Impact Analysis of Socio-Economic Impacts Associated With the Steepbank Mine

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This assessment report was prepared for Suncor Inc., Oil Sands Group (Suncor) by Golder Associates Ltd. (Golder) as part of the Suncor Steepbank Mine Environmental Impact Assessment (EIA).

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EXECUTIVE SUMMARY

Development and operations of the Steepbank Mine will provide a number of economic benefits to the Wood Buffalo region, the Province of Alberta and to Canada. Development of the Steepbank Mine project will provide approximately 1,000 work years of temporary employment during construction, with a peak requirement of 435 workers in 1999. Of importance to the Regional Municipality of Wood Buffalo, operation of the Steepbank Mine will provide the continued employment of 1,700 people (1,400 Suncor staff and 300 contractors), as well as provide additional employment for an estimated 100 staff by the year 2010.

Population increases anticipated from additional employment created by the Steepbank Mine are expected to be focused upon Fort McMurray which is expected to see sustained population growth of less than 1%. Other communities within the region are expected to experience little population change as a result of the project, with new employment going to existing community residents. Within Fort McMurray, local community and service agencies have indicated existing services and infrastructure have sufficient capacity to accommodate this growth. These representatives have indicated that the continuation of employment will reinforce the existing high quality of life which exists within the Fort McMurray area.

Indigenous communities within the Regional Municipality of Wood Buffalo are expected to be impacted by Suncor's ongoing operations. The traditional land use of the people of Fort MacKay, the nearest community to the Suncor plant, has been affected by oil sands operations within the region and the Steepbank Mine area occupies lands traditionally used by residents of Fort MacKay. Two trappers will be affected by the mine and Suncor has negotiated agreements with each trapper to compensate for the loss of use of the area. To address the overall impact from their mining activities upon regional traditional land use, Suncor has committed to work with local communities in designing mine reclamation plans to restore desired land uses, once mining is complete. To enhance the involvement of indigenous peoples in the economic opportunities afforded by continued operation of their oil sands operation, Suncor has adopted a series of measures aimed at providing training, education, employment, business and community development opportunities for indigenous people within the communities of Fort MacKay, Fort Chipewyan, Fort McMurray, Anzac, Janvier and Conklin.

Development of the Steepbank Mine is expected to cost approximately $336 million, and over the life of the mine, $6.4 billion will be spent on operating costs. These expenditures will create sizeable benefits for Alberta and Canada. Development expenditures have been estimated to generate $324 million in income within the Canadian economy of which $209 million (65%) will be within the Alberta economy. Operating expenditures have been estimated to generate over $7 billion in income within the Canadian economy, with $5.8 billion (84%) in Alberta. In addition to purchases of goods and services, Suncor will continue to pay taxes to all levels of government. Municipal taxes to be paid by the Suncor operation between 1996 and 2020 have been estimated at approximately $300 million.

Suncor has a policy which encourages the purchase of goods and services from local vendors. Currently, Suncor spends approximately $90 million per year, half its annual goods and services spending, within the Fort McMurray area. This pattern is expected to continue through the Steepbank operations.

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A INTRODUCTION

Suncor Inc., Oil Sands Group (Suncor) is proposing to develop the Steepbank Mine as a replacement for current mining operations. This expansion will enable Suncor to continue their existing oil sands operation, which began in 1967, into the 21st century. This document assesses the socio-economic implications that development of the Steepbank Mine will have upon communities within the Regional Municipality of Wood Buffalo, including Fort McMurray. It is one of a series of reports that address potential environmental and socio-economic impacts of the Suncor Steepbank Mine Project (Figure A-1).

A1.0 OBJECTIVES

The objective of this document is to provide an assessment of the potential impacts which may occur to the communities of Fort McMurray, Fort MacKay, Fort Chipewyan and other communities within the Regional Municipality of Wood Buffalo. To accomplish that objective, this assessment outlines those aspects of the proposed project which may have socio-economic implications for the communities (expenditures, employment, land use), estimates the anticipated change in employment and population within the region, examines the implications of that growth upon the existing communities and outlines potential mitigation measures to minimize potential negative impacts and enhance positive benefits.

A1.1 METHODOLOGY

Development of this socio-economic assessment has involved a number of methodologies including the involvement of community representatives, the collection of data from a variety of sources, determination of impact areas for use to focus the data collection and analysis, and selection of valued social components to assist in focusing the analysis upon key issue areas.

A1.1.1 Community Involvement

Throughout the development of this assessment, meetings and discussions have been held with community groups to determine areas of concern, to gather information for use in the analysis, to

assist in determining what potential impacts the projects could have upon communities within the Regional Municipality of Wood Buffalo, and to develop mitigative measures to address significant impact areas.

Those discussions included a community workshop held in April 1995, individual meetings with community representatives (including agency and service staff) during the summer and fall of 1995, ongoing discussions with agency representatives over the fall and winter of 1995 and an impact assessment workshop with community representatives in February 1996.

For two downstream communities, Fort McKay and Fort Chipewyan, the communities were retained to complete community profiles and surveys of community residents to assist in determining community issues, capabilities and perceptions of impacts associated with the oil sands development. This information was used in the development of this impact assessment.

A1.1.2 Data Collection and Sources

In general, information sources for the Suncor socio-economic assessment varied depending upon the issue being examined. The most typical sources of the data were the agencies responsible for providing the services being examined. Other data sources included Statistics Canada, Regional Municipality of Wood Buffalo (particularly the Planning Department), local offices of Provincial Government agencies, local businesses and Suncor. Because socio-economic data varies from year-to-year, interviews with key informants played an important role in providing up-to-date information for this assessment.

Data on the nature and components of the project were provided by Suncor. Information on project activities, timing, workforce, skill requirements, purchase of goods and services, development and operating expenditure profiles were provided by the Suncor project development team and engineering consultants. Company finance staff assisted in processing data on expenditure profiles, government revenues, provincial and federal expenditure splits and tax revenues. Human resource staff assisted in providing information on employment and training policies, practices and plans. Corporate policies on local procurement were provided by Suncor project team members.

Economic data necessary to complete a regional, provincial and national economic analysis was gathered through Statistics Canada and Alberta Treasury. The National Input-Output model developed by Statistics Canada provided the basis for the provincial and national economic evaluations. Regional economic impact evaluations were developed using capital and employment expenditure profiles.

Data on current land use was provided through the terrestrial components of the EIA (Golder 1996a), Alberta Environmental Protection (Public Lands, Forestry, Fish and Wildlife), local trappers and hunters (groups and individuals), and local recreation groups.

Demographic data was obtained from Statistics Canada and the Regional Municipality of Wood Buffalo Planning Staff. 1991 census data is available for Alberta and the study area, and was used as the basis for the demographic analysis. Assumptions relating to workforce and family characteristics required to complete the impact assessment were developed in concert with Suncor and local social service agencies. A cohort-survival demographic model was developed and used to generate population projections for this impact assessment based upon the employment projections provided by Suncor, Solv-Ex and Syncrude Canada Ltd. (Syncrude).

Data respecting existing human services was gathered from local service providers. Interviews were held with local representatives from education, medical service, provincial and community social service agencies, police, fire department, and recreation agencies. Information on regional infrastructure was gathered from the Regional Municipality of Wood Buffalo, Fort McMurray and from Alberta Transportation.

Data related to current community character and quality of life were collected from community representatives, human service agencies, and from Fort McMurray, Fort MacKay and Fort Chipewyan representatives.

A1.1.3 Selection of Impact Areas

Previous studies of the impacts of oil sands development on the region have focused investigations on the communities located closest to the mine sites: Fort McMurray, Fort MacKay and Fort Chipewyan. During the initial community workshop in April 1995, the topic of study area was

discussed and community representatives provided their view that the socio-economic studies should address the impacts of the project upon the new Regional Municipality of Wood Buffalo. That study area was therefore adopted as the primary study area for this socio-economic assessment.

For the assessment of macro-economic impacts from the project, a larger study area was defined as being the Province of Alberta. Through the use of the Statistics Canada Input-Output Model, economic data has been generated for Alberta, other provinces, and Canada as a whole.

Within the area directly impacted by the Steepbank Mine, land users have included two trappers who have resided on a part-time basis in nearby cabins. No permanent full- time residents live within the mine-site. The socio-economic impacts upon the area directly affected by the mine therefore relate primarily to those human land use activities which include trapping, hunting, gathering of food and herbs. Much of the information on these activities was obtained from a report completed by Fort McKay Environmental Services (1996) on traditional land uses within the general mine area. The discussion of direct effects from the mining activities are therefore addressed within the land use component of the socio-economic assessment which discusses specific direct displacement effects resulting from the mining activities. The socio-economic baseline report prepared as background to this assessment also provides further information (Golder, 1996b).

A1.1.4 Selection of Valued Social Components

Over the past twenty years, environmental impact assessment practitioners and regulators have sought to develop methods to refine environmental impact assessment processes to increase the efficiency and relevance of the analytical processes given the diversity and complexity of environmental systems. Recognizing that it is neither economically nor scientifically possible to study every component of the environment to determine what all of the potential environmental impacts from a proposed project might be, methods have been developed to focus environmental studies upon those components of ecosystems which are considered to be good indicators of ecosystem health, while also addressing economic and social relevance.

Within the biological sciences, the concept of valued ecosystem component (VEC) has been developed in response to the desire to select representative species or ecosystem components for

study and therefore enable environmental studies to focus attention on those species which are most relevant.

The socio-economic counterpart to biophysical VECs are Valued Socio-Economic Components (VSCs). Essentially, these are the key components of communities within the region which are of greatest importance to the members of those communities, and may be affected as a result of a proposed project or change within the community.

By acting as indicators of levels and significance of change, VSCs provide a basis for assessing the potential social and economic impacts of a project upon a community. Such key indicators often include employment, economic benefits, population changes, displacement of current and traditional uses, creation of areas for traditional or current uses, and demands for services and infrastructure. The initial selection of VSCs is typically done as part of the issues scoping process and further refinement is completed during the EIA process.

During the community workshops and meetings held as part of the Suncor Steepbank Mine Studies, issues raised by members of communities affected by Suncor operations included:

a) Local Employment and Training

Employment of local residents typically provides a major benefit, and helps to offset negative impacts which may result from the development of a project. Suncor is currently employing a large number of Fort McMurray residents. If the mine expansion project was to generate additional employment, local community representatives indicated they preferred that Suncor hire and train local residents to the greatest extent possible.

b) Local Procurement

As with local employment, the purchase of goods and services can provide significant local benefits, and assist to offset any negative impacts. Local community representatives indicated that they desired Suncor to maximize their purchases of goods and services within the local region.

c) **Displacement of Traditional Land Uses Including Trapping and Hunting**

Hunting, trapping, and gathering of food and herbs currently comprises key land uses for the area of the new mine. Local community representatives, particularly from Fort McKay indicated that they were concerned about the loss of traditional use lands throughout the region.

d) **Expected Population Changes Resulting From the Suncor Project**

Fort McMurray has historically provided the residence for most of the employees at the oil sands mine projects within the region. The administration and local service providers within the community of Fort McMurray require information on the future employment and population associated with the oil sands plants to adequately plan services for future populations within the region. To determine future demands, these community representatives indicated they required an examination of the regional population both with and without the Suncor mine expansion.

e) **Resulting Demands Upon Local Services and Infrastructure**

Community representatives were interested in obtaining information on population changes and project activities which could result in changes in demands for local services and infrastructure. Such information from Suncor would assist agencies in planning and delivering services and infrastructure. In addition, community representatives from Fort McMurray were interested in understanding if the Suncor project might affect the existing high quality of life residents of the community currently enjoyed.

f) **Regional and Provincial Economic Benefits**

Community representatives indicated that they were interested in understanding what benefits were expected to accrue to the region and to Alberta by maintaining the Suncor operation and developing the Steepbank Mine (compared to winding the project down). Information of interest included local employee payroll, local purchases of goods and services, and government taxes and royalties.

g) **Impact of the Project Upon Indigenous Communities**

During community meetings, representatives from Fort Chipewyan have indicated that their communities were likely to be directly affected by the Suncor project. They also indicated their interest in working with Suncor to determine how they might be affected, and in establishing mechanisms to address environmental effects while sharing in potential economic benefits from the project. Other southern communities within the Regional Municipality of Wood Buffalo indicated

that they also wished to share in the economic benefits through contracting the provision of goods and services and through direct or contracted employment.

These concerns indicate that VSCs for the Steepbank Mine environmental impact assessment should include the following:

- local and regional economies including contracting and business opportunities;
- employment;
- population;
- community services and infrastructure;
- community stability and quality of life; and
- traditional resource use (harvesting of plants, hunting, fishing, trapping).

These socio-economic concerns are encapsulated in six hypothesis statements (numbers 1 through 6) which are presented along with the hypothesis statements for the other reports in the series in Table A1.0-1.

TABLE A1.0-1
STEEPBANK MINE EIA IMPACT HYPOTHESES SUMMARY LIST

SOCIO-ECONOMIC	
1	The Steepbank Mine Project will contribute additional local, provincial and national benefits through additional employment, the procurement of goods and services required for the project and the payment of local, provincial and national taxes and royalties.
2	Construction-related activities and employment and the associated temporary increase in population will result in increased demands on services and infrastructure within the Regional Municipality of Wood Buffalo.
3	Operations-related employment and the associated increase in population will result in increased demands on services and infrastructure within communities in the Regional Municipality of Wood Buffalo.
4	The social stability and quality of life of communities within Regional Municipality of Wood Buffalo will be maintained as a result of the continued operation of the Suncor project, through development of the Steepbank Mine.
5	The Steepbank Mine project will contribute to a loss in the traditional resource base of the Fort MacKay community and displace some traditional activities.
6	The cumulative demands from the Suncor, Solv-Ex and Syncrude projects combined with the expected demands from existing populations within the Regional Municipality of Wood Buffalo will result in increased demands on local communities and affect the quality of life of those communities.
HUMAN HEALTH	
7	The health and well being of people who live, work or engage in recreational activities within the study area may be affected by changes to Athabasca and Steepbank River water quality caused by water releases resulting from extraction, processing and reclamation of oil sands from Suncor's existing and proposed mines.
8	The health and well being of people who live, work or engage in recreational activities within the study area may be affected by air emissions resulting from extraction, processing and reclamation of oils sands from Suncor's existing or proposed mines.
9	The health and well being of people who live, work or engage in recreational activities within the study area may be affected by cumulative exposure to chemicals associated with water and air emissions from Suncor's activities and other developments within the Regional Study Area.
10	The health of people who in the future may occupy and/or use the land reclaimed from Suncor's Lease 86/17 and Steepbank Mine may be affected by release of chemicals from the reclaimed landscapes.
11	The health and safety of on-site workers may be affected by development and operations of the Steepbank Mine and related facilities.
TERRESTRIAL	
12	Valued Ecosystem Components in the Athabasca River valley could be affected by the development, operation and reclamation of the Steepbank Mine and Lease 86/17.
13	Existing and future use of the area's landscapes could be limited by the development, operation and reclamation of the Steepbank Mine and Lease 86/17.
14	Visual integrity of the Athabasca River Valley could be affected by the development, operation and reclamation of the Steepbank Mine and Lease 86/17.
15	Biodiversity could be affected by the development, operation and reclamation of the Steepbank Mine and Lease 86/17.

16	Wetlands could be affected by Lease 86/17 and Steepbank Mine development and operation, including mine dewatering, changes to subsurface drainage, and reclamation release water.
17	Air emissions from the Suncor operation could have an impact on vegetation and soils, as well as aquatic environments.
WILDLIFE	
18	Mine development will result in changes in the availability and quality of wildlife habitat which will bring about a reduction in wildlife populations
19	Disturbance associated with mechanical noise and human activity may result in reduced abundance of wildlife.
20	Direct mortality of wildlife caused by mine development could result in reduced abundance of wildlife.
21	Mine development will disrupt the movement patterns of wildlife in the vicinity of the Steepbank Mine, thereby reducing access to important habitat or interfering with population mechanisms, resulting in decreased abundance of wildlife.
22	Mine development could cause a reduction in wildlife resource use (hunting, trapping, non-consumption recreational use).
23	Development of the Steepbank Mine could contribute to a loss of natural biodiversity.
SURFACE AND GROUNDWATER RESOURCES	
24	Flows in the Athabasca and Steepbank Rivers could be significantly changed by mine development withdrawals for extraction, upgrading and/or reclamation.
25	Ice jams, floods or other hydrological events could cause structure damage and flooding of facilities that will result in subsequent impacts to hydrological/aquatic systems and downstream uses.
26	Navigation along the Athabasca River could be affected by bridge construction.
27	Groundwater quality could be affected by contaminant migration from processing and extraction activities.
AQUATIC RESOURCES	
28	Construction, operational or reclamation activities might adversely affect aquatic habitat in the Steepbank River.
29	Construction, operational or reclamation activities might adversely affect aquatic habitat in the Athabasca River.
30	Water releases associated with construction, operational or reclamation activities might adversely affect aquatic ecosystem health in the Athabasca or Steepbank Rivers.
31	Water releases associated with construction, operational or reclamation activities might adversely affect the quality of fish flesh.
32	Construction, operational or reclamation activities might lead to changes in aquatic habitat and/or aquatic health which might result in a decline in fish abundance in the Athabasca or Steepbank Rivers.
33	Construction, operational or reclamation activities might lead to changes in fish abundance or quality of fish flesh which might result in a decreased use of the fish resource.
34	Construction, operational or reclamation activities might cause changes in Athabasca River water quality which limit downstream use of the water.

AIR QUALITY	
35	Global climate change could be affected by increased release of greenhouse gases associated with production expansion related to the Steepbank Mine.
HISTORICAL RESOURCES	
36	Significant archaeological, paleontological or historical resources could be affected by the development and operation of the Steepbank Mine.

B THE PROJECT

B1.0 EXISTING SUNCOR OIL SANDS OPERATIONS

The Suncor Inc., Oil Sands Group (Suncor) project began commercial operations in 1967. The plant is located 35 km north of Fort McMurray, Alberta and the nearest community to the plant is Fort MacKay (Figure B1.0-1). The Suncor Project includes the oil sands mine, plant facilities including processing, upgrading and utilities, administration offices and a 1,400 person construction camp. Suncor provides a bus system to transport employees from Fort McMurray to the plant site and back on a daily basis. Since 1967, the existing oil sands operation has provided employment for regional workers, purchased goods and services, paid taxes and provided support for community activities and programs.

B1.1 CURRENT WORK FORCE

Suncor's 1995 employee complement was 1,400 employees and 300 contractors for a total of 1,700 workers. This work force includes both staff and unionized workers. Approximately 1,300 persons (or 75% of the work force) are active in bitumen production, upgrading and utilities operations, with the balance working in central support functions such as human resources and communications, health, safety and environment, planning and financial control, and senior management.

Jobs at Suncor are industrial jobs which command an industrial level of remuneration. The Suncor work force is well remunerated relative to the wage levels in the general economy. Each year, Suncor provides over $100 million in wages, salaries and benefits to employees within the local area. These secondary benefits tend to increase the overall remuneration to employees. These benefits include education, training and employment assistance. While Suncor has a local hiring preference for new employees, it has adopted specific aboriginal affairs policies to encourage indigenous people to work with and provide business services to the company.

Over the past years, total employment at Suncor has shrunk reflecting the introduction of truck and shovel mining methods as a replacement of the more labour intensive bucket-wheel and conveyor belt approach. Other productivity enhancements have also contributed to the decline of employment

at the plant. A total of 511 persons were affected by the layoffs, which covered both union and non-union staff as well as contractors. The persons affected were placed on a recall list, which is currently very short, indicating that the laid-off workers have either been able to find work (at Suncor or elsewhere) or have left the region.

B1.2 CURRENT PURCHASE OF GOODS AND SERVICES

Annual operating expenditures for the existing Suncor operation currently are approximately $350million. Each year, Suncor purchases approximately $90 million in goods and services from the local area. Company personnel have worked closely with local vendors and the Chamber of Commerce to enhance opportunities for local suppliers. Suncor also has purchasing policies which promote the use of local businesses.

B1.3 SUNCOR'S INVOLVEMENT WITH ADJACENT COMMUNITIES

Suncor has policies which promote the participation of their employees within the community in various public service roles. In addition to providing employees with support to be involved in the community, Suncor also provides direct contributions to the community. In 1994, Suncor's donations to community groups within the Regional Municipality of Wood Buffalo was over $250,000.

Suncor has established a specific policy to contribute to the development and self-reliance of the First Nation and Metis communities within the region and to develop long-term, mutually supportive and interdependent relationships with these communities. Under this policy framework, Suncor has begun to work closely with these communities in establishing programs and actions designed to meet the needs of the communities. Over the past year, for example, Suncor has signed a Memorandum of Understanding with the people of Fort Chipewyan and is negotiating an agreement with the people Fort MacKay to promote communication and cooperation. As part of this socio-economic assessment, representatives from Fort MacKay and Fort Chipeywan were contracted to provide community profiles for their communities.

B2.0 THE STEEPBANK MINE

Suncor is now proposing to develop a new mine, the Steepbank Mine, to sustain its oil sands operation into the 21st century. The mine will be located on the east side of the Athabasca River across from Suncor's current operations. The new mine site includes Leases 97,19 and 25 and Fee Lots 1 and 3. The Steepbank Mine, when in full operation in 2002, will support a production level of 107,000 barrels per day of synthetic crude oil.

The scope of the Steepbank project includes all activities required to plan, construct and operate the new mine, to transport the ore, modify current extraction facilities and produce a diluted bitumen product which is transferred to the Suncor upgrading facility to produce upgraded crude oil. Also included is the management plan for all tailings produced by the extraction plant and ultimate reclamation of Lease 86, 17 and the Steepbank Mine. The following assessment focuses specifically upon development of the Steepbank Mine and the continued operation of the oil sands facility to the year 2020.

In assessing the potential impact from the Steepbank Mine project, it is necessary to define the new project in relation to Suncor's existing operations and other initiatives which are currently underway. Suncor's 1995 production rate at the oil sands facility was at 79,500 barrels of oil per calendar day (bcpd). Suncor plans to increase production levels from 1995 levels to 107,000 bcpd. This project (Fixed Plant Expansion) is the subject of an application now before the Alberta Energy and Utilities Board and Alberta Environmental Protection. Socio-economic benefits from the Fixed Plant Expansion Project were detailed in the application filed in March of 1996 (Suncor 1996a).

To avoid duplication in analysis, this assessment focuses on the socio-economic implications of continuing current production at the 79,500 barrels of oil per day at the Steepbank Mine. This is defined as the Base Case. A second case has also been developed as a "without project" case to assist in determining the macro-economic impact of the new mine. This Shut Down Case assumes the Suncor operation is shut down as reserves at the existing mine are depleted. The comparison of these two cases enables estimates to be made of the total contribution the Steepbank Mine to the local Fort McMurray-Fort MacKay area, the Regional Municipality of Wood Buffalo, the Province and Canada.

In addition to specific project effects, this assessment also addresses the combined impacts from the Suncor Fixed Plant Expansion plus the expected incremental impacts from the Solv-Ex and Syncrude Aurora projects. These impacts are addressed later in this document within the discussion of cumulative impacts from known regional oil sands developments.

B3.0 EMPLOYMENT

Employment for the Steepbank Mine will be divided between construction and operations phases. Generally, construction workers are employed on a temporary basis and are typically housed on site in construction camps. Operating employment is generally longer term and operating employees typically live within nearby communities.

B3.1 MINE CONSTRUCTION

Construction workforce estimates provided by Suncor for the Steepbank Mine project suggest it will require a total of 1040 work years of employment over the 1996-2000 period, with most of the activity occurring in 1998-2000 period. Table B3.0-1 shows the total work force requirement associated with the Steepbank Mine construction phase. As indicated, at the peak of the construction phase, the third quarter of 1999, the project is expected to generate as many as 126 work-years of employment. These work-year estimates of employment translate into the quarterly and average annual number of jobs associated with the mine construction. Figure B3.0-1 illustrates the peak number of construction workers associated with the Steepbank Mine. As indicated in Figure B3.0-1 and Table B3.0-1, the peak number of persons working on site is estimated to be 435 in the third quarter of 1999. The highest annual average number of workers on site is estimated to be 364, occuring in 1999.

TABLE B3.0-1
STEEPBANK MINE CONSTRUCTION WORKFORCE

Year	Quarter	Work Years	Jobs[a]	Annual Average Workers
1996	1	12.7	44	26
	2	4.3	15	
	3	6.1	21	
	4	6.9	24	
1997	1	14.4	50	85
	2	31.2	108	
	3	29.5	102	
	4	22.5	78	
1998	1	22.5	78	124
	2	41.6	144	
	3	48.5	168	
	4	30.0	104	
1999	1	65.9	228	364
	2	109.8	380	
	3	125.7	435	
	4	119.6	414	
2000	1	123.1	426	302
	2	76.3	264	
	3	86.7	300	
	4	62.7	217	

Source: Suncor

[a] Conversion between work-years and number of persons on site (jobs) assumes continuous year-round construction and 1,800 hours of work per person per year.

The breakdown of the Steepbank Mine work force by trade is provided in Appendix I. The single most important category of workers demanded by the project is operator engineers, who account for an estimated 17% of total work force requirement. Other important categories include Labourers, Iron workers, Electricians, Pipe Fitters, and Millwrights, each of which account for between 6% and 9% of the construction work force. Carpenters, Instrument Technicians, and Cement Masons are

expected to account for between 4% and 5% of the work force requirement each. Other trades account for less than 4% each.

B3.2 MINE OPERATIONS

The Steepbank Mine is a replacement of the current mine, which is expected to be exhausted by the year 2001. The operational workforce of the Steepbank Mine is expected to be marginally higher than that of the current mine, mostly due to increased stripping ratios and longer haul distances at the new mine. Over time and at full operation, the mine may employ an additional 100 persons, mainly equipment operators. This increase in workforce is expected to begin after 2007 and the full number of new employees is not expected to be reached before the year 2010 or beyond. Figure B3.0-2 illustrates the small expected increase in operating workforce associated with the Steepbank Mine in comparison to the existing Suncor operating workforce.

B4.0 CAPITAL COSTS AND PROCUREMENT

B4.1 CONSTRUCTION

Construction of the Steepbank Mine Project will require direct expenditures of approximately $336 million between 1997 and 2001, assuming project approval in early 1997. The projected mine development expenditures are indicated in Table B4.0-1.

TABLE B4.0-1
SUNCOR STEEPBANK MINE - CAPITAL COSTS

Category	Total Expenditures (thousand 1995 $)
Drilling and Pipeline	13,000
Machinery and Equipment	156,000
Site Development, Tranportation and Utilities	105,000
Employment and Administration	62,000
TOTALS:	336,000

Within Table B4.0-1, drilling and pipeline includes costs for exploration drilling and hydrotransport pipe. Machinery and equipment includes costs for ore bin, tailings pumphouse, conveyors, truck dump, extraction plant, cyclofeeder, tools, construction equipment, and cable shovel. Site development, transportation and utilities includes costs for power distribution, maintenance complex, site development, bridge, utilities, bus travel and telephone. Employment and administration includes costs for insurance, rent, project management, accommodation, meals, office equipment, wages and salaries, employee benefits and contractor profits.

B4.2 OPERATIONS

Annual operating expenditures for the existing Suncor operation currently are approximately $350 million. With ongoing efforts to increase mine efficiency, that annual expenditure is expected to decline slightly as measured in 1995 dollars. Operations of the Suncor facility over the twenty-five year period (1996 to 2020) are expected to require a total of $6 billion (1995 $) in incremental expenditures. This time period includes the twenty-year operating period for the Steepbank Mine. These additional expenditures will be for salaries and for the purchase of additional goods and services, as indicated in Table B4.0-2.

TABLE B4.0-2
STEEPBANK MINE OPERATING COSTS
(By Percentage)

Category	Percent of Operating Costs
Employment	38.6
Administration, Taxes and Insurance	6.2
Contracts and Leasing	28.0
Parts and Supplies	20.3
Utilities	6.6
TOTALS (may not total due to rounding):	100.0

Within Table B4.0-2 employment costs include wages and benefits and other employment costs. Administration, taxes and insurance costs include travel, training, administrative supplies, sulphur sales, taxes and insurance. Contract and leasing costs include contract costs, pipeline, rental and

lease costs. Parts and supplies costs include parts and supplies, tires supplies, pipe supplies, chemicals, conveyor belt supplies, shovel teeth supplies, freight expenses and catalyst. Utilities costs include natural gas fuel, pipeline fee and utilities.

Suncor Oil Sands Operating Group currently spends approximately 50% of its goods and services budget of $170 million in the Fort McMurray area ($90 million).

C PROJECT RELATED IMPACTS

C1.0 COMMUNITY ISSUES AND INVOLVEMENT IN THE SOCIO-ECONOMIC IMPACT ASSESSMENT

Beginning in April 1995, meetings have been held with community groups including representatives from municipal and social service agencies within the Regional Municipality of Wood Buffalo to discuss the current socio-economic conditions within the municipality and possible implications of Suncor's expansion plans upon the municipality. As a result of those discussions, six socio-economic issues were identified as being of concern:

- local employment and training;
- local procurement of goods and services; regional and national economic benefits;
- construction employment, workforce residency and support services;
- operations employment, associated changes in population and demands upon services;
- traditional land use and impacts on regional indigenous communities; and
- quality of life and community stability for the municipality.

Each of these issues is discussed below.

C1.1 LOCAL EMPLOYMENT AND TRAINING

Employment of local residents typically provides a major benefit, and helps to offset negative impacts which may result from the development of a project. Suncor is currently employing a large number of Fort McMurray residents. Local community representatives were interested in understanding what changes in employment were expected as a result of the new Suncor development, how many new jobs might be created and what type of jobs were likely. They were also interested in knowing if Suncor would hire and train local residents to the greatest extent possible.

C1.2 LOCAL PROCUREMENT, REGIONAL AND NATIONAL ECONOMIC BENEFITS

As with local employment, the purchase of goods and services can provide significant local benefits, and offset negative impacts from the project on local communities. Community representatives were interested in what level of and types of local purchases of goods and services might occur as a result of the project. Information needed to address this issue includes local employee payroll, local purchases of goods and services, and government taxes and royalties.

A second component of the benefits from the new Suncor activities involves income and benefits which will accrue to Alberta as a result of the construction and operating expenditures associated with the expansion of Suncor operations.

C1.3 CONSTRUCTION EMPLOYMENT, WORKFORCE RESIDENCY AND SUPPORT SERVICES

Construction of the original Suncor Plant and the subsequent construction of the Syncrude Plant create the need for a large number of construction workers to be located temporarily within the region. These workers will contribute to the local economy through purchases of goods and services; they also can place substantial demands upon local services. Local community representatives were interested in the expected number of construction workers, where they would be housed, what services would be provided at the construction camp and what measures would be taken to minimize the impacts of these workers upon the surrounding communities.

C1.4 OPERATIONS EMPLOYMENT, ASSOCIATED CHANGES IN POPULATION AND DEMANDS UPON SERVICES

Suncor currently maintains an operating work force of approximately 1,400 employees, plus a contractor work force of approximately 300. Within the past three years, Suncor's operating work force declined about 500 workers (staff plus contractors). Community representatives wanted to know if Suncor anticipated increasing operating employment beyond current levels or over levels which existed in 1993.

Information on Suncor's staffing plans is necessary to assist the Municipality and local service groups to adequately plan services for future populations within the region. Population changes may result in changes in demands for local services and infrastructure.

C1.5 TRADITIONAL RESOURCE USE AND IMPACTS ON REGIONAL INDIGENOUS COMMUNITIES

Traditional resource uses within the region have included hunting, trapping, fishing, berry picking, and gathering of herbs, medicinal plants and food. Fort MacKay, the closest community to the Suncor project, was identified as the community most likely to have its traditional land and resource uses affected directly by Suncor's activities. Fort MacKay and others were interested in understanding what traditional land and resource uses may be affected by Suncor's new development plans.

In addition to impacts upon traditional resource use, residents of indigenous communities within the Regional Municipality of Wood Buffalo were interested in employment and business opportunities associated with the Steepbank Mine Project. With comparatively high rates of unemployment, local leaders were concerned that opportunities be provided to enable indigenous residents to share in the economic benefits from development of the oil sands.

C1.6 QUALITY OF LIFE AND COMMUNITY STABILITY FOR THE MUNICIPALITY

During construction of the original Suncor and Syncrude plants, the population of Fort McMurray increased from approximately 1,100 in 1961 to 6,000 in 1971 (Suncor development period) and then from 8,000 in 1973 to 24,000 in 1978 (Syncrude development). On average, population increases during the period of Suncor development were in the 35-45% per year range, while during the period of Syncrude development, population increases were in the range of 15-40% per year. Over the time of development of both projects, Fort McMurray experienced substantial deficiencies in most community services and infrastructure including housing, medical, health, retail and commercial services. Other regional communities, particularly Fort MacKay were also affected by development of the oil sands plants, but received little economic development during the initial period of construction and operations.

Since 1986, the population of Fort McMurray has stabilized and growth rates have fallen to near provincial averages. In 1991, Fort McMurray's population stood at 34,705, a slight decline of 240 from 1986 levels of 34, 945. During the past ten years, the quality of life in Fort McMurray has also stabilized and today Fort McMurray is considered by human service agency staff and community leaders to be a mature, stable community. The population levels of other regional communities have remained near 1986 levels.

Regional stakeholders were interested in learning what effects the Suncor Steepbank Mine could have on community stability and whether any significant impact might be expected.

The above issues were used to focus this socio-economic impact assessment.

C2.0 IMPACT CLASSIFICATION

Impacts from the proposed Suncor Steepbank Mine are discussed in the following sections. A key objective of the impact assessment is to assess potential impacts according to clear definitions and present the assessment potential impacts in a transparent manner. In that light, the following analytical components have been used to classify potential impacts:

TABLE C2.0-1
IMPACT CLASSIFICATION COMPONENTS

Impact Component	Measures
Direction	Increase or Decrease
Severity (Degree of Change)	Low: less than 5% change. Medium: 5 to 10% change. High: greater than 10% change.
Duration	Short-term: under 1 year. Medium-term: 1 to 5 years. Long-term 5 years or more.
Geographic Extent	Local: affects Fort MacKay and Fort McMurray; Regional: affects the Regional Municipality of Wood Buffalo; Provincial/National: affects Alberta or Canada
Degree of Concern	Low: less than 5% change, short-term duration, affecting local or regional areas. Medium: change of 5 to 10%, medium-term duration, affecting local or regional areas. High: more than 10% change, medium-term duration or longer, affecting local or regional areas.

In assessing the socio-economic impacts of a development upon surrounding communities, degree of change in either the size or the character of the population are important factors. Fort McMurray experienced significant deficiencies in services and infrastructure during the 1960's and 1970's with annual growth rates of 35 % to 40 %. Based on the author's experience, communities generally appear able to manage growth when population increases, which provide the basis for human services delivery, are below 10% per year on a short-term basis or below 5% on a sustained basis.

C3.0 IMPACT HYPOTHESIS

Development of impact hypotheses provides a mechanism to focus the examination and discussion of impacts from the Steepbank Mine Project. The following hypotheses have been developed on the basis of issues and questions raised by community representative groups during workshops and meetings as well as previous experience with development projects.

Hypothesis 1 The Steepbank Mine Project will contribute additional local, provincial and national benefits through additional employment, the procurement of goods and services required for the project and the payment of local, provincial and national taxes and royalties.

Hypothesis 2 Construction related activities and employment and the associated temporary increase in population will result in increased demands on services and infrastructure within the Regional Municipality of Wood Buffalo.

Hypothesis 3 Operations-related employment and the associated increase in population will result in increased demands on services and infrastructure within communities in the Regional Municipality of Wood Buffalo.

Hypothesis 4 The social stability and quality of life of communities within the Regional Municipality of Wood Buffalo will be maintained as a result of continued operation of the Suncor Project, through development of the Steepbank Mine.

Hypothesis 5 The Steepbank Mine Project will contribute to a loss in the traditional resource base of the Fort McKay community and displace some traditional activities.

Hypothesis 6 The cumulative demands from the Suncor, Solv-Ex and Syncrude projects combined with the expected demands from existing populations within the Municipality, will result in increased demands on local communities and affect the quality of life of those communities.

Each of the above hypotheses are addressed in the following sections.

C3.1 HYPOTHESIS 1

The Steepbank Mine Project will contribute additional local, provincial and national benefits through additional employment, the procurement of goods and services required for the project and the payment of local, provincial and national taxes and royalties.

C3.1.1 National, Provincial and Regional Economic Impacts

Development and operations of the Steepbank Mine will provide a number of economic benefits to the Wood Buffalo region, the Province of Alberta and to Canada. Development of the Steepbank Mine Project will provide approximately 1,040 work years of temporary employment during construction, with a peak requirement of 435 jobs in 1999. Of importance to the Regional Municipality of Wood Buffalo and to Fort McMurray, operation of the Steepbank Mine will provide the continued employment of 1,700 people (1,400 Suncor employees and 300 contractors), as well as provide additional employment for an estimated 100 staff by the year 2010.

During its construction and operation phases, the Steepbank Mine Project and related operations will generate benefits for both the national and provincial economies. One important benefit will be the continuing stream of net revenues generated by the sale of products. In addition, however, the Project's demand for labour and capital equipment during its construction and operational phases will stimulate other sectors of the provincial and national economies and thus indirectly increase economic activity.

C3.1.2 The Statistics Canada Input/Output Model

To measure the full economic impact of projects, economists have developed input-output models which attempt to track and quantify the economic activity generated by changes in consumption or production caused by expenditures such as those related to the Steepbank Mine.

Statistics Canada has developed national and interprovincial input-output models. Statistics Canada input/output tables present one of the most complete and detailed accounting frameworks of the Canadian economy. As such, the model has the greatest potential of all major economic models for capturing the flows of goods and services between industries and consumers at relatively detailed levels of disaggregation. The model has been recently updated to a 1990 base year in terms of inter-sectoral and inter-regional economic relationships.

The estimation of provincial and national economic impacts for the Steepbank Mine Project was performed in cooperation with Statistics Canada using their interprovincial Input/Output Model. This model traces the propagation of demand throughout the national economy, disaggregated on a provincial as well as an industrial basis. It takes into account interdependence among provinces as well as among many industries. In the case of energy production, for example, Alberta may require machinery and equipment manufactured in Ontario, while the Ontario based manufacturer relies on Alberta for energy supplies. Provincial disaggregation is achieved by applying a set of interprovincial trade coefficients employed in the national model. The interprovincial coefficients allocate the demand for goods to the province that produces the goods or to international imports.

The terminology multiplier analysis is also applied to such a modelling process because it estimates the total cumulative economic effects (including employment) as a multiple of the direct impacts caused by the an initial expenditure. Such multipliers are calculated below for both the employment and income effects associated with each of the construction and operating phases of the Steepbank Mine Project based upon the results from the input/output analysis. These multipliers provide an indication of the general spin-offs which result from project expenditures and provide a rule-of-thumb for estimating expenditures for similar projects in the future. The Canadian Energy Research Institute (1982) in a previous study on the inter-regional economic impacts of the Alsands Project calculated multipliers. These multipliers indicate that the direct expenditure of $1 on construction will create $2.14 of income (direct, indirect and induced) in the Canadian economy. Similarly, for

each work-year of direct construction employment, 2.15 work-years of employment will be created throughout Canada (CERI, 1982).

The impacts of the construction and operation activities associated with the development of the Steepbank Mine are estimated separately. For each expenditure case, the model estimates direct, indirect, and induced categories of employment and income generation.

The following tables present results from the input/output analysis and provide information on the direct, indirect and induced economic impacts from the Steepbank expenditures. The **direct** income and employment effects are those related to the project expenditures themselves; this includes expenditures made for direct employee salaries and benefits plus the direct purchases by the Project of "first round" goods and services. Indirect income is created when the direct suppliers, in turn, purchase goods and services from other industries as inputs.

Induced impacts are created when workers and their families spend income and other goods and services. This income includes wages and salaries, supplementary labour income including employer contributions to Canada Pension Plan, Unemployment Insurance and medical plans, and net income of unincorporated businesses earned directly and indirectly by people employed as a result of the construction or operation of a project.

The input/output model considers incomes that accrue to governments and to business (as returns to capital) in Canada are leakages from the system in the sense that these are not re-spent to provide further economic activity. Imports are also treated as a direct leakage by the Interprovincial Model; imported materials and services generate no economic and employment effects in Canada. Therefore, the level of direct project imports has an important bearing on the estimated magnitude of Canadian income and employment impacts.

C3.1.3 Construction

Construction of the Steepbank Mine is expected to create substantial economic benefits to the region, Alberta and Canada. Construction expenditures provided by Suncor for the Steepbank Mine are identified in Table C3.0-1 below. Table C3.0-1 shows overall expenditures and estimates the proportion of the expenditures that will be spent on goods in Alberta, Canada and outside of Canada.

In general, of the $336 million in construction expenditures, nearly 60 % ($200 million) is expected to be spent directly in Alberta, 29% ($100 million) in the rest of Canada and 12% ($39 million) outside of Canada.

The economic benefits provided by the Steepbank Project consist of both employment and income. Each of those areas is discussed below.

TABLE C3.0-1
SUNCOR STEEPBANK MINE - CAPITAL COSTS
INPUTS TO STATISTICS CANADA INPUT/OUTPUT MODEL
(thousand 1995 $)

		Source of Materials or Services		
Category	**Revised Expenditures**	**Alberta**	**Other/Canada**	**Import**
Drilling and Pipeline	13,269	8,766	3,252	3,252
Machinery & Equipment	155,385	35,309	85,552	34,524
Site Development, Transportation & Utilities	105,285	102,468	2,544	273
Employment & Administration	62,062	53,958	7,777	327
TOTALS:	336,000	198,501	99,125	38,375

a) **Employment Impacts**

The construction of the Steepbank Mine will result in direct, indirect and induced employment impacts.

The $336 million of expenditures required to construct the Steepbank Mine include 1040 work-years of direct labor expense (see Table C3.0-2). This reflects workforce employed directly on the construction site, as well as the workforce associated with sub-contractors employed to build the new facilities. In addition, the number also includes engineering and project management staff, including Suncor management personnel. Some 90% (936 work-years) of this direct employment is expected to be Alberta based.

In addition to wages paid for direct on-the-site employment, construction of the Steepbank Mine will involve direct project expenditures for the purchase of "first round" goods and services in Canada.

These purchases will result in the creation of a further 1,570 work-years of work in those firms supplying this input. The input/output model calculates that approximately 66% (1,045 work-years) of this total will be employed in Alberta.

Subsequent rounds of purchasing activity within the Canadian economy, initiated by the purchases of first round suppliers, will result in a further generation of 1,700 "indirect" work-years of activity. Approximately 50% of this employment will be in Alberta. The total direct and indirect generation of jobs will thus amount to 4,310 work-years (1,040+1,570+1,700).

Further "induced" employment effects will be created by the economic activity generated by the subsequent spending and re-spending of household incomes earned by the direct and indirect wage earners above. The input/output model estimates that this additional induced work effort, created by the incremental consumer expenditures, will total 1,550 work-years.

As indicated in Table C3.0-2, total direct, indirect, and induced job creation related to the Steepbank Mine Project will thus total over 5,800 work-years; 61% of this work is estimated to occur in Alberta.

TABLE C3.0-2
STEEPBANK MINE PROJECT CONSTRUCTION PHASE EMPLOYMENT EFFECTS
(Work-years)

Income Category	Geographic Distribution							
	Canada		Alberta		Ontario		Other Canada	
	work-years	%	work-years	%	work-years	%	work-years	%
Direct Income:								
From Project Employment	1,040	100	936	90	68	7	36	4
From Direct Project Purchases	1,570	100	1,045	67	260	17	265	17
Indirect Incomes	1,700	100	825	49	465	27	410	24
Induced Incomes	1,550	100	750	48	390	25	410	26
Totals	5,860	100	3,556	61	1,183	20	1,121	19

Income Multipliers:

(Direct + Indirect) / Direct = 4,210 / 2,610 = 1.65

(Direct + Indirect + Induced) / Direct = 5,860 / 2,610 = 2.25

These employment multipliers indicate that each work-year of direct construction employment, 1.65 work-years of direct and indirect employment and 2.25 work-years of direct, indirect and induced employment is expected to be created in Canada. Similarly, each work-year of direct construction employment is associated with an additional 0.65 work-year of indirect and 0.6 work-year of induced employment within Canada.

b) Income Effects

The Statistics Canada Input/Output Model provides a second measure of the economic impacts from construction of the Steepbank Project. That measure is the added income generation in the economy resulting from the Steepbank expenditures.

Income is defined as gross domestic product (GDP) which is the sum of all value added activities created in various sectors of the economy. Income includes salaries and benefits of wage earners, net incomes of unincorporated businesses (self-employed people), and profits of incorporated businesses excluding the value of indirect taxes (for example: sales taxes) and subsidies. As with the employment impact analysis, the income effects analysis is based on the expenditure information provided by Suncor outlined in Table C3.0-1.

Direct incremental incomes generated by the construction of the Steepbank Mine Project will total $154 million (1995 $) with over 80% of this effect occurs in Alberta. Of the total national income generation of $324 million (direct, indirect and induced components) some 65% or $209 million, will be generated in Alberta. A summary of total income generation by region is shown in Table C3.0-3.

These income multipliers indicate that for each dollar spent for construction of the Steepbank Mine, $1.57 of direct and indirect and $2.10 of direct, indirect and induced income is expected to be created within Canada. Similarly, each direct construction dollar in expenditure is associated with $0.57 in indirect and $0.53 in induced income within Canada.

TABLE C3.0-3
SUNCOR STEEPBANK MINE PROJECT CONSTRUCTION PHASE
INCOME EFFECTS
(Millions 1995 $)

Income Category	Geographic Distribution							
	Canada		Alberta		Ontario		Other Canada	
	million $	%	million $	%	million $	%	million $	%
Direct Income:								
From Project Employment	100	100	90	90	5	5	5	5
From Direct Project Purchases	54	100	34	62	10	19	10	19
Indirect Incomes	88	100	43	49	24	27	21	24
Induced Incomes	82	100	42	51	21	26	19	23
Totals	324	100	209	65	60	18	55	17

Income Multipliers:

(Direct + Indirect) / Direct = 242 / 154 = 1.57

(Direct + Indirect + Induced) / Direct = 324 / 154 = 2.10

C3.1.4 Operations

The employment and income effects for the operating phase are based on the expenditures for the complete oil sands operation. This approach was used to demonstrate the continued benefit, to the region, Alberta and Canada, of the Suncor operation.

Table C3.0-4 identifies overall expenditures and estimates the proportion of the expenditures that will be spent on goods in Alberta, Canada and outside of Canada. This data was used as input by the Statistics Canada Input/Output Model in calculating the operating employment and income impacts from the Steepbank Mine Project (including the operating costs for processing, upgrading, utilities and transportation).

TABLE C3.0-4
STEEPBANK MINE OPERATING COSTS
(Millions 1995 $, Sum of Costs 1996 - 2020)

		Source of Materials or Services		
Category	**Revised Expenditures**	**Alberta**	**Other/Canada**	**Import**
Employment	3,044	3,044	0	0
Administration, Taxes, Insurance	510	423	55	31
Contracts, Leasing	422	422	0	0
Parts, Supplies	1,797	618	532	648
Utilities	655	655	0	0
TOTALS:	6,429	5,162	587	679

a) Employment Impacts

The operating expenditures of $6.4 billion (1995 $) during the 25 year period from 1996 to 2020 includes salaries and the purchase of goods and services related to the total Suncor facility. Table C3.0-5 provides details on the employment effects resulting from the operating expenditures on Alberta and the rest of Canada.

The direct Suncor expenditures for salaries and benefits, including the labor component of direct sub-contractors employed in the operating phase, represent an estimated average of some 1,700 jobs per year (approximately 42,000 work-years of employment to the year 2020). All of this employment is expected to take place in Alberta, based in the local region.

TABLE C3.0-5
STEEPBANK MINE PROJECT
OPERATING PHASE EMPLOYMENT EFFECTS - TOTAL SUNCOR FACILITY
(Total Work-years, 1996 to 2020)

Income Category	Geographic Distribution							
	Canada		Alberta		Ontario		Other Canada	
	work-years	%	work-years	%	work-years	%	work-years	%
Direct Income:								
From Project Employment	42,500	100	42,500	100	--		--	
From Direct Project Purchases	23,515	100	21,840	93	1,200	5	470	2
Indirect Incomes	15,830	100	6,530	41	5,695	36	3,605	23
Induced Incomes	36,835	100	24,035	65	6,115	16	6,690	19
Totals	118,680	100	94,905	80	13,010	11	10,765	9

Employment Multipliers:

(Direct + Indirect)/Direct = 81,845 66,015 = 1.24
(Direct + Indirect + Induced)/Direct = 118,680 66,015 = 1.80

These employment multipliers indicate that for each work-year of direct construction employment, 1.24 work-years of direct and indirect employment and 1.80 work-years of direct, indirect and induced employment is expected to be created in Canada. Similarly, each direct work-year of direct operation employment is associated with an additional 0.24 work-year of indirect and 0.56 work-year of induced employment within Canada.

Project operating expenditures for the "first round" purchase of goods and services has been calculated by the input/output model as the equivalent of 950 jobs per year (23,515 work-years divided by 25 years). The maintenance of long term "direct" operating jobs would average 2,650 jobs per year (1,700+950) over the 1996-2020 period, or a total of some 66,000 work-years. An estimated 93% (21,840 work-years or 873 jobs) would occur within Alberta, and an additional 1,670 work-years (67 jobs) would occur within the rest of Canada.

The input/output model calculates that "indirect" employment, created by the subsequent rounds of industrial activity required to support the initial project purchases, will average some 15,830 work-years (635 jobs per year) with 41% in Alberta and 59% in the rest of Canada. Finally the "induced" job associated with the spending of the incremental household incomes earned in the direct and

indirect rounds above, will amount to a further 46% of the direct and indirect jobs; this will create about 1,475 jobs per year.

Overall national operating phase employment for the direct, indirect and induced impact categories have been calculated by the input/output model as an equivalent of 4,760 jobs per year, or some 119,000 work-years over the 1996 - 2020 period. Regionally 80% of this work is estimated to occur within Alberta.

New direct operating employment (over the existing work force) for the Steepbank Mine Project is expected to grow to 100 employees beginning in 2007 (creating a total of 1,200 work-years) during that period. Using the operating employment multipliers calculated by the input-output model 1,200 work-years in direct operating employment results in a total of 3,350 work-years of employment created throughout Canada. This employment is part of the total 119,000 work-years associated with the Steepbank Mine Project.

b) Income Effects

The total national incremental GDP generated by the operating phase of the Suncor facility (Steepbank Mine and Plant Operations) has been calculated by the input/output model as some $7 billion over the 1996-2020 period (see Table C3.0-6). This is approximately twenty times the construction phase impact (in undiscounted dollars). Of this $7 billion, 84% (nearly $6 billion) has been estimated to be earned in Alberta. Approximately 70% of the Alberta GDP of $5,890 million, or some $4,100 million, will be earned in the Fort McMurray region assuming that all of the project employment income is earned locally plus one third of each of the other income categories shown in Table C3.0-6.

TABLE C3.0-6
STEEPBANK MINE PROJECT OPERATING PHASE
INCOME EFFECTS - TOTAL SUNCOR FACILITY
(Millions 1995 $)

Income Category	Geographic Distribution					
	Canada		Alberta		Other Canada	
	million $	%	million $	%	million $	%
Direct Income:						
From Project Employment	3,140	100	3,140	100		
From Direct Project Purchases	1,160	100	1,070	92	90	8
Indirect Incomes	780	100	330	42	450	58
Induced Incomes	1,960	100	1,350	69	615	31
Totals	7,040	100	5,890	84	1,155	16

Income Multipliers:

(Direct + Indirect/Direct) = 5,080 / 4,300 = 1.18
(Direct + Indirect + Induced/Direct) = 7,040 / 4,300 = 1.64

These income multipliers indicate that for each dollar spent for operation of the Steepbank Mine, $1.18 of direct and indirect and $1.64 of direct, indirect and induced income is expected to be created within Canada. Similarly, each direct operation dollar in expenditure is associated with $0.18 in indirect and $0.64 in induced income within Canada.

C3.1.5 Federal, Provincial and Municipal Revenues

Federal, provincial and municipal tax generation associated with the incremental incomes produced by the construction of the Steepbank Mine, and operation of the total Suncor facility over the 1996-2020 period, has been estimated by the input/output model to be in the order of $3.5 billion (undiscounted 1995 $). Over $1.2 billion of this is expected to accrue to Alberta (see Table C3.0-7). In calculating this tax figure the input/output model assumes that project induced incremental GDP yields are taxed at the same rates as the current averages derived from total Canada, GDP and related taxes.

The input/output model has calculated Alberta municipal tax revenues of some $305 million that will be generated. This amount includes more than $100 million of local taxes assumed to be paid directly by Suncor.

Revenues to governments will also include resource royalties. Those royalties, while substantial, can not be calculated at this time because they will be based on a number of factors.

TABLE C3.0-7
STEEPBANK MINE PROJECT FEDERAL/PROVINCIAL/MUNICIPAL TAX GENERATION, TOTAL SUNCOR FACILITY
(Millions 1995 $ 1996 to 2020)

	Canada	Federal	Alberta[e]	Other Provinces
Personal Income Taxes	1,988[a]	1,074	759	155
Corporate Income Taxes	221[b]	155	55	11
Indirect Taxes (federal and provincial)	957[c]	392	94	471
Indirect Taxes (municipal)	368[d]	--	305	63
Totals	3,534	1,621	1,213	700

[a] At average Canada rate of 27% of GDP (54% federal, 46% provincial). Includes CPP and UI premiums.
[b] At average Canada rate of 3% of GDP (70% federal, 30% provincial).
[c] At average Canada rate of 13% of GDP (41% federal, 59% provincial). Includes sales taxes, excise taxes, and import duties.
[d] At average Canada rate of 5% of GDP (0% federal, 100% provincial). Includes property taxes.
[e] Alberta's totals are based on total Canada tax revenue x provincial share x 0.83 (Alberta share of provincial GDP); except for federal and provincial indirect taxes where Alberta does not collect a sales tax.

Revenues to government will also include resource royalties. These royalties can not be calculated at this time, but they will be based on a fiscal regime to be determined between Suncor and the governments.

C3.1.6 Cumulative Impacts

The combined impacts of proposed projects in the region will bring positive benefits to the Canadian economy. Table C3.0-8 summarized some of the key impacts of these projects. The impacts on regional infrastructure are discussed in Hypothesis 6.

TABLE C3.0-8
CUMULATIVE OIL SANDS DIRECT ECONOMIC IMPACTS
(Total Work-Years and $ Million)

	Steepbank	Fixed Plant	Solv-Ex	Syncrude	Total
Project Capital	336	309	175	3,200[a]	
Construction Employment (work-years)	1,040	950	500	1,300[b]	3,790
Construction Income ($ million)	100	87	169	--	356
Operations Employment (work-years)	45,500	--	2,011	--	44,511
Operations Income ($ million)	3,140	--	275	--	3,415

[a] Includes North mine, 2 phases of Aurora Mine and upgrading expansion (Syncrude 21)
[b] Aurora Mine

References:

Solv-Ex	Bovar-Concord, 1995 p 9-21
Syncrude	Personal Communication
Suncor	Fixed Plant Application

C3.1.6 Economic Impact Summary

The Steepbank Mine is expected to provide significant economic benefits to communities within the Regional Municipality of Wood Buffalo. Community leaders have indicated that the project will help to sustain the existing high quality of life within the community, and local people are looking forward to the economic benefits and stability that development of the project will bring. Within Alberta, the project is expected to provide a major contribution to the economy of the Province and the tax revenues. The following provides a summary of the assessment of impacts from the project:

Direction	Increase in local, provincial and national benefits
Severity (Degree of Change)	Construction expenditure impacts will be High. Operating expenditure impacts will be Low.
Duration	Construction expenditure impacts will be medium-term. Operations expenditure impacts will be long-term.
Geographic Extent	Economic impacts will be felt locally and regionally.

Degree of Concern	High degree of interest with more than a 10% change in positive economic impacts over 1 year or more, affecting the local, regional and provincial/nations economies.

C3.2 HYPOTHESIS 2

Construction related activities and employment and the associated temporary increase in population will result in increased demands on services and infrastructure within the Regional Municipality of Wood Buffalo.

Construction related impacts from the Steepbank Mine Project could occur as a result of the increase in population associated with the construction workforce and any resultant increase in demands for services and infrastructure within the Municipality, the movement of construction employees and materials, or the use of land for the mine and related facilities. Land use impacts are discussed under Hypothesis 5; cumulative impacts from Suncor, Solv-Ex and Syncrude are discussed under Hypothesis 6. The potential impacts on population, services and infrastructure are discussed in the following sections.

C3.2.1 Population Impacts

The population of Wood Buffalo has been relatively stable over the past decade. Given the nature of the communities, with many young families, the stable population level appears to indicate that the natural population growth has been offset by people moving out of the community.

Construction of the Steepbank Mine is expected to increase the population for the duration of the construction phase, but once the construction phase is over, the population is expected to return to near pre-construction phase level. Construction workers typically leave the area once the construction work is completed and the longer term development of the population continues much as it was before the short term increases occurred.

The population impacts of the project's operational phase are much more significant. Although smaller in absolute numbers, it is an impact that extends over time because most operations workers become part of the community. The construction phase impacts of the project will be presented

below. The discussion of the operation phase population impact is presented in the next section under Hypothesis 3. Cumulative impacts due to population changes are discussed under Hypothesis 6.

To assess the potential project-related population increases within the Regional Municipality of Wood Buffalo, the following components have been examined:

- Project work force and their dependents;
- Additional employment created by Suncor's local area suppliers; and
- Indirect jobs that are created to service the increased population.

The additional employment created by local area suppliers to Suncor and the service sector jobs that will be needed to absorb the additional demands for a wide variety of services demanded by the project workers are generally estimated by means of a multiplier. Provincial multipliers are published by Alberta Bureau of Statistics, *Alberta Economic Multipliers*, 1991. The published multipliers suggest that for each job created in the mining industry (although not specifically in an oil sands mine) creates an additional 1.3 or 1.4 jobs in the provincial economy. No multipliers are available for sub-provincial areas, but because the region is more dependent on outside inputs the region than the province as a whole, the regional multiplier is assumed to be smaller than the provincial one. Earlier studies have used indirect/induced employment multipliers of 1.0 for each direct job created (Bovar-Concord, 1995; Dabbs Environmental Services and Nichols Applied Management, 1987). The population projections for this assessment employ a multiplier of 1.0 for the operational jobs that are created by the Steepbank Mine Project. A lower employment multiplier of 0.5 is employed for the construction jobs that the project creates to reflect their short term nature and the fact that many of the construction workers will be housed in a full-service camp and thus rely relatively little on services within Fort McMurray.

The total population impact of the construction and operation phases of the Suncor project is presented in Table C3.0-9 and is based on the multipliers discussed above and the following additional assumptions:

TABLE C3.0-9
POPULATION PROJECTIONS, WOOD BUFFALO, 1996-2015

Year	Population Without Projects	Projection with Suncor	Net Impact of Suncor	Change in Population From Suncor (%)
1996	34,673	35,021	348	1.00
1997	34,698	35,343	645	1.86
198	34,706	35,205	499	1.44
1999	34,701	35,412	711	2.05
2000	34,682	35,287	605	1.74
2001	34,651	34,698	46	0.13
2002	34,610	34,651	41	0.12
2003	34,558	34,592	34	0.10
2004	34,496	34,524	28	0.08
2005	34,424	34,446	22	0.06
2006	34,465	34,480	15	0.04
2007	34,494	34,573	78	0.23
2008	34,513	34,656	143	0.41
2009	34,520	34,729	210	0.61
2010	34,515	34,793	278	0.81
2011	34,498	34,846	348	1.01
2012	34,469	34,818	348	1.01
2013	34,427	34,777	350	1.02
2014	34,373	34,725	352	1.02
2015-2020	34,305	34,660	354	1.03

- The population of the region is driven by the number of jobs existing in the regional economy, which is expected to be stable or marginally declining once the construction phases of the announced projects are concluded;
- All new jobs -- both direct, indirect, and induced -- are filled by persons from outside the region;
- The average ratio of dependents to construction worker is 0.5 to 1, while the ratio of dependents to operations worker is 2 to 1;

- Twenty-five per cent of the jobs induced by projects in the construction phases will be absorbed by spouses of the workers taking up project jobs, while 50% of the jobs induced by the operational phases will be taken up by spouses of project workers; and
- Induced jobs not taken up by spouses of project workers are taken up by single persons, reflecting the entry-level of many of these mainly service sector jobs.

These assumptions together with the project construction and operations work force estimates, presented in Table C3.0-9, have been introduced into a model of the population of the urban service area of Fort McMurray. This "cohort survival" model captures the natural population growth as well as the in- and out-migration and calculates the total population over time. The numbers presented in the table, which show the impact of the construction phase of the Steepbank Mine Project (1996-2000), indicate that the impact of the mine peaks at 711 persons in 1999. The numbers show as well that the population declines once the construction phase is completed in the year 2000, but that the total population is slightly larger than it would have been without the Steepbank Mine Project.

This latter effect is mainly due to changes in the age make-up of the population. Figure C3.0-1 illustrates the population increase expected to be associated with the Steepbank Mine Project in conparison to population projections for the Fort McMurray urban area.

Expressed as a percentage of the current population, at the height of the construction phase, the population of Fort McMurray is expected to temporarily increase by 2%. Most of the construction-induced population impact will be accommodated by the construction camp, not by the urban service area of Fort McMurray or the outlying communities. Any population increase within the outlying communities is expected to be small, given that most if not all, residents from those communities who find employment with the project (either as direct employees or on a contractural basis) are already residing in the communities. It is expected that only a small number of the construction workforce, typically management staff, will reside within Fort McMurray during the construction period.

These population estimates are expected to indicate maximum population impacts from the Steepbank Mine Project. There are a number of factors that suggest that the actual population increases will be less than indicated above:

- The work force currently in place in the region can be expected to participate in part of the construction projects, thus reducing the number of workers who will need to move to the region.
- The region currently has a 7 - 8% unemployment rate indicating that there are some unemployed workers in the region who could find jobs either on the projects, or as replacements for workers who take jobs with the projects.
- An estimated 3,000 young inhabitants of Fort McMurray will reach working age within the time frame of the projects, and it is likely that some of these individuals will take jobs with the projects.
- There are an unknown number of people who have stopped looking for work, who, like other unemployed workers, are expected to find jobs either directly of indirectly with the projects;
- Within the Fort McMurray area, a conservative rate was used for spousal participation in the work force.
- There is historical evidence that many workers who move to the take work on projects come without dependents.

These factors tend to indicate that the population impacts during the construction phase likely will be lower and not exceed the estimated 2% peak increase.

The above projection addresses the expected population increases expected to result from the Steepbank Mine Project. One unknown factor however is the degree to which speculative migration may occur. Given the current rates of unemployment within Canada, and particularly within the Atlantic Provinces, it is possible that unemployed workers may travel to the Fort McMurray area in search of work. This pattern of migration occurred in the 1960s and 1970s during the initial construction and operation of the Suncor and Syncrude plants. While services within the Municipality and particularly within Fort McMurray have greater service capacity than they did in the 1960s and 1970s, if speculative migrants arrived in large numbers, they could stress existing services.

C3.2.2 Increased Demands On Services And Infrastructure

Given the expected relatively small increase in population, demands upon services and infrastructure from the construction phase of the Steepbank Mine Project likely will stem from two sources: the

movement of materials, equipment and personnel to and from the site, and the demands placed upon local services as a result of the construction workforce.

a) **Increased Demands On Roads and Transportation**

During the four years of development of the Steepbank Mine, construction materials, supplies and equipment are expected to travel to the site over Highway 63. With development of the Suncor Fixed Plant Expansion, 800 loads of material and equipment have been estimated to be required. Construction of the Steepbank Mine may require a similar number of loads. Alberta Transportation has counted average daily traffic flow on Highway 63 immediately north of Fort McMurray as 3,544 trips (1,772 round trips). Of this traffic, 15% is trucks and 12% is buses, meaning that there are currently about 265 round trips made by truck and 212 round trips made by buses each day, on average. These traffic counts are consistent with traffic patterns over the period from 1988 to 1993. During that period, average annual daily traffic north of Fort McMurray has averaged between 3,300 and 3,600 with summer daily traffic rates about 10% higher. During that same period, trips into Suncor have averaged approximately 700 per day, traffic to Syncrude during that same period has averaged approximately 2000-2200 trips per day and traffic to Fort MacKay averages approximately 200 trips per day.

Development of the Steepbank Mine Project can be expected to add to the traffic between Edmonton and Fort McMurray and between Fort McMurray and the plant site. That increase in traffic will occur as a result of the movement of materials and equipment, as well as additional transportation of employees and contractors. Suncor currently provides busing for employees and some contractors from the plant site to Fort McMurray. During construction, it is likely that the number of bus trips between Fort McMurray and the plant site will increase. The operations workforce would remain constant during the period of construction for the Steepbank Mine, however the construction workforce is estimated to increase total work force on site by up to 25%.

We estimate that most of those 435 workers would reside at camp while a small number would reside in Fort McMurray. Construction workers travelling to and from the site by bus could require one additional bus trip per day. If construction workers residing in Fort McMurray chose to use private vehicles, it could result in close to 20-30 more trips per day. In addition, while Suncor provides accommodation and recreational facilities for temporary workers at the existing camp, it also provides transportation for construction camp residents who wish to visit gyms, shops, the post

office, bars, restaurants, banks, theatres and for health care visits in Fort McMurray. That would increase the bus trips per day by an additional 1 - 2 trips.

During the development of the previous Suncor and Syncrude projects, transportation of workers and supplies between the oil sands plants and Edmonton created a number of problems. The large number of passenger vehicles, combined with heavy truck traffic all occurring over narrow roads created hazardous travel. Over the intervening twenty years, road conditions have improved, and the volume of traffic associated with the current Suncor Steepbank Mine Project is likely to be less than than would occur with development of a new project. Nevertheless, some traffic problems are likely to result from development of the Steepbank Mine Project.

b) Increased Demands On Community Services

The construction workforce is expected to add less than a 2% increase in population in the Fort McMurray area. Given the the nature of the workforce, some community services are expected to feel some increase in demands, while other services are likely to feel little impact. The majority of construction workers are expected to reside in the Suncor camp, and therefore will not require housing or municipal services within Fort McMurray. Services which these workers are expected to use include recreation and entertainment within Fort McMurray. R.C.M.P. representatives in Fort McMurray have indicated that they believe Fort McMurray is adequately policed and the small number of construction workers in comparison with the population of Fort McMurray should pose few law enforcement related problems.

C3.2.3 Summary of Construction Related Impacts Upon Population, Community Services and Infrastructure

Construction of the Steepbank Mine is expected to temporarily increase the population within the Regional Municipality of Wood Buffalo by at most 2% in any one year. Most construction workers are expected to reside within the Suncor construction camp and therefore are expected to require few services from within Fort McMurray. One unknown is the degree to which the oil sands projects in the Municipality may act to attract speculative job-seekers. Given the size and resources of the Municipality and Fort McMurray specifically, however, community representatives have indicated that the construction phase demands upon local services should be within current capacity to handle. The following is a summary of the potential impacts from the Steepbank construction phase:

Direction	Increase
Severity (Degree of Change)	Low
Duration	Medium-term
Geographic Extent	Local and regional
Degree of Concern	Low: Affecting local or regional areas

C3.3 HYPOTHESIS 3

Operations related employment and the associated increase in population will result in increased demands on services and infrastructure within communities in the Regional Municipality of Wood Buffalo.

Operation related impacts from the Steepbank Mine Project could occur as a result of an increase in population associated with the operations workforce and any resultant increase in demands for services and infrastructure within the Municipality. These potential impacts are discussed in the following sections. Cumulative operating impacts from the combined Suncor, Solv-Ex and Syncrude projects are discussed under Hypothesis 6.

C3.3.1 Population Impacts

The Steepbank Mine Project operations work force has been discussed above and the associated population inpacts have been presented in Table C3.0-9 and Figure C3.0-1 in the previous section. The population estimates indicate that in the long-term the population in the region likely will expand by about 350 persons in approximately 100 new households as a result of the approximately 100 new jobs that the project creates. This increase is expected to occur gradually starting in 2007. This population increase will likely be tempered over the longer term by the expected general trend towards lowering the labour inputs per unit of output which has been evident over the past decade.

As indicated in Table C3.0-9, expressed as a percentage of the current population, the population growth associated with Steepbank Mine Project is estimated at about 1%. That growth will likely be spread over a number of years further reducing the size of any annual population increase.

The additional employment created by local area suppliers to Suncor and the service sector jobs that will be needed to absorb the additional demands for a wide variety of services demanded by the project workers are generally estimated by means of a multiplier. As discussed previously, the population projections for the operations phase employ a multiplier of 1.0 for the operational jobs that are created by the project. The assumption used within this assessment is that the majority of operations workers will reside within Fort McMurray, as the current workforce does and thus rely primarily on the services and infrastructure of Fort McMurray.

C3.3.2 Increased Demands On Community Services and Infrastructure

The operations workforce is expected to add less than a 1% increase in population in the Fort McMurray area over a period of two years or more. Given the size of this expected increase, community services and infrastructure are expected to be adequate to meet any expected increase in service demands. This assessment has been supported by local service agencies (see Appendix II).

Within Fort McMurray, there are some community services resource allocation issues that will need to be addressed as the community grows. A population increase deemed to be small within the municipality may become significant at the district or neighbourhood level if growth occurs in an area with limited capabilities. These issues may be exacerbated by any growth resulting from the Steepbank Mine Project.

For example, the Timberlea sub-division is the newest residential area within Fort McMurray and has been the focus for urban growth in recent years. It has approximately 300 serviced lots available, however its capacity to service a large incoming population is limited. During discussions with local agencies, the need was raised to add a new emergency services station or change the location of a current station to ensure that services are maintained.

Schools within the Timberlea sub-division are currently at or near capacity. Catholic Schools in the area are operating almost at capacity while public schools have the limited ability to add portable classrooms if needed. A large increase in population in Timberlea would therefore require additional buildings or an increase in the school busing load.

The school age population (5-19) for Fort McMurray as a whole, in 1996 is about 9,150 (8,000 students in schools, about 40% Catholic and 60% Public). That number is expected to drop slightly to about 8,900 by 2000 and 7,375 in 2010 if current demographic trends continue (that is, the general aging of the population). The student population associated with additional operating employees has been estimated by the demographic model developed for the Steepbank Mine Project to be about 100-125 students between 2007 and 2010 (if the current ratio holds, about 40% or 40 - 50 will be Catholic students).

The expected impact upon education is small, given the total increase in number compared to the existing student body (125 in 8,000 or 1.5%). However, if all of the new students originate within Timberlea (and student enrollments in Timberlea remain high over the next 10 years), local capacity may be insufficient to accommodate the project related population. School authorities within Fort McMurray may therefore have to reallocate internal resources to ensure there is sufficient school space to accommodate additional students.

Housing sales and vacancy rates for rental accommodation have been tightening over the past two years, and specifically over the past six months, in part as a result of renewed optimism create by the announcement of the Suncor, Solv-Ex and Syncrude oil sands expansion projects. Another factor influencing the housing market has been the low mortgage rates which have increased the affordability of homes across Canada generally, and in Fort McMurray specifically. There were 21 housing starts within Fort McMurray in 1995, and local real estate representatives have indicated that there is capacity to develop more new housing, if the market is present.

Housing requirements for additional operating employees are expected to be approximately 100 homes at most over the period from 2007 to 2010, assuming that all new employees move to Fort McMurray and purchase homes. Given the existing capacity for home construction within Fort McMurray, it is not expected that the additional demands for homes from the Suncor Steepbank Mine workforce will create difficulties. However, given that public perception is a key factor in housing prices and sales, some tightening of the real estate market may occur in anticipation of the increase demand for housing from oil sands development.

C3.3.3 Fiscal Implications For Local Government

Suncor's proposed projects are expected to have an impact upon the fiscal position of the Regional Municipality of Wood Buffalo. These impacts will include changes in revenues (related primarily to changes to assessments) and operating and capital expenditures. Operating expenditures generally move in step with population changes while capital expenditures are provided in stages as municipalities reach populations thresholds.

a) Project Impacts on Capital Expenditures

The municipal infrastructure of the urban service area of Fort McMurray is well developed and the anticipated population increase does not imply significant capital expenditures. Following is a short overview of some of the capital requirements of the areas that will be most affected by the growth of the population and the regional economy brought about by the Suncor projects.

i. *Mackenzie Industrial Park*

This industrial park is located on the southern edge of Fort McMurray. The park contains approximately 388 ha of developable land, of which roughly two thirds is currently occupied. The MacKenzie reservoir and pumping station is an independent pressure zone designed to service the park's water system. Although there are no deficiencies in the current system, it will have to be upgraded if more development occurs in the park. The location of future industrial development is under consideration by the Regional Municipality of Wood Buffalo and may occur at the MacKenzie Industrial Park or elsewhere.

ii. *Timberlea*

Timberlea is Fort McMurray's newest residential subdivision. The area is located north of Thickwood Heights and west of the Athabasca River. The area's population has been estimated to be 3,000 people with an eventual capacity of over 30,000. There are currently over 300 lots in the area which are fully serviced but not yet developed. Another 300 lots are partially serviced with water and sewer lines. The water system for all 600 lots has been decommissioned which may cause deterioration problems. The municipality is currently considering mitigation alternatives. Once the population for Timberlea and Thickwood Heights reaches 21,000 (currently the two subdivisions combined have an estimated population of less than 19,000), a new supply line and booster station will be required. The sewer system for the area does not contain any identified deficiencies. As

Timberlea develops, a storm sewer line would have to be extended to the area. A location in Timberlea has been reserved for a fire/ambulance station. Even if all the additional population (direct and indirect) expected from the Suncor expansion were to settle in Timberlea, none of the identified capital projects would be required.

iii. *Water Sewer System*

The Fort McMurray water and sewer treatments plants are currently operating at well below capacity. The water plant is designed to handle a population of 60,000, compared to the current population of 34,000. The sewer plant can currently handle 45,000 and within six months (a treatment cell is currently being rebuilt) will be able to handle a population of 55,000.

iv. *Other*

Lower Townsite, MacDonalds Island, Waterways, Abasand Heights, Beacon Hill, Thickwood Heights, and Gregoire Park mobile home and commercial park have varying degrees of municipal infrastructure needs, but none of these are affected by the Suncor project.

In summary, the proposed Suncor Steepbank Mine Project is not expected to impose any significant capital requirements on the Regional Municipality of Wood Buffalo.

b) **Impacts on Operational Expenditures**

A recent study commissioned by the Regional Municipality of Wood Buffalo estimated 1996 costs of municipal services for the urban and rural service areas (the urban service area is essentially the Fort McMurray). These costs, presented in Table C3.0-10 were used as a base case against which the fiscal impact of the project can be compared. Since all population impacts are expected to accrue to the urban service area and since most of the operational expenditures relate directly to population size, all costs allocated to the urban service area are assumed to increase proportionally with population. The operational expenditures of the municipality induced by the project are estimated to increase by $100,000 or 1% of the base case operational expenditures.

TABLE C3.0-10
ESTIMATED IMPACT OF SUNCOR PROJECTS ON OPERATIONAL EXPENDITURES OF REGIONAL MUNICIPALITY OF WOOD BUFFALO
Projected - 1996

	Base Case Estimated Costs ($ million)	With Suncor Estimated Costs ($ million)	Percent Change
Rural Service Area	6.7	6.7	0.0%
Urban Service Area	10.8	10.9	1.0%
Regional	69.8	9.8	0.0%

KPMG, 1995.

c) Revenue Impacts

As indicated previously, the Statistics Canada input/output model estimates project municipal taxes of approximately $100 million to be paid by Suncor between 1996 and 2020. Actual taxes paid will depend upon assessed values, municipal budgets and mill rates. Revenues impacts relate primarily to the increases in assessment due to the plant expansion, mine development, and increased housing stock required to accommodate the projected population increase. Suncor's Fixed Plant Expansion Project and the Steepbank Mine Project have been estimated to add approximately $67 million and $37 million to the rural service area's assessment base, respectively. The plant expansion would add 6% and the mine 3% to the rural service area's assessment base. In addition, an additional 100-110 housing units are expected to be built in the urban service area, under the assumption that the population increase associated with the Solv-Ex plant will absorb most of the existing housing capacity in the urban service area. These housing units will include both single family houses and multi-family projects and are expected to increase the urban service area's assessment base by $5 million or by just under 1%.

If current mill rates for the Regional Municipality of Wood Buffalo were applied to the estimated increase in assessed value for the Steepbank Mine Project and the Fixed Plant Expansion Project, municipal taxes paid by Suncor would increase by approximately $220,000 and $395,000 per year respectively for the two projects (a combined increase of $615,000 per year or $15 million over 25 years).

The actual revenue associated with the expanded assessment base, however, is dependent on the political tax rate decision of the local government. It has been assumed here that the municipality

will not increase service levels, but that the mill rate for all properties will be reduced because the expenditures are distributed over a broader base.

Although not strictly a local fiscal impact, Suncor's proposed expansion will also increase revenue to the province's education fund, because the contribution to this fund is related to the assessment base. Prior to changes in the way primary and secondary education is financed in Alberta, the estimated $500,000 in education fund contribution would have flowed directly to the school authorities in the region. Under the current system, the money flows into a central education fund and benefits all school jurisdictions in the province. Any changes to reduce or possibly phase out school taxation on machinery and equipment will reduce this contribution.

d) Mill Rate

The impact of the additional assessment base, and operations and capital expenditures are all reflected in the mill rate, which in turn is a key indicator of the impact of the proposed project on the fiscal health of the community. Table C3.0-11 presents mill rates estimates with and without the Suncor projects. The recent creation of the Regional Municipality of Wood Buffalo makes any mill rate forecasts difficult. The calculations presented here assume single but different mill rates for the rural and urban service areas. The same mill rate assumption has been used for the "with" and "without" Suncor cases. For computational simplicity, it was assumed that all fiscal impacts would be incurred as if the development would be brought on stream in one year.

TABLE C3.0-11
ESTIMATED PROJECTS IMPACTS ON MILL RATES
REGIONAL MUNICIPALITY OF WOOD BUFFALO

	Mill Rate Estimate		
	Base Case "without Projects"	"with" Suncor Projects	Changes from Base Case
Rural Service Area	5.9	5.4	-8.6%
Urban Service Area	17.6	17.7	0.2%
Regional	5.6	5.3	-5.9%
Total Rural	11.5	10.7	-7.3%
Total Urban	26.3	23.0	-1.3%

KPMG, 1995.

The results presented in Table C3.0-10 indicate that Suncor's proposed fixed plant expansion and mine development projects will have a positive impact on the fiscal position of the Regional Municipality of Wood Buffalo. The rural service area's mill rate is projected to decrease by approximately 7%, while the urban service area mill rate is projected to decrease by 1%, leading to lower municipal taxes for property owners in the municipality.

C3.3.4 Summary of Operations Related Impacts Upon Population, Community Services and Infrastructure

The Suncor Steepbank Mine Project is estimated to add approximately 1% to the population within the Regional Municipality of Wood Buffalo, with most new employees residing in Fort McMurray, similar to the current pattern with existing employees. Regional services and infrastructure are to be able to accommodate this level of population increase within current service capacities. An important benefit from the continuation of the Suncor project is the ongoing employment of the current 1,700 workers, and the continued residence of those workers and their families in Fort McMurray. The new Suncor facilities are expected to provide a net gain in municipal taxes to the Regional Municipality of Wood Buffalo with little new infrastructure being required to meet increased needs from the project. The following provides a summary of the assessment of the expected impacts resulting from the operations phase of the project:

Direction	Increase
Severity (Degree of Change)	Low
Duration	Long-term
Geographic Extent	Local and regional
Degree of Concern	Low: less than 5% change of more than 5 years, affecting local or regional areas

C3.4 HYPOTHESIS 4

The social stability and quality of life of communities within Wood Buffalo will be affected by the Steepbank Mine.

In the past, communities within the Regional Municipality of Wood Buffalo have been substantially affected by the development of the Suncor and Syncrude oil sands projects. Over the past fifteen years, however, Fort McMurray has developed the size and stability of a mature and fully serviced community of 35,000. Changes to quality of life are generally a result of substantial relative changes in either the size of the population of a community or the nature and characteristics of the population. With the Suncor Steepbank Mine Project, the change in population is expected to be small and the new population is expected to be similar in characteristics to the existing population. As a result, the Suncor expansion is expected to create minimal negative impacts on quality of life within Fort McMurray.

In discussions with local community representatives and service providers, they have indicated that the Steepbank Mine Project is expected to reinforce the already high quality of life which exists within Fort McMurray. The continued employment of 1,700 workers, plus the psychological boost provided by the announcement of the Suncor projects have been mentioned during discussions with local representatives as already having positive outcomes from the projects.

Fort McKay Environmental Services, in the community profile of Fort McKay, indicate that the economic conditions associated with the influx of people into Fort McMurray as a result of oil sands development and the paving of the road from Fort McKay to Fort McMurray has had a disruptive influence on the Fort McKay community. At the same time, these developments have provided opportunities for employment outside of the community, increased access to services and exposure of the community to the outside world. To addesss the negative impacts from oil sands development, Fort McKay has recommended that employee assistance programs be initiated immediately to enable members of Fort McKay to better access economic opportunities from oil sands development.

During interviews held as part of the community profile study, Fort McKay community members indicated that people recognized the fiscal reality of oil sands development and the benefits which acrue as a result of employment. Most of those interviewed identified employment of residents as the most beneficial aspect of oil sands development. Fort McKay residents also recognize the negative impacts oil sands development may have on the environment and they desire to have control over decisions which may affect the environment. The results from the interviews regarding the overall impact of the oil sands projects on the community were as follows: 20% felt the impact

has been positive, 30% felt the impact has been negative, 30% felt the impact has been both positive and negative and 18% felt there have been no effect one way or another. (Fort McKay Environmental Services, 1996).

The Fort Chipewyan Community Profile, completed as part of the Suncor Environmental Impact Assessment, indicated that in the past, Suncor has provided little economic benefit in the form of employment and business opportunities for the community and has therefore had little effect upon the local economy. In interviews conducted as part of the community profile, members of Fort Chipewyan, indicated that they would like to obtain greater economic benefits from Suncor, both in the form of meaningful employment and greater business opportunities.

The southern communities of Anzac, Janvier and Conklin have indicated in discussions with Suncor that while the direct effects from the Suncor activities have not been large, they desire to obtain increased economic opportunities from oil sands development including employment and business opportunities. These opportunities, local indigenous representatives have indicated, would assist their people to decrease their reliance on government assistance and contribute to a better quality of life within their communities.

Suncor's commitments to assisting with community cultural and economic development activities within the indigenous communities are intended to increase employment and business opportunities for community members. These activities and the increased economic resources that they may provide should also provide benefits to the quality of life within those communities.

C3.4.1 Summary of Project Related Impacts Upon the Social Stability and Quality of Life of Communities Within Wood Buffalo

The Suncor Steepbank Mine Project is expected to provide a positive impact upon the quality of life within communities in the Regional Municipality of Wood Buffalo through increased economic and cultural opportunities. For the communities of Fort McMurray and Fort Chipewyan increased employment and business opportunities have the potential to help offset negative impacts upon traditional resource activities. The following summarizes the assessment of impacts to quality of life:

Direction	Increase
Severity (Degree of Change)	Low
Duration	Long-term
Geographic Extent	Local and regional
Degree of Concern	Low

C3.5 HYPOTHESIS 5

The Steepbank project will contribute to a loss in the traditional resource base of the Fort MacKay community and displace some traditional activities.

C3.5.1 Traditional Resource Uses

Results from the survey undertaken by the community of Fort McKay indicate that a number of traditional resource uses have occurred specifically in the Steepbank Mine Area (Fort McKay, 1996). Recent traditional resource uses have included trapping activities in Registered Fur Management Areas (RFMA) #2453 and #2297, and the gathering of berries, shrubs, herbs and water tolerant plants, particularly rat root, mint and red willow. Traditional use of animals in the Steepbank Mine area has been limited by general lack of access. Figure C3.0-2 identifies traditional resource use within the Steepbank Mine Area.

Two RFMAs (#2453 and #2297) are directly affected by the mine development. The two trapline holders have completed negotiations with Suncor and have received a compensation package to offset the loss of trapping rights within the Steepbank Mine area.

During the period of mining, the use of traditional resources including existing vegetation and wildlife will be disturbed. Following the completion of mining, reclamation activities will result in re-establishment of vegetation and wildlife habitat. The traditional resource use study completed by Fort McKay for the Suncor Steepbank Mine indicates that the reclaimed Alsands lease site has become an important and productive habitat for wildlife.

Fort McKay Environmental Services (1996a) were contracted to complete an assessment of the impacts of the Suncor projects upon traditional resources within the Steepbank Mine Project area.

Their study has indicated that community members make use of traditional resources within the region including the Steepbank Mine Project area. Use of traditional resources includes hunting (birds, large mammals and fur bearing mammals), trapping, berry picking, harvesting of medicinal herbs, and trees for firewood and construction. Most traditional activities historically have been carried out in areas close to the Athabasca River and its tributaries upstream from the new mine site. The area is also used for recreational purposes such as snow mobiling.

Community members also indicated that the impacts to traditional resource use within the Steepbank Mine Project area are offset by the positive economic benefits from employment and business opportunities. Members indicated that they are not opposed to commercial resource use, and appreciate the benefits from that resource development. However the negative impact of development must be mitigated and managed, and community members lifestyles, needs and rights need to be recognized and addressed. Regardless of whether the area is mined however, community members indicated they believe that the areas will change as a result of forestry, seismic and other resource development activities.

The Fort Chipewyan Community Profile (Fort Chipewyan 1996), completed as part of the Suncor Environmental Impact Assessment, indicated that like Fort McKay, the people of Fort Chipewyan who use the river and the environment, perceive they have been adversely affected by the impacts from the activities of the oil sands plants upon air, water and land. As a result, community members who wish to practice traditional lifestyles have had their use of the environment directly affected and as a result have been required to seek alternative lifestyles.

C3.5.2 Non Traditional Resource Uses

Discussions with Resource Managers and Recreation Users within the region have indicated that non-traditional use of the Steepbank Mine area is limited. Unorganized and sporadic recreational activities have taken place in the Steepbank Mine area, however current use is minimal. Increased human activity as a result of the project is therefore expected to marginally change the current land use patterns found in the area. The impacts from this increased activity are not expected to be large.

Within the region, a small increase in population (approximately 100 households) is expected as a result of the project. These households are expected to participate in a number of activities that

could potentially affect current land use activities. Two types of households activities are likely to occur: participation in recreation activities and increase in road traffic (discussed in Hypotheses 2 and 3).

Assuming the new households are typical of households found in the Regional Municipality of Wood Buffalo and using data generated by the Northern River Basin Survey (NRBS), this increase of approximately 1% in new households can be expected to generate a similar increase in recreational trips including camping trips, swimming trips, boating trips, canoeing trips, hunting trips and fishing trips. This relatively small increase in recreational activities generated by the new households is not anticipated to create sizeable impacts on recreational resources in the Municipality.

C3.5.3 Summary Of Project Related Impacts Upon Traditional Land Use Within the Regional Municipality of Wood Buffalo

The following table presents a summary of the assessment of the potential impacts of the Steepbank Mine upon land uses:

TABLE C3.0-12
SUMMARY OF LAND USE IMPACTS

Traditional Resources Uses	Direct Impacts	Regional Impacts
- trapping	- 2 traplines directly affected - 2 hunting grounds (rabbit, mink)	general reduction in the traditional resource base of Fort MacKay, i.e., 57 traditional gathering sites within the Suncor Study Area have been identified.
- fishing	- 2 fishing grounds (whitefish, jackfish)	
- hunting		
- vegetation	- gathering sites (mint, blueberry, strawberry, rosehips, rat root, red willow)	
- trees		
Non-Traditional Resource Uses		
- recreation	- limited and sporadic use of the area, minor impact expected	minor increase in recreational activities due to population increase

Direction	Decrease
Severity (Degree of Change)	High degree of change for the directly impacted area; Low: for the Regional Municipality of Wood Buffalo
Duration	Long-term
Geographic Extent	Local and regional
Degree of Concern	High for the direct impact area given current traditional land use within that area; Low for the remainder of the Municipality

C3.6 HYPOTHESIS 6

The cumulative demands from the Suncor, Solv-Ex, Syncrude projects combined with the expected demands from existing populations within the Municipality will result in increased demands on local communities and affect the quality of life of those communities.

C3.6.1 Cumulative Work Force Impacts

The Suncor Steepbank Mine Project is being proposed at a time when other oil sands developments are also being proposed within the region, including the Suncor Fixed Plant Expansion, the Solv-Ex Oil Sands Plant, and the Syncrude Aurora Mine Project. Figure B1.0-1 illustrates the location of the existing and proposed projects. Figure C3.0-3 illustrates the cumulative peak construction workforce for each of the above projects.

The Suncor Fixed Plant Expansion, currently under regulatory review, involves a proposed expansion to the Suncor Plant to increase oil output from 79,500 to 107,000 barrels of oil per day. Construction of the Fixed Plant Expansion has been proposed to begin in 1996. The project is expected to require 630 work-years of employment during construction, with a peak of 400 workers on site in 1997. The Suncor operating workforce is expected to remain close to current levels. While construction of the Suncor Fixed Plant Expansion is expected to overlap construction of the Steepbank Mine to some extent during 1997 and 1998, the majority of the Steepbank construction activities will occur after the Fixed Plant is constructed.

The Solv-Ex project, located north of the proposed Aurora Mine, is an experimental oil sands project which is proposing to use a solvent extraction process. The Solv-Ex project is expected to generate

500 work years of employment and have a peak construction work force of 350 during a construction phase which runs from 1996 to 1998. The operations of the Solv-Ex plant are expected to employ 350 persons (Bovar-Concord, 1995). Since Solv-Ex is an experimental project, the continued operation of the Solv-Ex project will be subject to a review by the owners and the regulatory agencies. The Solv-Ex construction phase is expected to be completed prior to the main construction activities of the Steepbank Mine.

Syncrude is currently preparing regulatory applications for the Aurora mine, which is expected to come on stream in the early years of the next century. Assuming regulatory approval, the Aurora mine construction phase will coincide at least in part with the Steepbank Mine Project. Construction of Phase I of the Aurora mine is being proposed for the 1996 to 2001 period. It is estimated to require 1,300 work-years of construction labour, with a peak work force of approximately 475 in 2,000. The mining operations workforce is expected to marginally decrease in part due to higher ore grade and better stripping ratios. Syncrude's current work force is 3,660 workers with an additional 1,000 to 1,100 full-time contractors. Construction of the Aurora Mine is expected to occur concurrently with development of the Suncor Steepbank Mine.

The work force estimates presented in Figure C3.0-3 are shown in terms of maximum amount of workers required in any one quarter. In the peak construction period when both the Solv-Ex and the Suncor Fixed Plant projects are in progress, the regional economy is expected to expand by some 900 jobs for short periods of time in 1997. During the 1999 to 2000 period, the combined construction work forces for the Suncor Steepbank Mine and the Syncrude Aurora Mine are expected to require slighly fewer workers (a peak of near 800 in 2000).

Figure C3.0-4 illustrates the current and projected population increases associated with operations jobs with Suncor (existing employment plus Steepbank Mine), Solv-Ex and Syncrude (existing employment). As indicated earlier, the Syncrude Aurora Mine and the Suncor Fixed Plant Expansion projects are not expected to create additional operating employment. The figure shows that in over longer-term, Suncor and Solv-Ex combined may add an estimated 450 additional full-time jobs to the regional economy.

In general terms, the continuing and often incremental investments by several different oil sands industry participants will tend to create a more sustained level of construction than has been experienced in the past when the development model was based on large stand-alone projects.

Over and above the regional oil sands industry expansion projects indicated above in the Wood Buffalo area, there may be additional overlap with other large scale industrial projects in the province. The recently announced Novacor-Union Carbide ethylene and polyethylene projects in central Alberta are expected to proceed around the same time as the Solv-Ex, Suncor and Syncrude projects. Other projects which could affect Alberta's workforce include the expansion of the BHP diamond mine in the NWT, other mining ventures and possible further expansion of the forestry industry. Taken together, these projects provide a much more optimistic outlook for the construction industry than has existed for some time.

It is expected that labour supply for these projects will be sufficient except for the possibility of sporadic shortages of skilled labour in specialty areas. Notwithstanding the significant size of the announced projects, they should be considered in the context of the overall size of the construction industry in Alberta. The construction industry is a significant sector of the Alberta economy, providing work for between 80,000 to 105,000 persons, depending on the season and the general level of economic activity. The work force requirements of the Suncor, Solv-Ex and Syncrude projects captured in Figure C3.0-3 (a peak of 900 workers), constitute about 1% of the total construction work force.

The industry has a significant capacity and need for ongoing projects to keep that work force employed. Total construction activity in Alberta in 1995 is estimated at $7.7 billion and the expectations for 1996 are that this number may increase to around $8 billion (Human Resources Canada, 1995). The capital cost of the Steepbank Mine Project, previously discussed, is estimated at $336 million. Even if the Steepbank Mine expenditure would occur in one year, it would only account for approximately 4 % of the 1996 expected total construction activity.

In addition to the significant capacity of the construction industry in Alberta, there is a continuous flow of workers among different regions of the country. Given the depressed economic situation in other parts of Canada labour shortages are not expected to occur with construction of the industrial projects as discussed above.

C3.6.2 Cumulative Population Impacts

The cumulative impact of the operations phases of the Suncor, Solv-Ex and Syncrude projects is shown in Figure C3.0-4 and Table C3.0-13. As projected by the cohort survival model, the population growth of the urban area of Fort McMurray is essentially flat without additional oil sands projects.

As discussed above, and as indicated in Table C3.0-13, construction of the Suncor Steepbank Mine Project coincides with the operations phase of the Suncor Expansion and the Solv-Ex project and the construction phase for the Syncrude Aurora Mine. The total population increase of the operation of these projects taken together is estimated at about 2,500 persons or an 8% increase over the current population level. Over the 1996 to 2000 period, the largest single annual increase in population is estimated to be a 3% increase (largely construction workers) in 1996-1997.

As discussed previously, these population estimates must be seen as maximum impacts, due to the conservative assumptions used in their derivation (for example the projections assume that all employment is filled by non-residents which is unlikely to occur given the number of employment aged young people over the period and the current level of unemployment in the area).

In discussions with service agency representatives and other community representatives within the Regional Municipality of Wood Buffalo, the concensus has been that the cumulative impacts of the proposed projects combined is expected to be within the capabilities of the Regional Municipality of Wood Buffalo to accommodate. The impacts from the projects cumulatively is expected to be similar in effect to those discussed previously for the Steepbank Mine. Some commercial service may be affected by the increase in construction work-force including air transportation, accommodation, restaurants and other transportation. Deficiencies in these areas are expected to be short-term and businesses are expected to respond with increased capacity once need becomes established. The negative impact of the projects on the quality of life is expected to be small. Rather, community residents have been anticipating that the projects will be proceeding and that sentiment has contributed to the sense of community stability and economic well-being which now exists in Fort McMurray.

C3.6.3 Summary Of Cumulative Impacts Upon Services, Infrastructure and Quality Of Life Of Communities Within Wood Buffalo

The cumulative impacts of the Suncor, Solv-Ex and Syncrude projects is within the existing capabilities of the communities within the Regional Municipality of Wood Buffalo to manage. Community representatives have indicated that the projects are expected to contribute to the stability and quality of life within the Municipality. The following provides an overview of the cumulative impact assessment of oil sands projects upon the Municipality:

TABLE C3.0-12
POPULATION PROJECTIONS, FORT MCMURRAY URBAN AREA, 1996-2015

Year	Base Pop	Suncor Steepbank	Suncor Expansion	Solv-Ex	Syncrude	Project Population	%of Total Pop.	Total Population	% Change
1996	34673	49	299	543	65	956	3%	35629	3%
1997	34698	161	484	857	84	1586	5%	36284	2%
1998	34706	242	257	1215	389	2103	6%	36809	1%
1999	34701	711	--	1215	702	2627	8%	37328	1%
2000	34682	605	--	1215	760	2579	7%	37261	0%
2001	34651	46	--	1215	94	1354	4%	36005	-3%
2002	34610	41	--	1215	19	1274	4%	35884	0%
2003	34558	34	--	1215	94	1342	4%	35900	0%
2004	34496	28	-	1215	468	1710	5%	36206	1%
2005	34424	22	-	1215	748	1985	6%	36409	1%
2006	34465	15	-	1215	19	1248	4%	35713	-2%
2007	34494	78	--	1215	56	1349	4%	35843	0%
2008	34513	143	--	1215	889	2246	7%	36759	3%
2009	34520	210	--	1215	94	1518	4%	36038	-2%
2010	34515	278	--	1215	19	1511	4%	36026	0%
2011	34498	348	--	1215	19	1581	5%	36079	0%
2012	34469	348	--	1215	355	1918	6%	36387	1%
2013	34427	350	--	1215	561	2126	6%	36553	0%
2014	34373	352	--	1215	19	1585	5%	35958	-2%
2015	34305	354	--	1215	0	1569	5%	35874	0%
2016	34305	354	--	1215	0	1569	5%	35874	0%
2017	34305	354	--	1215	0	1569	5%	35874	0%
2018	34305	354	--	1215	0	1569	5%	35874	0%
2019	34305	354	--	1215	0	1569	5%	35874	0%
2020	34305	354	--	1215	0	1569	5%	35874	0%

Direction	Increase
Severity (Degree of Change)	Low
Duration	Long-term
Geographic Extent	Local and regional
Degree of Concern	Low

D MITIGATION MEASURES

D1.0 ECONOMIC IMPACTS

Mitigation measures respecting economic impacts relate primarily to the enhancement of local and regional procurement and employment.

Suncor currently spends about $90 million of its operating costs in the purchase of goods and services locally. Suncor prefers to use local suppliers and contractors provided they are competitive in areas of cost, quality, deliverability and service. Suncor has worked closely with the Fort McMurray Chamber of Commerce to undertake studies which have identified purchases made outside of the area, and to assist in determining what import replacement opportunities exist for local businesses.

With large capital projects, where Suncor hires contractors to manage the construction process, the company also communicates their local purchase preference to the project managers and encourages them to use local goods and services where possible.

To enhance the involvement of local businesses in the provision of goods and services for the project, Suncor has indicated it intends to undertake the following steps:

- Suncor will continue to obtain goods and services from local contractors on a preferential basis providing the firms are competitive on the basis of cost, quality and deliverability.
- Suncor's Materials Management and Contracts personnel are located in Fort McMurray and will continue to work with the Chamber of Commerce, other groups and local businesses to identify opportunities for local suppliers.
- Suncor will continue to communicate their plans and needs through their work with the Chamber of Commerce, the Regional Municipality of Wood Buffalo and other organizations.
- Suncor will continue to communicate their plans and requirements through the local media using news releases and other communications techniques.

- For major capital projects, Suncor will arrange information sessions for local contractors in conjunction with project management contractors to provide information on types and timing of available contracts, timing and contracting procedures.

Suncor's preference is to use qualified local labour wherever possible.

For construction projects, Suncor is an open shop site, though many successful contractors are unionized. While most of the construction labour agreements indicate the use of unionized workers, all have provisions for local hiring. Unionized contractors have options to satisfy local content requirements.

To enhance the opportunities for local residents to obtain employment with Suncor, the company has indicated it will undertake the following actions:

- Continue to support the use of local labour in negotiations with contractors and in company hiring;
- Emphasize local employment opportunities in contracts and purchases decisions; and
- Communicate its expectations respecting local hiring to construction industry within Alberta including the leadership of both Unions and Employers Groups.

Respecting employment and business opportunities for indigenous communities, Suncor recognizes that these communities are a valuable source of employees and contractors for the oil sands industry. Suncor also recognizes that indigenous communities may face special difficulties related to distance and isolation, and limited opportunities for education and skill development. Suncor's approach to indigenous employment and contracting is within the framework of formalized long-term relationships with the communities. Suncor also has an aboriginal affairs policy which enables the company to work with each community to support education and training programs which will lead to jobs.

To enhance the ability of indigenous community members to obtain work and business opportunities with Suncor, the company has indicated it will undertake the following actions:

- Under the Aboriginal Development Program, Suncor has created 12 training positions to facilitate the training and hiring of indigenous employees;
- Under the Summer Student Employment Program, Suncor sponsors summer employment projects for 10-12 high school students within each community, and has also designated one-third of its summer jobs for indigenous students who are pursuing post-secondary education;
- Suncor also provides job shadowing and job fairs for indigenous community students;
- The company provides work experience programs for indigenous people;
- Suncor provides financial assistance for indigenous employees (and all other emplyees) who wish to further their education and training; and
- Suncor's practice is to give preference to contractors who hire local/indigenous employees.

While employment for indigenous people is one option for sharing benefits, employment can be difficult because of the need for employees to relocate closer to Fort McMurray, and because of the differences between education and training job requirements and the level of training of prospective indigenous emplyees. Suncor has therefore been working to provide business opportunities for indigenous people within their home communities. Through efforts like the Aboriginal Business Development Committee, Suncor has indicated it intends to continue to identify opportunities for indigenous communities to establish community based businesses which will supply goods and services to the industry while enabling indigenous employees to remain in their home communities.

D2.0 CONSTRUCTION IMPACTS

Construction related impacts from the Steepbank Mine Project are expected to be low, given the comparatively small construction population in comparison to the current population of Fort McMurray and the region. To minimize potential impacts resulting from the presence of a transient workforce within the area and to address other potential issues respecting construction of the Steepbank Mine, Suncor has indicated that it will:

- Continue to utilize the camp facility to house the majority of construction workers;
- Provide recreational and other services at the camp to reduce the potential demands on regional services;

- Work with the Municipality, the Standing Committee on Oil Sands Development and regional services in addressing any potential problems that may occur;
- Will continue to provide transportation services for construction and operations employees; and
- Will work with the Municipality and Alberta Transportation to monitor and address any issues that may develop over increased traffic on Highway 63.

D3.0 OPERATIONS IMPACTS

Potential impacts resulting from operations of the Steepbank Mine are expected to be low, given that the mine development is intended as a replacement for the existing mining operations. To address any potential problems which might occur, however, Suncor has indicated it intends to undertake the following actions:

- Work with the Municipality, the Standing Committee on Oil Sands Development and regional services in addressing any potential problems that may occur;
- Continue to provide transportation services for construction and operations employees; and
- Work with the Municipality and Alberta Transportation to monitor and address any issues which may devlop over increase traffic on Highway 63.

D4.0 LAND AND RESOURCE USE

Within the direct impact area of the mine site, agreements have been reached with the two trappers who have trapping rights within areas directly affected by the mine. Suncor has indicated they intend to fully reclaim the disturbed area once mining is complete to allow a variety of future end land uses and are expecting to work with interested regional groups in determing end land use.

D5.0 QUALITY OF LIFE

Suncor has indicated that a prosperous, stable and healthy community is essential to the quality of life of the company's employees and their families and to the retention of a highly skilled and capable workforce. Suncor has therefore indicated that it is committed to continuing to work with

local groups and agencies in the promotion of a high quality of life for the area including the following activities:

- Suncor will continue to participate in working groups addressing issues related to services within the Municipality including the Partners in Education Council, the Keyano College Board of Governors, Regional Community representatives, and Safe and Healthy Communities;
- Suncor will continue to support the involvement of their employees in contributing to social, recreational and other volunteer activities;
- Suncor will continue to meet regularly with the Mayor, MLA, and MP for Wood Buffalo, the communities of Fort MacKay, Fort Chipewyan, the Regional Health Authority, the Fort McMurray Environmental Association and many others; and
- Suncor will continue to support a variety of activities within the region through their corporate donations program.

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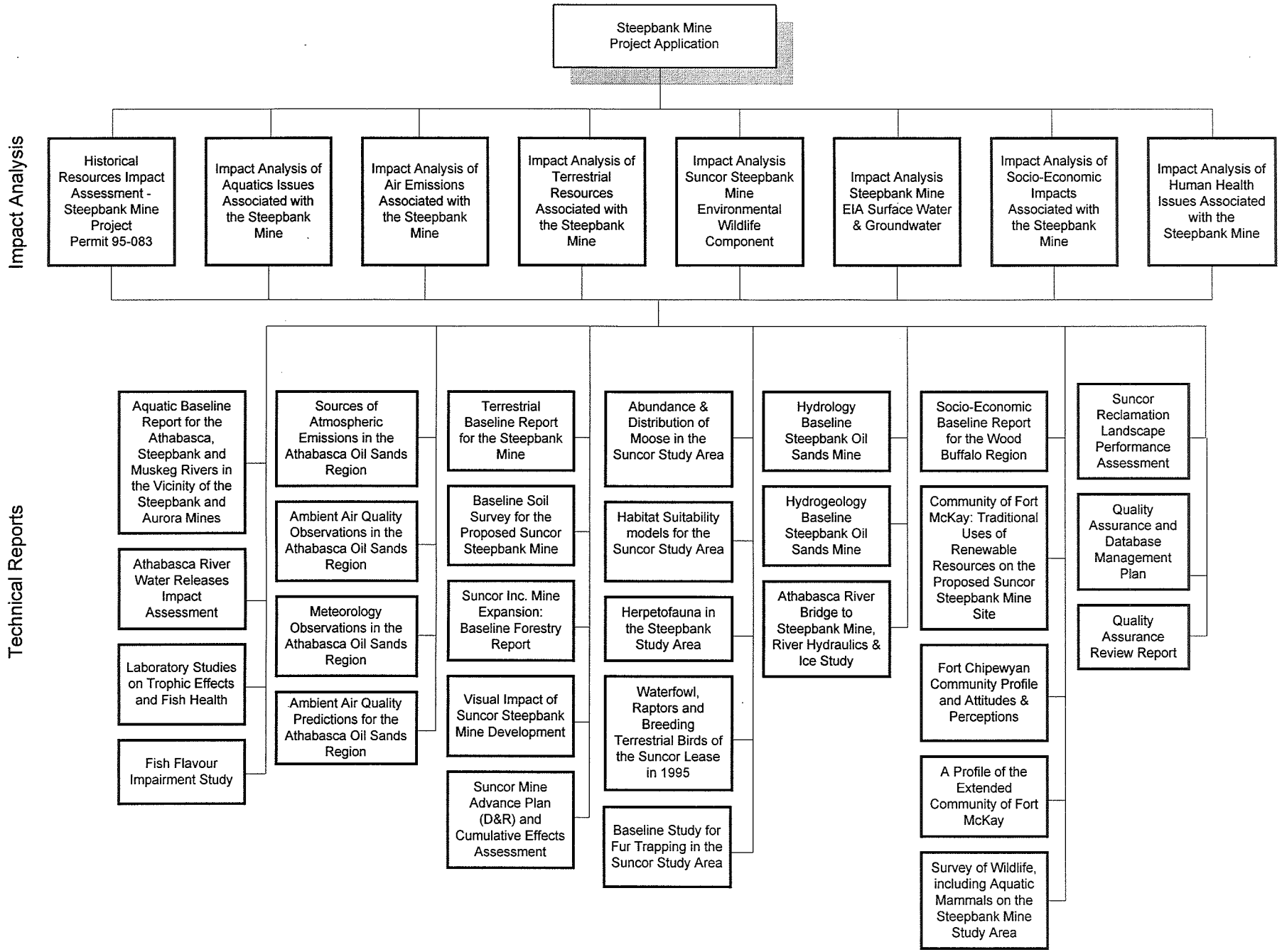

Figure A-1 Reports Prepared for the Steepbank Mine Environmental Assessment

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Figure B1.0-1

SUNCOR REGIONAL AND APPROXIMATE
LOCAL STUDY AREA

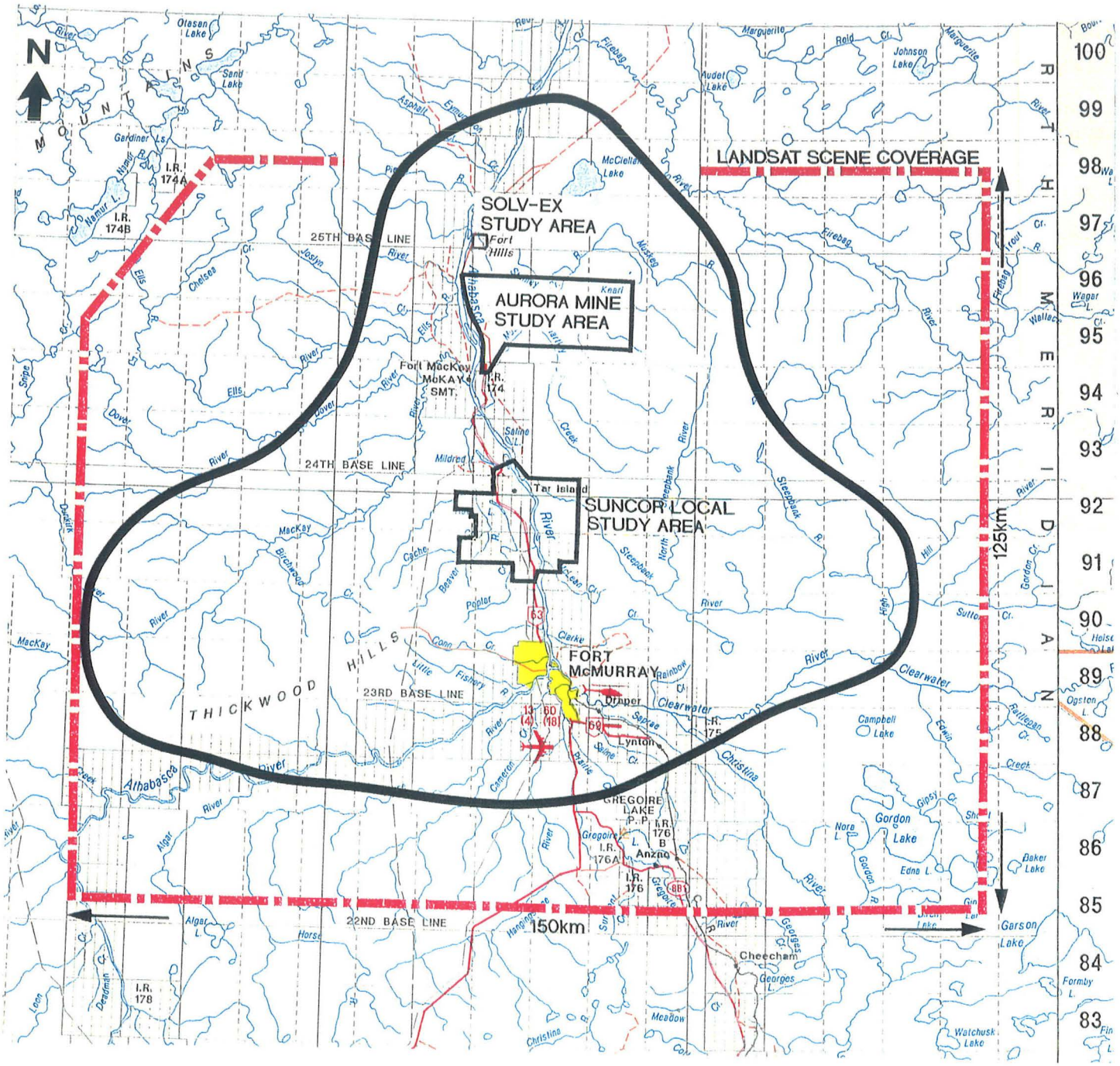

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FIGURE B3.0-1
Suncor Steepbank Mine Peak Construction Work Force

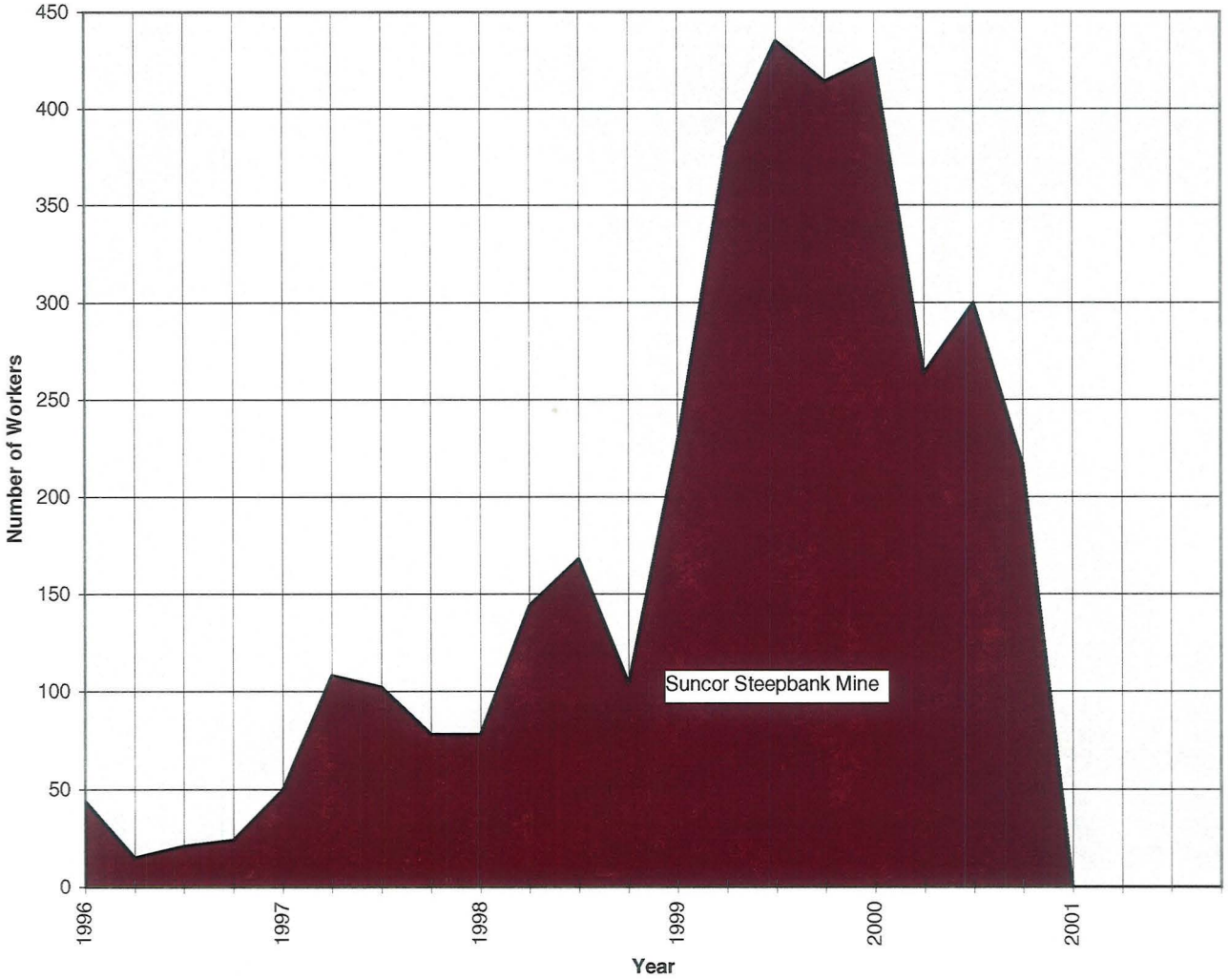


FIGURE B3.0-2
Suncor Cumulative Operations Workforce

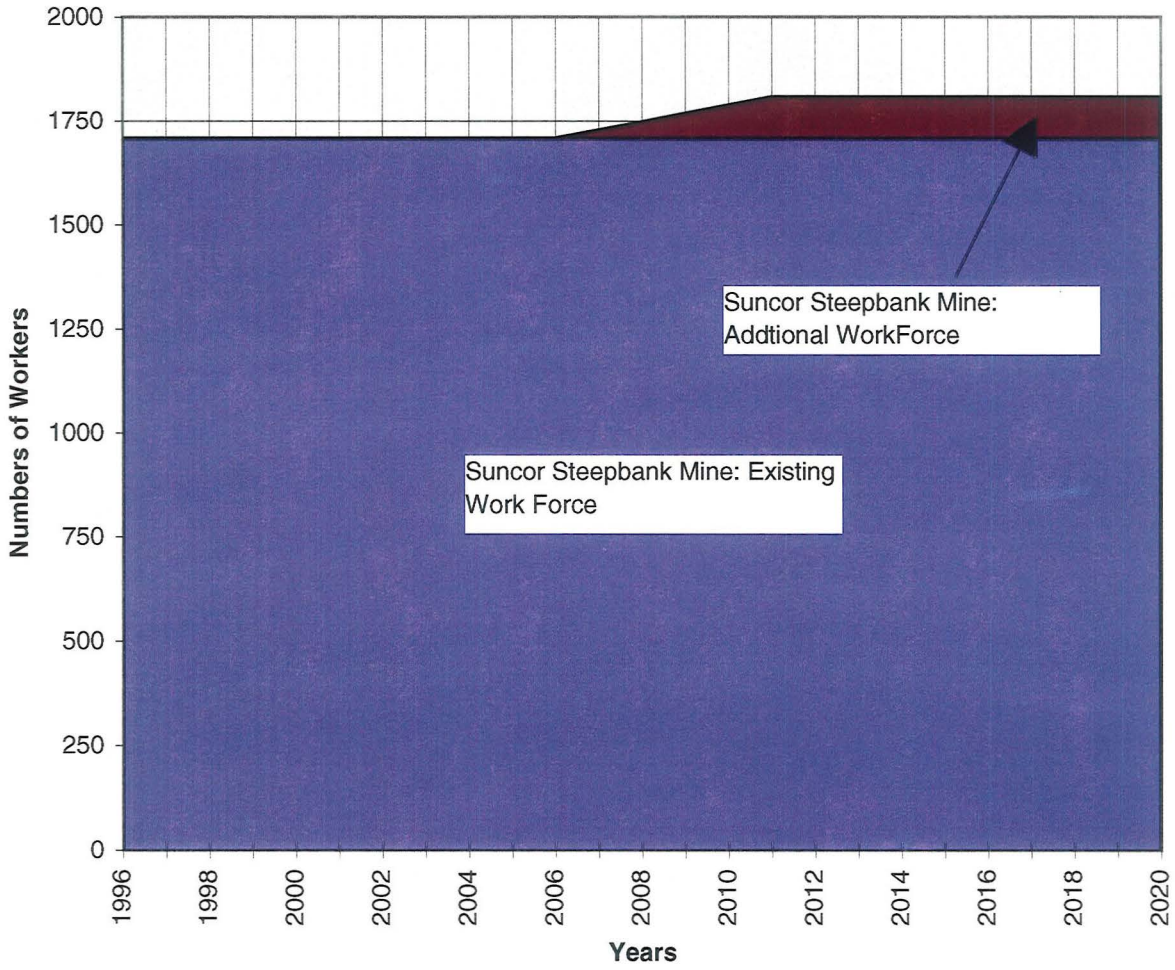
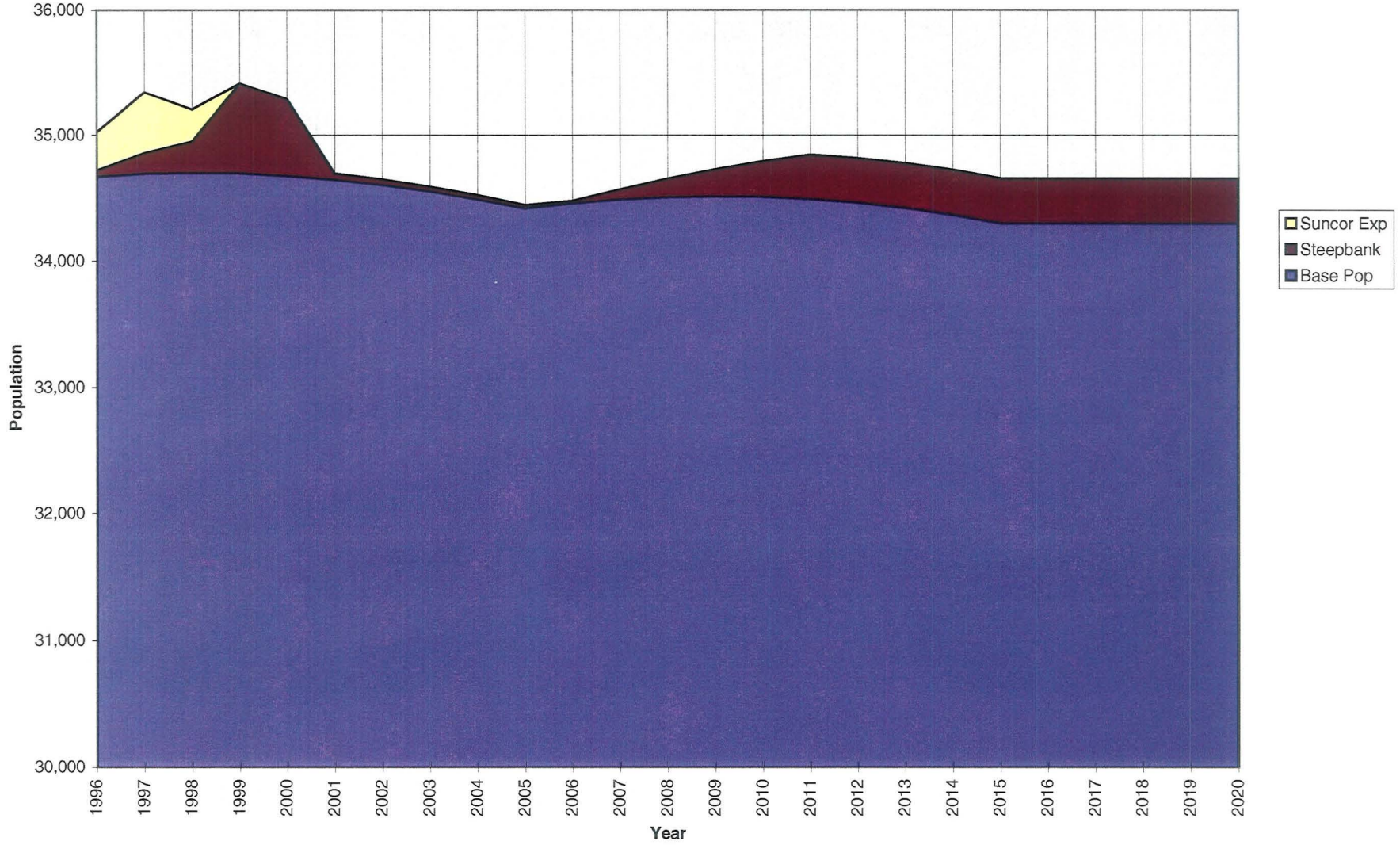


FIGURE C3.0-1
Suncor Population Impacts
Construction and Operations



Golder Associates

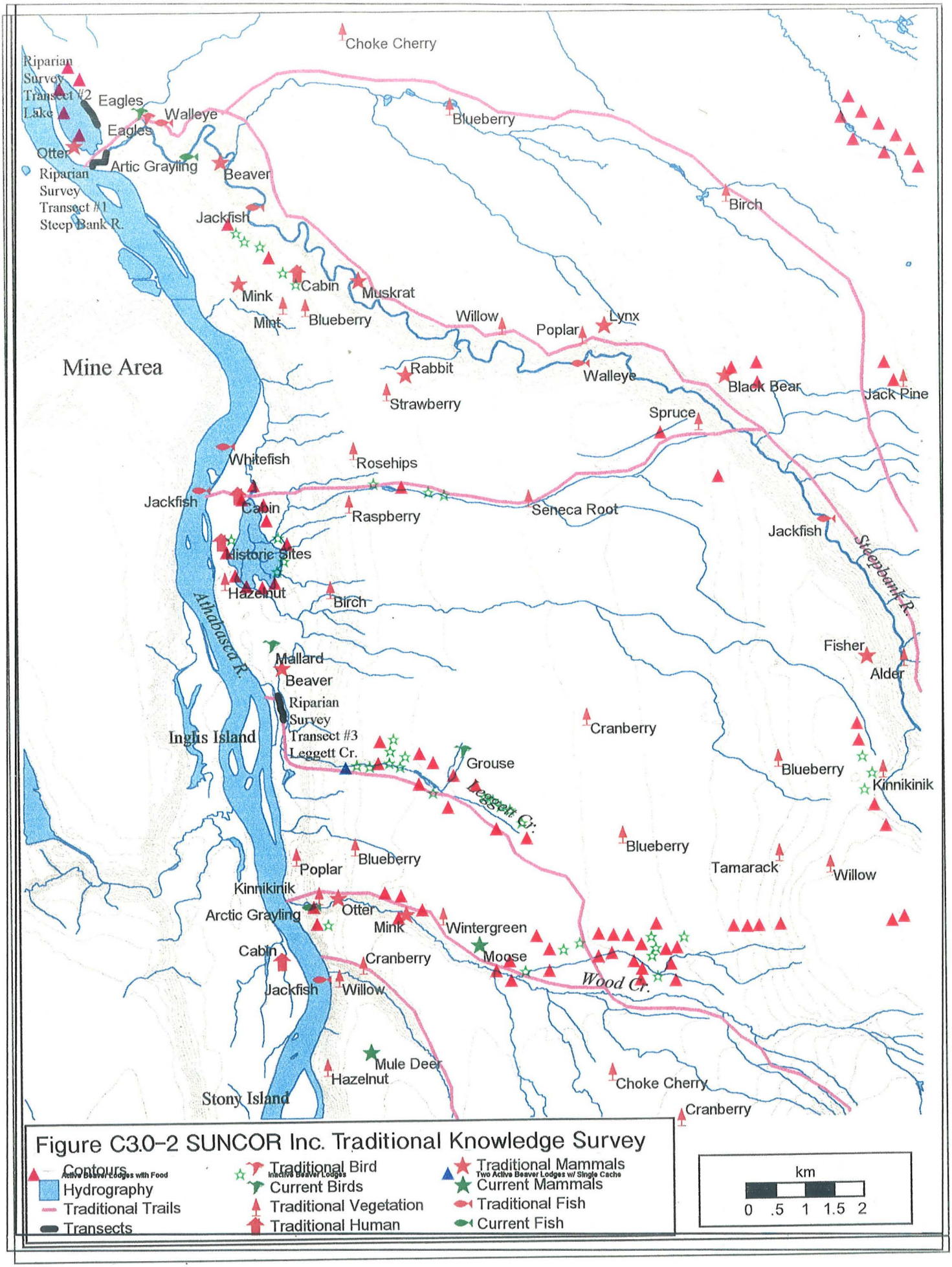


Figure C3.0-2 SUNCOR Inc. Traditional Knowledge Survey

Contours
Hydrography
Traditional Trails
Transects
Active Beaver Lodges with Food
Inactive Beaver Lodges
Two Active Beaver Lodges w/ Single Cache
Traditional Bird
Current Birds
Traditional Vegetation
Traditional Human
Traditional Mammals
Current Mammals
Traditional Fish
Current Fish

km
0 .5 1 1.5 2

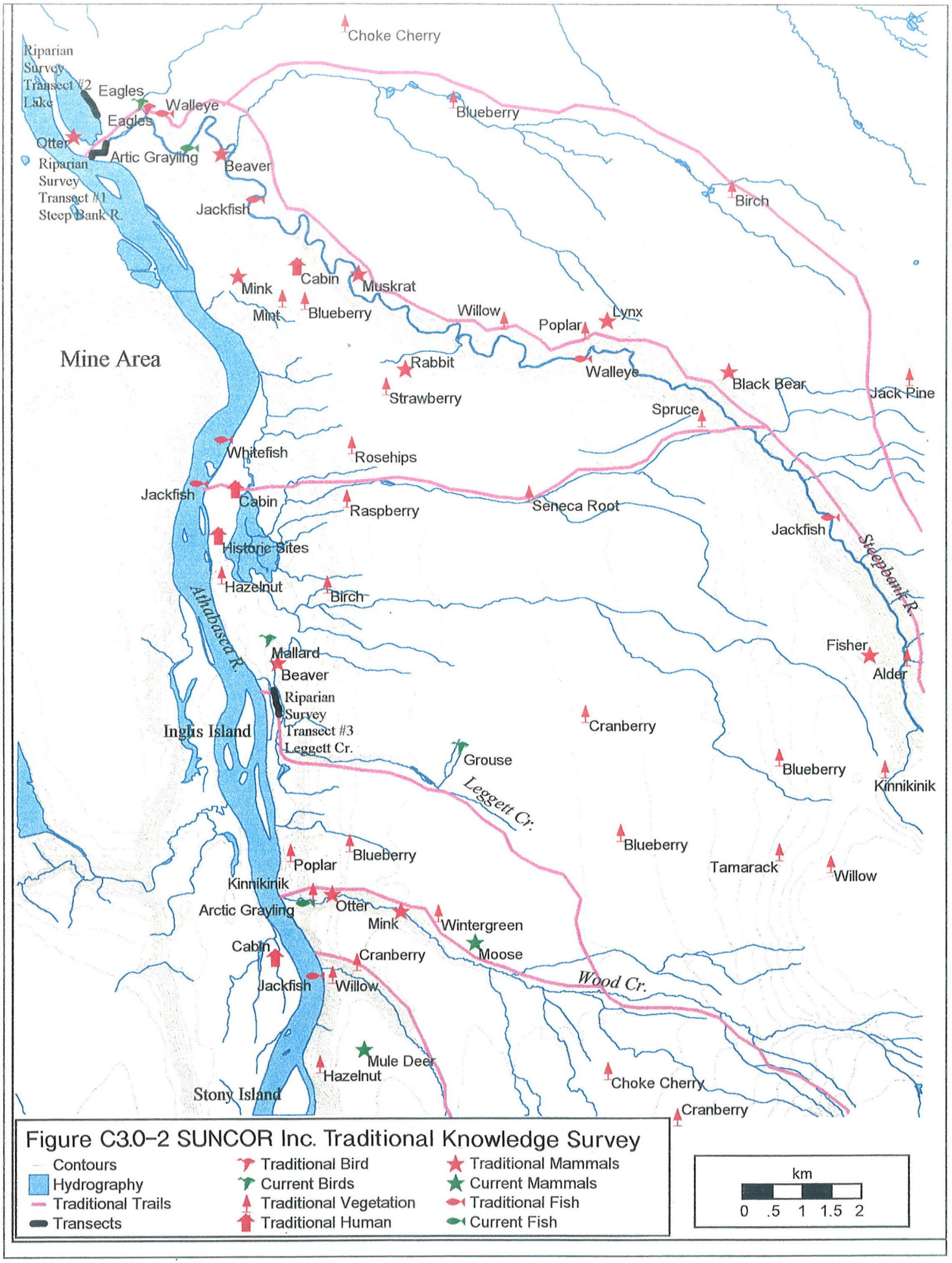

Choke Cherry
Riparian Survey Transect #2 Lake
Eagles
Walleye
Eagles
Blueberry
Otter
Artic Grayling
Beaver
Riparian Survey Transect #1 Steep Bank R.
Jackfish
Birch
Cabin
Mink
Muskrat
Mint
Blueberry
Willow
Poplar
Lynx
Mine Area
Rabbit
Walleye
Black Bear
Jack Pine
Strawberry
Spruce
Whitefish
Rosehips
Jackfish
Cabin
Raspberry
Seneca Root
Jackfish
Steepbank R.
Historic Sites
Hazelnut
Birch
Athabasca R.
Mallard
Beaver
Fisher
Alder
Riparian Survey Transect #3 Leggett Cr.
Inglis Island
Cranberry
Grouse
Blueberry
Kinnikinik
Leggett Cr.
Blueberry
Poplar
Blueberry
Tamarack
Willow
Kinnikinik
Arctic Grayling
Otter
Mink
Wintergreen
Cabin
Cranberry
Moose
Wood Cr.
Jackfish
Willow
Mule Deer
Hazelnut
Choke Cherry
Stony Island
Cranberry
Figure C3.0-2 SUNCOR Inc. Traditional Knowledge Survey
Contours
Hydrography
Traditional Trails
Transects
Traditional Bird
Current Birds
Traditional Vegetation
Traditional Human
Traditional Mammals
Current Mammals
Traditional Fish
Current Fish
km
0 .5 1 1.5 2

Figure C3.0-3
Cumulative Peak Construction Work Force

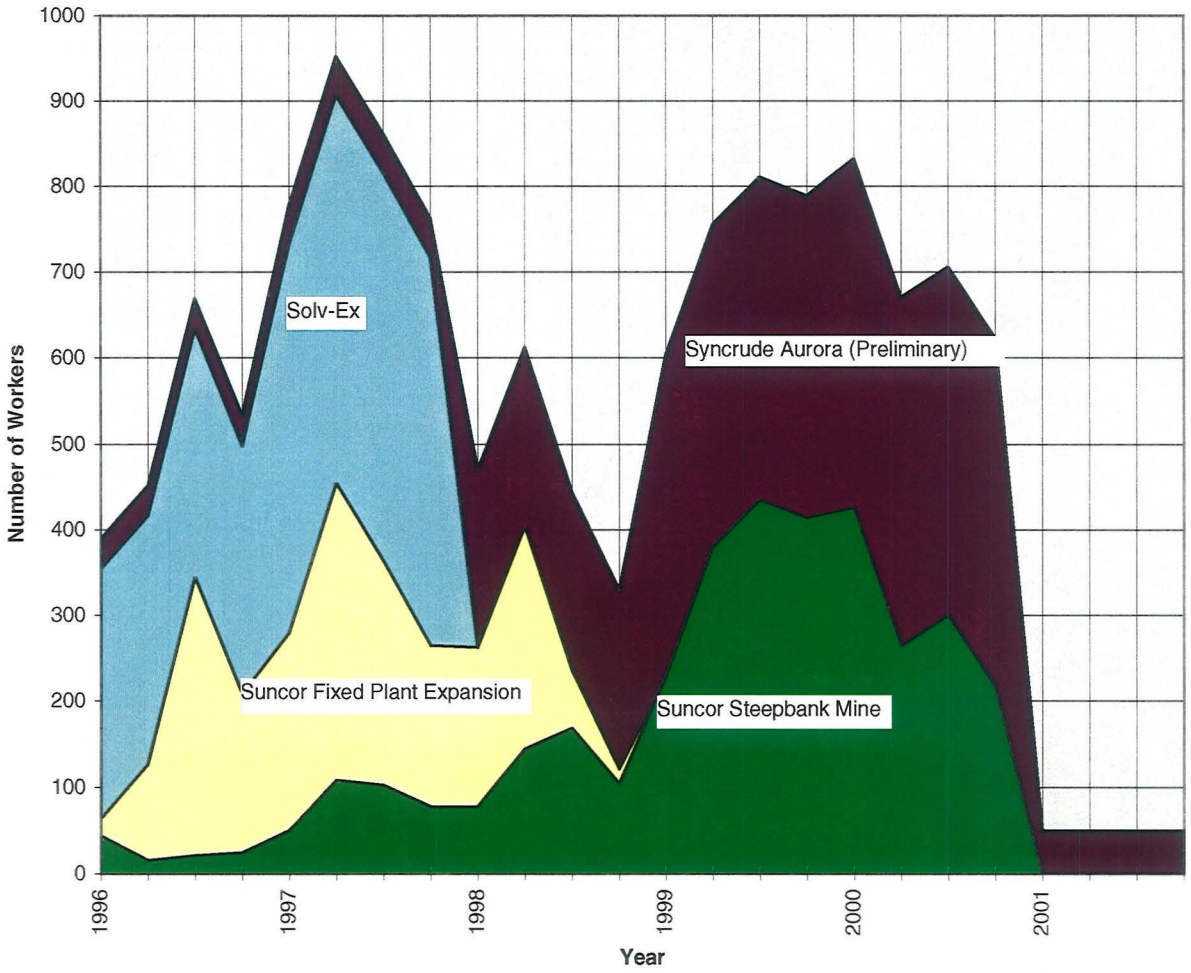
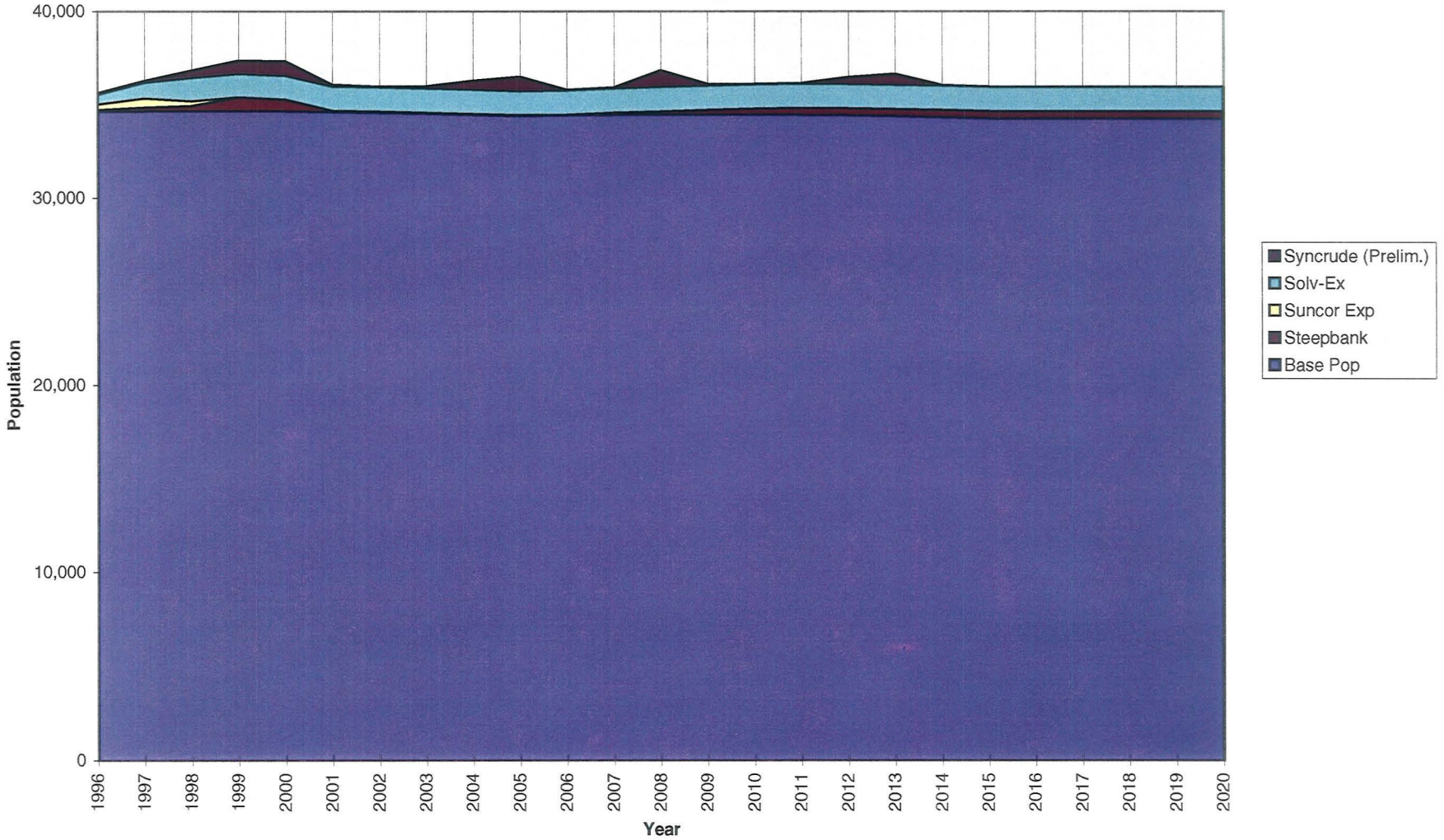


FIGURE C3.0-4
Cumulative Regional Population
Construction and Operations



APPENDIX I

EMPLOYMENT PROJECTIONS

Table I-1
Steepbank Mine Total Work Force Requirement, by Quarter
('000 person hours)

	Total	95Q1	95Q2	95Q3	95Q4	96Q1	96Q2	96Q3	96Q4	97Q1	97Q2	97Q3	97Q4	98Q1	98Q2	98Q3	98Q4	99Q1	99Q2	99Q3	99Q4	20Q1/	00Q2	00Q3	00Q4	2001 Q1	01Q2	01Q3	01Q4
Total	1,680.10	17.60	13.20	12.60	9.30	18.10	13.70	13.10	9.80	32.70	43.60	88.10	52.80	43.40	75.90	76.50	35.90	43.10	257.70	294.10	140.00	101.80	128.40	47.40	12.90	19.50	34.70	33.30	10.90
Labourer	143.53	2.24	0.53	0.47	0.11	2.31	0.60	0.53	0.17	4.24	4.24	9.20	5.27	5.41	8.00	8.24	3.34	5.19	20.44	23.55	11.36	9.44	9.12	3.05	0.39	1.38	2.55	1.92	0.22
Carpenter	90.62	0.27	0.24	0.21	0.05	0.29	0.26	0.23	0.07	0.83	2.53	7.33	4.07	2.31	6.04	6.06	2.21	2.52	15.34	15.80	7.89	5.19	6.29	2.07	0.18	0.38	0.95	0.89	0.11
Cement Mason	74.61	0.27	0.24	0.21	0.05	0.28	0.26	0.23	0.07	0.75	2.38	6.97	3.84	2.17	5.74	5.74	2.07	2.30	11.67	12.30	6.32	4.05	4.26	1.31	0.07	0.29	0.40	0.30	0.05
Tilesetter	4.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.87	1.25	0.95	0.52	0.39	0.14	0.00	0.00	0.00	0.00	0.00
Iron Worker	142.05	0.02	0.24	0.21	0.05	0.02	0.24	0.21	0.05	0.02	2.65	9.52	4.72	2.13	7.71	7.69	2.32	3.37	30.26	33.96	15.96	8.82	7.33	1.48	0.18	0.80	0.95	1.00	0.12
Iron Worker - Rebar	28.08	0.27	0.24	0.21	0.05	0.27	0.24	0.21	0.05	0.27	0.30	0.55	0.05	0.27	0.54	0.55	0.05	0.27	3.40	7.39	4.18	2.65	3.67	1.43	0.05	0.33	0.32	0.21	0.05
Millwright	101.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.94	3.77	1.69	0.76	3.10	3.17	0.82	1.93	20.61	26.62	13.53	8.31	6.25	3.00	0.56	1.02	2.64	2.83	0.29
Pipe Fitter	122.90	0.28	0.34	0.30	0.07	0.28	0.34	0.30	0.07	0.28	0.93	3.00	0.82	0.62	2.48	2.43	0.43	2.40	26.07	27.29	9.67	7.58	22.05	7.34	0.32	1.26	2.83	2.94	0.20
Plumber	7.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.95	2.42	0.82	0.61	1.69	0.06	0.00	0.00	0.00	0.00	0.00
Boiler Maker	17.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.32	4.58	4.56	1.96	1.13	1.17	1.09	0.21	0.14	0.90	1.03	0.11
Sheet Metal Worker	41.65	0.28	0.39	0.34	0.08	0.28	0.39	0.34	0.08	0.28	0.49	0.96	0.08	0.29	0.87	0.82	0.08	0.59	8.84	9.93	4.31	3.36	4.66	1.15	0.18	0.60	0.92	0.94	0.13
Instrument Technician	72.01	0.64	0.34	0.30	0.07	0.64	0.34	0.30	0.07	0.64	0.40	0.68	0.07	0.66	0.64	0.59	0.07	1.35	16.48	19.22	8.27	5.95	5.58	2.78	0.46	0.59	2.21	2.41	0.27
Electrician	129.95	0.54	0.53	0.47	0.11	0.54	0.53	0.47	0.11	0.54	1.81	5.50	2.52	1.64	5.18	5.61	1.28	2.62	24.46	28.36	13.51	9.99	9.75	3.49	0.57	1.50	4.43	3.54	0.35
Electrician - Instrumentation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Operating Engineer I	121.68	1.15	0.53	0.47	0.11	1.25	0.63	0.57	0.21	4.19	5.07	9.27	6.07	5.07	7.88	7.93	4.11	3.27	14.04	17.67	9.33	6.99	6.15	2.32	0.52	0.78	2.99	2.85	0.27
Operating Engineer II	91.61	0.80	0.40	0.35	0.08	0.87	0.47	0.42	0.15	3.00	3.40	5.67	3.80	3.36	4.84	4.86	2.69	2.08	12.05	13.15	5.25	4.78	9.83	3.92	0.40	0.58	2.13	2.09	0.21
Operating Engineer III	24.63	1.00	0.00	0.00	0.00	1.05	0.06	0.06	0.06	2.68	1.68	1.68	1.68	2.44	1.43	1.43	1.43	1.19	1.68	1.77	0.32	1.34	1.57	0.06	0.06	0.00	0.00	0.00	0.00
Operating Engineer IV	21.45	0.39	0.24	0.21	0.05	0.44	0.30	0.27	0.10	1.99	1.99	2.36	1.95	1.89	2.04	2.01	1.55	0.70	0.73	0.37	0.21	0.46	0.30	0.27	0.10	0.02	0.24	0.21	0.05
Operating Engineer V	36.15	0.39	0.29	0.25	0.06	0.44	0.34	0.30	0.11	1.84	2.19	3.43	2.40	2.03	2.90	2.87	1.72	0.98	3.78	3.40	1.53	1.37	2.15	0.45	0.11	0.11	0.35	0.32	0.06
Teamster	90.56	0.76	0.34	0.30	0.07	0.83	0.41	0.37	0.14	2.85	4.05	8.52	5.46	4.04	7.10	7.10	3.44	2.91	11.64	11.66	5.75	4.15	4.16	1.15	0.25	0.28	1.38	1.31	0.13
Glazier	8.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.10	0.00	0.00	0.07	0.07	0.00	0.21	2.20	2.61	1.26	0.65	1.00	0.13	0.00	0.08	0.00	0.00	0.00
HVAC Technician	16.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.52	0.00	0.00	0.41	0.41	0.00	0.21	3.69	4.52	2.19	1.37	2.05	0.25	0.00	0.42	0.00	0.00	0.00
Insulator	33.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.31	0.00	0.00	0.24	0.24	0.00	0.00	6.79	9.45	3.79	2.76	7.74	1.91	0.00	0.25	0.12	0.12	0.00
Painter	16.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.29	0.00	0.00	0.22	0.22	0.00	0.21	4.61	5.04	2.00	1.22	1.78	0.15	0.00	0.23	0.06	0.06	0.00
Sandblaster	11.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.19	0.00	0.00	0.15	0.15	0.00	0.16	3.23	3.49	1.35	0.82	1.17	0.09	0.00	0.15	0.03	0.03	0.00
Other	232.40	8.30	8.30	8.30	8.30	8.30	8.30	8.30	8.30	8.30	8.30	8.30	8.30	8.30	8.30	8.30	8.30	8.30	8.30	8.30	8.30	8.30	8.30	8.30	8.30	8.30	8.30	8.30	8.30
Total																													

APPENDIX II

SUMMARY OF IMPACT WORKSHOP WITH WOOD BUFFALO SERVICE AGENCY REPRESENTATIVES

Suncor Expansion and Steepbank Mine Projects
Socio-Economic Impact Assessment Workshop
with Fort McMurray Service Agency Representatives

Summary of Discussion

February 15, 1996

Sawridge Hotel, Fort McMurray

Introduction

This report is a summary of the public comments made during the Suncor's Expansion and Steepbank Mine Project's Socio-Economic Impact Assessment (SEIA) Workshop held in Fort McMurray at the Sawridge Hotel on February 15, 1996. The summary identifies the topics and issues raised during the meeting but is not intended to be a verbatim account of the workshop proceedings.

Objectives of the Workshop

The primary goal of the workshop was to provide a "sounding board" for members of local public agencies to critically review the socio-economic information gathered and interpreted by the consultants involved in the socio-economic impact assessment.

The workshop's objectives were four-fold:

- describe the Project and associated demands,
- present an overview of the baseline information,
- discuss the potential impacts of the project, and
- identify possible mitigation measures.

Ten participants representing seven community representative groups attended the workshop. The community representative groups included: municipal government (Regional Municipality of Wood Buffalo), education (public and separate school boards), emergency services (fire and ambulance services), real estate (Remax), environmental protection (Alberta Forest Service), police protection (RCMP) and social services (FCSS). In addition to the 10 community representatives, 2 Suncor representatives and 4 consultants participated in the workshop. A list of participants is attached.

Five broad themes were discussed during the meeting: characteristics of the Suncor Expansion and Steepbank Mine Projects, demographic information used for the baseline study, impacts of the Projects on municipal infrastructure and services, Suncor's projects employment and cumulative effects of other regional development, and miscellaneous comments.

Issues Raised by the Participants

Suncor Expansion and Steepbank Mine Projects' Characteristics

Questions were raised by the participants concerning the project's characteristics and included the following (italicized text refers to the responses provided by Suncor's representatives):

- Is the bridge to be built across the Athabasca River for public or private use only?
  - x Bridge will be for Suncor use only. Its location, within the Suncor plant site, would raise security concerns if it were open to the public.

- What will the bridge be used for aside from vehicular traffic?
  - x Bridge will carry both vehicular traffic and pipelines.

- What is Suncor proposing to use to ensure that no spills will occur from the bridge?
  - x The bridge is designed to contain any spills that may occur. The building of concrete barriers between traffic and pipelines and the use of containment dyke are two devices used to ensure maximum safety.

- What is the current output of the operation?
  - x The current licensed output is 79,500 barrels/day. Suncor is currently operating at about 79,500 barrels/day. The proposed expansion would increase output to 105,000 barrels/day of shipped oil with an additional 2,000 barrels used internally (a total production of 107,000 barrels/day).
- By how much will the proposed mine development extend the life of Suncor's mining activities in the area?
  - x Steepbank Mine will provide bitumen to the plant for 20 year period while Suncor's purchase of the Unocal lease will provide an additional 20 to 30 years. The Steepbank Mine Project is part of an ongoing long-term operation at the Suncor project.

- Can the plant and pipeline structure go beyond 105,000 barrels/day?
  - x The capacity of the expanded operations will be 105,000 barrels/day. The pipeline will have some additional capacity beyond 105,000 barrels/day.

- Has the implications of alternative fuel source to the oil sands been included in the analysis?, (i.e., the Ballard Fuel Cell Project)
  - x Suncor has established a strategic research group that is looking at alternative supplies (e.g. insitu production).

- Will the up and coming federal budget impact Suncor's current proposal?
  - x Suncor's commitment to the expansion and Steepbank Mine Projects is not contingent on any new fiscal terms contained in the federal budget.

- There is a perception in the community that the Suncor project is a "done deal". Is that true?
  - x Suncor is continuing engineering and planning for development of the projects. Suncor now needs to make application and receive regulatory approvals for development of the projects. That process is now underway. Actual construction of the projects will commence if and when regulatory approvals are received.

Demographic Information

The presentation of the demographic profile and social characteristics of Fort McMurray engendered the following comments:

- There was a general consensus that Fort McMurray has become a mature, stable community and has moved away from the boom town phenomenon which characterized it 15 to 20 years ago. A number of indicators illustrate this maturity and stability. Case loads at the fire department and FCSS have remained stable in the last few years while the RCMP has seen a decrease in cases probably as result of a decline in the transient population, a sharp contrast from Grande Prairie which has a larger transient population and a higher crime rate than Fort McMurray.

- Recent data seem to indicate that out-migration has increased somewhat in the last year or so affecting a specific age cohort. Data from the Catholic School Board indicate that enrollment in the grade 9-12 has decreased in 1995-96. It was suggested that early retirement packages and new shift work schedules may have caused some families to move away from Fort McMurray to reside close to family and friends and have better access to post-secondary education institutions. However, ECS enrollment at the public school board in 1995-96 has increased from the previous year.
- Although Fort McMurray remains a young community, the seniors population is on the increase as the building of a new seniors lodge attests to.
- Another sign of maturity and stable population growth has been the demand for a more diversified and sophisticated retail sector resulting in the "big box" retail projects currently under way or planned for the near future.
- Fort McMurray is considered by many to be an excellent training ground for a variety of disciplines including fire protection and education which has resulted in Fort McMurray exporting a number of highly skilled individuals to other parts of the province.
- House and rental vacancy rates have been dropping in the last year or so probably indicating a renewed confidence in the local economy.

Municipality Infrastructure and Services

- There was a general consensus that the current municipal infrastructure and services could absorb the demands generated by the Project and other known regional developments.
- Participants acknowledged that the municipal reorganization currently underway and the new Municipal Government Act have created some uncertainties concerning the municipal land use planning process and the necessity to balance the urban and rural needs of the municipality. Several of the comments reflected those concerns rather than with Suncor's application per se. except for the need to clarify Suncor's application under the new municipal regime? In other words, will Suncor be required to apply for a development permit?
- It was also noted that the current situation provides an opportunity for the municipality to explore new and innovative ways to improve current administrative procedures particularly in the area of fiscal equity between the rural and urban areas and cooperation between the municipality and industry. A positive example of collaboration between the municipality and

industry is the case of fire protection where the two plants (Syncrude and Suncor) and the Municipality respective fire protection units entered into an agreement 15 years ago that established a fire protection back-up system which remains a unique provincial example of the collaborative effort between the private and public sectors.

- The recent amalgamation of the municipality led to a discussion regarding the location of the supply industries specifically the pros and cons of maximizing the use of the existing Mackenzie industrial park vs. the creation of a new park closer to the mine site. The current developed portion of Mackenzie Park has reached capacity but an additional 25 to 30 percent of fully serviced unbuilt land is available for development.
- Will the cost of housing in Fort McMurray be affected by the project? Most felt that housing prices have been increasing and that they are likely to continue to increase.
- There was a question raised concerning the current capability of the data line infrastructure in the municipality? It is felt that the MUSH sector (municipality, university, school, hospital) in the municipality needs better capabilities.
- Discussion of the impacts of population increase in specific areas of the city was raised. The Timberlea area has been the major urban growth pole in the city in recent years. It has approximately 300 serviced lots available, however its capacity to service a large incoming population is limited. The need to add a new emergency services station or change the location of a current station to ensure that services are maintained was raised. Catholic Schools in the area are operating almost at capacity while public schools have the limited ability to add portable classrooms if needed. A large increase in population in Timberlea would require additional buildings or an increase in the school busing load. This suggests that a population increase deemed insignificant at the municipal level may become significant at the district or neighbourhood level. Consequently, projections using the total number of incoming individuals may not be as relevant as the location and distribution of the incoming population within the city.
- There was a general agreement that resource activities in the vicinity of the Steepbank Mine Project area were limited due to its difficult access.

Projects' Employment

- There was a general consensus that it would be useful to present the projects employment and the ensuing population impacts under maximum impact assumptions, i.e., all new jobs are filled from outside the area. The text of the SEIA could then present some reasons why the actual impact would be less than the maximum (unemployment in Fort McMurray, existence of some level of permanent construction workforce in the area to service ongoing construction activities of the plants) and provide an estimate of the most likely level of the population impact.
- Solv-Ex' multiplier ratio of 1 to 1, i.e., for every direct job created by Solv-Ex one additional position is created indirectly in the service sector was perceived to be too high. The current service sector can accommodate these projects using existing resources with minimal expansion required. It was recommended that a lower ratio be used for Suncor's assessment.
- There is a perception that Syncrude and Suncor are employing more and more contractors for longer periods of time. With other potential projects on the horizon, the construction phases of these projects may be staggered in such a way as to create an opportunity for a more permanent construction workforce to be established. More steady work would probably attract a greater number of people to Fort McMurray to become permanent residents.

Miscellaneous Comments

- The Standing Committee on Oil Sands Development was established to review Suncor and Syncrude's current applications, a number of participants asked if the Standing Committee on Oil Sands Development could become a permanent standing committee to review not only oil sands related activities but any major development proposals in the municipality?

List of Participants

Bette Thomey, Fort McMurray Family Services Agency (FCSS)

Carey Johannesson, Golder Associates

Chris Farthing, Fort McMurray Catholic School Board

Dale Huberdeau, Alberta Environmental Protection

Doug Parrish, Regional Municipality of Wood Buffalo

Dwight Nagel, Constable, RCMP

Gary Willson, Consultant

Gordon Shaw, Regional Municipality of Wood Buffalo

Greg Walsh, Remax

Harvey Marchand, Fort McMurray Fire and Emergency Services

Les Hansen, Fort McMurray Public Schools

Linda Ball, Suncor

Maarten Ingen-Housz, Nichols Applied Management

Philippe Reicher, Consultant

Sue Lowell, Suncor

Tracy Horvath, RCMP