

*This document has been digitized by the Oil Sands Research and Information Network, University of Alberta, with permission of Alberta Environment and Sustainable Resource Development.*

AN EXPLORATORY STUDY OF DEVIANCE IN THE  
ATHABASCA OIL SANDS AREA

by

HARVEY L. JOHNSON, M.S.W., R.S.W.

for

ALBERTA OIL SANDS  
ENVIRONMENTAL RESEARCH PROGRAM

HE 1.2.6

February 1979

The Hon. D.J. Russell  
Minister of the Environment  
222 Legislative Building  
Edmonton, Alberta

and

The Hon. L. Marchand  
Minister of State for the Environment  
Fisheries and Environment Canada  
Ottawa, Ontario

Sirs:

Enclosed is the report "An Exploratory Study of Deviance in the Athabasca Oil Sands Area".

This report was prepared for the Alberta Oil Sands Environmental Research Program, through its Human Environment Research Committee (now the Human System), under the Canada-Alberta Agreement of February 1975 (amended September 1977).

Respectfully,



W. Solodzuk, P. Eng.  
Chairman, Steering Committee, AOSERP  
Deputy Minister, Alberta Environment



A.H. Macpherson, Ph.D  
Member, Steering Committee, AOSERP  
Regional Director-General  
Environmental Management Service  
Fisheries and Environment Canada

2756639

AN EXPLORATORY STUDY OF DEVIANCE IN THE  
ATHABASCA OIL SANDS AREA

DESCRIPTIVE SUMMARY

BACKGROUND AND PERSPECTIVE

The purpose of this study is to assess, on the basis of existing knowledge, the extent and significance of social deviance in the communities of the Athabasca Oil Sands region. Three main sources of information are considered: literature on social deviance in resource communities; existing data on social deviance in the Athabasca Oil Sands region; and data from interviews with field staff.

The results are presented in a format attempting to provide answers to the questions: what is happening? why is it happening? is it positive or negative? what can be done about it? Much of the report covers the first question and includes secondary general data on resource communities and on such aspects as the Boom Town phenomenon, alcohol and drug abuse, and crime and delinquency. References are made to the Athabasca Oil Sands region, and to the statistics on crimes committed, and juvenile court cases in Fort McMurray. Because of the lack of specific data, the report does not compare the extent of problems experienced in the Athabasca Oil Sands region with that experienced in other communities. It recommends further research to supplement the existing data.

ASSESSMENT

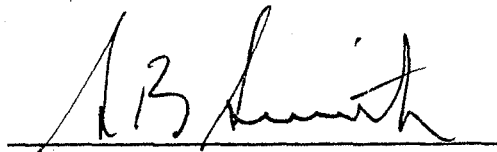
The report entitled "An Exploratory Study on Deviance in the Athabasca Oil Sands Area" was prepared by Mr. Harvey L. Johnson. The information gathered in the course of this study covered a narrow spectrum of deviance, concentrating mainly on alcohol abuse and juvenile delinquency. This resulted in a very narrow definition of what constitutes social deviance in resource communities.

Reviewers who were asked to evaluate the report determined that it suffers from a number of deficiencies, including weaknesses in the presentation and interpretation of data pertaining

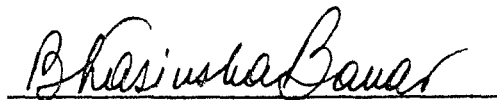
to the incidence of deviance in the region, and in the formulation of recommendations on this matter. The author's recommendations go far beyond the scope of the study as outlined in the terms of reference. In addition, these recommendations are, for the most part, without empirical support. The project suffers from a lack of relevant literature and data and the absence of a clearly articulated, empirically-grounded theoretical perspective. The alternative data sources and data collection strategies, which might have more effectively resolved research questions outlined in the terms of reference, appear to have been overlooked.

In summary, this study is of limited value in adding to our understanding of deviance in resource communities in general and in the Athabasca Oil Sands area in particular.

The report does not necessarily reflect the views of Alberta Environment, Fisheries and Environment Canada, or the Oil Sands Environmental Study Group. This report will have a limited distribution in selected Canadian libraries, and the Alberta Oil Sands Environmental Research Program thanks Mr. Johnson for his contribution.



S. B. Smith, Ph.D  
Program Director



Barbara Kasinska-Banas  
Research Manager  
Human System

TABLE OF CONTENTS

	<u>page</u>
DECLARATION . . . . .	ii
LETTER OF TRANSMITTAL . . . . .	iii
DESCRIPTIVE SUMMARY . . . . .	iv
TABLE OF CONTENTS . . . . .	ix
LIST OF TABLES . . . . .	xi
LIST OF FIGURES . . . . .	xii
ABSTRACT . . . . .	xiii
ACKNOWLEDGEMENTS . . . . .	xvi
1. INTRODUCTION . . . . .	1
2. METHODOLOGY . . . . .	4
2.1 An Operational Definition of "Deviance" . . . . .	4
2.2 Literature Review . . . . .	5
2.3 Review of Existing Data . . . . .	6
2.4 Interviews . . . . .	6
3. RESULTS . . . . .	8
3.1 What is happening? . . . . .	9
3.1.1 Literature Review . . . . .	9
3.1.1.1 The Boom Town Phenomenon and Characteristics of Boom Towns . . . . .	10
3.1.1.2 Characteristics, Expectations and Attitudes of People Living in and Migrating to Resource Communities . . . . .	13
✓ 3.1.1.3 Alcohol and Drug Abuse in Resource Communities . . . . .	15
3.1.1.4 Crime, Delinquency and Resource Communities . . . . .	16
3.1.1.5 Literature Review and the Research Questions . . . . .	17
3.1.2 Data and Reports . . . . .	18
3.1.2.1 Athabasca Oil Sands Area as a Boom Area . . . . .	19
3.1.2.2 The People of the Area . . . . .	21
✓ 3.1.2.3 Alcohol and Drug Abuse . . . . .	23
3.1.2.4 Criminal Behavior and Juvenile Delinquency . . . . .	26
3.1.2.5 Critique of Available Data and Reports . . . . .	29
3.1.2.6 Summary of Data and Report Section . . . . .	31
3.1.3 Interviews . . . . .	32
3.1.3.1 The Boom and the People . . . . .	33
✓ 3.1.3.2 Alcohol and Drug Abuse . . . . .	34
3.1.3.3 Crime and Delinquency . . . . .	36

TABLE OF CONTENTS (CONT')

	<u>page</u>
3.2	Why Is It Happening? . . . . . 37
3.2.1	Literature Review . . . . . 37
3.2.2	Data and Reports . . . . . 40
3.2.3	Interviews . . . . . 40
3.3	Is It Positive or Negative? . . . . . 41
3.4	What Can Be Done About It? . . . . . 44
3.4.1	Literature Review . . . . . 44
3.4.2	Data and Reports . . . . . 46
3.4.3	Interviews . . . . . 48
4.	A SYNOPSIS OF THE RESULTS . . . . . 50
5.	RECOMMENDATIONS FOR ACTION AND FURTHER RESEARCH . . . . . 55
6.	APPENDICES . . . . . 59
6.1	Human Environment Research Terms of Reference . . . . . 59
6.2	Interview Guidelines . . . . . 60
7.	FOOTNOTES . . . . . 61
8.	BIBLIOGRAPHY . . . . . 66
9.	AOSERP RESEARCH REPORTS . . . . . 72

LIST OF TABLES

	<u>page</u>
1. Stages and characteristics of resource town development . . . . .	11
2. Income distribution, 1973 . . . . .	21
3. Fort McMurray and Area Crimes Committed . . . . .	26
4. Juvenile court cases (N=43) in the Fort McMurray Juvenile and Family Court . . . . .	29

LIST OF FIGURES

	<u>page</u>
1. AOSERP Study Area . . . . .	2



ABSTRACT

The exploratory study on deviance in the Athabasca Oil Sands area is addressed to four general questions:

1. What is happening to people in the region?
2. Why is it happening?
3. Is it positive or negative?
4. What can be done about it?

For the purposes of this study, "deviance" was defined as alcohol and drug abuse, as well as crime and delinquency within both a legal and social context. Information was gathered from a literature review, relevant data and reports, and interviews with selected field staff.

Literature on alcohol and drug abuse, crime, and delinquency in resource communities is extremely limited and tends to consist of opinions and observations rather than research data. It appears that very little attention has been paid by the research community to the social or human aspects of resource development. Therefore, it was necessary to relate literature on deviance within the broader context of Canadian society to resource communities and the Athabasca Oil Sands area. Significant findings are as follows:

1. Alcohol has been identified as the most widely used drug in Canada, and the one causing the most problems;
2. A strong relationship exists between alcohol abuse and crime;
3. Native people and youth constitute two high risk groups for alcohol use (a high percentage of these two groups is present in the Athabasca Oil Sands area);
4. The use of prescription drugs is increasing;
5. Young men and native people are responsible for a large proportion of crimes;

6. Both juveniles and adult females commit a small percentage of crimes when compared to males.

Reports on the "quality of life" and social problems within the area are extremely limited, as are good quality data. Available reports and data confirm the findings of the literature review. The amount of money spent per capita on alcohol in the region is approximately fifty percent higher than the Alberta average. There has been a significant increase in the reported incidence of certain crimes between 1974 and 1975.

Interviews conducted with field staff identified similar issues. The respondents noted that alcohol abuse was the primary problem and expressed concern over growing juvenile delinquency and increasing family problems. Some of the social and economic costs of alcohol and drug abuse, crime, and delinquency are also discussed in the report.

No clear agreement exists in the literature on why the problems are occurring. To study this question within a proper theoretical framework would require sociological, psychological and physiological perspectives. A report on the Criminal Justice Services notes that the problems in the oil sands region are intensified because the development of "soft services," such as services for native people and women, and the special treatment and child care programs, has lagged far behind the building of extraction plants and physical construction of the town. Field interviews pointed to several reasons for the problems that exist: the lack of social planning; a "get rich quick" philosophy; norms which support excessive alcohol consumption; and the lack of adequate facilities and opportunities for women.

Finally, the question of "what can be done about it" is addressed. The literature review indicates that many treatment programs have not demonstrated their effectiveness. The majority of money, however, continues to be spent on treatment programs rather than on preventive programs, such as public education and research. The Criminal Justice Report notes the need for the

addition of many services. The field staff interviewed stressed the need for public education and preventive programs. The study concludes by presenting recommendations for action and research.

ACKNOWLEDGEMENTS

Acknowledgements and thanks for helping make this report become a reality go to a variety of agencies and people. The library facilities and staff of Alberta Department of the Environment, Department of Social Services and Community Health, Alberta Alcohol and Drug Abuse Commission, Department of Business Development and Tourism, Boreal Institute, and University of Alberta all provided valuable assistance.

A special thanks is due to the staff members in a number of agencies in Fort McMurray who provided valuable information and insights. Agencies in which staff were interviewed were: the Royal Canadian Mounted Police, Alberta Alcohol and Drug Abuse Commission, Social Services and Community Health, Career Counselling section of Alberta Advanced Education and Manpower, the local Preventive Social Services program, and the Solicitor General's Department.

At various stages in the development of the report, useful editorial comments and assistance were received from Carolyn Nutler, Richard Nutler, Marilyn Johnson, Paul Conway and Barbara Kasinska-Banas.

1. INTRODUCTION

The exploratory study on deviance in the Athabasca Oil Sands region was undertaken for the Alberta Oil Sands Environmental Research Program (AOSERP). The four general questions addressed were:

1. What is happening to people in the oil sands region?
2. Why is it happening?
3. Is it positive or negative?
4. What can be done about it?

The primary purpose of the study was to assess the extent and significance of deviance among the population of the oil sands region and to identify its effects. See Appendix 6.1 for complete terms of reference.

The necessary information was obtained from the following:

1. An identification, review and critical assessment of the literature on deviance in resource communities, with particular attention being paid to its relevance to the Athabasca Oil Sands region.
2. An identification, review, critical assessment and summary of the qualitative and statistical data available on deviance in the Athabasca Oil Sands region.
3. A summary of data from interviews with field staff. Although this was not included in the original terms of reference, the researcher thought it was important to interview the key local field staff whose agencies provide services to the deviant population in the area.

The rationale for the interviews is that very often local administrators and their field staff are aware of issues, problems and trends long before they appear in the literature or agencies' data. It is usually only after a problem becomes very intense at the field level that studies are conducted on the

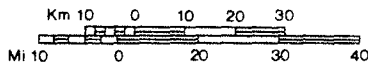
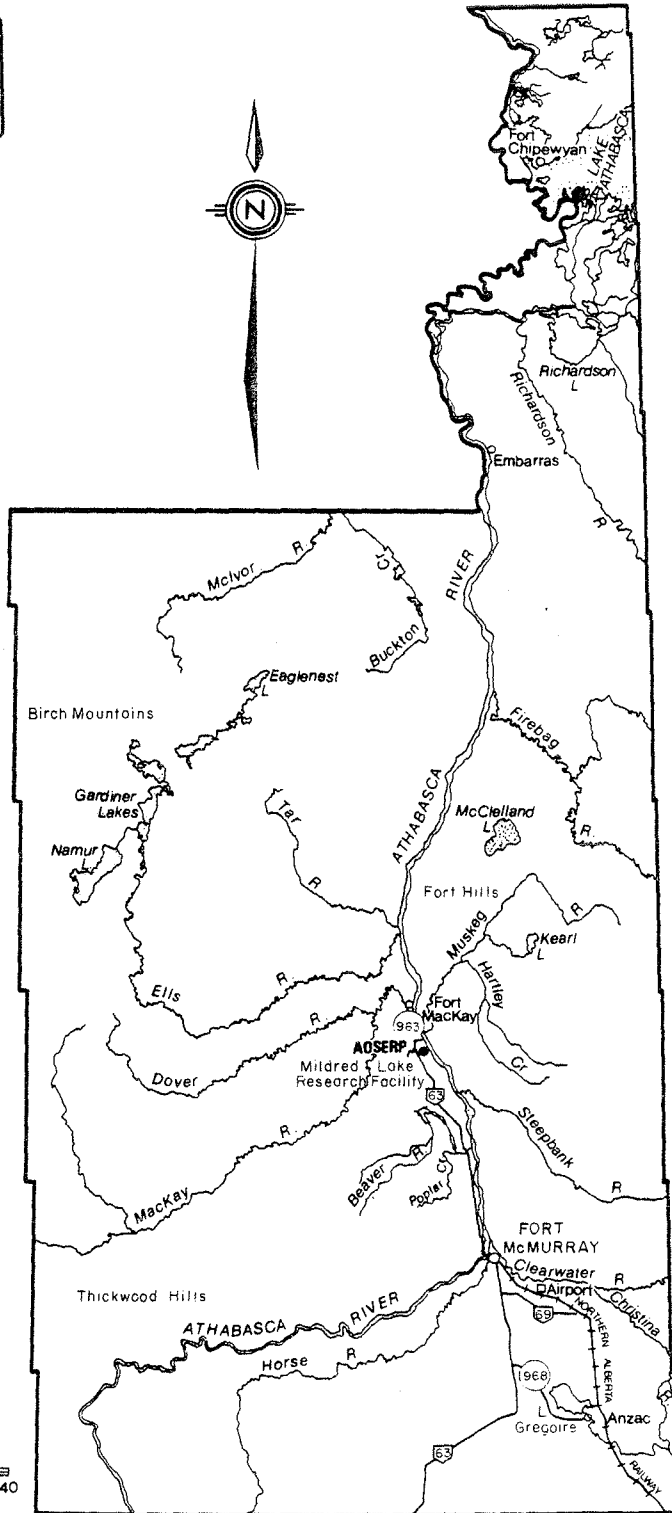


Figure 1. The AOSERP study area.

subject. Such a process can take a number of years. If one were to conduct an exploratory study without including information from field staff, it is likely that one might miss significant trends occurring in the rapidly developing region.

Information from these three sources provided the researcher with a broad overview of deviance in the Athabasca Oil Sands region and the data necessary to address the four general questions posed in the study.

It is not the purpose of an exploratory study to furnish definitive and conclusive answers. The purpose of an exploratory study is to develop hypotheses, to determine the nature, depth, parameters and scope of a problem, and to gain enough knowledge so that more specific and appropriate studies can be recommended. The function of an exploratory study is to identify what needs to be done and what areas need to be studied.

Accordingly, the following report does not provide conclusive answers on deviance. It does identify what is happening in the area and how that compares to usual patterns in resource communities. It also pulls together a variety of ideas and theories on why it is happening, identifies some of the social costs of deviance, and outlines some alternative courses of action that could be taken to rectify the situation. Areas in urgent need of further research, study, and action are also presented.

## 2. METHODOLOGY

### 2.1 AN OPERATIONAL DEFINITION OF DEVIANCE

"Deviant" behavior is any behavior that fails to conform to some specified standard. The standard of behavior may be specified by a small social group, a community or the larger society. Generally, the greater the degree of deviance from the established norm, the more likely it is that the sanctions will be embodied in a formal law, imposed by the larger society, and sanctioned severely.<sup>1</sup>

The kinds of behavior that any given social group, community, or society defines as deviant depends upon its social norms. Thus, depending on the prevailing norms, the amount of deviation that is tolerated varies greatly in different communities and for different kinds of behavior within a community. It is possible that what one community views as extremely deviant behavior and imposes sanctions against, another community may view as normal behavior.<sup>2</sup> When a certain type of deviant behavior develops to such a degree that it can no longer be tolerated by a given community, it becomes defined as a social problem. "Deviant behavior that exceeds the tolerance limits of the community or society usually results in public action designed (1) to protect the society, (2) to reform the offender, (3) to warn everyone that deviations beyond a certain point will not be tolerated."<sup>3</sup>

In arriving at an operational definition of "deviance" in this study, several factors were considered. First, the study was to review existing literature and data. Existing literature and data focus on deviance which is broadly recognized and thus usually defined as a social problem. Less information is available on deviant behavior that is not yet viewed as a social problem. Second, it was thought that providing information on acknowledged problems would be much more appropriate and useful than would a rather esoteric discussion of isolated deviant acts over which there may be no clear agreement as to the



extent of the problem. Finally, the amount of research that could be conducted within the time frame and budget available was taken into account.

Given these considerations it was decided that for purposes of this study, "deviance" would be defined as alcohol and drug abuse, crime and delinquency. These are deviant behaviors which are clearly acknowledged within Canadian society as social problems. In addition, literature and data exist which discuss them, and they could be adequately researched within the time frame and budget available. Generally, the report discusses behavior related to deviance which is illegal. However, in some instances, behavior which is not illegal but which appears to be causing problems, and/or is indicative of a social norm, is presented and discussed. Consequently, the report discusses such illegal behavior as assault, robbery, vandalism, and impaired driving; information is also presented on the volume of alcohol consumption, misuse of prescription drugs, etc.

Demographic variables which are considered important and useful in analyzing the problems of alcohol and drug abuse, crime and delinquency include: age, sex, marital status, income, ethnicity and education.

It is clear that deviance cannot be considered separately from the social context in which it takes place. In order to understand deviance, one must understand the general social milieu in which it occurs. The general social milieu includes such factors as the rapidity with which change is taking place, and the attitudes, expectations, norms and values of the people in the communities. This report describes in some detail the social context of resource communities and, in particular, of the Athabasca Oil Sands region.

## 2.2 LITERATURE REVIEW

An extensive literature review was conducted, focusing on information from a variety of areas and including: the available literature which discusses the process of rapid social change in

resource communities in North America and abroad; the selected literature related to criminal behavior, juvenile delinquency, mental health, and alcohol and drug abuse, and the relevant newspaper clippings of articles that have been published in the Edmonton Journal in the past two years. The literature review assisted in identifying some of the significant characteristics of resource communities, of the people migrating to them, and the interrelationships of these characteristics with deviance.

### 2.3 REVIEW OF EXISTING DATA

All available data and reports pertaining to the north-eastern Alberta region and relevant to deviance were reviewed. Such data helped to compare what is happening in the Athabasca Oil Sands communities with what has happened in other resource communities.

Sources of data and reports included: all relevant materials listed in a comprehensive bibliography of the area prepared by the Alberta Environment Library; studies previously undertaken by AOSERP through the Human Environment Sector; studies previously undertaken by the Northern Development Group; and information available from Statistics Canada, the Alberta Liquor Control Board, and Alberta Bureau of Statistics.

The existing data were gathered from Divisions of Mental Health and Child Welfare of Social Services and Community Health, Alberta Alcohol and Drug Abuse Commission, Solicitor General's Department, and the Royal Canadian Mounted Police in the region.

### 2.4 INTERVIEWS

Field interviews were conducted with staff members of the following agencies in the region: Royal Canadian Mounted Police, Alberta Alcohol and Drug Abuse Commissions, Alberta Social Services and Community Health Department, Career Counselling section of Alberta Advanced Education and Manpower, Preventive Social Services Branch of Alberta Social Services and Community Health and the Alberta Solicitor General's Department. In addition, a

brief discussion was held with the Clerk of the Court, and a more lengthy discussion with a long time resident of the area. Visits were made to Fort Mackay, Anzac and Fort McMurray.

The purpose of the interviews was to see if some issues and trends could be identified at the local level that were not apparent in the literature and data. In addition, the interviews provided a valuable check-point to see if the literature and data accurately reflected what was happening from the field workers' perspectives. The interviews can best be described as semi-structured, with the researcher identifying a number of areas which were covered with all those interviewed. The interviews were also exploratory in that they probed beyond the identified areas in order to determine other issues of concern to the interviewee. See Appendix 6.2 for a copy of the interview format.

The above methodology provided the researcher with an overview of deviance in resource communities and more particularly, of deviance within the Athabasca Oil Sands region. This overview, along with recommendations regarding what can be done, is presented in the following sections.

3. RESULTS

Several comprehensive bibliographies<sup>4-10</sup> related to resource communities and to the Athabasca Oil Sands region were reviewed, including all relevant material which was identified in the bibliographies and could be located. The review indicated that a large number of books and articles were written on resource communities and, indeed, a large number of reports were written on the Athabasca Oil Sands region. When one analyzes the literature dealing with the human aspect of resource development, and more particularly, with social problems related to rapid resource development, one finds that the number of studies is extremely limited. Although observations are made in the literature about what appears to be high rates of alcoholism, crime, and delinquency in resource communities, no studies were found which specifically addressed themselves to these problems. In a comprehensive bibliography prepared by the Department of Environment Library,<sup>11</sup> listing approximately 600 reports and articles on the oil sands region, only three reports are relevant to social problems in the area, and only one has sufficient depth and content to be useful. In this and other bibliographies, many studies are listed under the heading of socio-economic studies. In fact these are economic studies, with only a very minor emphasis on social components. The data on social problems available for the region are extremely limited, of poor quality, and badly out-of-date, because of the rapidly growing population. In addition, comparisons are rendered almost impossible due to the lack of coterminus boundaries for data collection purposes among government departments and agencies.

The above conditions represent a challenge and an opportunity for both AOSERP and the researcher. On the one hand, the dearth of accurate information available produces a degree of frustration in that one cannot readily draw conclusions. On the other, there are many topics in need of study which, in a sense, would pioneer the work in the whole area of human aspects of

resource development.

Given the lack of information on deviance in resource communities, part of the researcher's task was to try to relate the literature which discusses theories, causes, and treatment methods of alcohol and drug abuse, criminal behavior, and juvenile delinquency, to rapid social change. From this literature review came the recommendations on what kinds of further study and work need to be done in the area.

The results are presented in a format which follows the four general questions addressed by this study. Each section begins with literature review. Secondly, data and reports on the Athabasca Oil Sands region are discussed to see if they are consistent with trends pointed out in the literature. These are verified by data gleaned from field interviews, which are presented and analyzed to see to what degree they confirm, deny or add to the issues identified in the literature and data.

### 3.1 WHAT IS HAPPENING?

#### 3.1.1 Literature Review

Four questions were constructed to assist the literature review on deviance in resource communities. These questions are as follows:

1. How do people living in or migrating to resource communities compare with people in non-resource communities with regard to background characteristics, expectations and attitudes?
2. What evidence exists in the literature that deviant behavior in resource communities increases, decreases or remains unchanged during the periods of rapid growth?
3. What categories of deviance are most likely to develop or change in resource communities, and with what frequency?
4. Are there particular sub-groups of people within

resource communities more likely to be involved in specific types of deviance?

In order to understand the social context of deviance in resource communities, it is important to first present a brief portrait of the "Boom Town" and the process of rapid resource development.

### 3.1.1.1 The Boom Town phenomenon and characteristics of Boom Towns.

The phenomenon of rapid resource development is well-documented in the literature by several authors.<sup>12-14</sup> The most comprehensive outline of the stages and characteristics of resource town development is provided by Riffel and is presented in Table 1.

Riffel points out clearly that the planning and development of "soft services," i.e., services for women and natives, special treatment programs and child care programs, does not begin until the sixth stage of development--the stage of community diversification. The basic pattern is one of a flurry of activity concentrated on construction of the physical plant needed to utilize the resource, of recruiting the workers, and of building the houses, roads and schools. Only when the town is nearly developed and the boom shows signs of peaking does the attention turn to the development of other services.<sup>15</sup> The time lag between the initial boom and the development of "soft services" is reported to be five years or more.<sup>16</sup> Riffel also notes that achieving community maturity in which feelings of "community belonging" emerge may take three generations.

According to Table 1, the two groups most likely to experience special problems in a resource town are native people and women. With respect to native people, a United Nations report states:

The history of large scale resource exploitation throughout the world has usually been characterized by a disregard for the rights of the indigenous cultures affected by such intrusions. The possible

impact of this exploitation upon the original inhabitants has in most cases been inadequately examined, if at all.<sup>17</sup>

Regarding women, the literature notes that resource towns frequently fail to provide adequate employment opportunities, recreational opportunities, and shopping facilities. In the long cold winters of the North, it is the wife who most often begins to feel a very real sense of isolation and often experiences agoraphobia or "cabin fever."<sup>19, 20</sup>

In the majority of cases resource development precedes physical planning of the town, though there are examples where physical town planning preceded or accompanied resource development.<sup>21</sup> No examples could be found where comprehensive social planning accompanied physical town planning.

Several characteristics of resource communities set them apart from communities with a more diverse economic base:

1. Resource towns are almost totally dependent for survival upon the rise and fall of the market value of one product. They are highly dependent upon outside markets and often on international demand for the product they produce.<sup>22</sup>
2. The "Company" exerts a tremendous amount of power over not only the job market, but also the housing market and, in the past, the provision of basic goods and services through a company store. This degree of control and feeling of dependence on the "Company" has often led to community feelings of hostility and anger.<sup>23</sup>
3. Particularly in the construction and development phase, the residents feel a sense of isolation and of wanting to get away from the community.<sup>24</sup>
4. The town is characterized by high turnover of labor. Annual turnover rates, in excess of 200 percent in the construction phase and over 60 percent once the industry is producing, are common.<sup>25</sup>

Table 1. Stages and characteristics of resource development

(1) Stage	(2) Economic Characteristics
A. Natural or pre-discovery	A. No economic activity or only hunting and fishing by native people.
B. Prospecting to survey	B. Short term activity. Money spent "outside." Traditional native economy persists, with some trade with whites.
C. Industrial and town construction	C. The first boom period. Mushrooming economic activity. Natives may be employed.
D. Industrial operation and community improvement	D. Shift in construction from industrial to residential and commercial. More money spent in town. Falling off in employment of natives.
E. Community diversification	E. Stabilization of industry. Expansion of other services, especially government. Small manufacturing.
F. Community maturity	F. Diversified economic base. Limited opportunities for expansion.
(3) Demographic Characteristics	(4) Social Characteristics
A. No population or only small bands of native peoples.	A. Unpopulated or small, isolated native communities in limited contact with white society.
B. Short term, summer residents. Young men, no women. If there originally, native people in majority.	B. Isolated. Usually, access by air only. Shack towns without amenities. Some contact with native peoples.
C. Mostly single men. Some young workers with families. Very high turnover rates. Natives in minority and are the stable group.	C. Isolated, but easier access to outside. Trailer towns with basic amenities and "pubs." Signs of social problems among native peoples.
D. Slowing rate of turnover. Increasing number of married workers. Native peoples a small minority.	D. Improvement of housing and community facilities. Completion of roads and communications services. Reduced social problems among whites; increased among natives.
E. Turnover rates reduced by 60%. Young married workers in majority.	E. Amenities well-developed. Few social problems among whites, but boredom among wives. Natives on welfare. Marked stratification.
F. Labour turnover stabilizes at 35%. Young marrieds in majority.  Balanced population structure in terms of age and sex. Low rates of turnover.	F. Employment for wives available. Special programs created, largely for native peoples.  Sense of community and belongingness. Whites and natives on welfare. Less racial tension. <sup>18</sup>



Thus, developing resource communities are characterized by a sense of dependence on factors outside the community's control, a sense of isolation and a very real sense of impermanence.

The interrelationship between resource development and people was summarized by Riffel as follows:

Historically, resource towns have been viewed purely in economic terms: unfortunately in our society, the new towns . . . are planned for the economic functions they have to perform . . . with practically no thought being given to the type of person who will be sheltered there and who has to create out of an engineering achievement a viable human community.

Very few favorable accounts of the "good life" in such communities have been written. It is very difficult to attract and maintain a reasonably stable population in them. As a result, there is emerging a greater concern for social and human factors in the development of resource towns.<sup>26</sup>

3.1.1.2 Characteristics, expectations and attitudes of people living in and migrating to resource communities. One study was found which compared the characteristics, attitudes and expectations of people living in and migrating to northern resource towns with those of people living in another community. The study compared the populations of four northern Ontario resource towns with a southern industrial town, and concluded that:

While there are many stereotypes that suggest that residents in northern communities are restless people who move around a lot, or people who are alienated from the mainstream of our society, our findings suggest that such is not the case. If anything, the present study demonstrates how few differences there are between northern and southern residents in Ontario. There are no significant differences between such residents in terms of alienation, community satisfaction, and many other dimensions examined.<sup>27</sup>

Caution should be exercised in accepting the above conclusion as it represents only one study and it compares the four northern resource towns with a southern resource or industrial town. It may be that the characteristics, attitudes and expectations of people living in and migrating to resource and industrial towns, North or South, are very much the same. Research which would seem to have more utility would compare the populations of northern resource towns to southern towns with a mixed economic base. Such studies have not been done, and one can only conclude that the data currently available on the attitudes, expectations and characteristics of people living in and migrating to resource towns are virtually non-existent.

Since solid research data were not available, observational data were sought. The observations made by people living in and writing about the population in resource communities show a high degree of agreement, confirming the changes in population characteristics at different stages of resource town development outlined in Table 1.

The observations that have been made about the expectations of people moving to resource communities are aptly described in the following quotation:

Many citizens have easy answers to account for this period of change and unrest. Basically, they attribute the mobility of the population to a quest for quick money. "The majority come in to make a good deal of money, it turns out that they do not save, and they always have the feeling of temporariness; you cannot build a town if everyone thinks they are temporary. The people feel that they are not going to be here permanently. The people don't work hard civically and put in roots."<sup>28</sup>

Some may have taken the job for quick money, but such a goal is difficult to achieve . . . Another person suggests, "Almost everyone hates the place. They admit they are here for the money - they don't like the place and they spend most of their money on consumer goods."<sup>29</sup>

In summary, the characteristics, attitudes and expectations of people living in and migrating to resource towns have not been adequately researched. However, the general description provided by the literature is that of people moving to the town to make money quickly, not being able to save a great deal of money, and not wanting to become involved in the community because of their sense of impermanence.

3.1.1.3 Alcohol and drug abuse in resource communities. Research related to alcoholism in resource towns appears to be very limited. However, available literature suggests that alcohol abuse is more common in resource towns, whereas drug abuse does not seem to be a problem.<sup>30</sup> Brook et al., in a review of literature on alcohol use and abuse in the Northwest Territories, notes that:

It has generally been found that alcohol use and abuse have increased with the introduction of development (e.g., highway and pipeline) and that consumption rates tend to be higher in areas where development is taking place.<sup>31</sup>

The above references were the only ones found on alcohol and drug abuse in resource towns. Given the paucity of information, it is necessary to review the information available on alcohol and drug abuse generally and then try to relate it to resource towns.

There are many studies which describe the magnitude of alcohol and drug problems in Canadian society as a whole. Strong evidence exists that alcohol is the most frequently used drug, causing the most problems in Canadian society.<sup>32</sup> Alcohol is a major factor in a large proportion of traffic accidents, crimes, suicides, serious family disruptions and numerous physiological disturbances.<sup>33</sup> At the same time, the use of potentially harmful prescription drugs is on the increase.<sup>34</sup>

Two social groups which appear to be particularly vulnerable to alcohol problems are native people and youth.<sup>35-37</sup> Both of these groups are highly represented in most northern resource

towns. Despite the lack of direct statistical information, it is not unreasonable to conclude that the incidence of alcoholism and alcohol-related problems will be disproportionately high in the development phases of resource communities.

3.1.1.4 Crime, delinquency and resource communities. The current state of research related to resource communities is described in the following passage:

No studies have been done of unlawful behavior in resource towns. However, the information that is available suggests that:

- Serious crimes (person-to-person violence, person-to-self violence, offenses against property, and sexual offenses) are no more prevalent in resource towns than in other centers.
- Liquor and traffic offenses account for more than 75 percent of all unlawful behavior as they do in most Canadian centers.
- Unlawful behavior among juveniles is infrequent in resource towns.
- The incidence of unlawful behavior is greatest amongst native peoples. A study of Churchill in 1970 showed that native peoples made up 25 percent of the population and accounted for over two-thirds of the unlawful behavior in the town. Moreover, there were ethnic differences in type of unlawful behavior, with native peoples more likely to be involved in violence, offenses against property and liquor violations and less likely to be involved in sexual offenses and traffic violations than Euro-Canadians.<sup>38</sup>

While no significant studies are known to exist on crime and delinquency in resource towns, the amount of data available on crime and delinquency in Canadian society is also limited when compared to the amount of data available on alcohol and drug abuse. No recent authoritative work of the depth and scope comparable to the LeDain Commission of Inquiry on Alcohol and Drug Abuse is

available in the field of crime and delinquency, and recent data are hard to obtain.

The following provides a synopsis of data that are available on crime and delinquency in Canadian society. Data on crime in Canada indicate that young men are responsible for a great proportion of crimes.<sup>39</sup> Also, native people are disproportionately apprehended, charged and convicted of offenses.<sup>40</sup> This may reflect their greater social visibility in some situations, as much as it reflects their criminal behavior. Violent crime amongst women, although a small percentage of the total crime, appears to be increasing. With juveniles, the picture is very much the same. Males and native people are apprehended for the majority of the offenses, while females account for only a small percentage of the total offenses.<sup>41, 42</sup> Juvenile females are more likely to be charged with offenses that would not be considered an offense if they were either adults or males (i.e., truancy, sexual promiscuity)<sup>43,44</sup> Juvenile males tend to be charged with breaking laws that would result in penalties for adults.<sup>43, 44</sup>

The incidence of crime has increased rapidly in recent years, but this rate of growth appears now to be slowing down.<sup>45</sup> The violent crime rate has shown a particularly rapid increase. Many inmates in federal and provincial jails have alcohol or drug problems.<sup>46</sup> Although information on juvenile delinquency is particularly scarce and somewhat outdated, the available information indicates an increase in its incidence.<sup>47-48</sup>

3.1.1.5 The literature review and the research questions. The issue arises as to whether the literature review provided adequate answers to the questions posed at the beginning of the study regarding resource communities and deviance. One research study notes no differences in relation to the characteristics, expectations and attitudes of people living in and migrating to resource communities compared to people of non-resource communities. There seems, however, to be concurrence in the observational data reported in the literature, that people moving to resource communities often

see themselves as temporary residents who come only to make money quickly and that they have little motivation to get involved in community activities. Such attitudes and expectations may have a detrimental impact on the development of positive social norms and thus contribute to deviant behavior.

No concrete evidence exists in the literature that deviant behavior increases, decreases, or stays the same during the periods of rapid change in resource communities. There are some indications that the specific types of deviance most likely to develop are alcohol abuse and alcohol-related crimes. Based on a very limited amount of information, drug abuse and juvenile delinquency are not reported to be serious problems.

Although no evidence exists on the sub-groups of people most likely to be involved in particular types of deviance in resource towns, the literature is clear that both native people and youths are likely to experience severe alcohol problems and that young males and native people represent the two high risk groups with regard to apprehended criminal behavior.

### 3.1.2 Data and Reports

Three questions were constructed to assist the review of data and reports available on the Athabasca Oil Sands communities, and to help determine what is happening with regard to crime, delinquency and alcohol and drug abuse in the region. These questions are:

1. Has deviance increased, decreased, or stayed the same in the northeast Alberta region since the rapid development of the oil sands began?
2. What types of deviance have become most prevalent in the area?
3. What are the characteristics of people involved in different kinds of deviance; i.e., are specific sub-groups of the population involved in specific types of deviance?

Prior to addressing these questions, the social context, i.e., the rate of development and some characteristics of the population, needs to be examined.

3.1.2.1 The Athabasca Oil Sands area as a boom area. The communities included in the area are Fort McMurray, Anzac and Fort MacKay. Little population growth has occurred in any of the communities with the exception of Fort McMurray. But because of the tremendous growth of Fort McMurray, other communities in the area have been vitally affected. People from the smaller communities go to Fort McMurray to shop or to see what is happening, and people from Fort McMurray visit the smaller communities.

Fort McMurray has experienced a very fast growth rate and, in fact, with the building of the Syncrude Canada Ltd. (SCL) plant, is going through a second boom. The first boom came with the development of the Great Canadian Oil Sands Ltd. (GCOS) plant between 1961 and 1967. The following is a brief synopsis of the growth of Fort McMurray:

- 1951 Fort McMurray officially becomes a town and has a population of 900 persons.
- 1961 A year after GCOS applies for a lease (lease 86, about 30 km north of town), Fort McMurray has a population of 1,200 persons.
- 1965 The Snye Dike is constructed to alleviate annual flooding, the Athabasca Bridge is opened, and the population is about 2,500.
- 1967 Great Canadian Oil Sands "goes on stream" and the population reaches 4,948.
- 1973 Population estimated at 12,500.<sup>49</sup>
- 1976 Statistics Canada report 15,139 in the town as of 1 June. The Town officials think it is an underestimate and ask for a recount. An average of 5,000 men are employed on the SCL site.

Several population projections based on a variety of factors have been made. The key factor assessed is the number of plants that will be built in the area. The minimum and the maximum population projections for 1980 are 25,000 persons and 30,000 persons respectively. By 1984, the minimum is expected to be 28,000 persons, the maximum 51,000 persons.<sup>50, 51</sup> Thus, in another decade, the population of the area could easily double.

Fort McMurray is different from the "average" resource towns in a number of significant ways:

1. It has already grown larger than most resource towns in Canada.
2. The "boom period" has lasted longer. It has been going for approximately ten years and shows signs of continuing because of the economic importance of the resource involved.
3. Fort McMurray has better transportation and communication facilities than most resource towns. This may lead to fewer feelings of isolation than in other resource towns.
4. Fort McMurray is a two company town rather than a one company town. Still, it is dependent on one resource for its economic base.

The length of boom in Fort McMurray, the pace of growth, and the fact that there are no signs of it abating, should be seriously considered within the context of information presented in the literature review, stating that "soft services" and concerns about the "quality of life" do not really emerge until the boom has slowed down. "Soft services" refers to such services as health services, educational services, and social services. A recent report on the Criminal Justice Services notes:

Because the boom is not yet peaking, the respite usually needed for the development of soft services is not occurring, and the soft services are not being developed on an appropriate scale. Instead, energies and resources which, in a "normal boom,"



would be expended on the development of soft services are being redirected to the development of more houses, physical services, and facilities. It seems true to say that the "soft services" did not have a chance to catch up with the GCOS boom and are consequently under-developed in the midst of the Syncrude boom . . . . There is a decline in the quality of life which is a direct result of the failure to develop soft services.<sup>52</sup>

3.1.2.2 The people of the area. Although no data or reports could be found concerning the attitudes, expectations and norms of people in the area, some general statements can be made about the characteristics of the population. It should be noted that the population data are taken from 1971 Census Statistics, and the table on income is based on 1973 data. Statistics Canada has not released their 1976 data on the area. However, as the area has continued to boom and the figures presented are very much characteristic of a boom town, it is likely that many of the features identified five years ago will hold true today.

1. In 1971 the population was characterized by a young labor force with young families. Sixty-three percent of the population in the area was under 25, compared with 51% of the Alberta population.
2. The families in the area are larger. Average family size in Fort McMurray in 1971 was 4.18, whereas in Alberta average family size was 3.50.
3. Native people are over-represented in the area, compared to Alberta as a whole. In 1971 they represented 5.9% of the population in the area, whereas they represented only 2.7% of the Alberta population.<sup>53</sup>
4. Income is generally higher in the area than in Alberta or Canada (see Table 2). In 1973 there were few people earning less than \$6,000 per annum, and nearly two-thirds of the people were earning more than \$10,000.

Table 2. Income distribution 1975<sup>54</sup>

Family Income	Canada	Alberta	Fort McMurray	The Oil Sands Industries
0 - 2,999	10.5%	10.1%	5.0%	0
3,000 - 5,999	16.9	14.1	8.5	0
6,000 - 9,999	30.9	23.6	22.5	25
10,000 - over	41.7	52.2	64.0	75

As in most resource towns, native people and youths are over-represented in the Athabasca Oil Sands area. Both have been identified as the two high risk groups for alcohol problems and crime. It should also be noted that the data presented above do not include the large number of transient men (usually young) who are employed in the camps. There are currently an estimated 5,000 men living in construction camp on the SCL site.

3.1.2.3 Alcohol and drug abuse. Although data and reports on alcohol and drug abuse in the area are limited, some useful information was taken from the following sources:

1. Data from a recent study on Criminal Justice Services in the area.
2. Data from Alberta Liquor Control Board Annual Reports and from personal communication with Alberta Liquor Control Board officials.
3. Data gathered from the Royal Canadian Mounted Police monthly summaries.
4. Data from a recent survey by the Alberta Alcohol and Drug Abuse Commission.

The actual amount of money (gross sales) spent on alcohol in Fort McMurray increased from \$638,432 in 1971-72, to \$1,015,012 in 1972-73, \$1,307,087 in 1973-74, and \$2,110,996 in 1974-75.

This does not include beer sales to retail outlets (bars), because the data were readily accessible only for 1974-75 fiscal year. Beer sales for that year were \$878,152 bringing the total amount spent on alcohol to \$2,998,148. A fiscal year for the Alberta Liquor Control Board runs from 1 April of one year to 31 March of the following, i.e., 1 April, 1972 to 31 March, 1973 is one fiscal year.

At first glance it is obvious that the amount of money spent on alcohol more than tripled in a four-year period. The population approximately doubled (from 6,500 - 7,000 in 1972 to 12,500 - 13,000 in 1975). However, such estimates do not take into account the number of men in camps or the rise in price of alcohol.

Another possibility would be to compare the rate of growth in alcohol sales in the oil sands area with the rate of growth in other towns in Alberta. However, data on other towns with similar population, that can be accurately estimated, and similar conditions of isolation, are not readily available for comparison.

In 1974, assuming the total population to be 11,000 plus an estimated 1,000 construction workers living in the camps, the total amount of money spent on alcohol for every man, woman and child in the area was approximately \$250 per person. This compares to the Alberta average of approximately \$165 per capita.<sup>56</sup> Thus, people in the area appear to spend about 50% more on alcohol.

Data for the fiscal year ending 1 April, 1976 collected by the Alberta Alcohol and Drug Abuse Commission (AADAC) are summarized below:

1. Of 186 cases dealt with, 132 were males and 54 were females.
2. In 73% of the cases the problem was alcoholism; in 24% of the cases it was both alcohol and drugs; and in only 3% was it drugs alone.
3. Approximately 45% of the people were unemployed.
4. About 62% were native people.<sup>57</sup>

The small number of cases prevents any definite conclusions, but several trends can be noted. Alcohol abuse rather than drug abuse accounts for a large share of the problems presented by people coming to AADAC. Males, native people and the unemployed constitute the largest sub-groups in the clientele of the Commission. There is also a significant number of women who come to the clinic.

The most useful data available on both alcohol and crime in the area come from the 1974 study of the Criminal Justice Services by Graham, Brawn and Associates. They report as follows:

In 1974 there were 1,201 persons held in the Fort McMurray jail. Of these 832 (69%) were detained for

reasons of intoxication. The majority were released within twelve hours when they had sobered up. The composite work picture and arrests according to offenses reveals the same high incidence of alcohol related problems. When interviewed, local R.C.M.P. staff persons estimated that alcohol was directly or indirectly related to 80%-90% of all offenses dealt with . . . .

The pattern of alcohol abuse manifests itself again in an analysis of the court records. In 1974 there were 2,068 cases heard in Fort McMurray, 1,740 summary convictions and 328 indictable offenses. Of the 2,068 cases, 657 were violations of the Highway Traffic Act, 512 were charged with violations of the Liquor Control Act. There were 698 violations of the Criminal Code. The major categories of crime were: alcohol in the blood - 130; impaired driving - 61; common assault - 96. If we include with these other crimes usually associated with alcohol (e.g. failure to take a breathalyzer and other traffic related offenses) we discover that well over half of the Criminal Code violations are alcohol related . . . .

Of those persons on probation, over half reported having an alcohol or other drug related problem . . . .

\* In numerous interviews with residents of the area, the subject of alcohol came up time and time again. There are few socializing opportunities that are not related to alcohol. The bars in town serve as social centers.

30 OCT 1974  
11  
- W.B.K.

In the minds of many residents, alcohol is directly related to an increase in violence. "We can't go to the bars anymore because there are too many fights." . . . Over-indulgence is not only associated with the bars, however. There seems to be a significant use of alcohol in the home and numerous persons reported that parties which got out of control were a fairly common occurrence . . . .

Whatever has been said above regarding the alcoholism problem applies in a special way to natives. Alcohol abuse is a very severe problem among native peoples in the area -- to such an extent that it seems to have become an integral part of the native life style . . . . All persons in the native community seem to have the problem, the old and very old as well as the young.<sup>58</sup>

The above is the most up-to-date information available on alcoholism and its seemingly all-pervasive influence on life in the Athabasca Oil Sands area.

3.1.2.4 Criminal behavior and juvenile delinquency. Data and reports on delinquency and crime in the area are limited in both number and scope. The following sources of information were found:

1. The Criminal Justice Study.
2. Data gathered from R.C.M.P. Monthly Summaries.
3. Data gathered from Statistics Canada.

Table 3 compares the incidence of some of the significant crimes in the area for the years 1972 through 1975. Data for 1972 and 1973 are taken from Statistics Canada reports. Data for 1974 are taken from the Criminal Justice Study. Data for 1975 were taken from police records when the researcher visited Fort McMurray. Neither the Statistics Canada records nor the researcher's 1975 data are as comprehensive as the data collected by the Criminal Justice Study. The table contains both adult and juvenile statistics. Since Statistics Canada combines the information for the town and surrounding area, the other data are also presented in that format. From the data presented in Table 3, the following trends are apparent.

Crimes that have increased by 50% or more between 1974 and 1975 are Break and Enter, Theft Over \$200, Auto Theft, Wounding, Robbery, Willful Damage, Disturbing the Peace, Trespass at Night, Offensive Weapon, Arson, Impaired Driving, Cannabis, Property Damage, Fatal Accidents, and Failure to Give Breath Sample.

Crimes that have decreased by 20% or more between 1974 and 1975 are Common Assault, Assault Causing Bodily Harm and Drug Charges.

Crimes that have remained relatively constant between 1974 and 1975 (i.e., show a 50% or less increase and less than 20% decrease) are Theft Under \$200, Liquor, Injury Accidents, Hit and Run, Dangerous Driving and Driving While License Suspended.

Table 3. Fort McMurray and area - crimes committed

	1972	1973	1974	1975	% change 1974 to 1975
<u>Criminal Code Property:</u>					
Theft Under \$200	232	198	338	496	47
Theft Over \$200	34	30	76	189	149
Break and Enter	71	74	124	285	130
Auto Theft	41	41	109	224	106
<u>Criminal Code Person:</u>					
Common Assault	167	201	217	168	-23
Assault Causing Bodily Harm	ND <sup>a</sup>	ND	70	48	-31
Wounding	2	3	4	6	50
Robbery	2	1	4	30	650
<u>Other Criminal Code:</u>					
Willful Damage (Public and Private)	ND	ND	163	304	87
Disturbing the Peace	282	307	75	191	155
Trespass at Night	ND	ND	11	48	336
Offensive Weapon	ND	ND	14	55	293
Arson	ND	ND	3	16	433
Impaired	ND	ND	180	287	59
Liquor	ND	ND	914	895	-2
Cannabis	ND	ND	51	110	116
Drug Charges	3	2	12	2	-83
<u>Traffic</u>					
Property Damage	ND	ND	536	811	51
Injury Accidents	ND	ND	113	118	4
Fatal Accidents	ND	ND	3	11	267
Hit and Run	ND	ND	72	59	-18
Dangerous Driving	ND	ND	12	11	-8
Fail to Give Breath Sample	ND	ND	14	49	250
Driving While License Suspended	ND	ND	23	23	0

<sup>a</sup>Symbol: ND = Data were not available

In forming conclusions from the increases or decreases in the incidence of crime in the area, the reader should recall that the population of the area increased by an estimated 25% between 1974 and 1975.

In 1974, of the 1,201 prisoners detained in the Fort McMurray jail, 756 (approximately 2/3) were Indians and Metis. This is particularly significant when one considers that only 5.9% of the population were Indian and Metis according to the 1971 Census. Of the 1,201 prisoners, 91 were women. Disposition of persons charged occurred as follows.

Of the total number of persons who came before the provincial court in 1974:

- 181 persons received some kind of jail sentence.
- 97 were on probation . . . .
- the rest (1,790) received fines or were otherwise disposed of.<sup>59</sup>

The reliability and validity of police and court statistics has been criticized many times. Issues have been raised about whether or not they accurately reflect crime rates in the community. The consensus seems to be that these statistics tend to underestimate the rate of crime in the community, because a significant proportion of crime never gets reported, and for crimes that are reported, "the Mounties do not always get their man" and lay charges.

The cited statistics pertain to both adult crime and juvenile delinquency. The researcher was informed by the R.C.M.P. that there was no practical way to separate juvenile offenses from adult offenses without actually going back to individual case records.

Attempts to gain other indicators of crime and delinquency were made by visiting the Provincial Juvenile and Family Courts and both the Adult Probation Office and the Juvenile Probation Office. The Court Clerk indicated that since aggregate statistics are not compiled, the only method of getting statistics from the court was by reviewing the files.



Although 1975 and 1976 statistics on juvenile crime were not available to the researcher, the statistics compiled by the Criminal Justice Study provide information on juvenile delinquency brought before the courts in 1974. Some of the data are presented in Table 4.

A total of 43 cases were dealt with by Juvenile and Family Court in 1974. The 14-16 year age group represented two-thirds of the total; males and females were fairly equally represented. Approximately 75% of the juveniles were of native origin. No particular offense was committed significantly more frequently than others. Native children tended to be committed to the custody of the Director of Child Welfare almost five times as frequently as white children (38% versus 8%). The charges against white children were more likely to be adjourned *sine die* or dismissed (62% versus 24%).

It is unfortunate that comparative data for years prior to 1974 and data from more recent years were not available. Without such data one cannot discern the significant changes and trends.

The Department of Social Services and Community Health reported only a small increase in the number of juvenile delinquents in their care in the past four years. The Adult Probation Office reported a doubling of their probation caseload between January, 1976 and September, 1976. Such an increase, however, may reflect a change in adjudication practices as much as it may reflect a change in the amount of actual crime in the community.

3.1.2.5 Critique of the available reports and data. Reports on the Athabasca Oil Sands area, dealing with social issues and problems and of utility in social planning, are extremely limited. Other than reports containing population projections, income levels, and census data, only one report addressed social problems of the area. This is in stark contrast to the numerous economic feasibility studies that were undertaken and the smaller but still significant number of environmental studies. It is reported that

Table 4. Juvenile court cases (N=43) in the Fort McMurray  
Juvenile and Family Court

	Number of Cases			Total
	White	Native	Other	
Age (years)				
12 - 14	N/A <sup>a</sup>	N/A	N/A	3
14 - 16	N/A	N/A	N/A	29
16 - 18	N/A	N/A	N/A	11
Sex				
Male	N/A	N/A	N/A	24
Female	N/A	N/A	N/A	19
Racial Origin	13	29	1	N/A
Offense				
Break and Enter	N/A	N/A	N/A	4
Auto Theft	N/A	N/A	N/A	7
Theft	N/A	N/A	N/A	9
Drugs	N/A	N/A	N/A	4
Liquor Control	N/A	N/A	N/A	7
Highway Traffic	N/A	N/A	N/A	6
Other	N/A	N/A	N/A	6
Disposition				
Adjourned <i>sine die</i>	5	4	1	10
Probation	4	8	0	12
Committed	1	11	0	12
Fined	0	2	0	2
Dismissed	3	3	0	6
Waived	0	1	0	1
Total	13	29	1	43

<sup>a</sup>Symbol: N/A = Not Applicable

local residents feel they have been "studied to death." If this is so, the studies have certainly been of other than social nature.

Social scientists have studied the area for academic purposes since the early 1960's, when the region was announced to be the poverty area of Alberta. The data, however, are dispersed and not available.

Main sources of social data for the area are the Census Statistics and the R.C.M.P. statistics. The Census data are outdated because of the rapid population growth which has more than doubled in the last five years. The R.C.M.P. data, although quite comprehensive, require a considerable amount of searching to uncover even a few of the basics. The system is not computerized or readily available to legitimate social researchers. Aggregate Court statistics are apparently not compiled. In order to obtain the data, one would have to review individual files. In fact, data accessibility in most government departments is poor, and is complicated by the lack of common collection methods and coterminus boundaries.

Given both the lack of data and the fact that they are not computerized or compiled, it becomes virtually impossible, without extensive file reviews and other lengthy procedures, to determine such factors as: (1) The number of people sent out of the community for either treatment or incarceration; (2) recidivism rates; (3) the strength of relationship between alcohol abuse and crime.

3.1.2.6 Summary of data and report section. It is apparent from the available data and reports that the Athabasca Oil Sands area is rapidly growing, with a young population, a fairly large native segment, and a high average gross income. Because the boom has extended over a longer period of time than is usual in resource towns, reports indicate that the attention has not yet turned to the development of "soft services."

Alcohol is identified as the primary problem, having a widespread effect on other aspects of life including criminal behavior. Alcohol abuse is particularly widespread among native people.

It is reported that social life in the area focuses around bars and parties. The amount of money spent on alcohol tends to be considerably higher than is average for Alberta's population as a whole.

There has been a large increase between 1974 and 1975 in certain categories of crime. Other crimes have levelled off or shown a decrease. Native people are charged with a high proportion of the crimes. Juveniles, primarily between the ages of 14-16 of both sexes, are involved in a variety of crimes, with natives being committed under the Juvenile Delinquents Act far more frequently than the whites.

Because of the lack of available information, comparative annual data are not compiled for Juvenile Delinquency. Neither are comparative data available in all the categories of crime. Research is complicated by the lack of social reporting in the area and the lack of accessibility to data that are currently being collected.

### 3.1.3 Interviews

The following is an overview of information obtained from field staff, whose agencies and departments have a mandate to deal with people involved in alcohol and/or drug abuse, crime and delinquency.

Interviews were conducted with six agency personnel in the area. Not all the agencies represented were included. The intent was not to be all-inclusive but rather to get some perspectives from field workers and administrators, and to see how these perspectives compared with what literature, and the data and reports indicate.

The interview format can be found in Appendix 6.2. The interview format was used as a guide but was not adhered to rigidly. An effort was made to ensure that all areas of concern were covered.

It was fortunate that most of the people interviewed have lived in the area for several years, and that they could provide an historical perspective as well as information on the present situation.

Rather than reporting their opinions in a format of "one person said this, and three said that," an overview of the problems as seen by the field personnel is presented. Given the high degree of consensus among those interviewed as to the nature and scope of the problems, only where there was a disagreement has it been noted.

3.1.3.1 The boom and the people. All interviewees emphasized the very rapid population growth of Fort McMurray and noted that it would be difficult to recognize the town as the same place it was some four years ago. There was a different "feel" about it now; the streets were busy and dirty. Difficulties were reported in estimating the size of the boom over the past few years and, thus, in adjusting the programs to meet whatever needs might arise.

Perceptions of the motivations of people coming to the area were that the majority came to make quick money and feel little need to get involved in the community life or to help to build a viable community. The laborers, tradesmen and professionals, as well as the businessmen in the community tend to hope for an "instant El Dorado." Some of the people are men who, with their families have followed every boom across Canada. These are often families with many problems; families who, in the words of one respondent, "Continue to move in an effort to escape from their problems, not fully realizing that they bring their problems with them wherever they go." Others coming to the area are young construction workers out to make quick money. Still others are professionals, some of whom plan to stay in the area for many years, but many of whom are "doing their time," hoping to get promoted to a senior job in their company's head office after a relatively short stay. Moreover, Fort McMurray is currently attracting large numbers of native people from all over the North country, who often migrate to the area with few financial resources and no place to stay. Groups of single white transients, also with limited financial resources, come to the area in the hope of finding a job, only to find that hiring is done through unions in Edmonton. They must return to Edmonton but first must find a place to stay overnight.

As accommodation is very limited and expensive, the men often end up going to the R.C.M.P. and asking if they can stay in the cells. The R.C.M.P., however, has no accommodation available.

A mix of these people, together with native people and other long time residents, constitutes the population of the area. The general trend appears to be as follows:

Large numbers of people migrating to the Fort McMurray region do so with expectations of "getting rich quick." It is on this basis that they uproot their families, leave their previous communities, and move to the area. Upon arrival, they find the living costs, particularly housing, high, and the "El Dorado" dream begins to fade. The men work shifts which creates extra stress by separating them from their wives and children, and some men may work very long hours. The women are often left isolated in the subdivisions and trailer courts, and suffer from the lack of out-of-home activities, employment opportunities, and recreation. Because gross income is high, families can qualify for high credit ratings, and there is concern that the debt level in the community is very high. As the "get rich quick" dream fades even more, depression and guilt begin to set in, leading men into increasing levels of alcohol consumption and women into increasing use of prescribed mood altering drugs such as Valium. Ultimately these patterns have a traumatic impact on marriage and family.

Some of the respondents noted that to date the emphasis in the town has not been on adequate social planning and provision of "soft services" but rather on provision of physical services, development of the SCL plant and operation of the GCOS plant.

3.1.3.2 Alcohol and drug abuse. The respondents were in clear agreement that alcohol was the primary problem in their community. They noted that bars are seen as the social centers of the town. There also appears to be heavy drinking in private homes and a high proportion of "binge" drinkers, who drink to get drunk rather than drink socially. It was reported that the average measure on breathalyzer tests is three times the 0.08 percent blood level

at which the legal definition of intoxication occurs. One respondent added that a very common norm in the town is that of a hard working, hard drinking man. This norm strongly supports the excessive consumption of alcohol.

A connection between alcohol abuse and other criminal behavior was noted by several of the respondents. For instance, of the group of young people one respondent had worked with in upgrading programs over several years, none was ever known to commit a serious crime without being intoxicated. It was estimated that of the 37 violent deaths in the area last year, over 90% were a direct result of intoxication, while 80% of the impaired driving charges came after investigating an auto accident. But the R.C.M.P. reported that arrests for intoxication are far fewer than they could be, since due to inadequate cell facilities the police do not arrest someone who is intoxicated unless the person is violent or is causing an extreme disturbance.

Large amounts of alcohol appear to be consumed in the small, primarily native, communities of Fort MacKay and Janvier. The situation was described as that of, "Communities being drunk from Thursday evening until Sunday morning." Several murders have occurred last year as a result of alcohol abuse in Janvier. Anzac was reported to be more stable. A long time community worker noted that he has seen the isolated native communities move over a period of years from hunting and fishing communities, to communities dependent on welfare, to communities characterized by a high degree of violence as a result of alcohol.

Public drinking in town appears to be somewhat segregated, with reports that the white construction workers drink primarily at the Peter Pond Hotel; the older native people drink primarily at the Oil Sands Hotel, and the younger native people drink primarily at the Riviera. All bars, but particularly the Riviera, are characterized by frequent fights.

Several respondents noted the extremely lax controls in all bars on the amount of alcohol served to obviously inebriated people. Anyone over 13 or 14 can get into the bars, with no effort

made to make them first produce age identification. It was also stated that although recreational facilities are available, they are not used to capacity. This contradicted an observation made by the Criminal Justice Study that the existing recreational facilities are over-booked and used beyond their capacity. While socializing, youths tend to use alcohol as a necessary part of recreation.

Only one respondent felt that the area had no more alcohol problems than other communities. The other respondents, although cautioning that it is difficult to compare communities, expressed concern that alcohol has become an inherent part of local culture, and is used by old and young alike as their primary recreational activity.

It was also reported that, over the past few years, every kind of drug has come into the area. But the respondents did not express nearly as much concern about illegal drug use as they did about alcohol. Nonetheless, seemingly increasing numbers of women are using prescription drugs such as Valium, Mandrax, etc. The pattern described was that of women being isolated, having few social outlets, becoming depressed, and going to the doctor to get a prescription. It was thought by several respondents that this pattern was becoming more and more widespread.

3.1.3.3 Crime and delinquency. According to the R.C.M.P., police officers had never been assaulted until two years ago. Recently, there have been numerous incidents in which police officers were assaulted, and it has become rare to arrest a drunk without a struggle. Special concern was expressed about the safety of the highway between Mildred Lake and Edmonton, particularly on Friday afternoon or Sunday night. The situation was described as follows: "When the men get off shift from the Syncrude plant on Friday afternoon, the narrow highway to Edmonton becomes a lineup of almost bumper to bumper traffic, moving at 130 km per hour, with beer bottles flying out of the car windows. It is a miracle that we have not had more serious accidents than we have." The record number of



speeding tickets given out in one weekend is 380.

Several respondents thought that there is an increasing amount of violence in the area, and one respondent remarked that for a while it had been customary for young single males to carry weapons in their boots. Also, one respondent noted that an excessive amount of gambling occurred on the Syncrude site, and voiced an opinion that professional gamblers had taken jobs at the site as a front for their evening gambling activities.

Considerable concern was expressed about the increasing incidence of juvenile delinquency. It was reported that under the influence of alcohol, the juveniles are getting involved in most types of crime. Recent episodes include vandalism on construction sites and approximately twenty bomb threats at the high school in June, 1976. In fact, all schools in the area have been vandalized at one time or another, and poor attendance at school is reported to be a widespread phenomenon. It was thought that there is a very large number of runaway juveniles from Fort McMurray area families. Several respondents noted that because of the high ratio of men to women there is great pressure on twelve, thirteen and fourteen year old girls to become sexually involved with older men. Respondents felt that this was a widespread problem that was particularly extreme in Fort MacKay.

### 3.2 WHY IS IT HAPPENING?

#### 3.2.1 Literature Review

As noted earlier, literature addressed specifically to the problems of deviance in resource towns, either with regard to what is happening or why it is happening, is extremely limited. Perhaps the only perspective obtained from the literature and worthy of reiteration is that social planning is usually accorded a much lower priority than is the building of the town and construction of the resource extraction plant. It is necessary, therefore, to look at what the literature has to say about causes of deviance generally. Many theories have been postulated

attempting to explain the causes of delinquency, crime, and of alcohol and drug abuse. These theories range from biological to psychological and sociological theories. Biological theories emphasize such factors as criminal body type, physiological craving for alcohol, and hereditary predispositions. Psychological theories stress that there is something wrong with the individual's psychological make-up as a result of early childhood experiences, low self-concept, family interaction, etc. Sociological theories focus on the society and community together with their norms and values as the primary determinants of individual behavior. Included in sociological theories are such factors as societal inequalities and delinquent subcultures. The state of disagreement that reigns is aptly described in the following:

It is very evident, then, that there is no simple or readily ascertainable explanation for the cause of delinquency. Indeed the very concept of "cause" is one that is hotly debated by criminologists. We are told in the literature that delinquency must be regarded as a "multi-causal" or as a "bio-psycho-social" phenomenon.<sup>61</sup>

Similar observations are made with regard to alcoholism, where it is thought that, "The search for a single cause of alcoholism may be an unrealistic goal."<sup>62</sup>

Given the lack of agreement between different theories and the lack of one theory clearly holding all the answers, the trend has been to adopt positions such as the following:

Thus it seems to be generally recognized that sociological, psychological, hereditary and other factors all play their part in producing antisocial behavior, but the importance or the weight that is to be attached to each in the overall assessment of juvenile delinquency is not as yet sufficiently understood.<sup>63</sup>

Similarly, regarding alcoholism, it is noted that:

Many theorists . . . . suggest a multifaceted approach which incorporates elements from two or more hypotheses. Generally such an approach selects from each of the broad areas discussed: physiology, psychology, and sociology.<sup>64</sup>

It is important to recognize that one's diagnosis of the causes of a problem usually also defines the nature of a proposed solution. Since the causes of every identified case of deviance can be explained from at least three different perspectives, the preference often seems to be to take a multifaceted approach to the solution of deviance-related problems.

Although this researcher has adopted a multifaceted approach to deviance-related problems in the Athabasca Oil Sands area, no attempt has been made to explain each problem from a variety of different theoretical perspectives. Such an approach would clearly be beyond the scope of the present study. Rather, it was thought more appropriate to identify some of the factors known to exist in the region which may contribute to possible causes of deviance.

Three such factors appear to be important:

1. Matching the literature on crime and alcohol abuse with the characteristics of the population in the Athabasca Oil Sands area, it becomes evident that there is a high proportion of two very high risk groups: young males and native people. Both of these groups tend to get more involved in extensive alcohol abuse and crime than other groups.
2. A variety of social norms may support extensive use of alcohol and drugs. Speaking of general social norms regarding alcohol and drugs, the Royal Commission notes: "The general climate, therefore, is not one of moral condemnation of the use of drugs for mood modifying purposes, but rather one of acceptance of such use."<sup>65</sup> In the Athabasca Oil Sands area the norm already referred to of the "hard working, hard

drinking" man would certainly seem to support the increased alcohol consumption.

3. Commenting on the effect of family life on alcohol and drug use, the Commission notes:

No doubt there are exceptional cases where children may become so disgusted by the effect of drug use on their parents that they are turned off by it for good, but studies show that the children of alcoholics are more likely to become alcoholics themselves, and that the children of parents who make extensive use of prescription and other drugs are at a greater risk to drug use than the children of parents who do not.<sup>66</sup>

This statement would lead us to believe that if the adults in the Athabasca Oil Sands are drinking excessively, we should not be surprised to see these patterns emerging among the young.

### 3.2.2 Data and Reports

The study of Criminal Justice Services suggests at least three basic reasons for the existence of current problems:

1. The area has continued to boom for a long period of time and has concentrated on the development of resource plants and physical construction of the town without developing "soft services."
2. Formal coordination of existing social programs has been inadequate.
3. Core support services to the criminal justice program such as social services, etc. have not been adequately developed.<sup>67</sup>

### 3.2.3 Interviews

The field interviews provided some perspectives on factors which may contribute to deviance in the region. These were: the fast pace of development not accompanied by adequate social planning; the lack of recognition of social consequences of development; the unrealistic economic aspirations frustrated by the high

cost of living; the high level of indebtedness among families; the lack of community involvement on the part of newcomers, and the excessive emphasis on economic achievement of family, which may lead to child neglect and in turn contribute to juvenile delinquency.

Some respondents felt that the community had failed the native people by imposing on them the middle class white values and never really providing them with adequate opportunities. This was seen as part of the reason why the natives are excessively involved in alcohol abuse. Alcohol use among the young was thought to be induced and encouraged by the example set by parents and by the local norms supportive of hard drinking. It was noted, for instance, that impaired driving is not regarded as a serious offense by local people.

One respondent remarked that because of the high proportion of males and their control of leadership positions in the community, few facilities or opportunities are provided for women. Hence the isolation of women, who turn to prescription drugs as an escape.

### 3.3 IS IT POSITIVE OR NEGATIVE?

In considering whether what is happening with regard to deviance is positive or negative, one must refine the question further. For whom is it positive or negative? Is it socially and/or economically positive or negative?

The impact of crime, delinquency and alcoholism upon individuals, families, communities and most industries from both social and economic points of view tends to be both negative and positive. From the perspective of an individual, crime and delinquency (other than very successful undetected, unprosecuted, large-scale operations) are costly both socially and economically. Socially, stigma is often attached to the offender; he is negatively labelled by the community in which he lives, and if he is sentenced to jail it is most often in an institution far away from family and friends. Economically, being charged with crime or delinquency

often interferes with the ability to get a job, and if the offender is imprisoned he either cannot work for money or works for minimal pay.

Alcohol and drug abuse from the perspective of the individual user is also costly socially and economically. Although the developing alcoholic may gain initial social support for his behavior, he is very often rejected by his community, friends and sometimes family in the advanced stages of alcoholism. From a health perspective the alcoholic is more likely than the non-alcoholic to incur cirrhosis of the liver, heart disease, cancer and respiratory diseases. In the advanced stages, alcohol and drug abuse are costly habits to support, and being fired from jobs because of uneven work performance is not uncommon.

From the perspective of the family, having one of its members involved in crime, delinquency, and alcohol and drug abuse, is also negative from a social and economic point of view. The family tends to be held partially responsible by the community for the individual member's behavior. They may have to pay high legal fees, and if the primary wage earner of the family is imprisoned, they no longer have an income.

Crime and delinquency can be costly to business and industry because such crimes as theft, breaking and entering, and vandalism are often aimed at business and industrial plants. Alcoholism among the employees can also be detrimental to business and industry as it contributes to increased accident rates, poor productivity and absenteeism.

Crime, delinquency, and alcoholism are costly economically and socially to the community and larger society. Economically, the cost of hospital beds, treatment centers, prisons, social services, law enforcement services and court systems, is high. Hospital and treatment centers commonly cost from \$50 to \$90 per person per day, and keeping a person in prison costs \$30 to \$40 per day. Socially the cost of deviance is more diffuse, but in the communities where crime rates are high, people feel a decreased sense of safety and a decreased sense of trust in their fellow man.

Nonetheless, the government and the liquor industry do make substantial profits from the sale of alcohol. The LeDain Commission states:

Governments are expressing increasing concern about the problem (alcohol abuse) but so long as they draw a substantial revenue from the sale of alcohol, their own seriousness of purpose may be suspect .... The existence of a highly profitable liquor industry, legal distribution, and a large government revenue all make it clear that we cannot look to any significant restrictions on availability as a potential mechanism to reduce the extent of alcohol use.<sup>68</sup>

Moreover, if prevailing community or peer group norms support excessive alcohol consumption or even criminal behavior such as breaking and entering, or vandalism, then individuals who engage in these behaviors may be socially rewarded. For example in the Athabasca Oil Sands area, given the prevalence of supportive social norms, a male who engages in drinking would be engaging in approved behavior. A male who would choose not to drink may experience considerable social pressure in the form of ridicule and jibes and be excluded socially.

Similarly, a concern was noted about a growing amount of vandalism presumably being committed by groups of young people. But leaders of these groups are likely to have considerable status in the eyes of their peers, whereas young persons on the fringe of such a group or groups may experience considerable peer pressure encouraging them to become involved in delinquent activity.

In summary, it would appear that in order to properly define the positive and the negative aspects of deviance in the oil sands region, it is necessary first to determine the norms of communities involved. It is possible that these norms will be different in Fort McMurray from those upheld in Anzac and still different from those in Fort MacKay, while on the average they may differ from the norms upheld in other communities of Alberta.

### 3.4 WHAT CAN BE DONE ABOUT IT?

#### 3.4.1 Literature Review

Problems related to deviance and experienced in the Athabasca Oil Sands area may represent an extension of the problems experienced in Canada and North America. They may not be different in nature but only in scope and incidence. If this is the case, then in attempting to find solutions to these problems it is necessary to address the types of programs proposed and tried in Canada.

Such an approach should be useful, especially since the literature review provided little direct answers to the problems of deviance in resource communities. The only suggestion found was that social planning should accompany physical planning of the town. Thus it is imperative to look to the literature for solutions to deviance within the broader social context. This information must then be examined for its applicability to the Athabasca Oil Sands region. Basic questions which ought to be asked are: What kinds of programs have been designed in other parts of Canada to deal with the problems of crime, delinquency, and alcohol and drug abuse? Have these programs been successful in ameliorating the problems? Are these programs applicable in the oil sands region? Detailed answers to the above questions are beyond the scope of this report; however, a few comments can be made.

A variety of programs exist for control, treatment and education related to alcohol and drug abuse, and crime and delinquency. Programs designed to ameliorate the alcohol and drug problem include alcohol and drug education programs, counseling programs, therapeutic milieu treatment programs, and the use of criminal law to control either the availability of the drug and alcohol or to control the user. The Commission of Inquiry into the Non-Medical Use of Drugs, in commenting on the success of alcohol and drug education programs, noted mixed results, some positive and some negative.<sup>69</sup> The most promising education programs which the Commission was able to identify in Canada place drug education in



a broad perspective as part of the development of understanding about "how to live effectively."<sup>70</sup> The Commission was pessimistic about the long term effectiveness of alcohol and drug treatment programs.<sup>71</sup> The LeDain Commission also noted that the control of availability of drugs through legislation has had limited results,<sup>72</sup> as has the control of users through legislation.<sup>73</sup>

A 1975 Alberta report states:

In order to combat the problems of alcohol it is generally agreed that a comprehensive approach is necessary, involving basically a combination of research, education, legislation, and treatment. In theory, most drug/alcohol-related agencies perform these functions. In practise, due to the size of the problem, insufficient public support and a lack of government funds, most of the emphasis is normally directed towards the area of treatment . . . . Applying just a treatment model is like mopping up an overflowing bathtub without turning off the water.<sup>74</sup>

Programs designed to ameliorate delinquency and crime have included probation, parole, residential treatment, use of volunteers, community youth workers, halfway houses, and incarceration. The effectiveness of any one or all of these programs in solving the problems of crime and delinquency has been strongly questioned throughout the literature.<sup>75, 76</sup> The late stage at which they intervene is one factor in their lack of effectiveness.

Wharf states:

The lesson is clear: social programs which single out individuals and treat on a case by case basis and which come into effect only after problems are fully developed have not been successful and are not likely to be.<sup>77</sup>

He advocates the development of comprehensive social planning. As with alcohol abuse, the absence or low level of prevention, the lack of widespread public education and of early treatment programs means that the symptoms are being dealt with, but seldom the causes. Despite all the evidence, the majority of funds continue to be

spent on treatment programs rather than on public education, research, prevention and social planning. The literature also notes the lack of sound evaluative data on the basis of which program and policy decisions can be made.<sup>78, 79</sup>

Given the lack of demonstrated effectiveness of programs designed to ameliorate the problems of crime, delinquency, alcohol and drug abuse, those responsible for social planning in the oil sands area should:

1. Ensure that there is well-documented need for a given program.
2. Ensure that the program will be coordinated with other programs in the area.
3. Ensure that adequate methods of evaluation are built into the program prior to its implementation.
4. Place a strong emphasis and priority on the development of preventive social programs, public education programs, comprehensive social planning, and generally on programs that will help the people examine community norms which may be contributing to the problems.

#### 3.4.2 Data and Reports

The report on the Criminal Justice Services, which is the only major report on social problems in the area, has made many recommendations as to the kinds of services and programs that are needed to solve some of the problems. The general observation of the report was that, "The development of criminal justice, health, education, and social services has lagged behind the development of housing and other physical oriented planning efforts."<sup>80</sup> The report's recommendations to rectify the situation are presented below:

1. That a detoxification centre be established in Fort McMurray.
2. That a native residential alcoholism treatment and rehabilitation program be established in or near

Fort McMurray.

3. That expanded cell and office space be provided for the R.C.M.P. in Fort McMurray.
4. That additional R.C.M.P. officers be stationed on or near the Syncrude Project site.
5. That R.C.M.P. officers be stationed at Janvier on a continual basis; and that an organizer of support services also be provided for Janvier.
6. That an R.C.M.P. detachment be opened at Fort Mackay by April, 1977.
7. That contingency plans be developed for opening an R.C.M.P. detachment at the Shell Plant by April, 1979.
8. That a multi-purpose hostel type, community-based correctional facility be established in a very close proximity to Fort McMurray.
9. That a residential Detention and Assessment Centre be established to serve juveniles.
10. That a community mental health clinic be established in Fort McMurray.
11. That small neighborhood community service centres be established in all present and future residential areas.
12. That a regional community services planning committee be established to assist in the implementation of these recommendations and to facilitate the development of a coordinated, integrated service delivery system.

The above recommendations have many far reaching implications for the service delivery system in the area, since they call for the addition of many new facilities and personnel, as well as for coordinated planning of services between different agencies and government departments. The study had a fifteen member local advisory committee that worked with the research project personnel. Approximately 100 people in the area were interviewed and indications are that the study was generally well-received in the

community and the results were viewed as useful.

The report was submitted in May, 1975. To this researcher's knowledge, none of the recommendations has been implemented to date, although apparently several are in the planning stages. These include:

1. The development of a community based correctional facility.
2. The development of a residential Detention and Assessment Centre for juveniles.
3. The development of a detoxification centre.

If the problems resulting from the lack of development of "soft services" were viewed by the residents and agency staff as severe and leading to a decline in the quality of life nearly two years ago, and nothing has happened to solve them despite the rapid increase in the population, it is reasonable to predict that the problems are even more severe at present.

#### 3.4.3 Interviews

Several suggestions as to what can be done to assist in solving some of the problems were made by the agency staff interviewed. These suggestions are listed below:

1. Population influx into the town should be stopped until all the problems can be at least partially resolved.
2. A program needs to be established which will help people examine their values and norms and how they contribute to positive or negative behavior in the communities.
3. A transit system from the suburbs to downtown needs to be developed to lessen the isolation of women.
4. A comprehensive life skills program needs to be introduced.
5. The bars need to be more closely monitored so that they do not let in juveniles and do not serve obviously intoxicated persons.

6. A review of the services available to native people needs to be undertaken.

These recommendations warrant special attention as they focus on the social fabric and social norms of the community. They emphasize the examination of causes of problems rather than the cure. Thus, the scope is broader; it is not limited to people involved in deviant behavior, and the stress is on prevention rather than rehabilitation. Some of the recommendations are congruent with the "Education for Effective Living" approach, advocated by the Royal Commission on Alcohol and Drug Abuse.

4. A SYNOPSIS OF THE RESULTS

As has been noted in this report, the data related to social problems within resource communities and within the Athabasca Oil Sands area are virtually non-existent. With the exception of one report, the only useful data found came from the R.C.M.P. statistics and the Census statistics. The R.C.M.P. data are not computerized or readily available, and the Census statistics have quickly become outdated in an area where the population has more than doubled in the past five years. This lack of available data is even more significant when one considers that the categories of deviance under study are very general and represent the broadly acknowledged problems in our society. If data were to exist on any social problems, they should exist on the ones addressed in this study.

Demographic variables which were defined as important in analyzing the problems of alcohol and drug abuse, crime and delinquency, included: age, sex, marital status, income, ethnicity and education. With few exceptions, the information which would allow us to examine the interrelations of these variables with the categories of deviance under consideration was not available. The information relating demographic variables and deviance which is available is included in the following points, which summarize what is happening in the area, and why it is happening:

1. The Athabasca Oil Sands area has experienced two large booms over the past 10 - 15 years and is currently in the middle of a second massive boom.
2. There is a high percentage of young males, young families, and native people in the area. The literature notes that young males and native people represent the high risk groups with regard to both alcohol abuse and crime. This has been substantiated by both the available data and observations by personnel in the region.

3. Many people migrate to resource communities such as Fort McMurray primarily to make money. Thus, they have little interest in becoming involved in the community life. Because of high prices, the "get rich quick" dream often does not materialize. Concern was expressed by the field staff that emphasis on "getting rich quick" contributes to child neglect and the general breakdown of positive social norms, including a sense of community spirit.
4. Due to the emphasis on resource development and physical construction of the town, little attention has been paid to social planning and the development of "soft services." In most resource towns the boom peaks after about five years. In the Athabasca Oil Sands area the boom has lasted much longer, delaying social planning and the development of "soft services" even further.
5. The primary social problem in the area is alcohol abuse. The consumption rate of alcohol is much higher than the Alberta average. Alcohol appears to be consumed excessively by young and old, in public and at home, and excessive alcohol consumption seems to be an accepted social norm. A strong connection exists between alcohol abuse and crime, and alcohol abuse and accidents.
6. There is concern that women in the area, especially those isolated in subdivisions and trailer courts, misuse mood-altering prescription drugs such as tranquilizers.
7. The incidence of certain categories of crime has increased dramatically between 1974 and 1975.
8. Juvenile delinquency is a growing problem. Concern was expressed about the extent of alcohol use by juveniles and the tendency of some juveniles to look to alcohol as their primary recreational and socializing activity.

Because of the lack of data on resource communities and the lack of good social data on communities generally, it is difficult to compare the extent of problems experienced in the oil sands region with that experienced by other communities. One cannot categorically say that the problems experienced in the area are much more severe than in other communities. However, there is evidence that the amount of money spent on alcohol by community residents is considerably higher than the Alberta average and that the incidence of crime in several major categories is rapidly increasing. There is also evidence that excessive alcohol consumption is a major social norm and that agency staff, community leaders and some citizens view crime, delinquency, alcohol and drug abuse problems as being serious both in nature and scope.

The situation is aptly described by one of the respondents, "This area is simply an extension of North American values and trends. It does not exist in isolation from the values and problems of the larger society. Perhaps people here are just a little more money hungry, and we have a higher incidence of alcohol abuse, crime and juvenile delinquency. The fundamental problems are the same, just the degree is different." Data tend to support such a statement.

The economic and social costs of deviance to the individual, the community and the society are often high. Government and the liquor industry, however, do make profits on alcohol sales. Since excessive alcohol consumption appears to be a strong social norm in the Athabasca Oil Sands area, such behavior is likely to be socially rewarded among some groups, though there is no evidence that everyone in the area accepts the norm of excessive alcohol consumption.

In addressing the question of what can be done about these problems, it was noted that although evaluative results are not as comprehensive as they should be, many treatment programs have not demonstrated their effectiveness. Yet the majority of money allocated to social programs is spent on treatment programs rather than on preventive programs, public education, research



and social planning. The recent Criminal Justice report makes a variety of recommendations ranging from the need for more formal coordination of existing services to the need for a large expansion of services. The field staff interviewed made recommendations which focus primarily upon taking a deeper look into the social fabric and social norms of the community. Thus the emphasis is on the examination of causes of problems rather than on the cure of problems after they have developed.

Given this complex interplay between the problems and social norms, the question arises as to what, if anything, should be done about deviance in the region. On the one hand, it could be argued that since the same problems occur in the rest of Alberta and Canada, and since the local social norms are supportive of their continued existence, nothing should be done about them. Proponents of this argument would advocate that new services should be provided only when major crises arise and that services should be provided only with a view of "keeping the lid on." Proponents of this argument would also maintain that no one has the right to intervene and try to change local norms. A difficulty with this approach is that the extent to which all segments of society support social norms concurring with the excessive alcohol consumption and its related problems is not known. There is some evidence that community leaders and agency personnel are deeply concerned about the present situation.

Another approach would be to provide a massive number of treatment and rehabilitation services to deal with the problems that exist. A difficulty with this approach is that it does not deal with the causes of problems but rather tries to treat the symptoms. Thus, embarking on a massive rehabilitation program for people involved in certain kinds of criminal acts is likely to be unsuccessful unless social norms supporting crime are also taken into account.

A third approach would be to establish preventive and educational programs designed to change only the social norms which support and cause the problems. A difficulty with this approach

is that it does nothing to deal with existing problems which may be of a very serious nature.

What is required is an integration of all three approaches. Priority should be placed on the development of preventive and educational programs designed to alleviate the basic causes of the problems. Existing services must also be expanded so that they adequately deal with the existing problems. At the same time, mechanisms need to be established whereby local people participate in defining the issues that need to be dealt with. Such a public participation process would assist in bringing into existence programs which are seen as relevant thus, which are supported and utilized by the local people.

It is within this context that the following recommendations for action and research are outlined.

5. RECOMMENDATIONS FOR ACTION AND RESEARCH

The need for further research into any given problem must be carefully balanced against the need for immediate action. This is particularly important in the context of rapid change and growth occurring in the Athabasca Oil Sands area. On the one hand, if problems are inadequately researched prior to recommending action, the action taken may be inappropriate; on the other, if detailed research is conducted into all problems prior to action, the problems may become extremely severe before anything is done about them. Moreover, if detailed research is conducted on all aspects of problems or if research is conducted without follow-up action, then the hostility which area residents feel towards research and their feeling of "being researched to death" may increase. Only when some positive and definite action stems from research will the area residents begin to feel that their time and effort invested in the studies has been worthwhile.

Recommendations for Action

1. The Criminal Justice Study found that services available to people in the area are inadequate as well as inadequately coordinated. The specific recommendations made in that study should be followed up to see whether or not they have been attended to and whether they are accepted or rejected by the respective responsible agencies. Further research, without first considering the large body of recommendations made already, may be superfluous. The recommendations regarding the establishment of a Regional Community Services Planning Committee and of small neighborhood community service centres are particularly relevant and worthwhile. The Regional Community Services Planning Committee could be an ideal group to examine community norms and to plan programs designed to alleviate the existing problems.

2. Enough evidence is available to indicate that alcohol abuse is a major social problem and a major social norm. Comprehensive planning of ways to cope with and ameliorate the problem needs to begin immediately at the community level, with Provincial involvement and support.
3. Some problems could be alleviated if the labor unions located offices in the region in addition to their offices in Edmonton.
4. Immediate action should be taken to prevent the bars from serving minors and those persons already intoxicated.
5. Methods should be devised to provide people coming to the area with an accurate picture of the cost of housing and the cost of living before they arrive.

#### Recommendations for Research

1. Conduct a detailed study on the nature, scope and incidence of problems that the youth in the community are experiencing.
2. Establish a system whereby all social data, including court statistics and policy statistics, are more readily available for research purposes. Data which relate demographic variables to crime rates, incarceration rates and recidivism rates should form part of the system. Such a system should also have adequate safeguards for confidentiality of records built into it.
3. Early in 1977 all 1976 R.C.M.P. statistics should be compared with 1974 and 1975 statistics to see if the rapid rise in frequency of certain crimes continues. It may be that there was a temporary increase between 1974 and 1975 and a levelling off in 1976.
4. Compare the extent of alcohol and drug abuse, crime and delinquency in the Athabasca Oil Sands region with other Alberta communities. Once such data are

available, realistic target levels for reduction of the problems can be decided upon.

5. Provide research assistance to the community in planning for methods to ameliorate the problem of alcohol abuse.
6. Conduct a complete review and evaluation of the opportunities provided for native people to participate in the economy of the area.
7. Conduct a study on the impact of shift work and/or long hours of work on family life.
8. Conduct a study of the general debt level and its effects upon family life.
9. Conduct a study as to the effects of the high cost of housing on family life, expectations, and family adjustment processes.
10. Conduct a study of the services, recreational opportunities, employment opportunities and day care facilities available to women.
11. Analyze the extent and nature of the problem of women abusing prescription drugs.
12. Conduct a study of the structure, organization, functioning and policies of the Syncrude camp which houses approximately 5,000 men. Such a study may provide valuable insights in how to set up future camps in the area so that they have minimal negative impact on surrounding communities.

Although adequate comparisons between the extent of deviance in the Athabasca Oil Sands communities and the other communities are not available, it is apparent that a number of social problems are present in the area. Given the past and probably continued rapid population growth of the area and the presence of an administrative body with considerable authority (the Northeast Alberta Region Commissioner's Office) and of a research body (Alberta Oil Sands Environmental Research Program), it seems both important and opportune that every effort be made to deal with the identified problems.

As with other communities, the area is dependent upon higher levels of government (Provincial and Federal) for legislation and funding of most social programs. Given their considerable degree of power over the region, the governments have the responsibility to assist the region in resolving its problems. Further research may indicate the necessity for special legislation and special funding to develop the human resources in the Athabasca Oil Sands area at a rate designed to parallel the development of physical resources.

## 6. APPENDICES

### 6.1 HUMAN ENVIRONMENT RESEARCH TERMS OF REFERENCE FOR SUB-PROJECT HE 1.2.6

#### Purpose

The purpose of this study is to assess the impact of development of resource communities in the Athabasca Oil Sands area on deviant behaviors such as criminal behavior, delinquency, drug and alcohol use.

The four general questions which the study will need to consider regarding all social groups, i.e., the indigenous natives and non-natives, the migrant natives, and the immigrants, are:

1. What is happening to people in the oil sands region?
2. Why is it happening?
3. Is it good or bad?
4. What can be done about it?

The study is to result in a comprehensive report describing and analyzing the findings. This is to facilitate the development of an appropriate human environment research framework.

#### Objectives

1. Identify, review and critically assess the literature on deviance in resource communities, in terms of its relevance to the Athabasca Oil Sands region.
2. From this review, identify and interrelate specific variables essential to understanding and explaining the significance of deviance in the region and its effects on the oil sands communities.
3. Identify and summarize qualitative and statistical data available on deviance in the oil sands region. Determine the state of knowledge and the quality of available data. Compare and contrast the data within differing communities of the area, describing both the needs of the population and the services available.

4. Discuss in detail the implications of your findings for answering the four general questions.

5. Suggest future studies, including field studies.

NOTE: Attach the bibliography of items reviewed and a separate bibliography of relevant items not included in the review.

## 6.2 INTERVIEW GUIDELINES

1. What do you see as the problems relating to alcohol and drug abuse, crime and delinquency in this area?

2. Why do you think these problems exist?

3. What do you think can be done about it?

4. What is the function of your agency?

These questions provided an overview of interviewee's perceptions. Throughout the interview specific questions which clarified the responses were asked.



FOOTNOTES

- <sup>1</sup>Jundberg, G., C. Schrag and O. Larsen. 1963. Sociology. Harper and Row, New York. pp. 645-646.
- <sup>2</sup>ibid. pp. 647-648.
- <sup>3</sup>ibid. p. 649.
- <sup>4</sup>Center for Settlement Studies. 1967. Bibliography - resource frontier communities - volume 1. The University of Manitoba, Winnipeg.
- <sup>5</sup>Pressman, N. 1973. Comprehensive bibliography of new towns in Canada. Council of Planning Libraries, Monticello, Illinois.
- <sup>6</sup>Golany, G. 1973. New towns planning and development. A world wide bibliography. The Urban Land Institute, Washington, D.C.
- <sup>7</sup>Alberta Task Force on Urbanization. 1975. Index of urban and regional studies: Province of Alberta 1954-1974. Issues 1-7. Department of Municipal Affairs, Edmonton, Alberta.
- <sup>8</sup>Buchsa and Latz. 1967. Bibliography of socio-economic development of northern Ontario. Resource Center for Northern Affairs, Ottawa, Ontario.
- <sup>9</sup>Glance and Freud. 1973. The urban environment and residential satisfactions with an emphasis on new towns - an annotated bibliography. Council of Planning Libraries, Monticello, Illinois.
- <sup>10</sup>Clapp, J. 1976. New towns: an emphasis on the American experience - exchange bibliography. Council of Planning Libraries, Monticello, Illinois.
- <sup>11</sup>Moysa, S. and B. Rost. 1975-76. A bibliography of the Athabasca oil sands - Fort McMurray, Alberta area: socio-economic and environmental studies. Alberta Department of the Environment, 1975 and 1976 update, Edmonton, Alberta.
- <sup>12</sup>Australian National Commission for UNESCO. 1976. Man and the environment: new towns in isolated settings, Kambalda, Western Australia. 18-23, August, 1973. Australian Government Publishing Services, Canberra.

- <sup>13</sup> Lucas, R. A. 1971. Minetown, milltown, railtown: life in Canadian communities of single industry. University of Toronto, Toronto, Ontario.
- <sup>14</sup> Robinson, I. M. 1962. New industrial towns on Canada's resource frontier. University of Chicago Press, Chicago.
- <sup>15</sup> Riffel, J. A. 1975. Quality of life in resource towns. Information Canada, Ottawa. p. 11.
- <sup>16</sup> Ibid., p. 62.
- <sup>17</sup> Australian National Commission for UNESCO, Man and the environment, p. 297.
- <sup>18</sup> Riffel, Quality of life, pp. 12-13.
- <sup>19</sup> The Institute of Local Government. 1953. Single enterprise in Canada, a report to Central Mortgage and Housing Corporation. Queen's University, Kingston, Ontario. pp. 223-225.
- <sup>20</sup> Siemens, L. B. 1973. Single-enterprise community studies in northern Canada. Series 5, Occasional Paper No. 7. Center for Settlement Studies, The University of Manitoba, Winnipeg. p. 23.
- <sup>21</sup> Pressman, N. 1974. Planning new communities in Canada. School of Urban and Regional Planning, University of Waterloo, Waterloo, Ontario. p. 26.
- <sup>22</sup> Riffel, Quality of life, pp. 8-9.
- <sup>23</sup> Institute of Local Government, Single enterprise communities, p. 91.
- <sup>24</sup> Matthiasson, J. S. 1970. Resident perceptions of quality of life in resource frontier communities. Series 2, Research Reports No. 2. Center for Settlement Studies, The University of Manitoba, Winnipeg.
- <sup>25</sup> Riffel, Quality of life, p. 9.
- <sup>26</sup> Ibid., p. 66.
- <sup>27</sup> Jackson, J. E. W. and W. Poushinsky. 1971. Migration to northern mining communities: structural and social-psychological dimensions. Series 2, Research Reports No. 8. Center for Settlement Studies, University of Manitoba, Winnipeg, p. iv.

- <sup>28</sup> Lucas, Minetown, p. 47.
- <sup>29</sup> *ibid.*, p. 48.
- <sup>30</sup> Riffel, Quality of life, p. 43.
- <sup>31</sup> Brook, M. K., Cherkawski, S. Farough and S. Sutherland. 1975. Alcohol use and abuse in the Northwest Territories: review of the literature. Non-Medical Use of Drugs: Treatment and Program Development. Province of Alberta and District of Mackenzie Region, Edmonton.
- <sup>32</sup> Commission of Inquiry into the Non-Medical Use of Drugs. 1973. Final report. Information Canada, Ottawa. pp. 37-38.
- <sup>33</sup> Research Bureau, Non-Medical Use of Drugs Directorate. 1976. Alcohol problems in Canada: a summary of current knowledge. Technical Report, Series No. 2. Health and Protection Branch, Health and Welfare Canada, Ottawa. p. 11.
- <sup>34</sup> Commission of Inquiry, Final report, p. 40.
- <sup>35</sup> Brook et al., Alcohol use and abuse in Northwest Territories, p. 16.
- <sup>36</sup> *ibid.*, pp. 12-16.
- <sup>37</sup> Research Bureau, Non-Medical use of drugs, alcohol problems in Canada, p. 11.
- <sup>38</sup> Riffel, Quality of life, p. 49.
- <sup>39</sup> Canadian Committee on Corrections. 1969. Toward unity: criminal justice and corrections. Queen's Printer, Ottawa. p. 28.
- <sup>40</sup> Department of the Solicitor General. 1975. Annual report 1974-1975. Provincial Solicitor General's Department, Edmonton. p. 18.
- <sup>41</sup> Alberta Health and Social Development. 1974. Study on the characteristics of children admitted to Alberta child welfare institutions, 1969-1971. Research and Planning Section, Edmonton. pp. 21-24.
- <sup>42</sup> *ibid.*, Appendix D.

- <sup>43</sup>Landau, B. 1973. The adolescent female offender. Ontario Psychologist, 1973, 5(2), p. 56.
- <sup>44</sup>Ibid., p. 59
- <sup>45</sup>Allmand, W. 1973. The criminal in Canadian society: a perspective on corrections. Information Canada, Ottawa. Reprint, 1976, p. 5.
- <sup>46</sup>Ibid., pp. 8-13.
- <sup>47</sup>The Alberta Royal Commission Report on Juvenile Delinquency. 1967. p. 5.
- <sup>48</sup>Department of Justice Committee on Juvenile Delinquency. 1965. Juvenile Delinquency in Canada, Roger Duhamel, F.R.S.C. Queen's Printer, Ottawa. pp. 7-8.
- <sup>49</sup>Graham, Brawn and Associates. 1975. Fort McMurray: a study of the criminal justice services needs. pp. 10-11.
- <sup>50</sup>Ibid., p. 11.
- <sup>51</sup>Hastie, L. 1975. A working document on population projections for the northeast Alberta region. Ekistic Design Consultants, Edmonton. pp. 61-63.
- <sup>52</sup>Graham, Brawn and Associates, Study of criminal justice services, p. 14.
- <sup>53</sup>Hastie, Working document, pp. 50-57.
- <sup>54</sup>Cohos, Evany, and Partners. 1974. Revised general plan: new town of Fort McMurray, pp. 10-15.
- <sup>55</sup>Alberta Liquor Control Board, Annual reports, 1972-75.
- <sup>56</sup>Based on statistics gained through personal communication with Alberta Liquor Control Board Officer.
- <sup>57</sup>Alberta Alcohol and Drug Abuse Commission. 1976. A statistical summary, unpublished.
- <sup>58</sup>Graham, Brawn and Associates. Study of criminal justice services, pp. 23-26.

- <sup>59</sup> Ibid., p. 31.
- <sup>60</sup> Ibid., Appendix 5-9.
- <sup>61</sup> Department of Justice Committee, Juvenile delinquency in Canada, p. 19.
- <sup>62</sup> Secretary of Health, Education and Welfare, First special report to U.S. Congress, p. 67.
- <sup>63</sup> Department of Justice Committee, Juvenile delinquency in Canada, p. 19.
- <sup>64</sup> Secretary of Health, Education and Welfare, First special report to U.S. Congress, p. 67.
- <sup>65</sup> Commission of Inquiry, Final report, p. 19.
- <sup>66</sup> Ibid., p. 27.
- <sup>67</sup> Graham, Brawn and Associates, Study of criminal justice services, p. 53.
- <sup>68</sup> Commission of Inquiry, Final report, p. 38.
- <sup>69</sup> Ibid., pp. 209-213.
- <sup>70</sup> Ibid., p. 210.
- <sup>71</sup> Ibid., p. 148.
- <sup>72</sup> Ibid., p. 88.
- <sup>73</sup> Ibid., p. 127.
- <sup>74</sup> Alberta Northern Development Group. 1975. Alcohol use and related problems in northern Alberta. Discussion paper, M. McCaffery, p. 29.
- <sup>75</sup> Lerman, P. (ed.). 1970. Delinquency and social policy. Praeger Press, New York. 1972. pp. 317-329.
- <sup>76</sup> Weiss, C.H. 1972. Evaluation Research. Prentice Hall, Englewood Cliffs, New Jersey. pp. 126.

- <sup>77</sup>Wharf, B. 1976. Emerging direction in local and regional social planning, an unpublished paper prepared for the National Meeting of Planning Organization, p. 10.
- <sup>78</sup>Commission of Inquiry, Final report, p. 182.
- <sup>79</sup>Carter, N. and B. Wharf. 1973. Evaluating social development programs. The Canadian Council of Social Development, p. 11.
- <sup>80</sup>Graham, Brawn and Associates, Study of criminal justice services, p. 53.
- <sup>81</sup>Ibid., pp. 53-59.

8. BIBLIOGRAPHY

- Alberta Alcohol and Drug Abuse Commission. 1976. A statistical summary. Unpublished, Edmonton.
- Alberta Liquor Control Board. Annual reports, 1972-1975, Edmonton.
- Alberta Northern Development Group. 1975 (May). Alcohol use and related problems in northern Alberta. Discussion Paper, Edmonton.
- Alberta Royal Commission Report on Juvenile Delinquency. 1967 (February).
- Alberta Task Force on Urbanization. 1975 (March). Index of urban and regional studies: Province of Alberta 1954-1974. Issues 1-7. Department of Municipal Affairs, Edmonton.
- Allmand, W. 1976. The criminal in Canadian society, a perspective on corrections. Information Canada, 1973, reprint, Ottawa.
- Australian National Commission for UNESCO. 1976. Man and the environment: new towns in isolated settings. Kambalda, Western Australia, 18-23, 1973. Australian Government Publishing Service, Canberra.
- Brook, M., I. Cherkawski, S. Farough and D. Sutherland. 1975 (November). Alcohol use and abuse in the Northwest Territories: a review of literature. Non-Medical Use of Drugs: Treatment and Program Development, Province of Alberta and District of Mackenzie Region, Edmonton.
- Buchsa and Latz. 1967. Bibliography of socio-economic development of northern Ontario. Resource Center for Northern Affairs, Ottawa.
- Canadian Committee on Corrections. 1969 (March). Toward unity: criminal justice and corrections. Queen's Printer, Ottawa.
- Carter, N. and B. Wharf. 1973 (May). Evaluating social development programs. The Canadian Council on Social Development, Ottawa, Ontario.
- Center for Settlement Studies. 1967 (April). Bibliography - resource frontier communities - volume 1. University of Manitoba, Winnipeg.
- Clapp, J. 1976 (February). New towns: an emphasis on the American experience - exchange bibliography. Council of Planning Libraries, Monticello, Illinois.

- Cohos, Evany, and Partners. 1974. Revised general plan: the new town of Fort McMurray. Cohos, Evany and Partners, Calgary, Alberta
- Commission of Inquiry into the Non-Medical Use of Drugs. 1973. Final report. Information Canada, Ottawa.
- Department of Justice Committee on Juvenile Delinquency. 1965. Juvenile delinquency in Canada. Queen's Printer, Ottawa.
- Department of the Solicitor General. 1975. Annual report 1974-1975. Provincial Solicitor General's Department, Edmonton, Alberta.
- Department of Sociology, Population Research Laboratory. n.d. Interim report: traditional baseline data system, stage A. University of Alberta, Edmonton.
- Glance and Freud. 1973 (July). The urban environment and residential satisfactions with an emphasis on new towns - an annotated bibliography. Council of Planning Libraries, Monticello, Illinois.
- Golany, G. 1973. New towns planning and development, a world wide bibliography. The Urban Land Institute, Washington, D.C.
- Graham, Brawn and Associates. 1975 (May). Fort McMurray: a study of the criminal justice services needs. Graham, Brawn and Associates, Edmonton.
- Hastie, L. 1975 (December). A working document on population projections for the northeast Alberta region. Ekistic Design Consultants, Limited, Edmonton, Alberta.
- Health, Education and Welfare, the Secretary of. 1974. First special report to the U.S. Congress on alcohol and health. National Institute on Alcohol Abuse and Alcoholism, December, 1971, Reprint, 1974, Rockville, Maryland.
- Institute of Local Government. 1953. Single-enterprise communities in Canada. A Report to Central Mortgage and Housing Corporation. Queen's University, Kingston, Ontario.
- Jackson, J. E. W. and N. Poushinsky. 1971. Migration to northern mining communities: structural and social psychological dimensions. Series 2, Research Reports No. 8. Center for Settlement Studies, The University of Manitoba, Winnipeg.
- Jundberg, G., C. Schrag and O. Larsen. 1963. Sociology. Harper and Row, New York.



- Landau, B. 1973. The Adolescent female offender. Ontario Psychologist, 1973, 5 (2).
- Lerman, P. (ed.). 1970. Delinquency and social policy. Praeger Press, New York.
- Lucas, R. A. 1971. Minetown, milltown, railtown: life in Canadian communities of single industry. University of Toronto Press, Toronto.
- Matthiasson, J. S. 1970. Resident perceptions of quality of life in resource frontier communities. Series 2, Research Reports No. 2. Center for Settlement Studies, University of Manitoba, Winnipeg.
- Moysa, S. and B. Rost. 1975 and January, 1976. A bibliography of the Athabasca oil sands - Fort McMurray, Alberta Area: socio-economic and environmental studies. Alberta Department of the Environment. Third Edition, Revised, Edmonton.
- Pressman, N. 1973 (November). Comprehensive bibliography of new towns in Canada. Council of Planning Libraries, Monticello, Illinois.
- Pressman, N. E. P. 1974 (November). Planning new communities in Canada. School of Urban and Regional Planning, University of Waterloo, Waterloo, Ontario.
- Research Bureau, Non-Medical Use of Drugs Directorate. 1976 (May). Alcohol problems in Canada: a summary of current knowledge. Technical Report, Series No. 2. Health Protection Branch, Health and Welfare, Canada, Ottawa.
- Riffel, J. A. 1975. Quality of life in resource towns. Information Canada, Ottawa.
- Robinson, I. M. 1962. New industrial towns on Canada's resource frontier. University of Chicago Press, Chicago.
- Siemens, L. B. 1973 (December). Single-enterprise community studies in northern Canada. Series 5, Occasional Paper No. 7. Center for Settlement Studies, University of Manitoba, Winnipeg.
- Study on the Characteristics of Children Admitted to Alberta Child Welfare Institutions, 1969-1971. 1974 (March). Alberta Health and Social Development, Research and Planning Section, Edmonton.
- Weiss, C. H. 1972. Evaluation research. Prentice Hall Inc., Englewood Cliffs, New Jersey.

Wharf, B. 1976 (March). Emerging directions in local and regional planning. Unpublished paper prepared for the National Meeting of Planning Organizations, Ottawa, Ontario.

OTHER SOURCES CONSULTED

Alberta Northern Development Group. 1974 (August 21). Demographic trends and characteristics in census divisions 12-15, 1961-71. Research Report. Edmonton.

Alberta Northern Development Group. 1974 (July 11). Provincial government structure and organization in northern Alberta. Research Report. Edmonton.

Bainbridge, D. A. 1976 (January). Towards an environmental new town: a selected bibliography. Council of Planning Librarians, Exchange Bibliography, Monticello, Illinois.

Bureau of Municipal Research. 1974 (September). The development of new communities in Ontario. Civic Affairs, Toronto.

Center for Settlement Studies. 1970 (September). Proceedings of the symposium on resource frontier communities. Series 4. University of Manitoba, December, 1968. Third Printing, Winnipeg.

Conservation and Utilization Committee. 1972 (August). Fort McMurray, Athabasca tar sands development strategy. Edmonton, Alberta.

Ekistic Design Consultants Limited. 1975 (April). An examination of urban growth alternatives in the northeast Alberta region. Edmonton, Alberta.

Glueck, S. and E. Glueck. 1974. Of delinquency and crime (a panorama of years of search and research). Charles C. Thomas, Springfield, Illinois.

Golany, G., and D. Walden, (eds.) 1974. The contemporary new communities movement in the United States. University of Illinois Press, Urbana, Illinois.

Hackler, J. C. 1975 (November). The great stumble forward: thoughts on the prevention of delinquency in Canada. University of Alberta, Edmonton, Alberta.

Hardy, R. E. and J. G. Cull. 1975. Fundamentals of juvenile criminal behavior and drug abuse. Charles C. Thomas, Springfield, Illinois.

- Health, Education and Welfare, the Secretary of. 1974 (June).  
Second special report to the U.S. Congress on alcohol  
and health. National Institute on Alcohol Abuse and  
Alcoholism, Rockville, Maryland.
- Marino, M. L. 1975 (August). Fort MacKay: a community profile.  
Ekistic Design Consultants Limited, Edmonton, Alberta.
- Matthiasson, J. S. and J. N. Kerri. 1971 (October). Two studies  
on Fort McMurray. Resident mobility in resource frontier  
communities: an examination of selected factors; and  
functions of voluntary associations in a resource  
frontier community: the Case of Fort McMurray, Alberta,  
Canada. Series 2: Research Reports No. 6. Center for  
Settlement Studies, University of Manitoba, Winnipeg.
- McGrath, W. T. 1965. Crime and its treatment in Canada. The  
Macmillan Company of Canada Limited, Toronto.
- Mechanic, D. 1969. Mental health and social policy. Prentice-  
Hall, Inc, Englewood Cliffs, New Jersey.
- Ministry of the Solicitor General, Communication Division. 1975  
(February 3-5). Peoples and justice. Reports on the  
National Conference and the Federal-Provincial Confer-  
ence on Native Peoples and the Criminal Justice System,  
both held in Edmonton, Alberta.
- Moysa, S. 1976 (September). A bibliography of the Athabasca oil  
sands, Fort McMurray, Alberta Area: socio-economic and  
environmental sutides. 1975 Cumulated Update - Supple-  
ment. Alberta Department of the Environment, Edmonton.
- Northern Alberta Development Council. 1975 (November 26-29).  
Opportunity North Conference Report. Peace River,  
Alberta.
- Parsons, G. D. 1970 (February). Arctic suburb: a look at the  
North's newcomers. Mackenzie Delta Research Project,  
Northern Science Research Group. Department of Indian  
Affairs and Northern Development, Ottawa.
- Ross, P. S. and Partners. 1975 (September). Alberta Northern  
Development Group. The economy of northern Alberta:  
bibliography. Research Report, Department of Business  
Development and Tourism, Government of Alberta.  
Edmonton, Alberta.
- Sims, B. 1975 (July). Fort Chipewyan sub-region profile. Ekistic  
Design Consultants Limited, Edmonton, Alberta.
- Toffler, A. 1971 (August). Future shock. Bantam Books of Canada  
Ltd., Toronto.

AOSERP RESEARCH REPORTS

1. AOSERP First Annual Report, 1975
2. AF 4.1.1 Walleye and Goldeye Fisheries Investigations in the Peace-Athabasca Delta--1975
3. HE 1.1.1 Structure of a Traditional Baseline Data System
4. VE 2.2 A Preliminary Vegetation Survey of the Alberta Oil Sands Environmental Research Program Study Area
5. HY 3.1 The Evaluation of Wastewaters from an Oil Sand Extraction Plant
  
6. Housing for the North--The Stackwall System
7. AF 3.1.1 A Synopsis of the Physical and Biological Limnology and Fisheries Programs within the Alberta Oil Sands Area
8. AF 1.2.1 The Impact of Saline Waters upon Freshwater Biota (A Literature Review and Bibliography)
9. ME 3.3 Preliminary Investigations into the Magnitude of Fog Occurrence and Associated Problems in the Oil Sands Area
10. HE 2.1 Development of a Research Design Related to Archaeological Studies in the Athabasca Oil Sands Area
  
11. AF 2.2.1 Life Cycles of Some Common Aquatic Insects of the Athabasca River, Alberta
12. ME 1.7 Very High Resolution Meteorological Satellite Study of Oil Sands Weather: "a Feasibility Study"
13. ME 2.3.1 Plume Dispersion Measurements from an Oil Sands Extraction Plant, March 1976
14. HE 2.4 Athabasca Oil Sands Historical Research Project. Volume I: Design
15. ME 3.4 A Climatology of Low Level Air Trajectories in the Alberta Oil Sands Area
  
16. ME 1.6 The Feasibility of a Weather Radar near Fort McMurray, Alberta
17. AF 2.1.1 A Survey of Baseline Levels of Contaminants in Aquatic Biota of the AOSERP Study Area
18. HY 1.1 Interim Compilation of Stream Gauging Data to December 1976 for the Alberta Oil Sands Environmental Research Program
19. ME 4.1 Calculations of Annual Averaged Sulphur Dioxide Concentrations at Ground Level in the AOSERP Study Area
20. HY 3.1.1 Characterization of Organic Constituents in Waters and Wastewaters of the Athabasca Oil Sands Mining Area

21. AOSERP Second Annual Report, 1976-77
22. HE 2.3 Maximization of Technical Training and Involvement of Area Manpower
23. AF 1.1.2 Acute Lethality of Mine Depressurization Water on Trout Perch and Rainbow Trout
24. ME 4.2.1 Review of Dispersion Models and Possible Applications in the Alberta Oil Sands Area
25. ME 3.5.1 Review of Pollutant Transformation Processes Relevant to the Alberta Oil Sands Area
26. AF 4.5.1 Interim Report on an Intensive Study of the Fish Fauna of the Muskeg River Watershed of Northeastern Alberta
27. ME 1.5.1 Meteorology and Air Quality Winter Field Study in the AOSERP Study Area, March 1976
28. VE 2.1 Interim Report on a Soils Inventory in the Athabasca Oil Sands Area
29. ME 2.2 An Inventory System for Atmospheric Emissions in the AOSERP Study Area
30. ME 2.1 Ambient Air Quality in the AOSERP Study Area, 1977
31. VE 2.3 Ecological Habitat Mapping of the AOSERP Study Area: Phase I
32. AOSERP Third Annual Report, 1977-78
33. TF 1.2 Relationships Between Habitats, Forages, and Carrying Capacity of Moose Range in northern Alberta. Part I: Moose Preferences for Habitat Strata and Forages.
34. HY 2.4 Heavy Metals in Bottom Sediments of the Mainstem Athabasca River System in the AOSERP Study Area
35. AF 4.9.1 The Effects of Sedimentation on the Aquatic Biota
36. AF 4.8.1 Fall Fisheries Investigations in the Athabasca and Clearwater Rivers Upstream of Fort McMurray: Volume I
37. HE 2.2.2 Community Studies: Fort McMurray, Anzac, Fort MacKay
38. VE 7.1.1 Techniques for the Control of Small Mammals: A Review
39. ME 1.0 The Climatology of the Alberta Oil Sands Environmental Research Program Study Area
40. VE 7.1 Interim Report on Reclamation for Afforestation by Suitable Native and Introduced Tree and Shrub Species
41. AF 3.5.1 Acute and Chronic Toxicity of Vanadium to Fish
42. TF 1.1.4 Analysis of Fish Production Records for Registered Traplines in the AOSERP Study Area, 1970-75
43. TF 6.1 A Socioeconomic Evaluation of the Recreational Fish and Wildlife Resources in Alberta, with Particular Reference to the AOSERP Study Area. Volume I: Summary and Conclusions
44. VE 3.1 Interim Report on Symptomology and Threshold Levels of Air Pollutant Injury to Vegetation, 1975 to 1978
45. VE 3.3 Interim Report on Physiology and Mechanisms of Air-Borne Pollutant Injury to Vegetation, 1975 to 1978

46. VE 3.4 Interim Report on Ecological Benchmarking and Biomonitoring for Detection of Air-Borne Pollutant Effects on Vegetation and Soils, 1975 to 1978
47. TF 1.1.1 A Visibility Bias Model for Aerial Surveys of Moose on the AOSERP Study Area
48. HG 1.1 Interim Report on a Hydrogeological Investigation of the Muskeg River Basin, Alberta

These reports are not available upon request. For further information about availability and location of depositories, please contact:

Alberta Oil Sands Environmental Research Program  
15th Floor, Oxbridge Place  
9820-106 Street  
Edmonton, Alberta T5K 2J6

This material is provided under educational reproduction permissions included in Alberta Environment and Sustainable Resource Development's Copyright and Disclosure Statement, see terms at <http://www.environment.alberta.ca/copyright.html>. This Statement requires the following identification:

"The source of the materials is Alberta Environment and Sustainable Resource Development <http://www.environment.gov.ab.ca/>. The use of these materials by the end user is done without any affiliation with or endorsement by the Government of Alberta. Reliance upon the end user's use of these materials is at the risk of the end user.