

## **APPENDIX 18**

### **Interrelationships between the ELAIOM and the Socio-economic Valued Ecosystem Components**



In order to comply with the requirement of the Guidelines (GNL December 12, 2008) to make the EIS as concise as possible while presenting the information necessary for making an informed decision, the following section evaluates summarily which of the socio-economic VECs identified in Table 6.3 is likely to be affected by the preparation/construction and operations of the ELAIOM. Only those socio-economic VECs for which an important interaction is forecast will be considered further in Section 8.0.

#### **A18.1 Caribou Subsistence Hunting**

The LSEA represents only a fraction of the areas used for hunting caribou by the members of the NNK, NIMLJ and ITUM (see Figures 5.52 and 5.57 and Section 5.4.3.1).

Moreover, there are years in which caribou are rare in or absent from the area in question (Appendix 22; Appendix 23; Rivard 2009, *personal communication*).

The area does not appear to have been used other than, perhaps, sporadically within living memory by the Innu of Labrador (see Section 5.5.19.2).

NML will not allow its employees to have personal firearms in the workers' camp. In any case, it would be impossible for NML's non-Native employees to hunt caribou in the Québec portion of the LSEA (see Section 5.5.7.3). Theoretically, it would be possible for NML's non-Native employees to hunt caribou in or adjacent to the Labrador portion of the LSEA. In practice, however, it is improbable that many of them would do so, since they will have little choice but to leave immediately for home at the end of each work rotation.

The likelihood that the ELAIOM will increase competition between Native and non-Native hunters is, therefore, very low.

Thus, the potential for an important effect on this VEC does not appear to be great, even though Section 8.1.7 predicts moderate residual effects on caribou from noise and the destruction of habitat.

Nevertheless, this VEC will be considered more fully in Section 8.0, for the following reasons:

- the LSEA and vicinity are accessible by road from Schefferville and by rail and road from the Sept-Îles area, which makes the subsistence hunting of caribou there by the members of ITUM, NIMLJ and NNK (including the transportation of carcasses by train to Sept-Îles) relatively efficient and inexpensive. Consequently, it can be practised by the elderly, by those who are too poor to travel to more remote areas, by those whose employment leaves them little time for hunting further afield and by young persons who are learning how to hunt;
- hunting caribou in the Québec portion of the LSEA and vicinity is a treaty right for the members of NNK and will almost certainly be recognized in due course as a treaty right of the members of NIMLJ and ITUM;
- the cultural and spiritual importance of caribou to the Innu and the Naskapis.

#### **A18.2 Local Employment and Local Contracting**

When the mines of the IOCC were closed, in 1982, most of the non-Native residents of Schefferville left, and several of the local businesses were closed. The Aboriginal populations were, however, unable and unwilling to leave, since the Schefferville region is located in their traditional territories. In the case of the Naskapis, they were "tied" to the Schefferville area by the NEQA, and the governments had only just invested some \$20 M in the construction of Kawawachikamach.

In the 25 years since 1982, the size of the local Aboriginal populations has doubled (see Section 5.5.3). The younger generation is much better educated (see Section 5.5.4) and

more acculturated than the older generation. It has expectations of “mainstream” employment and lifestyles. If it cannot achieve those expectations in the Schefferville area, it will have no choice but to leave. In that event, Naskapi culture and society will cease to exist, and the Schefferville Innu will probably be absorbed into other Québec Innu communities and will disappear as a distinct group.

If the local populations leave, the associated infrastructure and services (including rail and air transportation) will disappear. The likelihood that the resources of the portion of the interior of Labrador within a 200-km radius of Schefferville will be exploited will decline or disappear, with serious negative social and economic consequences for the population of the Province of Newfoundland and Labrador.

The only potential for large-scale employment in the Schefferville area comes from mining projects such as the ELAIOM and LIM's Schefferville Area Iron Ore Mine: the LSEA is several hundreds of kilometers north of the commercial tree line; being on the height of land, there is no hydroelectric potential; there is a potential for wind energy, but there are no local markets and the cost of connecting to the transmission grid in Labrador or in Québec would be prohibitively high; the tourism potential is limited. In any case, none of the preceding types of development can match mining for its capacity to create large numbers of long-term jobs.

Consequently, these two VECs will be considered more fully in Section 8.0.

#### **A18.3 Newfoundland and Labrador Benefits**

Employment and contracting are undoubtedly among the principal positive effects of the ELAIOM. Their importance has been stressed by all of the Aboriginal and non-Aboriginal interveners (see Section 6.0). Through the *Tshash Petapen Agreement*, the IN reached agreement with the GNL that its planned treaty would create an Economic Development Area in the vicinity of DSO3, presumably so that the Labrador Innu would have access to its contracting and employment opportunities through an IBA. The context of chronically high levels of unemployment among all the concerned FNs and in many of the non-Native communities (see Sections 5.5.5 and 5.5.18) and recent layoffs and cutbacks in production by mining companies and their suppliers in Labrador West and the Région administrative de la Côte-Nord of Québec (Radio-Canada 19 novembre and 15 décembre 2008; CBC News February 16, 2009) add to the importance of generating benefits for Newfoundland and Labrador.

Newfoundland and Labrador benefits will therefore be considered more fully as a VEC in Section 8.0.

#### **A18.4 Treaty Rights**

The Labrador portion of the LSEA and its vicinity lie in an area where treaty rights have not yet been recognized. The Labrador Inuit Settlement Area established by the *Labrador Inuit Land Claims Agreement* of 2005 does not come within 250 km of DSO3.

The treaty rights of the members of the NNK were recognized through the NEQA of 1978. The only treaty right of the Naskapis that might be affected by the ELAIOM is caribou-hunting, and it is considered as a VEC in its own right.

As noted above for the Local Employment and Local Contracting VECs, the ELAIOM (and other mining projects in the same general area) offer the principal, if not only, hope for the Naskapis to continue living at Kawawachikamach. If they leave that area, they lose the exercise of their treaty rights (NEQA 3.2.4). To the extent that the ELAIOM makes it

possible for those Naskapis who wish to do so to remain in the Schefferville area, it can be argued that one of its indirect effects will be to preserve the treaty rights of the Naskapis.

Nevertheless, the Treaty Rights VEC will not be considered further in the Section 8.0, since it does not have the potential for important effects on treaty rights in Newfoundland and Labrador.

#### **A18.5 Comprehensive Land Claims Negotiations**

Treaty negotiations targeting the execution of an agreement in principle between the IN, the GNL and the GoC relating to the claims of the Labrador Innu in Newfoundland and Labrador are at an advanced stage, based on a framework agreement ratified in 1996. The target date for signing the agreement in principle was set at January 31, 2009, by the *Tshash Petapen Agreement* (Section 4.(a)). That date was not respected. In the absence of news to the contrary, we assume that the parties will agree on a new date.

Figure A18.1 shows that the claims of the Labrador Innu extend to the vicinity of DSO3.

It is on the public record that subsection 4.1 of the IN framework agreement of 1996 provides that, at a minimum, the negotiations will address the following issues:

1. Definitions
2. General provisions
3. Eligibility and enrolment of beneficiaries
4. Ratification process
5. Ethnocultural and archaeological sites and artefacts
6. Resource harvesting activities
7. Land and water, including coastal waters
8. Renewable and non-renewable resources
9. Economic development
10. Environmental protection and management
11. Parks and protection and management
12. Innu government
13. Financial compensation
14. Taxation
15. Certainty and finality
16. Overlapping issues with other Aboriginal peoples
17. Implementation
18. Dispute resolution process for the final agreement

**Figure A18.1: Area Claimed by Innu Nation**



Theoretically, it is conceivable that the Project might have effects on the provisions of a treaty dealing with ethnocultural and archaeological sites, resource harvesting activities, land selection and economic development.

Despite the confidentiality of the treaty negotiations, the *Tshash Petapen Agreement* executed by the IN, the GNL and ECNL in September 2008, which is in the public domain, reveals certain provisions that the parties to the negotiations intend to include in the planned treaty.

The relevant provisions are that:

- the three categories of land over which the Labrador Innu will exercise their most important treaty rights, including hunting, fishing and trapping rights, will not extend to the vicinity of DSO3;
- DSO3 will be within the limits of an Economic Development Area, within which the IN will probably have the right to negotiate an IBA for the ELAIOM, depending on the wording of the final version of the text in question.

Section 5.5.11 has revealed that there are no archaeological or ethnohistoric sites in the LSEA that are in danger of being affected by the Project.

Representatives of the IN explained on December 10, 2008 that they had chosen to have the vicinity of DSO3 designated as an Economic Development Area precisely so that they could take advantage of the employment and contracting opportunities that the ELAIOM (and other developments in the same area) would create. In other words, the comprehensive land claims negotiations of the IN have, at least in part, “discounted” the effects of the ELAIOM.

The claims asserted by the NNK, the NIMLJ and ITUM in and to parts of Labrador, including portions of the LSEA, have not been accepted for purposes of negotiations, and there are no indications that they will be accepted in the foreseeable future.

In the light of the foregoing, we see no way in which the preparation/construction or operation of the Labrador components of the ELAIOM could affect comprehensive land claims negotiations or their outcome.

Consequently, the Comprehensive Land Claims Negotiations VEC will not be addressed further in Section 8.0.

## A18.6 Caribou Sport Hunting

The GNL has little information on the number of caribou killed by the clients of outfitters in Labrador (Luther 2009, *personal communication*). The Labrador Revenue Report (Devereaux 2009, *personal communication*) shows an annual average of only 355 non-residents practising hunting in the whole of Labrador between 2000 and 2006, from which one can probably conclude that the sport kill of caribou in the vicinity of DSO3 is unlikely to be high.

There are four outfitting camps in the general vicinity of DSO3 (Figure 5.58; Section 5.5.7.3): Drover's Labrador Outfitters Ltd. (Wishart Lake Camp); Labrador Hunting Safari Ltd. (Gemini Lake Camp and Iron Arm Camp); Labrador 2 BG Adventure Inc. (Kivivic Lake Lodge).

A representative of Wishart Lake Camp (Drover 2009, *personal communication*), which is located some 15 km south of DSO3, noted that the camp had had good years in the past, but that it has not been used very much in recent years because of the rarity of caribou. That observation tallies with the results of NML's late-summer surveys of caribou in 2007 and 2008 (see Appendices 22 and 23). Mr Drover also operates the Ploughead Lake Camp, located some 50 km north-east of DSO3, and the Menihek Lake Camp, located some 50 km south-east of DSO3. Because of their distance from the ELAIOM, neither of those camps was considered further.

Rawding (2009, *personal communication*) reported that he owns the following camps: Gemini Lake Camp, some 30 km south-east of DSO3; Iron Arm Camp, some 27 km east of DSO3; MaryGib Lake Lodge, some 32 km north-east of DSO3; and a camp at Greenbush, which might be roughly 20 km north of DSO3. The GNL does not, however, have any information confirming the existence of the Greenbush Camp, and it appears that it was a tent camp that was relocated in 2007 (Rawding 2009a, *personal communication*).

Because of the distance of the first three camps from the ELAIOM and the fact that the Greenbush Camp no longer exists, the potential for effects on caribou-hunting by clients of Labrador Hunting Safari Ltd. was considered to be negligible.

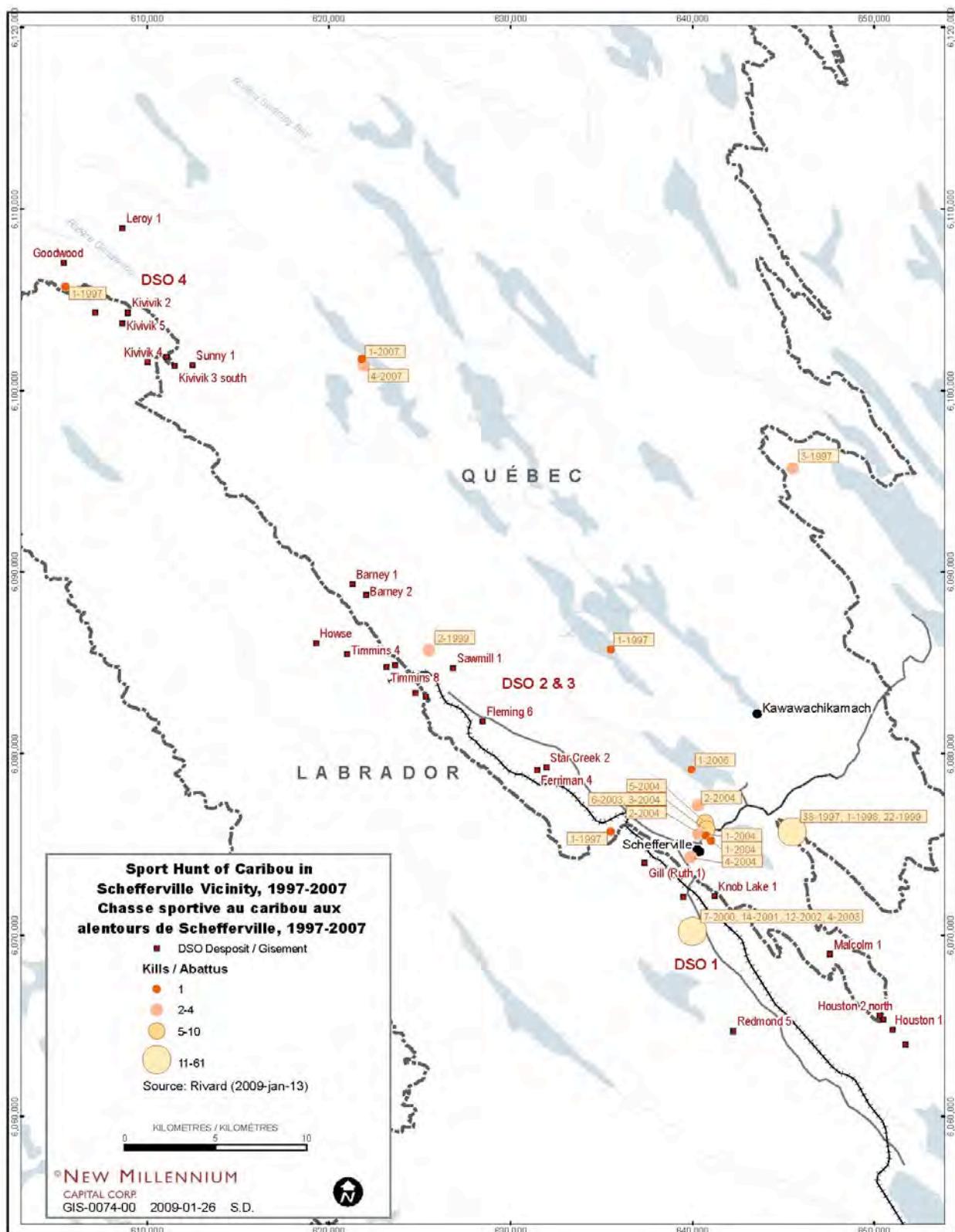
Labrador 2 BG Adventure Inc. owns two camps: Kivivic Lake Lodge, located some 25 km north-west of DSO3; and Ashuanipi River Lodge, located some 55 km south-east of DSO3 (Rossignol 2009, *personal communications*). Because of their distance from the sites of NML's infrastructure and activities, these camps are not considered further.

Given the low importance of caribou sport hunting in Labrador in the vicinity of DSO3, coupled with the fact that the vicinity of DSO3 constitutes only a small part of the territory in Labrador available to the outfitters in question, the Caribou Sport Hunting VEC will not be addressed further in Section 8.0.

Nevertheless, the outfitters in question will be contacted annually to obtain information on their activities and to discuss with them any perception that they may have about the effects of the ELAIOM on their business.

Figure A18.2 illustrates the contention of Section 5.5.7.3 that sport hunting in Québec in and adjacent to the LSEA is of minimal importance. Only two kills were registered in the vicinity of DSO3.

**Figure A18.2: Sport Hunt of Caribou in Schefferville Vicinity, 1997-2007**



Source: Rivard (2009, *personal communication*)

### **A18.7 Subsistence Fishing**

The available data (Figure 5.37; Sections 5.4.3.9, 5.5.7.1, 5.5.7.2) demonstrate that subsistence fishing is not practised to an important degree in DSO3 or its immediate vicinity, no doubt in part because of the absence of large waterbodies rich in fish. Fishing does not have the same cultural and spiritual importance as does hunting caribou; unlike caribou, fish are available year-round in the area for harvesting.

Consequently, the Subsistence Fishing VEC will not be addressed further in Section 8.0.

### **A18.8 Trapping**

Few data about trapping in and near DSO3 are available, but it does not appear to be of major importance (Figure 5.33; Sections 5.4.3.3 and 5.5.7). Nevertheless, the Trapping VEC will be considered further in Section 8.0, for the following reasons:

- DSO3 is located in an officially recognized trapline and adjacent to another one (Figures 5.56 and 5.62); and
- the families that “own” those traplines have communicated to NML the high value that they attach to them, although the refusal of ITUM to collaborate with NML in a study of the land- and resource-use of its members means that NML has no data about the use of the traplines by the families in question.

### **A18.9 Local Infrastructure and Services**

In the present context, “local” refers to infrastructure and services in Schefferville, since the nearest communities in Labrador, namely Wabush and Labrador City, are some 200 km distant and are connected to the LSEA only by rail and air.

NML will make little use of local services and infrastructure:

- it will have its own ambulance and fire truck and the associated trained personnel;
- it will have its own first-aid facility staffed 24 hours per day and seven days per week by trained first-aid personnel;
- it will operate its own sanitary landfill or equivalent;
- staff, except for persons recruited locally and Aboriginal employees with close relatives in the Schefferville region, will live in a camp in the vicinity of Timmins 1 and will have no access to Schefferville except on official business;
- NML’s camp and other facilities will have their own water and sewage systems;
- NML will have its own security personnel;
- it will have its own rail link from M353 to the Timmins 1 vicinity.

The main local infrastructure and services that NML will use will be the following:

- NML’s personnel will travel primarily by aircraft through the Schefferville Airport. There will be three flights per week during the preparation/construction phase and two during the operations phase. The number of passengers will be approximately 100 per week during the preparation/construction phase and roughly 60 per week during the operations phase.

Data on aircraft movements at the Schefferville Airport have not been collected by Statistics Canada since 1998. Information on the number of passengers is held by Transport Canada, but it is confidential.

The average number of aircraft movements at the Schefferville Airport between 1973 and 1985 was 10,398 per year (Statistics Canada 1977; 1980; 1985). Largely as a

result of the termination of the mining operations in the Schefferville area, in 1982, that number had declined to less than 5,000 per year by 1998 (Statistique Canada 2008b, Internet site).

It is clear, therefore, that the Schefferville Airport has the capacity to handle any additional aircraft and passenger traffic that the Project will generate, the more so since the landing strip was repaved and the runway lights replaced in 2000 (Boudreault 2009, *personal communication*). The approach lights were removed in 2000 because modern approach lights require much maintenance, and the required expertise is not available in the Schefferville area (Lussier 2009, *personal communication*). Approach lights are not, however, a requirement, and many northern airports do not have them;

- NML will hold annual meetings with the manager of the Schefferville Airport to check the prediction of no important effects of the ELAIOM on the airport;
- until the planned rail spur from M353 to the Timmins 1 area is operational (scheduled for Year 1 of the preparation/construction phase), rail freight will be unloaded at or close to the Schefferville Railway Station. Thereafter, only freight arriving in cars containing other freight destined for Schefferville will be unloaded there. Freight destined solely for NML will be offloaded at M353 and will then take the spur line to Timmins 1. Approximately two tonnes per week of rail freight will come to Schefferville on the two regular trains of TSH;
- based on an industry average of between four and 12 work-related accidents per 100,000 person-hours (GoC 2004, Internet site), NML's workers are likely to have between eight and 24 accidents per year (190 workers x 2,000 hours). Based on statistics for iron mines in Québec (CSST 2007), 50%-75% of those accidents (between two and 18 accidents) might require treatment at the Schefferville Dispensary. If NML meets its objective of recruiting at least 50 workers locally, that would mean a maximum of about 12 "new" accident victims visiting the Schefferville Dispensary each year.

Statistics for Québec and for the Labrador-Grenfell Regional Integrated Health Authority (Statistique Canada 2008a, Internet site) show that between 67% and 75% of the population consult a doctor each year. If we assume that these percentages will apply to NML's labour force, then up to 140 of NML's employees will need to consult a doctor in any given year. Based on NML's objective of hiring 50 persons locally, some 40 of those persons needing to consult a doctor would be local persons who already use one of the three dispensaries in the Schefferville region. The 100 other persons will spend only 26 weeks per year in the Schefferville region, and it seems reasonable to assume that roughly one half of their consultations with doctors will occur in their home communities. It is likely also that some of them will be satisfied to consult the first-aid personnel of NML or to consult their own physician by telephone. We predict, therefore, that there will be less than one additional consultation per week at the Schefferville Dispensary.

On the basis of the foregoing, we expect that roughly one new user per week will need to use the Schefferville Dispensary each year during preparation/construction and operations.

The Schefferville Dispensary provided services to 225 persons (946 interventions) in 2007-2008 and to 247 persons (1,104 interventions) in 2006-2007 (CSSS de l'Hématite 2008).

All Canadian citizens who can produce a health card are entitled to use the Schefferville Dispensary. The cost of services provided to non-residents of Québec is invoiced to their province of residence (Ducharme 2008, *personal communication*).

The anticipated number of new users of the Schefferville Dispensary is approximately 20% of the number of the Schefferville residents using it annually in recent years. At any given time, there is only one nurse serving the Schefferville Dispensary (Section 5.5.8.3). That nurse is on call 24 hours per day and seven days per week. If he or she receives too many emergency calls outside normal working hours, the presence of a second nurse would become necessary. Employees of NML needing to see a doctor would in most cases do so during the weekly out-patient clinic there and would place no additional burden on the nurse outside normal working hours. Given the presence of a first-aid centre at NML's work site, only a proportion of the estimated maximum of 12 "new" accidents per year would probably require disturbing the nurse outside normal working hours.

Given the foregoing numbers and the fact that the costs incurred by the Schefferville Dispensary to provide services to non-residents of Québec will be reimbursed, we are assuming that the additional burden placed on the Schefferville Dispensary by the Project will be modest and need not be considered further in Section 8.0. NML will, however, maintain regular contact with the CSSS de l'Hématite, which administers the Schefferville Dispensary. Should the additional burden placed on its resources by the Project's employees prove to be excessive, mutually acceptable solutions will be identified;

- NML will take as much energy as possible from the Menihek Generating Station, which is connected to Schefferville by two transmission lines (see Section 4.10.1.2). It will, however, be permitted to take only energy that is surplus to the requirements of the Schefferville region. The Project will use diesel generators to supply energy that cannot be taken from the Menihek Generating Station. Consequently, there is no serious potential for a negative effect on the electricity supply in the Schefferville vicinity.

In the light of the foregoing information, the Local Infrastructure and Services VEC will not be considered further in Section 8.0. Nonetheless, NML will meet the Administrator of the Ville de Schefferville annually to discuss any effects of its operations on local infrastructure and services.

#### **A18.10 Archaeological/Heritage/Palaeontological Sites**

Sections 5.5.11 and 5.5.12 demonstrated that no archaeological, heritage or palaeontological sites are threatened by the ELAIOM.

Consequently, the Archaeological/Heritage/Palaeontological Sites VEC will not be considered in Section 8.0.

#### **A18.11 Sites of Cultural or Spiritual Importance**

In an important sense, it should be recognized that the LSEA, like all of the territory that they use and occupy and the resources within it, are of cultural or spiritual importance to the members of the concerned FNs.

Section 5.5.13.2 identified two sites of religious importance to the members of the NIMLJ, but neither of them is in the LSEA, and they will not be affected by the ELAIOM.

Consequently the Sites of Cultural or Spiritual Importance VEC will not be considered further in Section 8.0.

## A18.12 Community Cohesion

Concern has been expressed in relation to several mines (Environmental Assessment Panel June 1996; UMA & Associates September 1998; Northern Development Ministers Forum 2005-2006) that paying high salaries to some members of small and isolated, especially Aboriginal, communities could, especially in the early years of a project, reduce the cohesion of those communities by creating or accentuating disparities of wealth and social status. Northwest Territories (May 2008), however, noted that the development of diamond mines there did not seem to have led to more income inequalities in the eight communities on which it reported.

The communities in question had never previously had many opportunities for salaried employment. Such is not, however, the case for Matimekush, Lac John, Kawawachikamach and Uashat mak mani-Utenam:

- the three communities in the Schefferville region were exposed to income disparities when some of their members worked for the IOCC between 1954 and 1982. Between 1976 and 1983, the Naskapis were also exposed to income disparities arising from seasonal employment on the James Bay Hydroelectric Project, especially through Naskapi Construction Corporation (NDC August 1989). A survey of the annual incomes of 73 Naskapi men in 1986 (NDC August 1989: Table 31) revealed a range from \$220 to \$44,000. The richest 57% of the Naskapi population at that time controlled 74% of the income;
- the members of ITUM have had less exposure than the FNs of the Schefferville area to mining, but they have been part of the wage economy of the Sept-Îles area for several generations. In recent years they have benefited from some preferential employment at Aluminerie Alouette Inc.

Until the opening of the Voisey's Bay mine and mill complex, in 2005, the Innu of Labrador, especially those living at Davis Inlet and, more recently, Natuashish, had had limited opportunities for salaried employment.

Given the long exposure of the Naskapis and the Québec Innu to salaried employment and the associated disparities in income, we do not anticipate that the Project will have an important effect in accentuating income-related disparities within their communities. Indeed, the converse may even be the case: given the proximity of the Project to Matimekush, Lac John and Kawawachikamach and its easy access from the Sept-Îles area, the fact that the Naskapis and the Québec Innu are much better trained and educated and more experienced than they were when the mines of the IOCC were in operation in Schefferville, combined with the commitment of NML to implement training programmes and an employment preference for Innu and Naskapis, it is reasonable to assume that a high percentage of the Naskapi and Innu labour force in the Schefferville region will find direct, indirect or induced employment through the Project. In that event, increased income would flow to a high percentage of households, and existing disparities in income might even be reduced.

Representatives of the IN informed NML at a meeting held in Montréal on December 10, 2008 that they thought that few of its members would be interested in working on the ELAIOM, largely because of the other employment opportunities available to them closer to home. The low attendance at the public information session in Natuashish on June 30, 2009, and the apparent lack of interest in such an information session by the Innu of Sheshatshit are consistent with an unawareness of the ELAIOM or a lack of interest in the opportunities that it offers.

Given the foregoing, the Community Cohesion VEC will not be considered further in Section 8.0. Nevertheless, assuming that Phase 2 proceeds, a programme of monitoring will be

implemented every fifth year, and mitigation measures will be devised and applied if justified.

#### **A18.13 Family and Interpersonal Relations**

SCosta Consulting Services (November 2007) (Appendix I) identified the following potential disadvantages of the commuter model for the labour force and families:

- difficulties in communicating with family, friends and service-providers such as banks;
- distress from frequent partings and reunions;
- difficulty for single persons in finding a life partner;
- family dysfunction;
- strained marital relationships and issues of fidelity;
- feelings of guilt and helplessness about the absent person;
- increased risk of substance abuse among workers;
- challenges with the definition of roles within the family;
- the difficulties for children in dealing with frequent absences of one or both parents;
- the need for child services, especially for single parents;
- loneliness and practical difficulties for the spouse of the absent worker.

Northwest Territories (May 2008) tentatively attributed increases in STDs and in the number of single-parent families to rotational work schedules.

The foregoing will not be issues for the Naskapi and Innu employees recruited from the Schefferville area, since they will have the option of living at home. They should not be major problems for Innu employees recruited from Uashat and Mani-Utenam either, since most of them have close family in the Schefferville area, and they will have the opportunity of living with them. Some Innu from Labrador also have close relatives and friends in the Schefferville area, and they will have the opportunity of staying with them if they work on the ELAIOM. As noted above, however, NML does not expect many Innu from Labrador to work for it. Non-Natives resident in Schefferville will also be allowed to live at home and to commute daily.

Notwithstanding NML's commitment to hiring as many Aboriginal persons as possible, it is certain that non-Natives recruited from outside the Schefferville area, in large part from the Province of Newfoundland and Labrador (especially Labrador West), will constitute an important component of the labour force (see Section 3.2.2).

Shrimpton and Storey (2000) demonstrated that many factors other than the commuter lifestyle influence the well-being of employees, and they suggested that the commuter lifestyle may have been held responsible for problems of which it was not the sole, or even the principal, cause.

For that reason, and because it is impossible to predict the importance of any effects on it, the Family and Interpersonal Relations VEC will not be considered in Section 8.0. NML's employees will nevertheless be monitored for such problems, and NML will assist persons in need to obtain counselling or other assistance, including an Employee Assistance Programme. Subject to issues of confidentiality, examples of problems and solutions will be provided in NML's annual report.

#### **A18.14 Maintenance of Community Populations**

SCosta Consulting Services (November 2007) (Appendix I) cited literature from Canada and Australia recording that some employees of commuter mines leave their communities as a result of their improved economic situation and the improved mobility that the commuter flights provided by the mining company create. The report noted that Aboriginal individuals tend to have very strong links to their lands and communities, which suggests that they might be less inclined than non-Aboriginals to leave them. On the other hand, given the small populations of the Aboriginal communities in the labour force catchment area of the Project, such losses, even in small numbers, could be important for the social, cultural and economic sustainability of the communities in question, the more so since their members who find employment are likely to be among the best-educated and -trained.

Despite the poor living conditions and the rarity of employment opportunities in their communities, the Naskapis and the Innu have shown relatively little tendency to leave their home communities. Indeed, there are strong incentives for them to remain in those communities, such as family relationships and friendships, subsidized housing, the proximity of harvesting territories, the possibility of being exempt from income tax under certain circumstances when employed, and the proximity of burial sites of ancestors. We do not believe, therefore, that the loss of additional members because of the Project is likely to become an issue for any of the concerned Aboriginal communities.

The social and economic structure of the small non-Native communities in Labrador and Québec in which NML might recruit employees is similar to that of the Aboriginal communities. The strength of the ties of their residents to them is such that it seems to us to be improbable that they would choose to leave them when they have the opportunity to commute. Population losses did, of course, occur in the past, but that was when mining companies built permanent towns to which their employees were required to relocate on a full-time basis.

Given the relatively small size of NML's labour force, any population loss that might occur in the larger communities in the RSEA, such as Happy Valley-Goose Bay, Sept-Îles and Baie-Comeau, would be so small as to be unimportant.

Given the foregoing, the Maintenance of Community Populations VEC will not be considered further in the section on effects assessment and management. Assuming that Phase 2 proceeds, monitoring will, however, be conducted at five-year intervals by analyzing data on local employment and contracting and Newfoundland and Labrador benefits in relation to place of residence.

#### **A18.15 Road Safety**

The network of mining roads built by the IOCC between 1954 and 1982 continues to be used by the Aboriginal and non-Aboriginal populations of the Schefferville region for purposes of subsistence activities and recreation. Pick-ups and ATVs dominate when there is no snow on the ground, and snowmobiles dominate at other times. In the absence of mining-related traffic since 1982, those roads have been particularly safe. There are no statistics on the frequency of traffic on the main road between Schefferville and DSO3, since it does not form part of any provincial road network, but observations suggest that at most seasons it is probably less than 10 vehicles daily.

All existing and new roads will be accessible to the general public except those entering active mines and waste rock disposal areas.

The intensity of traffic on the main access road between Schefferville and DSO3 will be low, as described in Section 4.12.3. The most intensive traffic will be between active mines and the associated waste rock piles and the processing complex in DSO3 (see Section 4.12.7.4).

The speed limit will probably be 90 km/h. It will be enforced by NML's security personnel. Records of accidents will be kept.

In our opinion, the low volume of non-NML traffic on the main access road, coupled with NML's commitment to enforce the speed limit, reduces the likelihood of accidents on the main access road to the point that the Road Safety VEC does not merit further consideration in Section 8.0. The situation will, however, be monitored by recording all accidents and preparing an annual report, and remedial measures will be instituted if required.

The greater volume of traffic on the main access road may even improve safety, in the sense that persons whose vehicles break down while they are harvesting (apparently a relatively frequent occurrence) will be more likely to find assistance quickly than would otherwise be the case. Moreover, the presence of NML's security personnel and of an increased volume of traffic may incite local drivers to drive more safely. Finally, the fact that NML will maintain the roads that it uses year-round and will clear snow from them in winter should increase safety.

Road safety may be a greater issue on rue de la Gare, in Schefferville, at least until the rail extension from M353 to Timmins 1 is operational (part-way through the preparation/construction phase) and on the short section of the main access road leading to Schefferville's sanitary landfill. Discussions are underway between the Ville de Schefferville and MTQ regarding upgrading rue de la Gare and improving the signage (Beaudoin 2009a, *personal communication*). NML has initiated communications with the SQ regarding enhanced patrols and surveillance in that area and, possibly, on other parts of the main access road. If appropriate, discussions will be held with the Royal Newfoundland Constabulary and the RCMP.

We believe, therefore, that the potential effects on the Road Safety VEC can be mitigated to the point that they do not require further consideration in Section 8.0.

#### **A18.16 Commercial Fishing**

Notwithstanding the reference in the Guidelines, the Commercial Fishing VEC will not be considered in Section 8.0, since there is not, and never has been, any commercial fishery in the LSEA or vicinity, and there does not appear to be any potential for such a fishery (see Sections 5.4.3.9 and 5.5.7).

#### **A18.17 Maintenance of Local Labour Forces**

The number of skilled and experienced persons in the FN communities under consideration is still relatively small, even though it has grown in recent years (see Sections 5.5.4 and 5.5.17). Especially at Kawawachikamach and Matimekush-Lac John, most of the skilled workers work for the local governments, since there are few other opportunities for salaried employment locally. The loss of such persons from the local labour force would be very serious, especially since they would sometimes have to be replaced by persons recruited from outside the community. Such outside employees may not be well accepted, and the need to provide them with travel and other benefits means that they cost more than persons hired locally.

The same is true for non-Native employees in a small town such as Schefferville.

The presence of a mining company can distort the local economy by offering higher salaries and better benefits than the local governments and other employers can afford.

There is a danger, therefore, that the ELAIOM might cause essential employees of the NIMLJ and the NNK to leave their employment in favour of NML.

There is, of course, no certainty that such would be the case:

- 12-hour shifts and seven-day weeks on a mining operation can be less attractive than eight-hour days and five-day weeks for a local government or other local employer;
- the Aboriginal employees of NML may be required to pay income tax, which they usually do not have to do if they work for the FNs;
- the pressure of working in a mine may be higher than that of working for a FN;
- some Aboriginal persons may not feel at ease working in a “non-Native” environment.

There is also a danger that the Ville de Schefferville and private-sector employees there might also lose employees.

The Maintenance of Local Labour Forces VEC will not be considered further in Section 8.0. That is not because we consider it to be unimportant, but because its magnitude as an effect cannot be estimated.

NML will, however, monitor the effects of the Project on this VEC by recording the number of former employees of the NNK and the NIMLJ annually. If circumstances so justify, it will design and implement mitigating measures in collaboration with the affected FNs.

#### **A18.18 Maintenance of Social Stability**

Social stability can be threatened when a transient labour force, especially one composed primarily of highly paid and predominantly single men, takes up residence in or near a small community, especially an Aboriginal one. The danger of such tensions is especially great when the transient workers have more disposable income than local residents.

The manifestations of the destabilizing effects of transient labour forces can include: increased frequency of STDs; increased drug- and alcohol-abuse; violent encounters with local residents; an increase in prostitution; and disruption of relationships between local couples.

Given the pre-existing problems of drug- and alcohol-abuse and gambling in the Schefferville area (see Section 5.5.8 and Simard (2003)), the potential for enhanced frictions appears to be great. The presence of bars, restaurants and a discotheque in Schefferville would make it an attractive destination for workers in their leisure hours if they lived in or close to Schefferville, especially if they had access to vehicles outside working hours.

The fact that all of NML's non-local staff will be obliged to live in a camp located in Labrador some 20 km north of Schefferville, that they will work 12-hour shifts seven days per week and that they will not have access to vehicles for private purposes will undoubtedly do much to eliminate the potential for social disruption. Employees will not be allowed to own vehicles.

The workers' camp and the processing complex will be fenced and gated, and the general public will not have free access to them.

NML intends to provide recreation facilities at the workers' camp and, subject to applicable regulations and discussions with the local communities, it will consider operating a tavern or similar facility at the camp. Experience elsewhere has suggested the value of having limited opening hours and restricting the quantity of alcohol that is served to each person.

The foregoing measures are designed to reduce the likelihood that workers will want to travel to Schefferville in their spare time, but it would be naïve to imagine that they would eliminate that desire.

There are two taxi services in Schefferville. If the Project proceeds, it is likely that some local persons will operate their private vehicles as unofficial taxis as a source of additional income (this is already a widespread practice in the area).

The cost of a return trip to Schefferville is likely to be of the order of \$60 (2009), which should act as a disincentive.

In order to discourage taxi trips by its workers to Schefferville, NML will put the gate giving access to the camp as far as it can from the camp, in the hope that the long walk from the camp to the gate will discourage workers from taking taxis to Schefferville, especially in winter.

We expect that the outcome of the foregoing will be that the presence of NML's workers will have at most minimal effects on social stability in the Schefferville area.

The Maintenance of Social Stability VEC will not be considered further in Section 8.0, for two reasons:

- the effect is expected to be negligible;
- its importance cannot in any case be assessed with sufficient certainty.

Preferably with the assistance of the local police forces, NML will monitor the relationship between its employees and the local communities with the assistance of the local authorities. If problems emerge, NML will collaborate with the local authorities to solve them.

#### **A18.19 Rail Transportation**

Rail transportation was selected as a VEC for several reasons:

- it was identified in the Guidelines (GNL December 12, 2008);
- Schefferville is not connected to the outside by road, and the rail link to Sept-Îles is therefore an essential service;
- the functioning of the existing mines in the Labrador City and Wabush area depends on rail transportation, and the owners of those mines would probably object to any additional activity that might interfere with their ability to ship their products or to import the raw materials and supplies that they need.

Transporting NML's ore will involve: TSH, the owner/operator of the Menihek Division between Emeril and Schefferville; QNS&LR, the owner and operator of the track between Emeril and Arnaud Junction; and Wabush Lake Railway Company, the owner and operator of the track between Arnaud Junction and Pointe-Noire.

There are at present only two passenger/wayfreight trains per week over the Menihek Division. When the mines at Schefferville were in operation, approximately 13 Mt of ore were exported annually over the Menihek Division in addition to passenger and freight trains.

After the closing of the mines, in 1982, the heavy rail on the Menihek Division required for ore trains was replaced with lighter rail that was adequate for passenger and wayfreight trains. Little maintenance was done after 1982, and many of the sleepers are now over 50 years old. Moreover, we understand that certain sidings, which are essential for the smooth flow of two-way traffic over a single-line railway, were removed.

There exists, therefore, uncertainty as to the capacity of the Menihek Division to accept ore trains consisting of 240 cars without upgrading.

NML commissioned a study that identified and costed a five-year programme to return the Menihek Division to the required standard, including installing new sleepers, laying new rail, installing hot box and dragging equipment, building new sidings and constructing yard track at Emeril Junction. LIM also paid for an evaluation of the condition of the track and the 2 Mt that LIM will produce. The bulk of the work would be completed in the first two years, namely by the end of Year 1 of the production schedule (Table 4.6).

Once the foregoing works have been completed, the Menihek Division will be able to transport the 4 Mt of ore that NML will produce annually without any negative effect on passenger and wayfreight service to and from Schefferville. Pending the completion of the required renovations, NML will match its shipments to the capacity of the Menihek Division and the requirements of LIM.

The upgrading of the infrastructure of the Menihek Division will have positive effects for the passenger and wayfreight service, since the slow orders that have been in effect for many years because of the poor condition of the track will be able to be lifted.

Calculating the capacity of QNS&LR's track is more complex.

National Competition Council (February 27, 2006) explained that the capacity of a railway line to transport iron ore is determined by:

- the number of trains that can occupy the line without colliding;
- the frequency of trains entering the railway line; and
- the carrying capacity of the trains.

Those determinants are in turn a function of numerous criteria, including the configuration of the railway, the erosion of its availability and the specifications of the ore trains themselves.

It noted that capacity estimates are inevitably a compromise between simplicity in the interests of comprehension and complexity in the interests of reality and relevance.

The present discussion opts for a simple approach.

Table A18.1 shows that the annual haulage of iron ore over the tracks of the QNS&LR might increase from its current level of 23 Mt to approximately 45 Mt, which is close to the initial design capacity of QNS&LR's infrastructure.

**Table A18.1: Current and Proposed Haulage of Ore over the QNS&LR**

| User         | Current Haulage |            |             | Proposed Haulage |              |            |
|--------------|-----------------|------------|-------------|------------------|--------------|------------|
|              | Loaded Ore      |            |             | Loaded Ore       |              |            |
|              | Mt/y            | Trains/y   | Trains/day  | Mt/y             | Trains/y     | Trains/day |
| IOCC         | 18              | 750        | 2.27        | 25               | 1,042        | 3.2        |
| Wabush Mines | 5               | 208        | 0.63        | 6                | 250          | 0.8        |
| CLM          | -               | -          | -           | 8                | 333          | 1.0        |
| LIM          | -               | -          | -           | 2                | 262          | 0.8        |
| NML (DSOP)   | -               | -          | -           | 4                | 262          | 0.8        |
| <b>Total</b> | <b>23</b>       | <b>958</b> | <b>2.90</b> | <b>45</b>        | <b>2,149</b> | <b>6.5</b> |

The capacity of a single-line railway depends in large part on the availability of sidings. If required, NML will contribute directly (capital contribution) or indirectly (through the tariff) to the cost of installing additional sidings on the QNS&LR, so that the operation of its ore trains will have no effect on existing service or on the planned ore haulage of other new mining operators.

There is only one train per day over the track of the Wabush Lake Railway Company, and so the issue of available capacity does not arise there. There is a small amount of traffic between the ferry and the aluminium refinery, but it does not use the same portion of the

track as would the trains transporting NML's ore. Beaulieu (2009, *personal communication*) confirmed that there is spare capacity on the Arnaud Railway.

In the light of the foregoing, there seems to be no possibility that transporting ore from the ELAIOM between Schefferville and Pointe-Noire will have any negative effects on existing or planned rail services. Consequently, the Rail Transportation VEC will not be considered further in Section 8.0.

Negotiations between NML and the concerned railway companies are in progress, and it is anticipated that agreements on tariffs will be reached in time for the planned start of production.

TSH and QNS&LR are both "common carriers" under Canadian law. They are therefore obliged to transport NML's ore and other goods in the absence of exceptional circumstances that, in the eyes of NML, do not exist.

#### **A18.20 Inter-provincial Labour Mobility**

Several participants in the public information and consultation programme in Labrador West and the Schefferville area expressed concern that they would not be able to take advantage of employment and contracting opportunities on the other side of the provincial border.

As far as we can ascertain, the only regulated sector in that regard is the construction sector in Québec (Guimont 2009, *personal communication*). Workers in the construction sector must satisfy the Commission de la construction du Québec that they have the appropriate qualifications.

We are aware of no comparable legislation in Newfoundland and Labrador.

On April 24, 1998, the GNL and the GoQ executed an agreement on construction labour mobility entitled "Newfoundland and Labrador-Québec Agreement on Labour Mobility and Recognition of Qualifications, Skills and Work Experience in the Construction Industry".

Pursuant to that agreement, most or all of the obstacles to the mobility of construction workers between Newfoundland and Labrador and Québec were supposedly removed. The topics addressed in the agreement are mutual recognition of the qualifications, skills and work experience of construction workers, recognition of occupational health and safety training and recognition of construction contractors' qualifications.

The foregoing does not mean that the persons who reported problems were wrong, since it appears that the agreement is poorly known and that its application sometimes causes problems (Sauvé 2009, *personal communication*).

Nevertheless, in the circumstances, we do not judge that the Inter-provincial Labour Mobility VEC merits further consideration in Section 8.0.

The importance of this issue in Labrador West was highlighted by a letter sent on July 31, 2009 by the Atlantic Provinces Chambers of Commerce, the Canadian Chamber of Commerce and seven provincial and territorial chambers of commerce to Premier Danny Williams. It appears that Labrador West Chamber of Commerce wishes its workers and companies to be able to benefit from opportunities in other parts of Canada and that it welcomes the presence of workers and companies from other parts of Canada in Labrador West.

## A18.21 Availability of Labour Force

There are two aspects to this VEC: whether NML can find the employees that it needs to build and operate the ELAIOM; whether NML's efforts to recruit workers might negatively affect the ability of other employers to recruit or retain the workers that they need.

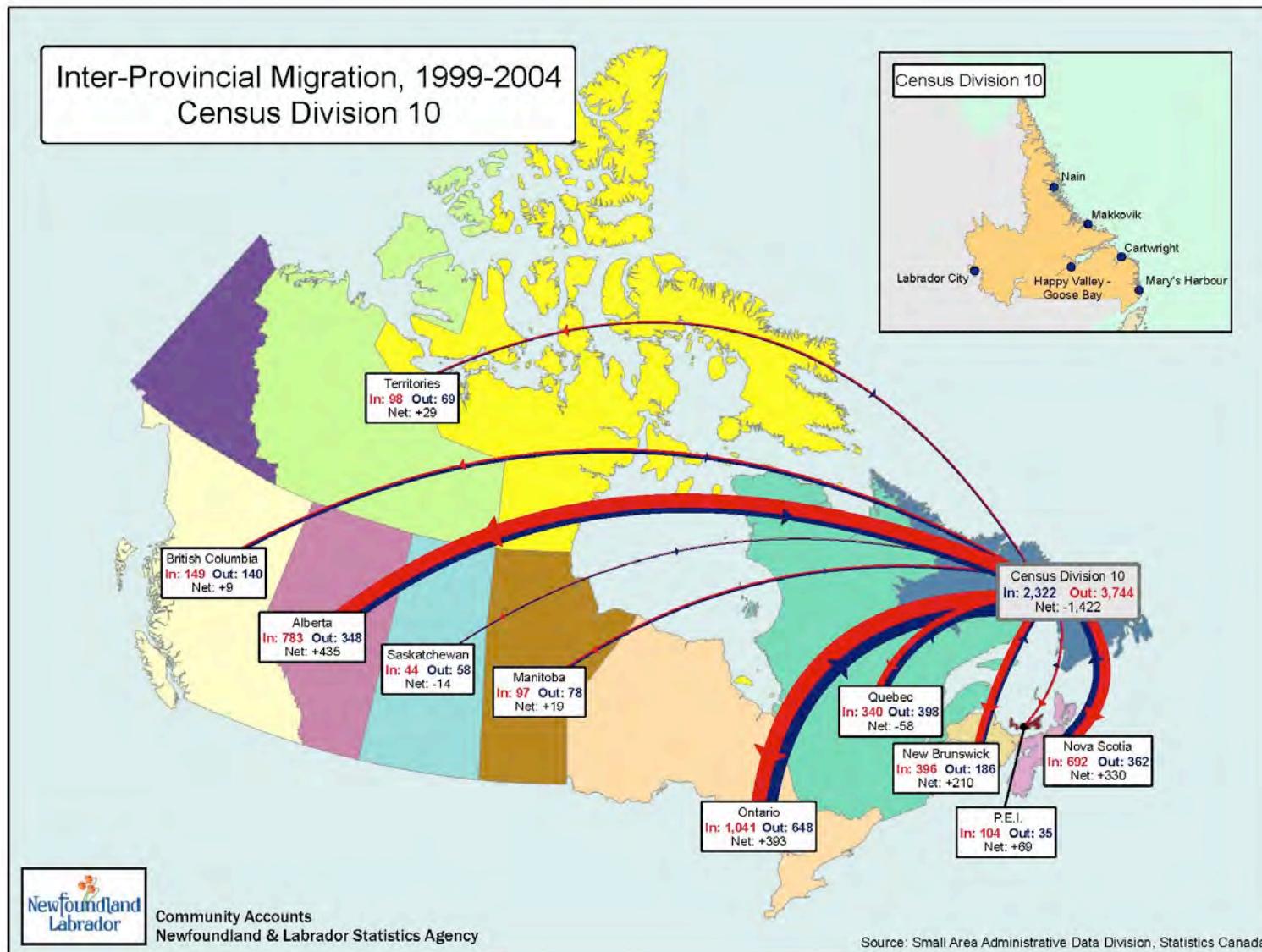
NML's required labour force at the preparation/construction and operations/maintenance phases is small compared to that of many other projects (Lower Churchill Hydroelectric Project construction labour force of ~2,000 persons; Voisey's Bay Mining Company mine and concentrator site operations and maintenance labour force of ~460 persons and total labour force of ~ 1,136 persons (Vale Inco 2009, Internet site)).

Given that some of the DSO deposits are in Labrador and some in Québec, NML will recruit its workers from both of those provinces.

The total labour force in Labrador is roughly 20,000 (Table 5.58) while that in the Région administrative de la Côte-Nord of Québec is approximately 65,000 (Table 5.59). Both labour forces contain a range of qualified persons, including many with experience in the mining industry, especially in Wabush, Labrador City, Fermont and Sept-Îles. The unemployment rates in both regions are relatively high.

Recent lay-offs in the mining industry in Labrador West and Québec mean that many highly qualified and experienced persons are available. Lay-offs in Alberta and elsewhere mean that some of the numerous citizens of Newfoundland and Labrador currently working there (see Figure A18.3) will be seeking alternative employment. Rotational schedules at a mining project close to home may be attractive to them.

Figure A18.3: Inter-provincial Migration from Labrador, 1999 to 2004



Note: Since 2006, Labrador has been divided into Divisions 10 and 11.

Source: Community Accounts (2009, Internet site)

We see no reason to anticipate that NML will experience any particular difficulty in recruiting the employees that it needs, or that its efforts will cause problems for other employers in the RSEA. Consequently, this VEC will not be considered further in Section 8.0.

#### **A18.22 Restoration/Rehabilitation**

All of the participants in the public information and consultation sessions in the Schefferville region expressed a strong preoccupation that all sites disturbed by the ELAIOM be restored as rapidly and as completely as possible (Table 6.1). They explained that their concern was motivated by the fact that the former operator of mines in the Schefferville area had not, in their opinion, done an adequate or timely job of restoring the sites that it had disturbed. There are also many abandoned mining exploration camps belonging to other companies in the general vicinity of Schefferville.

Sections 8.1 and 10.0 and Appendix 8 make clear NML's commitments to the full and timely restoration and rehabilitation of all disturbed sites.

Restoration and rehabilitation are now required by law in both Newfoundland and Labrador and Québec, which was not the case during the first round of iron ore mining in the Schefferville area.

Given that the Restoration/Rehabilitation VEC is considered in detail elsewhere as a mitigation measure, it will not be addressed as a stand-alone VEC in Section 8.0.

#### **A18.23 Training**

The identification of training as a VEC goes hand-in-hand with interest in employment and contracting opportunities (see Section 6.0).

Section 4.7 describes the efforts that NML has already made to provide employment, contracting opportunities and training. Section 4.9.3 describes further training initiatives and presents NML's ongoing commitment to training if the ELAIOM is approved. It also records NML's expectation that training will be an important component of the IBAs that it hopes to conclude with the concerned FNs in Newfoundland and Labrador and Québec.

Given the foregoing, the Training VEC will not be addressed further in Section 8.0.

#### **A18.24 Access to Territory for Traditional Activities**

Section A18.1 explained that the LSEA is important in that the main access road provides access to a large territory, even though the LSEA itself is not vital for traditional activities (Sections 5.4.3 and 5.5.5).

The participants in the public consultation programme in the Schefferville area expressed particular concern that one consequence of the ELAIOM might be to block their access to areas north of Schefferville used for traditional activities.

That fear was based on the fact that the former mining operator in the Schefferville area reportedly blocked or discouraged access to that area over many years.

Section 4.10.1.1 explains how NML intends to ensure public use of the main access road. Section 4.12.4 explains that mine site roads (haul roads and roads to waste rock piles) will be open to the public except when the mines are actually in operation.

The only other foreseeable way in which access to the territory might be blocked is during blasting. Figure 4.6 shows that the main access road will at times be closed because of blasting. Based on Appendix 8.2 any such closure will last for little over one hour, and all closures will occur in the middle of the day and will be announced in advance in the local

media. Section 4.12.7.3 established that blasting will as a general rule occur only twice weekly.

In the light of the preceding, we conclude that there will be no important effect on the Access to Territory for Traditional Activities VEC. It will not, therefore, be considered further in Section 8.0.

#### **A18.25 Racial Tensions on Work Site**

The participants in the public consultation in the Schefferville area expressed concern about the possibility of racial tensions between Native and non-Native employees.

Appendix 4 reproduces NML's policy on harassment, which will be enforced constantly and fully.

In 2008 alone, NML employed some 25 local Innu and Naskapis for a total of over 10,000 person-hours of employment (O'Quinn 7 January 2009). Not a single complaint was received about racial discrimination or any other form of harassment of Native employees.

In the light of the foregoing, the Racial Tensions on Work Site VEC will not be considered further in Section 8.0. In any case, it would be impossible to make any prediction as to its importance.

#### **A18.26 Sport Hunting of Caribou by NML Employees**

For the reasons explained in Sections A18.1, 5.5.7.3 and 5.5.19, there is no serious prospect that NML's employees will practise sport hunting of caribou on a large scale.

Consequently, the Sport Hunting of Caribou by NML Employees VEC will not be considered further in Section 8.0.

#### **A18.27 Quality of Berries and Medicinal Plants**

Some of the informants interviewed by Clément (Mai 2009) explained that the quality and potency of berries and medicinal plants are negatively affected by dust. They expressed concern that the ELAIOM might provoke such an effect (Clément Mai 2009, Table 16).

NML recognizes the possibility that its activities may generate dust, especially along the haul roads (see Section 8.1.1). Any such dust will, however, be confined to a narrow strip along those roads. Thus, the total area affected would be tiny relative to the total area over which berries can be collected. In any case, Figure 5.22 shows that only a few of the recorded collecting sites used by members of the NIMLJ are close to locations where dust might be generated.

The Quality of Berries and Medicinal Plants VEC will not therefore be addressed further in Section 8.0.

#### **A18.28 Goose Hunting at Lac Pinette**

One of the Innu informants of Clément (Mai 2009) expressed concern about the effects of the ELAIOM on goose hunting at lac Pinette.

Section 8.1.10 concludes that there is no serious potential for negative effects on migratory birds.

Figures 5.35 and 5.36 show that lac Pinette is only one of many sites used for goose hunting by the members of the NIMLJ and the NNK. Many of those sites are in areas of the LSEA that will not be affected by the ELAIOM or are outside the LSEA.

Figures A18.4 and A18.5 show the most recently available data on land use in and around the LSEA, namely that collected during the LIM/NML caribou survey in spring 2009 (D'Astous and Trimper June 2009, *in preparation*). The vicinity of DSO3 does not appear to have been a site of goose hunting at the time that the survey was conducted.

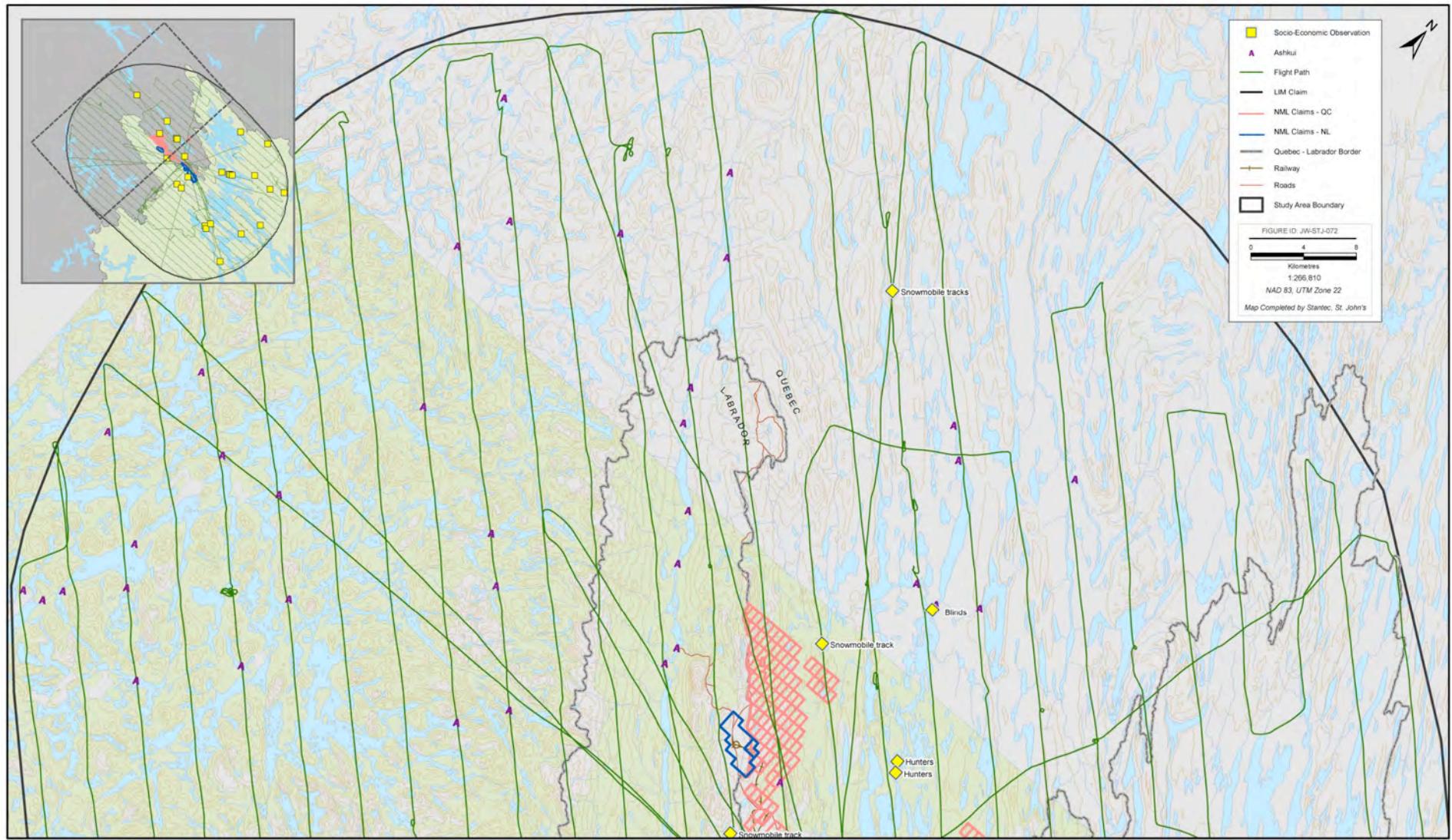
In the light of the foregoing, the Goose Hunting at Lac Pinette VEC will not be considered further in Section 8.0.

The Goose Hunting at Lac Pinette VEC is a good illustration of how the criteria presented in Section 7.0 (which are relatively typical of the criteria applied throughout Canadian EIA) can yield different judgments as to importance from those of the persons who might be directly affected by the effect in question.

The present EIS attempts to place potential effects in both a regional and local context, but its approach is nonetheless normative.

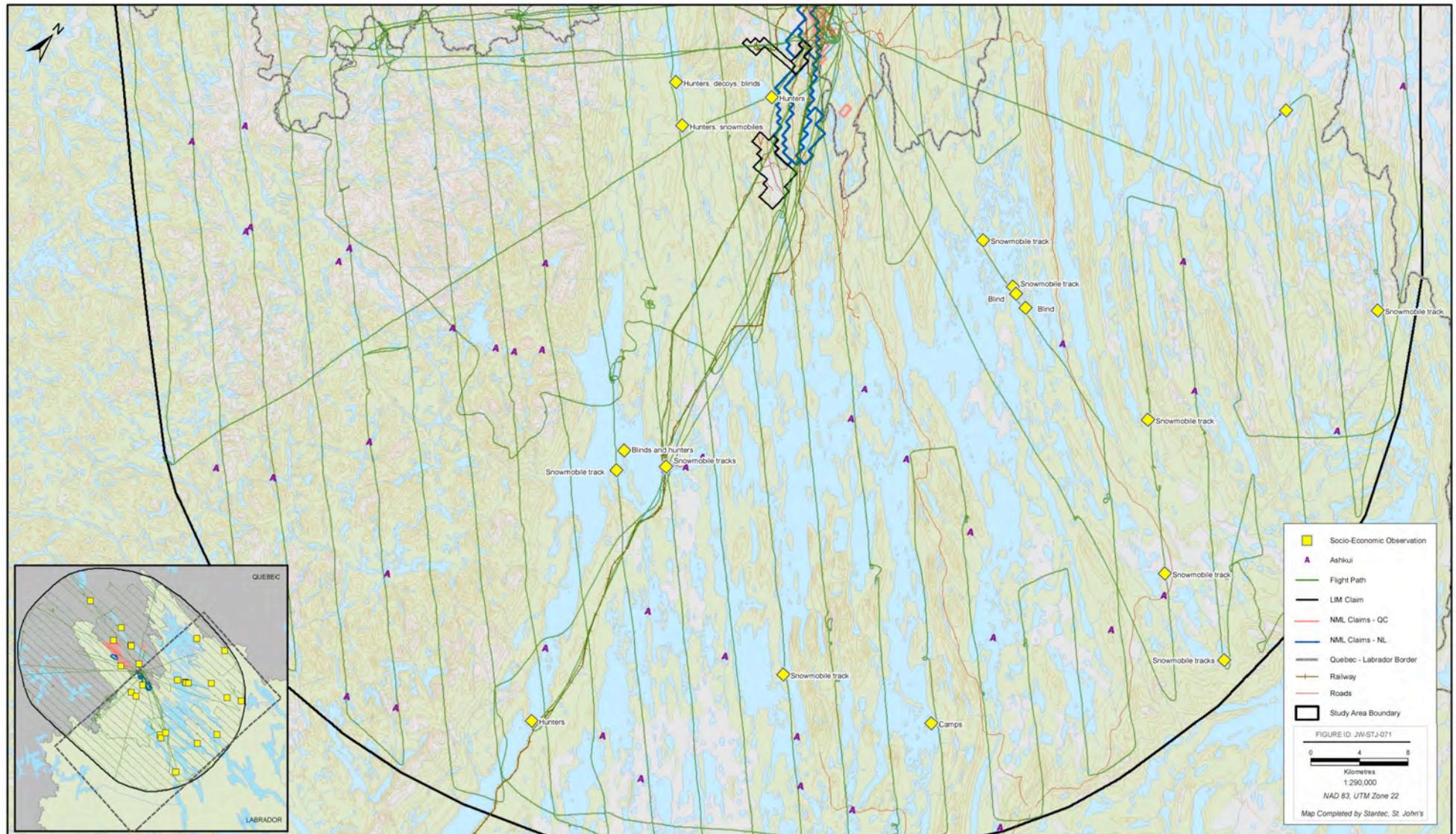
As such, it tends to rate some effects as being less serious than considered by those directly exposed to them. NML hopes that the IBAs that it intends to conclude and, perhaps, other *ad hoc* measures that it may be able to take from time to time can resolve the sense of being ignored that the victims of effects might experience.

**Figure A18.4: Observations of Land Use Activity during May 2009 Survey – North-west Section**



Source: D'Astous and Trimper (June 2009, *in preparation*)

**Figure A18.5: Observations of Land Use Activity during May 2009 Survey – South-east Section**



Source: D'Astous and Trimper (June 2009, *in preparation*)

## **A18.29 Small Game Hunting along Main Roads**

Some of the Innu interviewed by Clément (Mai 2009) expressed concern that Project-related activities might lead to the partial or complete abandonment of small game hunting in the vicinity of the ELAIOM.

The situation with respect to this VEC has some parallels to the Goose Hunting at Lac Pinette VEC:

- Section 8.1.8 concluded that transport and traffic would have only an unimportant interrelation with harvested mammals, including small game, at the preparation/construction phase and that the importance of the relationship at the operations phase would be negligible. The overall conclusion of Section 8.1.8 was that the loss of habitat associated with the ELAIOM would have only a low residual effect on harvested mammals, including small game;
- Figure 5.32 and Section 5.4.3.3 do not appear to indicate that the vicinity of main roads in the LSEA is particularly important for small game hunting.

In the light of the preceding, the Small Game Hunting along Main Roads VEC will not be considered further in Section 8.0.

## **A18.30 Gender Equity**

Data summarized by Boland (October 2007) (Appendix 24) demonstrate that women are underrepresented in natural resource industries in the Province of Newfoundland and Labrador. She also cites statements of principle by the GNL supporting the right of women to enjoy equally the economic benefits of natural resource development and lists several initiatives designed to increase the number of women in skilled trades, including several cases in which, at the urging of the Women's Policy Office of the GNL, requirements to increase the employment of women in non-traditional occupations in the natural-resource sector were attached to releases under the EPA. The WRDC has played a particularly important role in promoting the involvement of women in mining in Labrador.

Nevertheless, the involvement of women remains low: only 155/961 (16%) of the Labrador-based labour force of VBNCL in 2006 were women (VBNCL 2007, Internet site).

Given the delays associated with training and the challenges of recruiting women from the relatively small number of trained and experienced women, NML cannot make any predictions as to its likely effects of the Gender Equity VEC, particularly at the preparation/construction phase.

Women already occupy important positions within the NML team: Strategic Advisor to the Board of Directors and the President/CEO; Manager, Health, Environment and Safety; Executive Assistant to the President and CEO; legal counsel; Associate GIS Director and Mineral Claims Administrator; Associate Environmental and Social Affairs Coordinator; Senior Research Associate in environmental science; caribou biologist; helicopter pilot; environmental lawyer; chemical engineer; ornithologist; Director of Translation Services; fisheries biologist; environmental engineer; advisor on gender issues; economist.

Even though the Gender Equity VEC is not addressed in Section 8.0, NML commits to preparing an employment equity/women's employment plan and to implementing it as of or prior to the start of the preparation/construction phase. Appendix 19 contains a preliminary outline of the employment equity plan. NML will also monitor the implementation of the employment equity/women's employment plan.

Women constitute 13.6% of the labour force of the IOCC. All but one of them are hourly employees (IOCC 2009a, Internet site). Given that the activities of the IOCC are located adjacent to towns, where employees can live with their families and where they have access to facilities and infrastructure, it may be easier for the IOCC to recruit women employees than it will be for NML. Having 10% of women in the labour force may, therefore, be a realistic short-term target for the DSOP.

### A18.31 Health

Development projects can affect health directly or indirectly: it can be affected directly by, for example, releases of pollutants into the atmosphere or into drinking water supplies; it can be affected indirectly by, for example, affecting the quality or reducing the supply of essential sources of food.

Following the definition of the WHO cited by Tanner (November 2007) (Appendix J), "health" is considered to be "...a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity." That definition coincides with the use of the term in the Guidelines. Health is not considered here to include workplace accidents, which are considered in Section A18.9 and in several sections of Section 8.0.

Potential effects on health tend to be given prominence in the case of developments in or affecting the lands and resources of First Nations, because their health is often poorer than that of the general Canadian population (Tanner November 2007: 18-22).

Table A18.2 summarizes Tanner's (November 2007) review of the literature on how mining can affect the health of Aboriginal individuals and communities and evaluates the extent of their applicability to the ELAIOM.

**Table A18.2: Mining-related Sources of Health Effects and the ELAIOM**

| Source  | Relevance to ELAIOM  | Comments  |
|---|--|---|
| (1) Dust leading to lung disease.   | Best Available Control<br>Technology and other mitigation will keep dust levels low. Results of atmospheric dispersion modelling (Section 8.1.1) suggest regulatory levels may be exceeded very rarely at workers' camp. | Levels of dust will be monitored. Employees will be provided with appropriate protection when on duty. Given that workers at the camp will be predominantly indoors and the rarity of the high levels, no effects on health are anticipated. NML's on-site health professionals will be directed to report complaints about irritation by dust (eyes and lungs). Not a serious concern. |
| (2) Excessive noise or vibration.   | None anticipated.  | Not a concern.  |
| (3) Contaminated water in settling ponds affecting groundwater and human and animal health. | Tailings water will contain few or no chemicals and will be disposed of in abandoned mine not used for drinking by humans or large numbers of animals. The dilution effect will be very high.                            | Section 8.1.3 evaluates the importance of the residual effect on the quality of groundwater as "low". Not a serious concern.  |
| (4) Mental stress/anxiety resulting from nature of mining work,                             | Never mentioned by Naskapis and Innu who formerly worked   | As a group, miners do not have a particularly high rate of suicide  |

| <b>Source</b>  | <b>Relevance to ELAIOM</b>   | <b>Comments</b>  |
|--|--|--|
| possibly leading to suicide.   | for the IOCC. No records of suicides among Naskapi and Innu employees of the IOCC. Most types of work on ELAIOM will be similar to work already performed by Innu and Naskapis in other contexts (e.g., operating heavy equipment and driving trucks).           | (Gibson and Klinck 2005). NML will provide counselling and other forms of assistance in its power. Not a serious concern.  |
| (5) Road fatalities during long commutes.  | Commute will be short (10-20 km) and by bus driven by a professional driver.   | NML security personnel will enforce speed limit. NML will maintain (including snow-clearing) roads to a very high standard. No serious expectation of accidents.   |
| (6) High wages leading to increase in alcoholism and drug-abuse.   | Alcoholism and drug-abuse (as well as gambling) are already serious problems in the Schefferville area. Planned measures such as operating a "dry" camp, serving controlled amounts of alcohol there, an EAP and counselling should reduce or avoid this effect. | Worklessness can also be a contributor to drug- and alcohol-abuse. Employment on the ELAIOM may assist some persons in avoiding or overcoming drug- and alcohol-related problems. Not a serious concern. |
| (7) Increase in STDs as a result of in-migration of miners.  | Miners recruited from outside will live in a camp some 20 km north of Schefferville and will have few or no opportunities for contact with the local populations.  | Not a concern.   |
| (8) Increased levels of family violence due to changes in the socio-economic structure of the community. | Impossible to predict. Past exposure of most of concerned communities to wage economy should reduce or eliminate this effect.  | Little supporting empirical evidence. Not a serious concern.   |
| (9) Decreased access to country food.  | ELAIOM not expected to have a measurable effect on Aboriginal food sources or to limit access of Innu and Naskapis to harvesting areas.  | Not a serious concern.   |
| (10) Increase in conflicting human activities in traditional harvesting areas.                           | ELAIOM "outside" workers will not be allowed to hunt or fish during work rotations. They will have little or no opportunity to hunt outside work rotations.  | Not a serious concern.   |
| (11) Effects of commuter life on family life.  | Local Innu and Naskapi employees will live at home. Innu employees from other Innu communities will have the option  | NML will provide counselling and other forms of assistance within its power. Not a serious concern.  |

| Source  | Relevance to ELAIOM   | Comments               |
|---|---|------------------------|
|   | of living with family or friends in the Schefferville area.<br>Potential effects on non-Natives impossible to predict.  |                        |
| (12) Increased vulnerability of women to sexual exploitation. | See (7) above. Women living or working at the mine site will have separate accommodation and facilities and access to security personnel.   | Not a serious concern. |
| (13) Exposure to racism.                                      | All employees will undergo obligatory cultural sensitivity training. Racist behaviour at the work site will not be tolerated.<br>Most Aboriginal employees will not live in the workers' camp, which will reduce the potential for racial tensions/incidents. | Not a serious concern. |

Source: Tanner (November 2007)

The conclusion that emerges is that the ELAIOM does not appear to have a high potential for causing important health effects. That conclusion is in line with Tanner's (November 2007: 25) own conclusion that "...with good research, good planning and good will, most work-related health problems of employees can be avoided." It is consistent with the findings of Nalcor Energy (February 2009).

Tanner (November 2007: 25) also pointed to "...the uncertainty and ambiguity that surrounds issues of the inclusion of health within environmental assessment", which he attributed to the fact that "...there is little unanimity in the literature on the causes and cures for the most common social pathologies affecting Aboriginal people."

In the light of the foregoing, the Health VEC will not be considered further in Section 8.0.

### A18.32 Language of the Workplace

NML's on-site staff will be recruited principally from the following linguistic groups:

- non-Native citizens of Labrador West – English;
- Schefferille Innu – innu aimun and French;
- Kawawachikamach Naskapis – Naskapi and English;
- Labrador Innu – innu aimun and English;
- non-Natives from Schefferville and the Région administrative de la Côte-Nord – majority francophones with some anglophones.

Some work sites will be in Newfoundland and Labrador, and some will be in Québec.

The "dominant" language at the work sites in Newfoundland and Labrador will be English, but efforts will be made to accommodate the use of Native languages and French without compromising safety and security.

The “dominant” language at work sites in Québec will be French, but efforts will be made to accommodate the use of Native language and English without compromising safety and security.

Experience with the IOCC between 1954 and 1982 and on a range of more recent projects in the Schefferville area since then has demonstrated that anglophones, francophones and speakers of Native languages can work together safely and productively.

In the light of the foregoing, the Language of the Workplace VEC will not be considered further in Section 8.0.