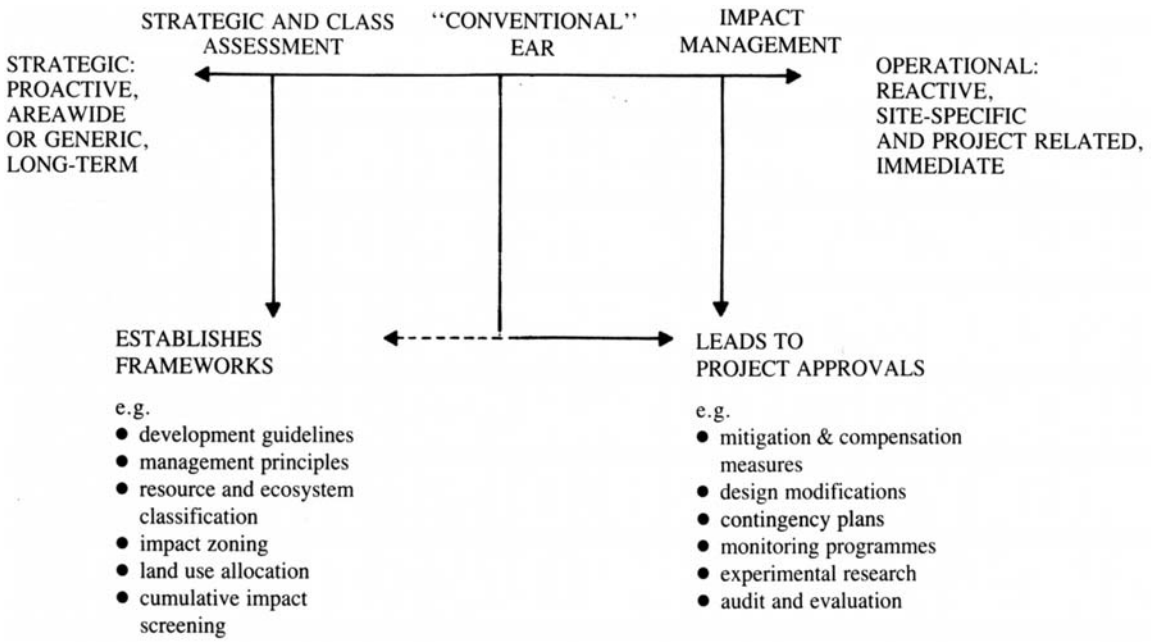


Figure 6.3. Differentiation between assessments of a strategic nature, and assessment and management of project/action-based nature. Strategic assessments are shown to provide guidance in decision-making, whereas impact management leads to site and project-related reaction to possible impacts. Adapted from Sadler (1986:117).

- Institutional resistance, non-compliance and lack of accountability
- Challenges with coordination of bureaucratic structures
- Jurisdictional and constitutional difficulties
- Inadequacies of the broader political and societal framework
- Inability to solve fundamental value differences.

To date, there are still no ways to ensure that integrated planning or SEA will have an optimal result. While many general frameworks have been proposed for SEA, Partidario (2003:16) insists that there is no one path to success with SEA because each case is so different that it will have to have a custom solution. What is important, is to maintain the basic principles of SEA, standards, and terminology so that communication is facilitated throughout the process. In the case of the B.C. Salmon Aquaculture Review, Stinchombe (2000:iv) felt that while SEA was largely unsuccessful in incorporating SEA in the decision-making processes surrounding salmon aquaculture, it was successful in bringing sustainability issues into policy discussions and debates at a more general level. In the case of Fort McMurray, SEA could, at the very least, provide a better context for discussing planning for actually dealing with social effects.

6.6.1 Strategic planning of oil sand development near Fort McMurray

Oil sands development presently occurs at the lowest tier of strategic decision-making (see Table 6.1). As a result, there is uncertainty in the availability of capital, the price and demand for crude oil on the world market, etc. The provincial government has provided some certainty in the region, however, as it seems to have decided that oil sands development is important for the Athabasca region and the province at large. Evidence of this commitment was demonstrated in the July 22, 2003 decision by the AEUB to shut in 938 gas wells in the area in order to protect bitumen that gas production threatened (AEUB 2003). There is an agenda for development in the region, with specification of activities and program investments, but it is poorly organized.

Table 6.1 Tiers of decision-making in environmental assessment. Source: Partidário 2003:8

Planning tier	Tier characteristics
Policy	Road-map with defined objectives, set priorities, rules and mechanisms to implement objectives
Plan	Priorities, options and measures for resource allocation according to resource suitability and availability, following the orientation, and implementing relevant sectoral and global policies.
Program	Organized agenda with defined objectives to be achieved during program implementation, with specification of activities and programs investments, in the framework of relevant policies and plans.
Project	A detailed proposal, scheme or design of any development action or activity, which represents an investment, involves construction works and implements policy/planning objectives.

This level of decision-making, however, is amenable to a strategic assessment at the programmatic level. Therefore, an integrated plan at the regional level with respect to oil sands development, and with attention paid to cumulative social effects in the region is one that may be appropriate for addressing how the province, industry, the RMWB, and civil society at large could respond to cumulative social effects.

6.7 Conclusion

The SEAMS in Fort McMurray has serious problems. It has a fatal flaw in that no action is required once negative social effects have been identified. Furthermore, there is no coordinated or integrated plan for the oil sands; funding for social programs seems inequitable; SIA is largely inconsequential to the oil sands approval process; and, Fort McMurray is affected cumulatively – not on a project-by-project basis – by oil sands projects. These weaknesses in the system mean that many social effects of oil sands development are not adequately addressed at the community level.

Perhaps the most important reason for these weaknesses is that there is no requirement for findings of SIA to be addressed in Alberta, other than at the level of the AEUB, which is capable of placing conditions on development approvals. However, since most effects are cumulative in nature, the AEUB is reluctant to place restrictions on any one developer, rendering SIA nearly useless as a tool for improvement.

RIWG and the AOSDFC are an innovative pair of organizations that are capable of coordinating research and action on issues in the region, but which have only shown interest in undertaking work on issues directly related to the progress of the oil sands industry. This leaves many serious social effects unaddressed. Finally, neither the RMWB nor the provincial government has presented an integrated plan for addressing social issues in the community. There are two major reasons for this. First, the departments of the provincial government are not coordinated with SIA or the SEAMS in the community; second, there is a policy of funding municipalities on a per capita basis for provincial services, rather than on a needs basis. Despite the higher costs of dealing with social effects in Fort McMurray and thus the higher costs of attracting employees and distributing social services in the community, provincial funding for welfare and government jobs, for example, is the same as elsewhere in the province.

A strategic, integrated plan, developed using a SEA/SSA process is likely to result in planning and institutions that can provide some measure of regional foresight so that the province and community can address social effects of the large-scale oil sands development. This strategic plan will be the basis for discussion in Chapter Seven.

Chapter 7
Conclusions and Recommendations

This thesis set out to assess the system of management of social effects in Fort McMurray. This process involved a review of the literature on the assessment and management of social effects of development, the development of an analytical framework for SEAMS, and a description and evaluation of the roles of SIA and the other major parts of the SEAMS in Fort McMurray, Alberta. Recommendations were made about how SIA, local and provincial planning, and alternative management regimes could be used to reduce negative impacts experienced by communities in high-growth, single industry communities.

Chapter One introduced the topic of SIA and SEAMS and outlined the objectives of the thesis. The case of Fort McMurray was introduced, along with and the disappointing results of 30 years of SIA, planning and social impact management in the community. Finally, research questions were posed:

1. What are the major social effects observed in Fort McMurray as a result of oil sands development?
2. What system is in place to help the community manage negative social effects and enhance positive ones?
3. What is the role of SIA in this system?
4. How is the management of social effects perceived by different stakeholder groups? What are the perceived strengths and weaknesses of the present system?
5. How can the present system change to help the people whose lives are or will be negatively affected by oil sands development?

Chapter Two reviewed the literature about SIA in theory and in practice. It discussed SIA as a planning tool and the contributions it should make to the assessment and management of social effects experienced in resource development communities. It concluded that SIA is most effective when it is conducted in the earliest stages of planning. Public input is essential for identifying all affected stakeholders and issues, as is experienced expert input. Significantly, it was determined that SIA is only one

part of a system for dealing with the social effects of development. It has the role of collecting information about the community and proposed project, and predicting the possible effects of that development on the community so that decision-makers can decide if the project is worth doing in light of the changes it will cause, and what, if any, mitigation measures might be needed.

SIA should establish and lead into a monitoring and management program, the former of which can evaluate the accuracy of the SIA, the effectiveness of the mitigation measures, and address the occurrence of unintended social effects. The management program should be able to deal systematically with unintended consequences of development to arrive at an efficient and effective solution. This system of assessment and management of social effects was labeled a "SEAMS."

Chapter Three laid out the case study of a SEAMS in Fort McMurray. A community description including geographical location, community history, current demographic information, and current oil sands development was presented. The laws and processes regulating SIA and EIA were described. It was found that there are two major subsystems for dealing with social effects of oil sands development in Fort McMurray. The first is the regulated SIA process, which has not been effective at resolving many social issues that arise due to development. The second is an industry-based organization called the Regional Issues Working Group (RIWG), which has enjoyed some success in addressing cumulative, regional issues – in particular, those that industry requires resolution for to keep operating smoothly. Finally, an industry-provincial government alliance that is capable of regulating the management of the environmental effects of oil sands development (CEMA), but not the social effects, was presented. It demonstrated a voluntary initiative by industry, combined with regulation and enforcement by government, has potential to solve environmental problems that most stakeholders are satisfied with.

Chapter Four described the McKinsey 7S Integrated Management Framework (7S IMF) that was used to categorize data gleaned from interviews conducted for the research. The 7S IMF is a model of a management framework that includes seven components essential to the operation of a management framework, such as a SEAMS. The 7S's include: Superordinate goal, Strategy, Structure, Systems, Staff, Skills and Style. A preliminary analysis found that staff, skills, and structure had significant overlaps in data, and thus were collapsed into one component called Structures. The model, therefore, is referred to as the 5S IMF.

Chapter Five included an analysis of interviews of 16 SIA practitioners, industry representatives, local and provincial government representatives, and members of NGOs. The analysis was done according to the 5S IMF. A document analysis of SIA documents through three major development periods in Fort McMurray was also conducted using the framework. The chapter further resolved the roles of SIA, RIWG, front-line social service providers and the provincial government in the SEAMS. The structure of the SEAMS was revealed, and the subsystems within it critiqued. It was concluded that there is discontent in the SIA community, as well as Fort McMurray at large, with respect to social impact assessment and the management of identified impacts. There is an absence of law, direction, and leadership for planning and implementing mitigation and management programs. Compounding the problem is a shortage of workers to help make those plans in the public sector, and to implement them through social services providers and volunteer agencies.

Chapter Six reintegrated the results of the 5S IMF analysis to illustrate the SEAMS as a whole. Important parts of the SEAMS were evaluated, and planning tools for potential change, such as integrated planning, strategic planning, and their relationship to SEA were introduced.

This concluding chapter consolidates the research into a concise set of conclusions by responding to the five research questions posed at the beginning of the thesis, making recommendations for action in Fort McMurray, and finally, determining directions for future research.

7.1 Major Conclusions of the Research

Answers to each of the research questions presented in Chapter One are presented in order.

7.1.1 What are the major social effects observed in Fort McMurray as a result of oil sands development?

The most prominent social effect of oil sands development on Fort McMurray has been the phenomenal growth of the city. Fort McMurray has grown from a town of 1,000 in the 1940s and '50s to a city of nearly 50,000 in 2003. Now in its second major boom phase, it continues to grow (approx. 12% last year). People who work for the oil sands companies receive high salaries, and they have a high quality of life by economic measures, but for those who do not work for the oil sands companies (and even those who do), growth has come with some serious side effects – Fort McMurray seems to have experienced almost every impact on the boom-town social impact checklist by Gusskind and O'Hare (1977, quoted in Lane and Armour 1980). Housing shortage, inflation, high cost of living, high family stress, family violence, alcoholism, drug problems, prostitution, small labour market for service industries, etc. are all problems experienced at higher rates in Fort McMurray than elsewhere in Alberta. Many of the original residents of the area (including aboriginal people) have been displaced because of the high cost of living.

Most of these effects did not come as surprises. Gusskind and O'Hare's checklist for social effects felt in boom towns has existed since 1977. More recently, others, such as the ICGPSIA (1995), have also mentioned the social effects observed in boom towns. SIAs for oil sands development have been conducted for over 30 years and have predicted many of these effects. Many of the effects written about in the

literature and predicted in SIAs have actually been experienced in Fort McMurray. Simply having knowledge of the effects has been insufficient for resolving them.

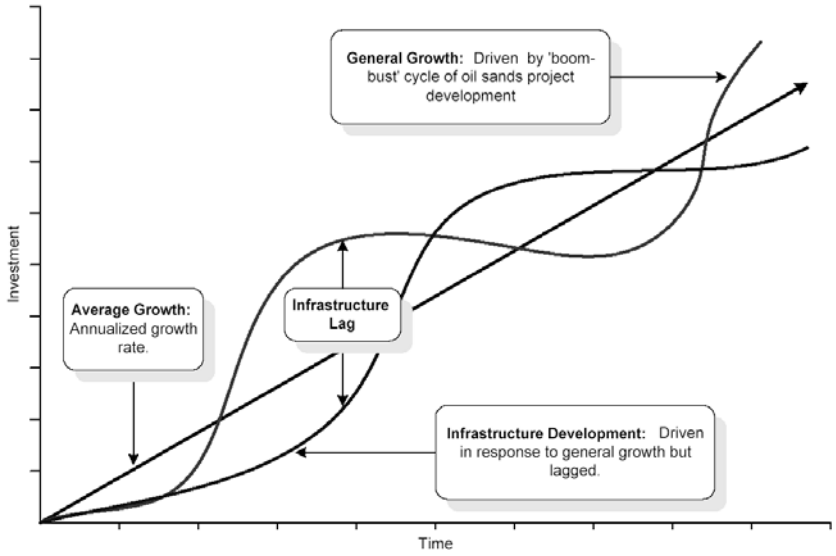


Figure 7.1 The gap between infrastructure development and population growth is a major driver of negative social effects in Fort McMurray. While this diagram shows infrastructure lag, the lag can also apply to a number of social services and wages for government employees. For example, the school board is required to make three year plans to justify funding levels, but by the time the plan is approved and funded, the population has changed significantly and made the plan obsolete. Source: Human Services Needs Assessment, Converge Consulting 2002:6.

Social problems that are related to the recurring pattern of boom-and-bust as shown in Figure 7.1 have been found to be closely attributed to the absence of a publicly-accountable planning and coordinating agency for oil sands development, or for response to social effects in the region. A planned response to demand for oil sands development, and to the social and other effects that arise as a result of oil sands development is needed.

7.1.2 What system is in place to help the community manage negative social effects and enhance positive ones?

SEAMS is the term used in this report to describe the overall system of assessing and managing social effects. There are four major components: SIA, RIWG, the Provincial

government (including the AEUB, the oil sands regulator), and the front-line social services providers including social service ministries of the provincial government, the RMWB and NGOs in the community. SIA is one tool in place for helping the community identify and manage the negative social effects of development. However, while SIA has been shown to be effective for *identifying* effects, it has been ineffective in helping to *manage* them. As a response to this lack of management, in 1996 the oil sands industry formed the Regional Infrastructure Working Group (now the Regional *Issues* Working Group; RIWG), a group made up of representatives from various oil sands development companies in the region and some non-voting local government representatives, as a more effective means of addressing the management of issues that arise from oil sands development.

RIWG has the mandate of ensuring the *smooth and continuous operation of the oil sands industry*. It serves as a forum for the resolution of *issues that might threaten the continued success of the industry*. It is capable of identifying issues, conducting research on them, and making recommendations to appropriate authorities for action.

In recent years, some social issues in Fort McMurray have been seen as threats to the security of the oil sands industry. One example was a shortage of day care services for the children of potential employees. RIWG identified stakeholder groups, potential service providers, and oil sands companies that might fund the provision of child care, and it provided a forum in which all the groups could negotiate. The result was that a new daycare centre was opened, funded in part by oil sands companies, and operated by the local YMCA. Because RIWG has been seen to be effective at dealing with issues, the AEUB now requires companies to be members of RIWG in order to receive a development permit.

RIWG also monitors certain economic socioeconomic and demographic variables. Because it is industry-based, it has access to confidential information about the future plans of oil sands companies. By compiling and analyzing this data, RIWG is able to predict future demographic trends, and thus, ostensibly some of the economic and socioeconomic needs of the community in the future. This information is used in SIA reports to help the AEUB determine the degree to which oil sands projects are in the public interest to approve.

Unfortunately, there are many social effects that RIWG has not responded to because the issues are not felt to be of concern to the continued success of the industry. However, there is no equivalent forum that is responsible to the public for dealing with negative social effects. Several SIA documents, and the AEUB itself in some of its approvals notices, have criticized the provincial government for failing to form an organization that can coordinate efforts by government and civil society to deal with negative social effects of oil sands development.

A recent addition to the present SEAMS as of 2002 has been the Human Services Needs Assessment commissioned by the RMWB. This assessment seeks to provide unbiased information about human services needs in the community, independent of industry. It has suggested that SIA and industry-based information is inappropriate for planning a community with the complex and demanding needs that Fort McMurray has. While this process has been a step in the direction of independent monitoring of social effects, that assessment even concluded that a new system of social effects assessment and management is necessary for the community.

7.1.3 What is the role of SIA in this system?

SIA has been ineffective for managing social effects of oil sands development over the years, despite having predicted them. However, SIA has some other uses. Officially, it

is an exercise conducted in order to help secure a development permit. Second, it is an opportunity for people whose property or lifestyles are directly or indirectly affected by oil sands development to negotiate with proponents for compensation. SIA has, however, an unofficial role as a forum for oil sands companies to talk directly with stakeholders, to hear about issues that have arisen in the community, and to perhaps make bilateral agreements with stakeholders to help address some social issues. Industry leaders and stakeholders alike are happy to use the opportunity to network, and to know what problems and resources exist in the community with respect to social effects. Although SIA has failed to resolve negative social effects through its anticipatory prediction function, it *has* succeeded in bringing issues from stakeholders to proponents of oil sands projects. Even so, problems are still observed to exist in Fort McMurray. Clearly, something more than project-by-project SIA is necessary.

7.1.4 How is the management of social effects perceived by different stakeholder groups? What are the perceived strengths and weaknesses of the present system?

Generally, the groups that have an interest in keeping the SEAMS the same tend to find that the present SEAMS is effective. These groups seem to include industry and the provincial government. The perception of participants in the study is that industry is interested in the present SEAMS because it gives them maximum flexibility to address issues that are important to developers, while allowing them to avoid issues they see as unnecessary expenses. The province may prefer the present SEAMS because it allows maximum flexibility in how it distributes the benefits of oil sands development throughout the province. In contrast, groups and individuals that have been negatively affected or bring service to those who are negatively affected find the system to have failed.

Strengths and weaknesses were mentioned by both those who found the SEAMS generally effective and those who felt that it failed. There are more perceived weaknesses in the SEAMS than strengths. The two major strengths of the present SEAMS include:

- SIA allows companies to network with stakeholders, and to get an idea of what the major issues in the community are, which will be useful should they come to a head in the future;
- RIWG is a unique and effective vehicle for addressing social effects, if industry is interested in applying it to a particular issue. As a central data collection and analysis point, and as a forum for discussion, research, and coordination of action on social effects, RIWG has potential to improve the lives of those who experience the negative social effects of oil sands development in Fort McMurray.

The more important observations, however, are the weaknesses that have been observed, and perceived by stakeholders, in the present SEAMS:

- There is no strategic, integrated plan for oil sands development that takes social effects into account. Limits to pace and scope of oil sands development have not been established;
- Cumulative social effects remain inadequately addressed by the present SEAMS. The Alberta Energy and Utilities Board is unwilling to penalize any one developer for cumulative impacts that the entire industry is responsible, yet it has no power to cause the entire industry or the provincial government to respond effectively to cumulative social effects;
- SIA has too small a scope – a regional, long-term, and cumulative assessment is required;
- The economic and socioeconomic focus of SIA misses many cultural and value-based negative effects of development;
- RIWG is an organization that is in a position to coordinate many responses to social effects, but because it is "owned" by industry, and because it does not necessarily have the public interest in mind, it only deals with social effects that could prevent oil sands development from continuing smoothly;
- The provincial government is unable to develop or offer an integrated response to social problems in Fort McMurray. The 'silo' effect between government departments causes piecemeal and uncoordinated responses; and,

- The provincial 'per capita' funding policy is viewed as inequitable by people in the RMWB. While the entire province benefits from oil sands development, only the RMWB is negatively affected. The government should shift to a needs-based funding model to accommodate the public shortfalls in the RMWB.

7.1.5 What new initiatives can be undertaken to help the people whose lives are or will be negatively affected by oil sands development?

The present system, using SIA, can do little besides identify problems, except in cases where the social effects also happen to be problems for industry. A new system is needed – one which can address cumulative social effects *and* facilitate action in a publicly accountable forum. This need is addressed in the following section.

7.2 Recommendations for change

There are several potential options for changing the present SEAMS that may help attract greater attention to social effects. Different options for change involve varying degrees of cost, risk, accountability, etc., and thus varying degrees of appeal to government, industry, or the public. What follow are some examples of possible change, which are not by any means mutually exclusive. They are to serve as frameworks for possible action, where the details of implementation should be discussed by decision-makers and policy planners as the frameworks are in fact put into practice.

1. **The Province of Alberta could allocate more public money to the RMWB and Provincial service providers in the region because of their unique need for funding to deal with negative social effects of oil sands development.** This is likely to appeal to industry, which feels that government should be dealing with social issues and the public interest. It is unlikely to appeal to government, as it could set an expensive precedent, encouraging many municipalities with unique needs to demand more provincial dollars. One possibility could be that money could be taken directly from oil sands royalties, making the case less of a precedent for other municipalities to follow. While this solution would likely result in improved social services in Fort McMurray, it would not deal with the root of the problem.

2. **The Province could develop a set of indicators for social effects management, and challenge industry to meet them.** A system of financial incentives would be established to challenge companies to bring their individual and combined social performance up to government-established levels, to be measured social indicators. These have been described by Gibson (1999:4) as a type of voluntary initiative called government "challenges." This option could appeal to both the provincial government and industry because it does not necessarily mean that anything needs to be done. Industry may opt to simply pay the penalty and continue using the SEAMS they are currently satisfied with. In the meantime, the province does not need to necessarily develop or implement any plans of its own – it could simply develop the indicator and enforcement system, and imply they are causing industry to deal with social issues in whatever way they choose. Without a strong regulatory threat (i.e. loss of operation permits or future development permits), corporate volunteerism may quickly fade (Gibson 1999:7).
3. **The Province could develop an integrated, long-term plan**, which is based on the assessment of cumulative social as well as biophysical effects, establishes proposals for action to mitigate them, and empowers governments and other stakeholders (legally and financially) to take action. This process will need to include interim measures to coordinate an immediate response to existing social effects. The ultimate goal of this option would be, however, a well thought-out, publicly accountable and mutually acceptable plan resulting in the organized development of the oil sands and the prevention and management in the long-term of its major social effects. This option may be difficult in the near future because some powerful stakeholders may be unwilling to accept social constraints to development. It has components that will be discussed below, however, that may be feasible in the short term, and lead to progress towards its long-term objectives.

The first two options are frameworks that may help resolve some of the short-term issues that have arisen as a result of oil sands development. However, neither of them address the core problem found in this research: the absence of a long-term, strategic plan for oil sands development around which to plan services and infrastructure for Fort McMurray. Therefore, the third option, to develop an integrated, long-term plan will be the only option discussed in detail.

Planners in Canada are expected and required by their certifying agency, the Canadian Institute of Planners (CIP), to act in the public interest in the long term (CIP 2000). Whether "planners" include municipal planners, or economists, engineers, sociologists or planners, etc. at the provincial level, this requirement provides important guidance for people who have power to make policy decisions about oil sands development. As Lerner and Lasswell (1951, quoted in Friedmann 1987:147) noted, "Planning suggests a systematic attempt to shape the future." The results of this research suggest that the future of the oil sands is something that needs to be shaped in some way so that Fort McMurray and the people who live there can adapt to the effects of oil sands development. Below is outlined a more detailed framework that a strategic planning process might take, while again leaving many of the details to be decided by those who will put the framework into practice.

7.2.1 The strategic, long-term planning option – Strategic Biophysical and Social Assessment

This research suggests that in the long term, a clear, strategic, integrated plan for the region with respect to oil sands development should be created. This plan must establish what the values and goals of development are – specifically, the desired intensity of production, the total amount of time oil sands development can be expected to go on for, an estimate of how much development is enough to satisfy the needs of the province, the balance in the trade off between the pace of oil sands development and quality of life in the RMWB, etc. The integrated plan should identify the capacities of project proponents, government departments, the AEUB as the main regulator, and the communities in the region to represent their interests. Key capacity building efforts should be identified, including changes that would be required in legislation, regulation, or government bureaucratic structure to ensure that institutions, authority, and budgets exist to address social issues.

The process used to develop this plan should be driven by democratic principles, and should involve all stakeholders as well as the public at large, paying particular attention to those who cannot represent themselves, and those who are most negatively affected by oil sands development. The preliminary results of each stage of decision-making and planning should be reported to the public, and made open for public comment and debate while keeping in mind the decisions already made in previous stages, so as to focus the debate to the task of the stage at hand.

A Strategic Social Assessment process (likely part of a Strategic Environmental Assessment) should be conducted by the provincial government (the resource owner) to develop the long-term strategic integrated plan (see Sections 2.5 and 6.5). The scope of the strategic assessment (and thus, the plan) must include all aspects of the human environment, explicitly including the social and socio-economic factors that will be expected to change as a result of implementation of the regional oil sands plan, among the other environmental factors (i.e. biophysical, etc.).

The social component of the SEA will help the government identify stakeholder groups, understand their potential contribution to the comprehensive oil sands development plan, identify how disadvantaged groups can be empowered to address their own issues, and finally, identify how the province should address issues of equity between local residents who feel the brunt of the negative social effects of development, and the rest of the province and country who feel only the benefits. The first step in accomplishing this task will be to create an institution capable of creating and implementing a strategic plan.

7.2.2 Develop a body capable of planning and managing regional oil sands development, taking into account all relevant issues – including cumulative social effects of oil sands development

An assessment and strategic planning body charged with creating a strategic, integrated plan for the oil sands, while taking into account long term social (and environmental, economic, etc.) effects, should be developed. While a framework for this institution is presented here, the details of its structure and workings would have to be determined as the process of creating it progressed, with the input of government decision-makers. The aim of this section is to outline a general framework for such an authority that can act as a starting point for the implementation of the authority in reality.

Such a planning body (for reference purposes, called the "Oil Sands Planning and Coordinating Body" – OSPCG; see Table 7.1 and Figure 7.2) would be created by the provincial government with the objective of determining a desired intensity of oil sands development given what is known about the social and environmental effects of such development in the hopes of reducing uncertainty in the area, and thus "smoothing out" the peaks and troughs in the boom-bust cycle. It would also coordinate government response at the provincial and municipal levels to that intensity of development. It would be made up of representatives from provincial and municipal departments that can contribute to the regional planning processes given their different perspectives on oil sands development (i.e. it would be inter-governmental as well as inter-ministerial). These representatives would have to be empowered to negotiate within the OSPCG about issues in the oil sands region, and be given a budget with which to carry out programs that might be devised by this inter-governmental group.

There are three major options for officially establishing the OSPCG. One option is to use a ministry or agency that already has planning and regulatory[12]

[12] The term "regulatory" refers to an agency's experience in evaluating environmental assessments and permitting projects based on environmental assessment and other criteria.

functions for projects in the region or elsewhere in Alberta. Another is to empower a ministry that deals specifically with social issues to facilitate planning of the oil sands. A third option is to develop a new intra-governmental body that would have staff with both EA and approvals experience as well as social services provision experience to regulate social issues in the RMWB (as well as environmental staff who have the expertise to regulate environmental issues, etc).

Ministries that already have a regulatory function will already have institutional capacity for dealing with some biophysical and social impact assessment process results, the approvals process, and the implementation of projects. Alberta Energy, through the AEUB, for example, is already the regulator for the oil sands. One of its major responsibilities is to secure Albertans' share and benefits from energy and mineral resource development (Government of Alberta 2003a). Another possibility is the Ministry of Sustainable Resource Development (MSRD) which has as its major responsibilities the maximization of the economic, environmental, and social contributions of public lands, fish and wildlife, and forests to Albertans through optimal land use. It is also responsible for Integrated Resource Plans in the region. It regularly deals with EA and cumulative effects assessment in approving non-energy-related project decisions in Alberta through the Natural Resources Conservation Board, so it has institutional, publicly accountable capacity to conduct impact assessment and planning (Government of Alberta 2003b).

The second option is for another ministry that already looks at social issues to take a leadership and regulatory/approvals role in dealing with social issues in the oil sands. Such a ministry could be Alberta Community Development, Children's Services, Seniors, Municipal Affairs, or Health and Wellness, all of which have had significant involvement in providing social services in Fort McMurray.

The final option is for a new intragovernmental agency to be developed that would focus specifically on the cumulative effects (including social effects) of oil sands development in Alberta, and use SEA to plan and manage development goals. This agency could have staff with the skills to administer the social services (as well as environmental, economic, etc. services) in regions affected by oil sands development, and the authority both to delegate tasks to Provincial ministries for specific analysis and response. In partnership with the AEUB, it would also ensure that industry would continue to monitor and mitigate the impacts for which it is directly responsible. This final option may be preferable because it would ensure that there is a wide variety of institutional experience available for planning oil sands developments in the context of intense social and environmental effects that have been experienced and are expected to be experienced due to future developments.

Once an appropriate forum for decision-making has been selected by high-level decision-makers, there are three major options for how the institution may be officially established. In Alberta, if the new institution will deal mostly with government representatives in a narrow range of departments or ministries, and means to act only as an advisory body, it can be established routinely by a Minister, Deputy Ministry, or Assistant Deputy Minister as necessary. Alternatively, if the institution will involve reaching out and coordinating across a broad cross-section of government and involves consultation outside of government, as the OSPCB might do, it should be established by Cabinet through an Order-in-Council, and the OSPCB would report publicly to Cabinet (Pers. Comm., Chris Holly, Alberta Energy Oil Sands Business Unit, Sept 25, 2003). If the body is to be empowered to create plans that bind future decision-making, however, it will need legislative authority.

Once the OSPCB has been established, and has developed a process for conducting strategic assessment and planning of development in the oil sands, it should be set in the context of a system built to actively and iteratively plan, implement, and

monitor development. Furthermore, once development has occurred and monitoring is being conducted, the plan should be able to learn from what has happened, and adapt for improved decision-making in the future.

7.2.3 A proposed strategic social effects assessment and management system

The proposed system of social effects assessment and management consists of two major parts, as seen in Figure 7.2. The first part is the planning to be done within the system (see the left side of Figure 7.2), and the second part is the delivery of the plan (see the right side of Figure 7.2). Table 7.1 outlines the structure and planning process of the OSPCB. Figure 7.2 demonstrates the delivery context in which it exists.

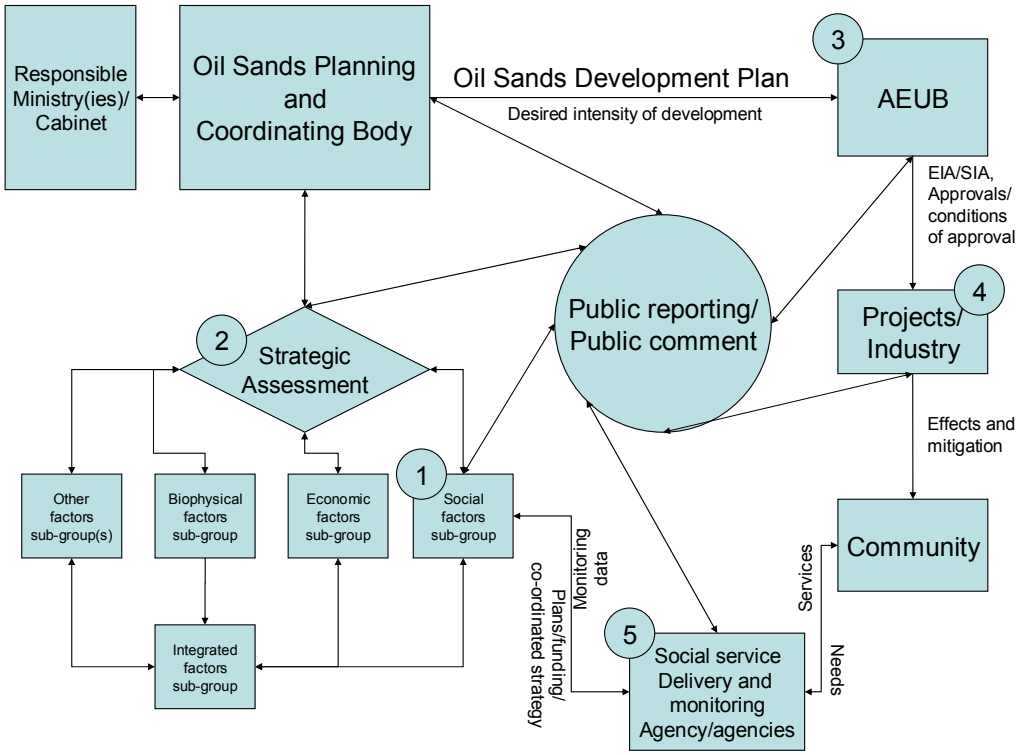


Figure 7.2 General implementation structure for a proposed system of oil sands planning that takes into consideration the cumulative social and environmental effects of development. The planning done by the Oil Sands Planning and Coordinating Body is done primarily done in steps 1, 2, and 5, and informs the decisions made in steps 3 and 4. The numbers in circles refer to important steps in the process, as described in section 7.2.3.

Table 7.1 Characteristics of the Oil Sands Planning and Coordinating Body			
Characteristic		Step	Details
General structure			-Appointed/created by the provincial government through legislation or otherwise depending on its level of authority -Reports to a responsible minister, or Cabinet -Close consultation with industry, industry groups and community -Made up of social, environmental, economic and integrated factors sub-groups that should include provincial government agencies and municipal departments -Empowered to cause the pace of development to be rationalized over time based on the number, type, size, etc. of developments approved -Empowered to fund social and biophysical programs unique to the region
Agenda		Long term planning	-Based on environmental, social, economic, integrated and other considerations to be determined -Determination of long-term values and objectives in the oil sands -Key capacity building needs at local and provincial levels
		Issue response coordination	-Negotiation and consultation with industry, and local and province-wide civil society -Coordination of response by local and provincial government departments including social services delivery and monitoring agencies
Steps in the planning process	Creation and release of public documents at each step, plus opportunity for public comment	Scoping	-Determine the extent of oil sands, capital, human, environmental, community and other resources and limitations
		Determine values for the plan	-Developed through consultation with stakeholders and the public, and other research -Determine relative importance of supports, and limitations to development
		Scenario development	-Develop scenarios based on desired and likely outcomes of oil sands expansion
		Compare scenarios	-Use values to determine strengths and weaknesses of possible development scenarios
		Select an alternative	-Through consultation with stakeholders (service delivery agencies, industry, various government agencies, etc.)
		Plan development	-Determine necessary services and identify responsible authorities for the provision of those services -Determine pace of development desired in order to maintain the decided quality of life in the region -Determine government response to regional and cumulative effects of development at various intensities
		Adaptive management	-As the plan is implemented, iteratively incorporate monitoring information back into the plan
Implementation		See figure 7.2	

During each stage of the assessment and planning process, the public and the OSPCB's responsible ministry(ies) or Cabinet should be reported to and given the opportunity to comment on progress.

7.2.3.1 Step 1: Scoping at the sub-group level

Sub-groups would determine scope of strategic assessment, issues to be examined, government stakeholders and other stakeholders. Sub-groups would be made up of budget- and action-empowered representatives from relevant provincial government ministries and municipal departments. These groups would also solicit significant input from other stakeholders so as to ensure the status of their portfolios is accurately portrayed in planning and plan assessment. Any factors that belong in more than one sub-group should be addressed in an "integrated factors" sub-group so that they could be fully understood in a multidisciplinary forum.

7.2.3.2 Step 2: Coordination of information from sub-level scoping in the Strategic Assessment / Planning of oil sands development

The OSPCB would coordinate the input from the sub-groups, and undertake a comprehensive environmental, economic and social strategic assessment of oil sands development, focusing primarily on social and biophysical factors, which would result in a plan for development, as described in Table 7.1. The development plan would delineate restrictions on the number, type, size, or other meaningful characteristics of oil sands development, as decided by the planning and coordinating body. It would also identify government response to regional and cumulative social, biophysical, etc. effects depending on the intensity of development that actually occurs. This stage would also be heavily informed by stakeholder participation, and by the public at large.

7.2.3.3 Step 3: Communication of the plan to the AEUB, and approval of projects according to the strategic plan

The development plan would be communicated to the AEUB. The AEUB should continue to accept development applications, and use the project-level EIA and SIA / public interest approvals process to decide on applications that will be approved. However, once the development thresholds in the strategic plan are reached, development should be restricted. Information from these assessments, along with information from independent assessments (such as the human services needs assessment), should be used by the planning sub-groups constantly to update the strategic assessment and oil sands development plan (see Section 7.2.3.5).

7.2.3.4 Step 4: Development of oil sands projects

Step 4. Projects would be undertaken, and mitigation measures determined through the approvals process would be implemented by the proponents for project-level/direct effects on the region. Mitigation measures would be prepared by the members of the OSPCB as directed in the strategic plan, to address cumulative and regional issues that may arise.

7.2.3.5 Step 5: Cumulative and regional effects monitoring and management

Social service delivery and monitoring agencies, identified in the plan development process, will implement social services according to the plans created by the OSPCB. These groups will also continuously monitor communities in the region, and feed information back to the OSPCB for iterative planning and adaptive management purposes. The social service delivery and monitoring agencies should also receive dedicated funding from the province, through the social factors sub-group and its budget- and action-empowered members, to ensure that staff and programs are in place to address the most severe of community needs, before and as they arise.

7.2.4 The effects of external factors on the strategic plan

While a strategic regional plan for oil sands development that rationalizes development in the long-term is desirable to be able to predict and prepare for social and biophysical effects in the future, there are some external factors which may prevent the plan from being implemented properly. This list is in no way exhaustive. I seek only to raise the awareness that external factors may have to be taken into account in the planning process, and they should be carefully researched by those implementing these plans:

- International agreements: Agreements such as the North American Free Trade Agreement (NAFTA), and organizations such as the World Trade Organization (WTO) offer challenges to natural resources planning;
- Global environmental and other policy
- Energy market fluctuations
- Changing technology

7.3 Weaknesses of the study

Unfortunately, as is the case in most if not all research, this research was not perfect. There are several weaknesses in this study that may have contributed to results and conclusions that otherwise might not have been arrived at. This section discusses weaknesses identifies problems that may have arisen as a result of them, and how these weaknesses have been accounted for.

First, time in the field was too short. Staff and volunteers involved in planning, social services and government are very busy in Fort McMurray. Even when appointments were made long in advance, they were often cancelled at the last minute. Some requests for other meeting times were simply not responded to, and interview opportunities were lost. Other interviews were rescheduled for months later, possibly occurring when the context in the community had changed. Unfortunately, only three weeks could be spent in Fort McMurray. The cost of living in the community is extremely high, and without research funding, it was impossible to stay longer and

increase the chances of rescheduling face-to-face interviews, or opportunistically finding participants who might have made valuable contributions. Because some contacts could not be made, there is potential for the study to have overlooked some viewpoints. However, through triangulation of the information obtained in interviews with the literature and with information gained through a document analysis, this potential should have been minimized.

Second, the original intent of the research was to find out how planners used information from SIA. Because this original research direction was transformed into an attempt to understand the entire SEAMS in the area while I was in the field, it is possible that questions were not developed with the right context in mind. It is possible that the questions were too narrow, or too much focused on SIA to reveal important information about other parts of the SEAMS. Again, however, triangulation of data using document analysis and literature review provided guidance for interpreting the interviews in the context of a SEAMS rather than SIA.

Third, it was difficult to find representatives from the provincial government outside of Fort McMurray who had significant comments to make on SIA and SEAMS in the region. After having attempted to contact several officials in different government departments, my requests were forwarded to RIWG with the explanation that RIWG would be the best location to find the information requested. On the occasion that appointments were made with members of government for interviews, they were cancelled at the last minute. I have experienced similar frustration in trying to verify my findings with various representatives in government and the community.

Finally, as an outsider to Fort McMurray, and to the system of SIA there, I likely have my own set of biases, based on my own values. For example, I am a social and environmental activist. When I believe social inequity or poor environmental practice is occurring, I assume that some sort of change is needed and desirable. While

I received support throughout my interviewing process for this notion, I may have interpreted this support as stronger than it was meant to be.

7.4 Contribution of this research to SIA theory

The major contributions of this research to SIA theory, and to the planning of large resource projects in general are threefold:

1. The research provided a critical case study on cumulative social effects, their assessment, and their management. The management of the cumulative effects of oil sands development by RIWG is unique, and is now accessible to other SIA researchers and practitioners who keep track of the literature. The critique of SIA and RIWG in the oil sands will allow future practitioners to take advantage of the unique type of management regime, while hopefully avoiding the pitfalls of a private, industry-controlled management system;
2. The research introduces the concept of a Social Effects Assessment and Management System as an improvement to Social Impact Assessment. A SEAMS introduces the concept of strategic planning and systems planning into SIA, and extends the responsibility of SIA practitioners as well as regulators, into the realm of planning and implementation of social effects management programs;
3. The research demonstrates that governments need to take a keen interest in the long-term, regional social effects of large-scale projects if they hope to maintain a sense of equity between the communities where natural resource development occurs, and the distant places where the fruits of natural resource development are used and enjoyed. SEAMS is a concept and a framework for governments to actively address these inequities.

7.5 Future research directions

This research suggests several directions for future research both in the community, as well as in the areas of SIA and cumulative social effects:

1. **Defining the roles and characteristics of the OSPCB:** While this thesis offered a general framework for a planning and coordination body in the oil sands, details about the authority it would have, the extent to which it is a regulatory or an advisory body, and the degree to which it is a multi-

stakeholder group, among other things, needs to be determined so that it can be created in Alberta.

2. **Including monitoring indicators:** Indicators should be developed that are appropriate for planners to use in boom-and-bust style communities, that allow for governments to undertake effective adaptive management and iterative planning;

3. **The effects external influences on regional strategic planning:** International trade agreements, and other agreements made at higher levels of government, as well as energy market forces offer significant challenges to planning;

4. **Development of knowledge about coordinating systems like SEAMS**: The research concluded that there are many possible responses to assessing social impacts. SIA as it is currently defined in the literature is not the only method of formally assessing social impacts, and it is certainly not an adequate means of managing them. SIA is observed to exist within a larger framework of social impact management. Methodologies that can relate the findings of SIA to the larger management regime are needed.

7.6 Summary

In areas of particularly rapid and sustained, but piecemeal, industrial growth, such as the Athabasca oil sands, project-by-project assessment of social effects is inappropriate. This research demonstrates that SIA is largely irrelevant or unhelpful in cases where it is repeated many times for similar projects in the same area. SIA in Alberta, in particular, seems to have problems addressing cumulative social impacts, because the scope of impact assessments is too narrow. The incremental, market-based planning of the oil sands that the province has used thus far has come with high costs. SEAMS in resource development regions is a response to these problems.

To develop SEAMS, partnerships and understandings need to be formed based on a common understanding of the context of development, and these can only exist when government has taken a stand on resource development policy, and put into place

the governance infrastructure that can administer development and its effects properly. Integrated planning, tempered with strategic assessment may be a way for government to make decisions about different types of development, while incorporating environmental and social goals. Despite a lack of interest on the part of government for undertaking strategic planning, its benefits are obvious. The orderly, planned development of resources offers economic and social benefits to local people, has the potential to smooth out boom-and-bust economies, and may result in development that is more diverse and longer lasting.

Impact assessment is a powerful project and policy planning tool. When conducted on the correct scale, and when implemented with a long-term, regional and strategic scope, including monitoring and management of cumulative effects, it has the ability to ensure that change is not completely unexpected or poorly planned or managed. This research on the oil sands of Fort McMurray, Alberta, has demonstrated that incremental planning and its associated project-scale SIA process is not useful for repetitive projects when there is no policy guiding regional development, and when there is no mechanism for addressing the cumulative effects of regional development. Cumulative social effects can only be addressed when there is a strategic long-term development plan in the region, when a system of assessment and management has been established, and when people are empowered to actually make change.

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Alberta Environmental Protection and Enhancement Act (AEPEA), RSA, 2000.

Alberta Energy and Utilities Board Act (AEUBA), RSA 2000

Environmental Assessment (Mandatory and Exempted Activities) Regulation, AR 113/93.

National Environmental Policy Act of 1969 (42 USC 4321 et seq.)

Appendix A

List of abbreviations

AEPEA	Alberta Environmental Protection and Enhancement Act
AEUB	Alberta Energy and Utilities Board
AOSDFC	Athabasca Oil Sands Developers' Facilitation Committee
AOSERP	Athabasca Oil Sands Environmental Research Program
ATC/ARD	Athabasca Tribal Council / Athabasca Resource Developers
CEA	Cumulative Effects Assessment
CEARC	Canadian Environmental Assessment Research Council
CEAWG	Cumulative Effects Assessment Working Group
CEMA	Cumulative Effects Management Association
CEO	Corporate Executive Officer
CNRL	Canadian Natural Resources Limited
CSR	Corporate Social Responsibility
EA	Environmental Assessment
EIA	Environmental Impact Assessment
EIS	Environmental Impact Statement
FCSS	Family Community Support Services
GCOSC	Great Canadian Oil Sands Consortium
IA	Impact Assessment
IAIA	International Association for Impact Assessment
ICGPSIA	Interorganizational Committee on Guidelines and Principles for Social Impact Assessment
ID	Improvement District
MLA	Member of the Legislative Assembly
MSRB	Ministry of Sustainable Resource Development
NAFTA	North American Free Trade Agreement
NEB	National Energy Board
NEPA	National Environmental Policy Act
NGO	Non-Governmental Organization
NRCB	Natural Resources Conservation Board
OSPCG	Oil Sands Planning and Coordination Body
PPP	Policies, Plans and Programs
R – C	Rational – Comprehensive
RIWG	Regional Issues Working Group (Previously Regional Infrastructure Working Group)
RMWB	Regional Municipality of Wood Buffalo
RSDS	Regional Sustainable Development Strategy
SAGD	Steam-Assisted Gravity Drainage
SEA	Strategic Environmental Assessment
SEAMS	Social Effects Assessment and Management System
SEIA	Socio-economic Impact Assessment
SIA	Social Impact Assessment
SSA	Strategic Social Assessment
TOR	Terms of Reference

WTO	World Trade Organization
YMCA	Young Mens' Christian Association

Appendix B

Existing, approved, and planned oil sands development

Source: Shell Canada Ltd. 2002b

	Baseline	Application	Planned Development (CEA) Case
	Existing and Approved Developments	Existing and Approved Developments and Shell Lease 13 East Project	Existing and Approved Developments and Shell Lease 13 East Project and Planned Developments
EXISTING AND APPROVED	**Albian Sands Muskeg River Mine**	Albian Sands Muskeg River Mine	Albian Sands Muskeg River Mine
	Suncor Lease 86/17, Steepbank Mine, Fixed Plant Expansion, Fee Lot 2 Development, Project Millennium, Firebag ETS and Firebag SAGD	Suncor Lease 86/17, Steepbank Mine, Fixed Plant Expansion, Fee Lot 2 Development, Project Millennium, Firebag ETS and Firebag SAGD	Suncor Lease 86/17, Steepbank Mine, Fixed Plant Expansion, Fee Lot 2, Project Millennium, Firebag ETS and Firebag SAGD
	Syncrude Mildred Lake and Debottlenecking Phase 1/2, Aurora North Mine and Mildred Lake Upgrader Expansion	Syncrude Mildred Lake and Debottlenecking Phase 1/2, Aurora North Mine and Mildred Lake Upgrader Expansion	Syncrude Mildred Lake and Debottlenecking Phase 1/2, Aurora North Mine and Mildred Lake Upgrader Expansion
	Devon (Northstar) UTF – in-situ	Devon (Northstar) UTF – in-situ	Devon (Northstar) UTF – in-situ
	Conoco Surmont – in-situ Pilot	Conoco Surmont – in-situ Pilot	Conoco Surmont – in-situ Pilot
	JACOS Hangingstone - in-situ Pilot	JACOS Hangingstone – in-situ Pilot	JACOS Hangingstone – in-situ Pilot
	PanCanadian Christina Lake Thermal Project	PanCanadian Christina Lake Thermal Project	PanCanadian Christina Lake Thermal Project
	Petro-Canada McKay River In-Situ	Petro-Canada McKay River In-Situ	Petro-Canada McKay River In-Situ
	Rio Alto Kirby Thermal Pilot	Rio Alto Kirby Thermal Pilot	Rio Alto Kirby Thermal Pilot
	Imperial Oil Cold Lake in-situ	Imperial Oil Cold Lake in-situ	Imperial Oil Cold Lake in-situ
	Canadian Natural Resources Ltd. Burnt Lake and Primrose & Wolf Lake	Canadian Natural Resources Ltd. Burnt Lake and Primrose & Wolf Lake	Canadian Natural Resources Ltd. Burnt Lake and Primrose & Wolf Lake
	Alberta Energy Foster Creek Phase 1	Alberta Energy Foster Creek Phase 1	Alberta Energy Foster Creek Phase 1
	OPTI Canada / Nexen Burnt Lake Pilot	OPTI Canada / Nexen Burnt Lake Pilot	OPTI Canada / Nexen Burnt Lake Pilot
	BlackRock Hilda Lake Pilot	BlackRock Hilda Lake Pilot	BlackRock Hilda Lake Pilot (closed)
	Gas Plants – Devon (Anderson, Northstar), Marathon, Paramount, Husky, Rio Alto, Nexen, AEC, Vintage	Gas Plants – Devon (Anderson, Northstar), Marathon, Paramount, Husky, Rio Alto, Nexen, AEC, Vintage	Gas Plants – Devon (Anderson, Northstar), Marathon, Paramount, Husky, Rio Alto, Nexen, AEC, Vintage
	Communities	Communities	Communities
	Forestry – Northland Mill and forestry operations	Forestry – Northland Mill and forestry operations	Forestry – Northland Mill and forestry operations
	Pipelines/roadways/others	Pipelines/roadways/others	Pipelines/roadways/others
The Project		**Jackpine Mine – Phase 1**	Jackpine Mine – Phase 1
PLANNED			**Conoco Surmont – in-situ Full Project**
			OPTI Canada/Nexen Long Lake Project
			TrueNorth Fort Hills Oil Sands Project
			Petro-Canada Meadow Creek SAGD Project
			Rio Alto Kirby Project
			Petro-Canada Lewis SAGD Project
			JACOS Hangingstone – Commercial Project
			CNRL PAW Project and Horizon Oil Sands Project
			Suncor Project Voyageur
			Shell Muskeg River Mine Expansion
			Shell Jackpine Mine – Phase 2
			Syncrude Aurora South
			Deer Creek in-situ Pilot
			Imperial Cold Lake Expansion
			BlackRock Orion EOR Project
			Husky Tucker in-situ Project
			AEC Foster Creek Expansion
			ExxonMobil Kearl Lake Oil Sands Mine and Upgrader
			Major pipelines, utility corridors and roadways
			Municipal Growth

Note: Projects in bold are included in an assessment case for the first time, or are different from those included in the previous assessment case. ETS – enhanced thermal solvent, SAGD – steam-assisted gravity drainage, UTF – underground test facility.

Appendix C

Interview Protocol and Guidelines

The following questions are related to the information this research seeks to obtain. Because these are open-ended questions, the answers are somewhat unknown, and new questions may have to be developed and asked in the field in order to satisfy the requirements of this research. Therefore, the questions that follow may be asked, and all follow-up questions will be related, but not all questions that will be asked can be listed because they will be in response to the answers given by the participants.

General questions could be asked of all interviewees, and the other sections of questions will be asked of planners and social services providers and corporate representatives, respectively.

1. General Questions:

- How long have you lived in this area?
- Are you aware of the Environmental Impact Assessments that have been carried out in this area by oil sands development companies? Please tell me your impression of these studies (in particular the social, cultural and economic portions).
- Have you participated in any of these SIAs (in particular the social, cultural and economic portions)? Which ones?
- If so, what was your role in the SIA?
- Have you ever examined the results of an SIA? How easy was it to obtain the information?
- If you've been well-exposed to the results of SIAs in the past, what do you think of the reports? How useful have they been for you? Personally? Professionally?
- How do you think the quality of SIA (in particular the social, cultural and economic portions) has changed over the years?
- Who can you recommend I talk to who has a different opinion than you do? (Obtain contact information).

2. Questions for Planners/social services providers:

- How long have you worked in this area as a planner?
- As a planner for Fort McMurray, have you ever been asked to participate in EIAs?
- Have you ever been told the results of an EIA before construction has begun for any oil sands development?
- Have you ever inquired about the results so that you may make better planning decisions for the city?
- Were the answers to your inquiry useful in helping you to make decisions? Can you give me an example? Feel free to change names in your examples if you need to.
- What impacts have you observed or had to deal with in your community as a result of old or new oil sands development that you have not seen addressed in SIA reports? Which impacts were accurately predicted by the EIA?
- How would you change SIA reports or the SIA process so that you can make better planning decisions for your community?

2. Questions for professionals in oil sands development companies who deal with community relations:
   - How long have you worked in this area with the communities here?
   - How would you describe your company's relationship with your neighbours? In particular, Fort McMurray?
   - How have SIAs and the SIA process (in particular the social, cultural and economic portions) impacted the way you deal with communities? How have your relationships improved in recent years and with recent SIAs?
   - With the knowledge that the SIA process is becoming more and more well established around the world and in Canada, we can say that it's not likely to disappear. Expecting that at your company's next expansion (if there is a next expansion), what changes in the SIA process would you like to see that will better help your relationships with surrounding communities, and in particular, Fort McMurray?

Appendix D

Issues monitored by RIWG

R.I.W.G. Annual Surveys
(November, 2001)

PRODUCTION: - Bitumen/Upgraded Crude (Bbls./day) (1999-2010)
- Export % Numbers

INVESTMENT: - Capital Expenditures Profile ($M Can.) (1999-2010)*
- Cash Operating Costs ($/Bbl. U/G Crude or Bitumen)
- Research Dollars spent on:
    - Energy Efficiency
    - Production Improvements
    - Reclamation
    - Alternate Energy Source Development

ENVIRONMENT:- Emission Factors: (1999-2010)
    - S02 Production
    - C02E Production
    - N0x Production
- Co-Generation: (1999-2010)
    - Electricity/Power Transmission
      (Import/Consumption)
      (Export/Generation)
    - Natural Gas (Import/Consumption)
- Energy Intensity:
    - Combustion
    - Transportation
    - Refining
    - Production
- Water Consumption (Cubic Metres/Bbl. of Bitumen/Upgraded Crude)
- Reclamation
- Aggregate (Gravel)

EMPLOYMENT: - Staffing Statistics (2000-2010)*
    - New Hires/Jobs Created
    - Skills Replacement/Attrition
    - Contractors
    - Apprentices
    - Aboriginal
      (Workforce/Contracts/Contractors/Apprentices)
    - New Hires - 2002 (By Quarter, By Wage Bracket)

- Retirees

- Employment in Municipality of Wood Buffalo
(Chamber of Commerce/R.I.W.G. Small Business Questionnaire)
  - Staffing/Hiring
  - Retirees

GOVERNMENT REVENUES: - Generation of Revenues to Government (Factors)*
- Taxation:*
  - Municipal Property & Education
  - + Royalties (Provincial & Federal)

SAFETY: - Statistics*

* Pipelines & Co-Generation Projects to report these statistics only.

Appendix E

Organizations funded by the United Way

CRISIS SERVICES

Fort McMurray Food Bank ---------- no funding required

Provides an emergency food hamper to those of limited financial means. The Food Bank strives to relieve or eliminate hunger, and educate the public about poverty.

Fort McMurray Family Crisis Society ----------$304,320

Offers temporary, secure and immediate shelter for battered women with or without their children and homeless women. The Society provides education for the prevention of family violence, sexual assault and/or abuse and coordinates with other agencies to in providing treatment programs for batterers and their victims. Services provided include: a 24 hour crisis line; non-residential support and support group; second stage housing for women and children; one-to-one lay counseling; staff coordination for 'The HUB: A Family Resource Centre'; volunteer and public education and education and therapeutic intervention for men who behave in an abusive manner in relationships with women.

Pastew Place Detox Centre----------$144,000

Provides a supportive environment for people while physically withdrawing from drug and/or alcohol abuse. The Centre is open 7 days a week, 24 hours a day.

Salvation Army Emergency Shelter----------$113,000

Clients of the shelter are provided nutritious meals, bath/showers, clothing and laundry facilities, and shelter in a secure, safe environment. The shelter attends to the basic needs of humanity - providing a measure of self-esteem and dignity. The shelter operates a mat program in the winter months for individuals with substance abuse and behavioural issues that prevent them utilizing other services. The Salvation Army also operates a weekend soup kitchen and drop-in centre.

Some Other Solutions ----------$125,000

Encourages the community to access the help lines, not only for major crises, but also in less critical situations where a friendly listener could provide needed support. Grief and Loss program provides coping skills for anyone who has suffered a loss. The Critical Incident Stress

Intervention Program is for incidents where more than four individuals require debriefing following an incident.

Search and Rescue ----------$12,000

A community based program that provides search and rescue training to volunteers in accordance with SAR Alberta guidelines and requirements. These trained volunteers are then mobilized to work with RCMP, the military and other groups in locating individuals or groups who are lost or in need of rescue.

Victim Services Unit ---------- $6,500

A community, police based program which utilizes highly trained volunteers (advocates) who work in conjunction with Police Officers to assist victims of crime and trauma in the Wood Buffalo Region by providing crisis support, information and appropriate referral to the region's services.

COMMUNITY SERVICES

Association for Community Living ----------$55,850

Provides services and support to individuals with mental challenges, and those who experience barriers to employment due to mental/physical challenges. The Association acts as an advocate for families and individuals who require support as they seek specific information. Programs include: KIDS ARE KIDS integrated preschool; KIDS ON THE BLOCK puppets; and C.H.O.I.C.E.S supported Employment. Horizon House is operated by the Association to provide transitional housing to assist women overcome barriers and support them in life skills for day-to-day living.

Golden Years Society ----------$30,500

The Golden Years Society promotes wellness and fellowship through activities to all senior citizens within the Municipality of Wood Buffalo. The Society provides programs and events that enhance the social well-being, and health of our local community members in their "Golden Years".

S.P.C.A.----------$26,625

Dedicated to animal welfare, care for lost and injured animals and finding new owners; promotes laws to protect animals; provides educational services for school children; responds to "cruelty

calls". The Pet Therapy Program involves volunteers bringing pets for visits to the Long-Term Care patients and seniors in apartments.

The Children's Centre Society ----------$114,121

Provides young children and their families who require assistance and support to help overcome the risk factors that are affecting children's developmental needs - physical, social, emotional and intellectual. With an emphasis on prevention, the society works to fill the gaps in existing services for children and families, especially those identified as being at-risk. Programs include: HEADSTART MULTICULTURAL PRESCHOOL, PARENT-TODDLER DROP-IN, RURAL OUTREACH PRESCHOOL PROGRAM, COLLECTIVE KITCHEN, NOBODY'S PERFECT PARENTING, FAMILY VISITOR; ANGEL MANOR and SUMMER COMMUNITY ACTION.

HEALTH & WELFARE

Arthritis Society----------$7,000

Research, training and patient care; access locally to Rheumatoid Specialist form University of Alberta Rheumatic Disease Unit; information and educational materials; support groups; Arthritis Self Management programs and the Arthritis Helpline.

Canadian Mental Health Association---------- $55,805

Fitness and mental health; films and educational material on topics such as stress management, anger management and family relationships; aiding mental health clients to develop skills to cope with their environment.

Canadian National Institute for the Blind ---------- $12,000

Dedicated to the prevention of blindness and the provision of services for blind people through the following services: career development, children and family, communications, deaf-blind, employment, recreational, rehabilitation teaching, social, vision rehabilitation, and volunteer services as well as occupational guidance, orientation and mobility training.

Alberta Lung Association for the Northern Lights Respiratory Health Program ---------- $30,000

Assists individuals with respiratory problems and their families to manage their disease, improve their health and enhance their quality of life. They also provide comprehensive education to the community regarding respiratory health.

St. John Ambulance----------$15,000

Enables residents to improve their health, safety and quality of life by providing training and community service.

Wood Buffalo HIV & AIDS Society ----------$33,320

The Society promotes public awareness and understanding of HIV and AIDS without prejudice; thus encouraging and involving the community in prevention strategies and supports people infected and affected by HIV and AIDS.

YOUTH SERVICES

Big Brothers Association of Fort McMurray ----------no funding required

Screens and selects adult friends for youth aged 6 to 16 who require additional companionship to enhance their opportunities for development of personal strengths and skills.

Fort McMurray Boys and Girls Club ----------$90,000

Creates recreational and social activities for boys and girls 6 to 17 years to encourage a positive self-image and awareness of and responsibility for self and others.

Fort McMurray Big Sisters Society----------$15,000

Provides a meaningful relationship between a girl 6 - 17 and a caring adult woman. Big Sisters provide extra support and friendship when needed. It is not necessary that the child be from a one parent home.

Girl Guides of Canada----------$14,000

Helps girls and young women become responsible citizens, able to give leadership and service to the community, whether local, national or global.

Scouts Canada – Boreal Frontier Service Area ----------$20,000

Scouts programs contribute to the education of young people, through a value system based on the Scout Promise and Law; to help build a better world where people are self fulfilled as individuals and play a constructive role in society.