

*Robert hanari*

MÉMOIRE SOUMIS À  
LA COMMISSION DE L'ÉCONOMIE  
ET DU TRAVAIL

mai 1990

RÉSUMÉ



société Makivik corporation  
LPA'

La Société Makivik représente les Inuit du Nunavik qui jouissent de droits ancestraux au nord du 55e parallèle au Québec, et détiennent un titre ancestral jamais éteint sur toute la région aux larges des côtes du Nunavik. Les Inuit et le territoire au nord du 55e parallèle subiront les impacts directs du Complexe Grande Baleine dans sa conception actuelle.

Le présent mémoire décrit notre territoire et certains antécédents concernant la Convention de la Baie-James et du Nord québécois signée par les Inuit en 1975. Nous expliquons le statut juridique des Inuit du Nunavik en regard du Complexe Grande Baleine proposé, et les régimes juridiques établis en vertue de la Convention concernant le remplacement des terres, la protection de l'environnement, la protection des droits d'exploitation par les Inuit, et les garanties de développement économique et social pour la société inuite.

Après avoir décrit le Complexe Grande Baleine tel qu'il est proposé, nous expliquons les conflits potentiels entre ce Complexe et l'exploitation par les Inuit des ressources et des terres aux environs de Kuujjuarapik, d'Umiujaq et d'Inukjuak. À cette fin, des cartes en annexe à notre mémoire illustrent la productivité faunique de la région et les activités d'exploitation par les Inuit dans les environs du Complexe prévu.

Nous abordons également la question des principaux impacts négatifs, sur le plan environnemental et social, que risque d'entraîner le Complexe Grande Baleine proposé, y compris la pollution par le mercure des environnements marins, des rivières et de leur faune, l'ensemble des incidences cumulatives sur la baie d'Hudson et sur le détroit d'Hudson, le préjudice porté aux oiseaux migrateurs et aux mammifères marins, les dommages causés à l'écologie du passage de Manitounek, le déplacement de la faune vivant aux environs du site du projet, la destruction des rivières due à l'absence de maintien du débit en aval, les incidences négatives sur le Béluga causées par le détournement du débit de la Nastapoca et de la Petite rivière de la Baleine, et les impacts négatifs sur les espèces rares habitant la région. Notre mémoire se penche aussi sur les incidences négatives générales du choix, par Hydro-Québec, de

la variante d'aménagement #1 en vue de la construction du projet. On constate que des recherches et une consultation poussées entre Hydro-Québec et nous s'imposent avant même d'achever la conception du Complexe Grande Baleine.

Par ailleurs, notre mémoire souligne qu'un tel projet, si construit et mis en opération en prenant en considération les préoccupations des occupants du territoire, pourrait avoir des répercussions positives : la création d'emplois, la formation d'une main-d'oeuvre qualifiée autochtone, des contrats attribués aux entreprises inuites, la mise sur pied d'entreprises conjointes, et la mise en valeur des ressources. Plus précisément, nous soulignons la nécessité d'une distribution beaucoup plus équitable des richesses créées par un méga-projet comme celui-ci, de sorte que notre région, qui en ressentira directement les impacts, bénéficie d'une part substantielle des avantages qu'en tirera l'ensemble du Québec.

Notre mémoire souligne le fait que la feuille de route des grands projets à travers le monde donne raison à ceux qui appréhendent les répercussions néfastes du Complexe Grande Baleine. De façon générale, les méga-projets bénéficient à la société globale au détriment de la population qui habite la région immédiate. D'autre part, le Complexe Grande Baleine peut être un point de départ, un catalyseur qui peut créer une dynamique positive.

Nous indiquons de plus que nous sommes prêts à relever le défi mais posons la question à savoir si Hydro-Québec est disposée à faire de même. Pour nous, le dialogue doit donc s'engager pour rendre le développement bénéfique non seulement pour la société québécoise dans son ensemble, mais aussi pour les Inuit en tant que peuple.

MÉMOIRE SOUMIS À  
LA COMMISSION DE L'ÉCONOMIE  
ET DU TRAVAIL

mai 1990

## TABLE DES MATIERES

|     |  |    |
|-----|--|----|
| 1 - | Introduction   | 1  |
| 2-  | Les Inuit et leur territoire   | 3  |
| 3-  | Le contexte  | 5  |
| 4-  | Le statut juridique des Inuit du Nunavik en regard du Complexe Grande Baleine  | 6  |
| 5-  | L'absence d'un plan d'aménagement et développement du territoire   | 8  |
| 6-  | La description du Complexe hydroélectrique Grande Baleine  | 10 |
| 7-  | L'évaluation des incidences du Complexe Grande Baleine sur l'environnement et le milieu social                           | 12 |
| 8-  | L'absence d'un processus de consultation adéquat entourant le Complexe Grande Baleine                                    | 15 |
| 9-  | L'aménagement du territoire et l'utilisation des ressources par les Inuit : les conflits avec le Complexe Grande Baleine | 17 |
| 10- | Les principales incidences négatives du Complexe Grande Baleine  | 19 |
| a)  | Pollution par le mercure   | 19 |
| b)  | Les incidences cumulatives   | 22 |
| c)  | Les oiseaux migrateurs   | 23 |
| d)  | Les mammifères marins  | 23 |
| e)  | La pollution du passage de Manitounuk  | 24 |
| f)  | Déplacement de la faune  | 25 |
| g)  | Maintien du débit d'aval   | 26 |
| h)  | Détournement de la Nastapoca et de la Petite rivière de la Baleine   | 27 |
| i)  | Emplacement des évacuateurs de crues à GB-1  | 28 |
| j)  | Espèces rares  | 29 |
| k)  | Routes d'accès   | 30 |

|     |  |    |
|-----|--|----|
| 11- | Les répercussions positives potentielles<br>du Complexe Grande Baleine | 32 |
| a)  | L'emploi et la formation   | 33 |
| b)  | Les entreprises inuites  | 36 |
| c)  | Les accès : routes et aéroports  | 37 |
| d)  | Le développement des ressources  | 38 |
| e)  | Programmes de mise en valeur des ressources                            | 39 |
| f)  | Mesures économiques pour la région                                     | 40 |
| 12- | Conclusion   | 41 |

## **ANNEXES**

Annexe 1 - Lettre datée du 21 juillet 1981 de la Société Makivik à Hydro-Québec

Annexe 2 - Lettre datée du 23 février 1990 de la Société Makivik à Hydro-Québec

Annexe 3 -

- . Figure 1 Le Nunavik
- . Figure 2 Zones exploitées par les Inuit
- . Tableau 1 Niveaux de récolte
- . Figure 3 Aménagement hydroélectrique proposé
- . Figure 4 Diverses catégories de terres touchées par le projet
- . Figure 5 Conflit potentiel
- . Figures 6,7 Données écologiques d'un cas type : le Béluga
- . Figure 8 Les incidences du méthylmercure

## INTRODUCTION

La Société Makivik est heureuse de cette occasion de faire valoir le point de vue des Inuit du Nunavik devant la Commission de l'économie et du travail.

Fondée conformément à la Convention de la Baie-James et du Nord québécois<sup>1</sup>, et sanctionnée par l'Assemblée nationale du Québec le 23 juin 1978<sup>2</sup>, la Société Makivik a été établie en vue de promouvoir et de protéger les droits et intérêts de ses seuls et uniques membres, les Inuit du Nunavik.

Il appert que le mandat de la Commission de l'économie et du travail, au cours de cette série d'audiences publiques débutant le 8 mai 1990, porte sur la situation actuelle et future de l'énergie électrique au Québec, et que la Commission se penchera sur les questions suivantes :

- la place de l'électricité dans les besoins énergétiques du Québec;
- la situation et l'évolution de la demande d'électricité au Québec à moyen et à long terme;
- les choix et orientations envisageables pour satisfaire la demande québécoise en électricité à moyen et à long terme;
- les moyens, en termes de ressources et d'équipement proposés par Hydro-Québec dans le cadre de son plan de développement, de remplir son mandat et de fournir l'électricité nécessaire au Québec;
- les moyens qui permettraient de concilier la satisfaction des besoins énergétiques du Québec, la qualité de l'environnement, et une croissance économique soutenue.

---

<sup>1</sup>

Cette Convention a été approuvée, mise en vigueur et déclarée valide par une mesure législative fédérale et provinciale, soit, la *Loi approuvant la Convention de la Baie-James et du Nord québécois*, L.R.Q., C-67 et la *Loi sur le règlement des revendications des autochtones de la Baie-James et du Nord québécois* 1976-77, c.32.

<sup>2</sup>

*Loi constituant la Société Makivik*, S.Q., 1978, c.91.

Il va sans dire que Makivik s'intéresse à tous ces sujets, mais le présent mémoire porte de façon plus précise sur le dernier point. Il traite en particulier la question des impacts possibles du Complexe Grande Baleine sur la population Inuit du Nunavik, sur ses terres et sur l'environnement et les ressources dont elle dépend. Notre souci premier, advenant la construction d'un tel projet, est que celui-ci puisse générer des bénéfices économiques positifs et durables pour notre région tout en respectant la qualité de notre environnement nordique.

2-

## LES INUIT ET LEUR TERRITOIRE

Les Inuit du Nunavik occupent et utilisent le territoire au nord du 55e parallèle au Québec (320 000 km carrés) et la région au large de ses côtes. Les Inuit résident dans quinze collectivités dispersées autour de la baie d'Hudson, du détroit d'Hudson et de la baie d'Ungava. Les documents archéologiques confirment que l'utilisation et l'occupation de cette région par les Inuit remontent à plus de 4 000 ans.

Le territoire est vaste, et bien qu'une ligne aérienne régionale relie les collectivités, aucune route ne les relie entre elles, ni aux villes du Sud. La région se caractérise par le coût élevé des produits et services essentiels tels que les services postaux, les denrées alimentaires, le transport, les communications, l'équipement et le carburant, de même que par un manque de perspectives économiques dans les collectivités comme dans l'ensemble de la région.

Depuis une trentaine d'années, de profondes transformations ont affecté tous les aspects de notre société, désormais sédentaire. Nous sommes passé de l'économie de subsistance à une économie mixte où le salariat tient un rôle toujours plus grand. Nos valeurs traditionnelles axées sur la nature sont graduellement remplacées par des valeurs nouvelles venues d'un monde étranger.

Ce changement rapide avec ses corollaires de mésadaptation ou de désintégration sociale a eu des effets négatifs, tel l'abus de l'alcool et de la drogue, l'augmentation rapide de la délinquance, des suicides, des mortalités accidentelles, du chômage et du sous-emploi. Le taux peu élevé de scolarité s'ajoute à ces autres caractéristiques pour former une société qui souffre d'un profond malaise. Malgré les améliorations apportées au logement, aux services médicaux et à l'infrastructure communautaire, la société inuite doit donc affronter d'énormes difficultés, de nombreux problèmes. Les solutions ne sont pas légion.

Comme nous le verrons plus en détail ci-dessous, il n'existe pas de programme équilibré et complet d'aménagement et de développement du

territoire. La région n'est pas encore pourvue d'un système complet pour former les Inuit et leur fournir les compétences nécessaires pour trouver de l'emploi dans diverses industries. En particulier, et ce jusqu'à tout récemment, l'on a virtuellement négligé la formation et la qualification des Inuit dans le domaine de la construction. Par conséquent, la plupart des travailleurs inuits, s'ils sont engagés, le sont à titre de main-d'oeuvre non spécialisée. Dans leur forme actuelle, les lois et les règlements du Québec touchant l'industrie de la construction empêchent les Inuit d'obtenir les documents nécessaires pour travailler en toute légalité sur les chantiers de construction situés sur leur propre territoire et ailleurs.<sup>3</sup> Les collectivités souffrent également d'un grave manque d'infrastructures récréatives et culturelles pour les Inuit de tout âge.

Dans un tel contexte, l'implantation d'un méga-projet hydroélectrique soulève des questions fondamentales et ne laisse personne indifférent. Les uns s'y opposent catégoriquement, les autres y voient quelque intérêt, surtout économique, et d'autres, exaspérés, démissionnent devant un tel projet, une telle catastrophe qui, disent-ils, ne peut que les démunir davantage.

Parallèlement à tout ceci, les Inuit du Nunavik progressent vers leur autonomie politique. Mais pour atteindre pareil objectif, nous devrons bénéficier d'une délégation de pouvoirs de la part du Québec, de même que d'une source de revenu garanti pour toute la région. D'ailleurs, nous avons récemment entamé des pourparlers avec Québec sur la question de l'autonomie politique du Nunavik.

---

<sup>3</sup> Voir par exemple le Décret # 647-89 (3 mai 1989), *Concernant l'instruction relative aux services éducatifs pour les adultes pour l'année scolaire 1989-1990*, alinéa 2.1.5 b) i); règlement sur la délivrance de certificats de compétence D. 673-87, *Loi sur les relations du travail, la formation professionnelle et la gestion de la main-d'oeuvre dans l'industrie de la construction*, L.R.Q., c.R-20, telle que modifiée par L.Q., 1986, c.89.

### 3. LE CONTEXTE

La Convention de la Baie-James et du Nord québécois (la Convention) a été signée en 1975 par le Québec, le Canada, Hydro-Québec, la Société d'énergie de la Baie-James (S.E.B.J.), la Société de développement de la Baie-James (S.D.B.J.), les Cris de la Baie James et les Inuit du Nord québécois. Depuis, elle a été modifiée onze fois par le biais de conventions complémentaires. Plusieurs de ces modifications ont été apportées dans le but d'accommorder Hydro-Québec, qui a demandé que l'on modifie la description originale du Complexe Grande Baleine (1975) contenue dans la Convention.

Bien que les Inuit n'aient jamais consenti à la construction ou à l'exploitation d'autres méga-projets hydroélectriques sur leur territoire, la Convention prévoit effectivement des processus spécifiques d'évaluation des impacts environnementaux et sociaux de tout développement au nord du 49e parallèle et du 55e parallèle. Toutes ces procédures ont été sanctionnées par la loi en 1978, par le biais des Chapitres II et III de la *Loi de la qualité de l'environnement*.

La Convention envisage également la possibilité que les parties autochtones, Hydro-Québec et la S.E.B.J. puissent conclure des accords sur les mesures d'atténuation touchant des projets de développement futurs. De tels accords pourraient porter sur des questions comme : les modifications techniques apportées aux projets; une indemnité versée pour les dommages possibles causés à l'environnement et à ses ressources; les mesures d'atténuation visant à minimiser les impacts (connus et prévus) de tels projets sur l'environnement et le milieu social; de même que des propositions concrètes visant à promouvoir le bien-être économique de la région. Aucune négociation n'a encore eu lieu entre Hydro-Québec et les Inuit du Nunavik concernant le Complexe Grande Baleine, et ce malgré les demandes de Makivik à cet égard.<sup>4</sup>

---

<sup>4</sup> Lettre du 21 juillet 1981 de la Société Makivik à Hydro-Québec et lettre du 23 février 1990 de la Société Makivik à Hydro-Québec (voir annexes 1 et 2).

4-

## LE STATUT JURIDIQUE DES INUIT DU NUNAVIK EN REGARD DU COMPLEXE GRANDE BALEINE

Au nord du 55e parallèle, les Inuit du Nunavik jouissent de nombreux droits, notamment en regard des terres, de la protection environnementale, de la chasse, de la pêche et du piégeage (droit d'exploitation par les autochtones) ainsi qu'en matière de développement économique et social. Du fait que la Convention est un règlement de revendications foncières des autochtones, elle constitue un traité au sens de l'article 35 de la *Loi constitutionnelle de 1982* et jouit par conséquent de la protection constitutionnelle. En bref, ces droits issus de traité prévoient :

- une indemnité sous forme de terres ou sous forme monétaire lorsque des projets de développement empiètent sur les terres de la catégorie I ou II des Inuit (Chapitre 7 : Régime des terres applicable aux Inuit, et Chapitre 8 : Dispositions techniques);
- la description technique du Complexe Grande Baleine advenant sa réalisation (Chapitre 8 : Dispositions techniques);
- la protection de l'environnement par le biais de l'évaluation des incidences du Complexe sur l'environnement et le milieu social, ce dernier faisant partie de la liste des projets automatiquement assujettis au processus d'évaluation des incidences (Chapitre 23: L'environnement et le développement au nord du 55e parallèle, ayant maintenant force de loi par le biais du Chapitre III de la *Loi de la qualité de l'environnement*, L.R.Q., c. Q-2);
- l'enchâssement et la protection du droit d'exploitation par les Inuit (chasse, pêche et piégeage), lequel comporte un droit exclusif d'exploitation des terres de la catégorie I et II et un droit prioritaire d'exploitation des terres de la catégorie III, au nord du 55e parallèle (Chapitre 24 : Chasse, pêche et trappage, intégré dans la législation par la *Loi sur les droits de chasse et de pêche dans les territoires de la Baie-James et du Nouveau-Québec*, L.R.Q., c. D-13.1);
- des garanties de développement social et économique qui prévoient la priorité d'emploi et de contrats accordée aux Inuit par les projets de développement situés dans la région au nord du 55e parallèle; ces dispositions sont conçues pour assurer des emplois et des contrats en priorité aux Inuit

(entreprises et individus) dans le cas de projets tels que le Complexe Grande Baleine (Chapitre 29 : Développement social et économique).

En ce qui concerne les régions au large des côtes, qui subiront les incidences du projet Grande Baleine, les Inuit détiennent un titre ancestral, jamais éteint, sur toute la région au large des côtes de la baie d'Hudson, du détroit d'Hudson et de la baie d'Ungava. Les revendications et droits ancestraux sont reconnus et affirmés dans l'article 35 de la *Loi constitutionnelle de 1982* et sont par conséquent protégés contre toute ingérence.

Il ressort de ce qui précède que toute ingérence eu égard à ces droits pourrait constituer une violation de la Convention ou des lois qui la mettent en vigueur.

— Bacon is leading us to say just the positive.

— We have to balance these "positive" aspects with all the things not implemented in JBNCA

— Also, we never knew about

mercury when

we signed JBNCA

Remind them:

- ② - Everything we have said today  
is conditional on the GWR project  
being properly assessed for  
environmental and social impacts first.
- ① - Also, project must be assessed  
(for impacts) as a whole  
and not in parts; not fragmented.

~~AM~~

fontaine et du touladi et la perte des aires de nidification de l'oie blanche et des canards plongeurs.

h) Détournement de la Nastapoca et de la Petite rivière de la Baleine

Le projet Grande Baleine se propose de détourner les lacs de tête de la rivière Boutin et de la rivière Nastapoca de sorte que le débit d'aval de la rivière Boutin ne sera pas maintenu, ce qui signifie que le volume dans le cours et l'estuaire de la Petite rivière de la Baleine sera largement réduit car la Boutin alimente cette rivière. Pour ce qui concerne la Nastapoca, les données d'Hydro-Québec ne sont pas précises mais il semble que le débit moyen à l'embouchure sera réduit d'au moins vingt-cinq pour cent en raison du barrage qui sera construit près des lacs de tête de la rivière pour en détourner le cours.

La réduction du débit de la Nastapoca et de la Petite rivière de la Baleine pourrait avoir des répercussions importantes pour le béluga qui en fréquente les estuaires pendant les mois d'été. Ces estuaires sont en fait les dernières aires d'habitat estival où l'on puisse encore trouver le béluga. D'ailleurs, cette population a déjà été portée sur la liste des espèces en danger par le Comité sur le statut de la faune menacée au Canada.

En août 1985, un rapport du ministère de l'Environnement du Québec commentait ainsi la question du béluga en rapport avec le Complexe Grande Baleine:

«Le béluga de la côte Est de la Baie d'Hudson semble constituer selon différents auteurs une espèce sur laquelle on doit porter une attention particulière compte tenu de la précarité de sa petite population et qui peut être sérieusement atteinte si l'on affecte ses habitats privilégiés tels l'estuaire de la Petite-rivière-de-la-Baleine et celui de la Nastapoka. L'information fournie dans des différents documents de l'étude d'impact demeure incomplète et Hydro-Québec devra la compléter en fournissant les renseignements suivants:

- préciser l'importance et la composition de la population de bélugas qui fréquente l'estuaire de la Petite-rivière-de-la-Baleine. Ceci permettrait d'apprécier le statut de la population;

- une meilleure connaissance de la biologie et du comportement des bélugas habitant la côte Est de la Baie d'Hudson serait requise; (importance du rôle thermique dans les estuaires pour la fréquentation des bélugas);
- mieux documenter l'utilisation et la fréquence d'occupation de l'estuaire de la Petite-rivière-de-la-Baleine et son importance pour la survie des bélugas;
- intensifier les études comparatives, sur le plan biologique, entre les différentes aires estuariennes activement fréquentées par les bélugas.<sup>8</sup>

La réduction du volume et du débit d'eau douce dans la Petite rivière de la Baleine et dans la Nastapoca signifie que l'eau de mer s'y introduira en plus grande quantité. Ces changements dans le régime salin, la température et la productivité à l'embouchure de la Petite rivière de la Baleine et de la Nastapoca pourraient inciter les bélugas à fréquenter d'autres réseaux hydrographiques. En outre, les espèces dulicoles qui fréquentent ces rivières risquent aussi de souffrir du changement de régime.

i) Emplacement des évacuateurs de crues à GB-1

Toute évacuation des crues, qu'elle soit périodique ou non, au point de coupure de la Grande rivière de la Baleine résultera en une inondation destructive du lit de la rivière. Cela pourrait aussi en déstabiliser les berges qui devraient s'ajuster à un niveau de débit bien plus bas. De plus, tout habitat de petits mammifères et de sauvagine qui pourrait s'être reformé, après la coupure, le long du bief inférieur de la Grande rivière de la Baleine risquerait d'être perturbé sinon détruit par les crues.

Si la collectivité de Kuujjuarapik décide de s'approvisionner en eau dans le bief inférieur de la Grande rivière de la Baleine, la réserve d'eau pourrait être endommagée par l'érosion massive et la sédimentation provoquées par l'évacuation des crues, ce qui aurait aussi pour effet de

---

8 Ministère de l'Environnement, *Commentaire sur l'étude d'impact du Complexe Grande Baleine*, Août 1985, page 8.

surcharger le système de filtration du village. Enfin, la sécurité des travailleurs du bief inférieur de la Grande rivière de la Baleine pourrait aussi être compromise au moment d'une évacuation de fortes crues.

Selon Hydro-Québec, la solution de recharge à l'évacuateur de crues est trop coûteuse et trop perturbatrice pour l'environnement; il s'agirait d'évacuer les crues dans les 6 kilomètres du bief inférieur de la Domanchin ou dans un évacuateur artificiel creusé dans le roc sur 5 kilomètres près du passage de Manitounuk. Or, l'aménagement d'un tel évacuateur ajouterait 300 M \$ au coût du projet. D'autre part, l'évacuation de milliers de mètres cubes d'eau douce dans le passage causerait un choc extrême à l'écologie; par conséquent, d'autres solutions doivent être élaborées afin de minimiser les impacts tant dans le passage que dans le bief inférieur de la Grande rivière de la Baleine.

j) Espèces rares

Aucune des recherches effectuées à ce jour par Hydro-Québec ne traite systématiquement des espèces rares ou menacées, qu'il s'agisse de la faune ou de la flore, dans toute la région où l'on se propose d'aménager le projet. Les études de faisabilité réalisées par Hydro-Québec mentionnent à peine les espèces rares quand il s'agit de la faune et encore moins quand il s'agit de la flore. L'Aigle pêcheur, le Faucon pélerin, le Gerfaut et l'Aigle doré sont des espèces rares que l'on retrouve aux environs du projet. Le lac des Loups Marins abrite une variété de phoque que de nombreux spécialistes considèrent comme unique au monde.

Pour ce qui concerne la flore, il est fort possible qu'un certain nombre d'espèces rares occupant des habitats uniques soient affectées ou détruites étant donné qu'une bonne partie du territoire qui sera submergé est une zone écologique de transition entre la taïga et la tundra. On doit donc entreprendre des recherches pour déterminer qu'elles sont la nature et les attributs des espèces menacées.

Par ailleurs, si l'on identifie au préalable les aires de nidification ou d'alimentation d'espèces faunistiques rares ou les habitats précis d'espèces végétales menacées, on pourrait les protéger en ajustant l'échéancier de

construction du projet ou de certains de ses éléments. Modifier le tracé des routes d'accès, choisir le moment opportun pour le dynamitage ou autres activités perturbatrices, éviter de survoler des aires fragiles seraient autant de moyen de protéger la flore et la faune en danger. Cependant, l'absence de données sur ces espèces entraînera inévitablement de graves perturbations.

k) Routes d'accès

Il importe d'examiner attentivement les incidences de la construction d'une route sur l'environnement et le milieu social d'une région jusqu'ici inaccessible par voie terrestre. En effet, si Kuujjuarapik était reliée au système routier de La Grande, ce serait la première fois dans l'histoire du Nunavik qu'une collectivité inuite devienne accessible par route. Les avantages et désavantages socio-économiques que cette nouvelle accessibilité représente doivent être clairement évalués, et on doit prévoir des mesures et programmes pour en atténuer les impacts. En outre, les routes s'étendront vers l'intérieur des terres jusque dans la région du réservoir Bienville, ce qui entraînera sans aucun doute des changements majeurs dans les activités de chasse des Inuit. Enfin, l'accès plus facile au territoire intérieur aura indubitablement des incidences sur les espèces fauniques de la région.

Les Inuit de Kuujjuarapik doivent être consultés afin de déterminer si l'accès à la collectivité par voie routière est souhaitable; il importe également d'établir quelles seraient les conséquences socio-économiques et environnementales pour la collectivité advenant que la route s'arrête à la centrale GB-1 plutôt que de conduire jusqu'à Kuujjuarapik.

On constate donc, à partir de la liste ci-dessus, qui est loin d'être exhaustive, que des recherches et une consultation poussées avec les Inuit s'imposent avant même d'achever la conception du Complexe Grande Baleine. De surcroît, il semble qu'on manque des données les plus élémentaires sur lesquelles fonder des décisions quant à la conception du projet et au choix des variantes. Au strict minimum, il faut immédiatement entreprendre les recherches suivantes :

- études sur le phoque barbu et le phoque annelé dans le passage de Manitounuk, ainsi que sur la chasse et les captures, sur une période d'au moins cinq ans avant la mise en service de la centrale GB-1;
- études sur les populations de béluga dans l'est de la région de la baie d'Hudson, sur une période d'au moins cinq ans avant la mise en service de la centrale GB-1;
- études sur le caribou et les voies migratoires possiblement affectées par le Complexe Grande Baleine, sur une période d'au moins cinq ans avant la mise en service de la centrale GB-1;
- études sur les habitudes d'alimentation, sur les aires de regroupement et sur les voies migratoires de l'oie (particulièrement en automne), sur une période d'au moins cinq ans avant la mise en service de la centrale GB-1;
- études sur la répartition et l'écologie de la moule bleue dans le passage de Manitounuk, avant la mise en service de la centrale GB-1 (cette étude pourrait faire partie de l'étude relative aux phoques du passage de Manitounuk);
- échantillonnage de sédiments dans le passage de Manitounuk près du canal de fuite pour en déceler la teneur en mercure, avant la mise en service de la centrale GB-1;
- étude sur toutes les espèces rares et menacées de la région, notamment le Phoque d'eau douce, le Faucon pèlerin, le Gerfaut, l'Aigle doré et l'Aigle pêcheur.

11.

## LES RÉPERCUSSIONS POSITIVES POTENTIELLES DU COMPLEXE GRANDE BALEINE

Les pages précédentes décrivent un certain nombre de répercussions appréhendées suite à la construction du Complexe Grande Baleine. Bien sûr ce n'est là qu'une description sommaire et bien d'autres répercussions surgiront au cours des années à venir. Comme pour les incidences négatives, nous énumérons ci-après les principales répercussions positives possibles. Celles-ci s'appuient sur la présomption que le Complexe sera construit, mais cette présomption ne sert qu'aux fins d'analyse, elle ne doit en aucun cas être perçue comme l'acceptation ou l'approbation du projet par les Inuit.

À la différence des répercussions néfastes, lesquelles vont apparaître du seul fait de construire le projet, les aspects positifs doivent être déterminés et voulus.

Jusqu'à présent, seule la production d'énergie a été prise en compte dans la construction des projets hydroélectriques. En effet, le projet Baie James a été conçu de façon telle que les contraintes physiques de construction ait empêché, en 1984, lors d'une grande crue, Hydro-Québec de déverser les surplus d'eau dans la baie d'Hudson, avec le résultat de la noyade de 10 000 caribous dans la rivière Koksoak. Or, si dès la conception d'un projet, on y intégrait la variable environnement, celui-ci aurait de fortes chances d'être conçu de façon à éviter de telles erreurs. Apporter des modifications une fois le projet terminé nécessite presque toujours l'investissement de sommes monétaires énormes et les travaux ne sont donc jamais faits.

Cette variable 'environnement' doit aussi être intégrée à la gestion du Complexe. Ici encore, le contrôle des niveaux d'eaux dans les réservoirs ne se fait qu'en relation avec la production d'électricité. Si, par contre, l'on en tenait compte, le marnage des eaux dans les réservoirs aurait moins de conséquences et les rivières en aval de ceux-ci subiraient moins de répercussions néfastes.

Il en va de même pour le milieu social qui ne peut être rejeté du revers de la main. La société inuite dans son ensemble va subir de profonds

bouleversements. Les relations sociales et familiales, le milieu et le mode de vie, le travail, les loisirs, tout risque de se modifier considérablement. Le milieu souffre déjà d'un malaise profond, et les risques sont grands de l'accentuer. L'économie va également changer. Le salariat tiendra une plus grande place, les petites et moyennes entreprises seront plus nombreuses, les déplacements pour le travail seront plus fréquents. Donc, la société invite doit être perçue comme une variable du Complexe ; sinon, elle risque fort d'en subir les conséquences.

Ceci étant dit, la construction et la gestion d'un méga-projet tel le Complexe Grande Baleine peuvent avoir des répercussions positives et nous voulons vous en présenter quelques-unes.

a) L'emploi et la formation

L'emploi et la formation sont les aspects les plus évidents et peut-être les plus faciles à considérer. La construction et la gestion d'un méga-projet demande une multitude de ressources humaines. De toute évidence les compétences requises seront importées dans la région, mais rien n'empêche Hydro-Québec de susciter chez les Inuit de l'intérêt pour ces emplois et de leur fournir les moyens nécessaires pour en bénéficier : école de formation professionnelle, éducation générale, formation sur le tas.

Le chapitre 29 de la Convention prévoyait déjà, en 1975, nombre de droits et obligations en ce sens :

- Le droit des Inuit à des programmes de formation et à des installations appropriées (articles 29.0.25 et 29.0.27a)
- Le droit à la priorité pour les emplois et les contrats (articles 29.0.31 et 29.0.32)
- L'obligation de la part du Québec et du Canada d'interpréter les exigences pour les diverses catégories de postes afin que les Inuit capables de remplir ces postes soient jugés admissibles (article 29.0.31 a) i))
- L'obligation, de la part du Québec et du Canada, d'aider les candidats inuits unilingues qui terminent les cours de formation afin qu'ils subissent les examens en inuktitut ou

avec l'aide d'un traducteur ou d'un interprète (article 29.0.26).

À ce sujet, nous avons d'ailleurs produit un document que nous allons remettre très bientôt à Hydro-Québec. Nous y abordons l'importance de l'emploi et de la formation et suggérons des moyens concrets pour assurer une réussite dans ce domaine. Nous y proposons une politique d'embauche et de formation des travailleurs inuits dont les principaux objectifs sont :

- Fournir aux Inuit le plus d'emplois possibles, durant la construction du Complexe Grande Baleine;
- Former une main-d'œuvre inuite compétente, performante et expérimentée de manière à ce que les Inuit puissent bénéficier des emplois spécialisés;
- Préparer une main-d'œuvre inuite à occuper des emplois permanents reliés à l'exploitation de la centrale;
- Favoriser l'émergence de travailleurs inuits ayant acquis une expérience et certaines spécialisations de manière à ce que le Nunavik bénéficie de cette main-d'œuvre et que soit réduite la dépendance vis-à-vis de la main-d'œuvre spécialisée du Sud.

Pour atteindre ces objectifs, une approche intégrée doit être élaborée avec comme principales composantes : 1) la formation des Inuit; 2) la qualification de la main-d'œuvre; et 3) une politique d'embauche.

#### Objectif 1. Formation des Inuit

Il est important de s'assurer que les Inuit puissent bénéficier d'une formation professionnelle adéquate et cadrant avec leurs besoins. À cet égard, en plus de la formation dispensée en institution, la formation en cours d'emploi devra être favorisée. Conséquemment, Hydro-Québec pourrait définir et établir, à l'intérieur de ses propres activités, des programmes de formation en cours d'emploi pour la main-d'œuvre inuite et inciter les différentes entreprises impliquées dans la réalisation du Complexe à en faire autant.

### Objectif 2. Qualification

Jusqu'à présent, les travailleurs inuits ont éprouvé énormément de difficultés à obtenir une reconnaissance officielle de leur compétence dans le domaine de la construction.

Présentement, au Québec, un travailleur ne peut être admis en apprentissage à moins qu'il ne possède un diplôme de Secondaire V, secteur régulier, ou un diplôme de secondaire du secteur de formation professionnelle. Ce règlement constitue un obstacle majeur pour la vaste majorité des Inuit.

Cette réglementation devrait être revue, tenant compte que le gouvernement s'était déjà engagé, il y a plus de six ans, à trouver d'autres méthodes permettant de mieux évaluer les connaissances des apprentis.<sup>9</sup>

### Objectif 3. La politique d'embauche

Une telle politique devra s'articuler autour de six principes :

- L'identification d'objectifs réalistes, en terme de pourcentage, d'embauche autochtone et de résidants nordiques par catégorie d'emploi;
- L'obligation, définie dans les contrats d'exécution des travaux des entrepreneurs et des sous-traitants, à embaucher d'abord de la main-d'œuvre autochtone qualifiée et en second lieu de la main-d'œuvre régionale;
- La mise en place d'un mécanisme souple et fonctionnel de coordination de l'embauche et de la formation impliquant Hydro-Québec et la SEBJ, les entrepreneurs, les syndicats, les organismes autochtones et les institutions gouvernementales;
- La mise en place d'un mécanisme central d'embauche et de placement du personnel obligeant les entrepreneurs à recruter leurs employés d'abord parmi les autochtones de la région et ensuite parmi la main-d'œuvre régionale;

---

<sup>9</sup> Voir le Rapport du comité interministériel relatif aux dépositions des représentants autochtones à la Commission permanente de l'économie et du travail du 8 août 1984, (soumis le 30 novembre 1984).

- L'élaboration d'un processus formel de suivi, d'ajustement et d'évaluation des objectifs d'embauche d'autochtones;
- La consolidation, dans leurs rôles respectifs, des organismes régionaux à l'égard du recrutement et du placement de la main-d'oeuvre, de la coordination des activités de formation, et du soutien de la qualification des travailleurs.

b) Les entreprises inuites

- Les petites et moyennes entreprises. La Convention prévoit au chapitre 29 des droits aux Inuit :

- Le droit, pour les entrepreneurs inuits, à des conseils techniques et professionnels et à de l'aide financière (article 29.0.39);
- Le droit à la priorité pour les emplois et les contrats (articles 29.0.31 et 29.O.32).

Des entreprises inuites existent déjà et d'autres doivent être mises sur pied. En effet, les organismes inuits ont des entreprises telles *Air Inuit* pour le transport aérien, *Sapumiq* pour la gestion de projets de construction, l'Agence de voyage Kigak, et la Fédération des Coopératives du Québec gère des magasins d'approvisionnement, une compagnie de construction et une agence de tourisme.

Des contrats doivent être attribués en priorité à ces entreprises. Ceci peut se faire d'au moins deux manières : 1) Hydro-Québec doit s'assurer d'une clause dans les contrats obligeant les entrepreneurs à sous-traiter de façon privilégiée avec les firmes autochtones; 2) que les contrats soient conçus de façon à ce que les entreprises inuites puissent y avoir un accès direct. Il y a sûrement moyen de scinder en portions plus modestes les contrats normalement prévus. De cette façon ils correspondraient aux services que peuvent offrir ces compagnies.

Dans un autre temps, il faut encourager la création de nouvelles entreprises locales ou régionales. Au niveau local, tout particulièrement à

La construction de la route qui reliera Kuujjuarapik aux centres urbains méridionaux peut permettre une croissance économique de cette collectivité. Par exemple, elle peut devenir un centre de transbordement des marchandises venues de Montréal par camion, ce qui créera de nombreux emplois. Une plus grande diversité de produits, de même que des légumes et des fruits frais, seront ainsi disponibles à moindre coût en magasin, et ce sur une base quotidienne.

La route permettra aux entrepreneurs et aux travailleurs de Kuujjuarapik de participer plus facilement au projet car ils y auront un accès routier et non plus seulement aérien. De plus, elle donnera accès à de nouveaux territoires de chasse et de pêche situés loin de Kuujjuarapik et difficilement accessibles aujourd'hui.

La route contribuera également à l'économie de Kuujjuarapik si Hydro-Québec y établit son centre administratif du Complexe Grande Baleine. Ces bureaux bénéficieront à la collectivité par les services dont ils auront besoin: construction et entretien des bureaux et résidences, restauration, transport, et autres services requis par le personnel.

d) Le développement des ressources

Le Nord est une région qui offre de nombreuses autres ressources que l'hydroélectricité. La nature pratiquement vierge, l'immensité et la beauté de ses paysages en font une région attrayante pour le tourisme. La faune variée et abondante attire déjà plusieurs centaines de pêcheurs et chasseurs sportifs. Ces ressources renouvelables sont peu ou pas exploitées et le Complexe Grande Baleine pourrait être un catalyseur pour créer une dynamique de développement.

---

Nous sommes à élaborer un plan de développement de tourisme pour toute la région. Le tourisme est, toutefois, une industrie qui requiert d'énormes ressources financières pour mettre en place les infrastructures et pour publiciser la région afin d'attirer la clientèle. À cette fin, nous croyons que Québec devrait travailler exclusivement avec les Inuit au développement du tourisme potentiel au nord du 55<sup>e</sup> parallèle.

Le gouvernement du Québec devrait donc par le ministère du Tourisme faire une campagne publicitaire internationale pour faire connaître la région au nord du 55e parallèle. De plus, il faudrait lever le moratoire à propos des parcs provinciaux afin d'en établir au moins deux dans la région.

La construction de la route d'accès dont il est fait mention précédemment, va ouvrir le territoire au reste du Québec. Cette route doit être construite en fonction du tourisme et nous devons avoir la possibilité de choisir près de celle-ci des sites privilégiés afin d'y établir hotels, restaurants et pourvoiries.

Les milliers de travailleurs qui seront présent dans la région sur une période de dix ans pourront devenir une clientèle de choix pour les pourvoiries. Hydro-Québec devra donc encourager par des programmes spéciaux son personnel à prendre des vacances dans la région et à utiliser les services de pourvoirie.

e) Programmes de mise en valeur des ressources

Nul ne doute que l'environnement subira de nombreuses répercussions néfastes et nous en avons décrites plusieurs dans la section précédente. Pour y remédier, Hydro-Québec devra déterminer des mesures mitigatrices et élaborer des programmes de mise en valeur des ressources.

Ces mesures mitigatrices comprennent la mise sur pied d'un programme complet de suivi et de recherches disposant de fonds suffisants pour les ressources humaines et l'infrastructure nécessaire pour le mener à bien. Ceci s'impose tout particulièrement dans le cas du mercure, non seulement pour permettre de faire un suivi mais aussi de trouver des solutions à ce grave problème.

Les programmes de mise en valeur des ressources pourront dans un avenir plus ou moins rapproché bénéficier à la population inuite. L'ensemencement des lacs, l'établissement de piscicultures et de fermes d'élevage, tout particulièrement le caribou, sont trois domaines de retombées positives possibles.

f) Mesures économiques pour la région

Tout projet dont la construction est censée enrichir la province devrait bien évidemment apporter des richesses à sa région d'origine. Afin que les Inuit du Nunavik profitent directement et pleinement des retombées du Complexe Grande Baleine, et en vue de diminuer les disparités avec les autres régions du Québec, Hydro-Québec doit attribuer des fonds monétaires à la population (indemnités, partage des revenus, entreprises conjointes) de même qu'adopter des programmes d'équivalence des coûts d'électricité tant pour les commerçants que pour les résidences privées.<sup>10</sup> Ces mesures serviront au développement social et économique des collectivités et à la région dans son ensemble.

---

10 L'électricité produite par diesel coûte très cher et présentement Hydro-Québec subventionne celle destinée aux résidences privées afin d'équilibrer le prix avec ceux reliés au réseau. Toutefois, les commerçants de la région ne sont pas subventionnés et ainsi ne peuvent être compétitifs avec les entreprises du Sud.

12 -

## CONCLUSION

La feuille de route des grands projets à travers le monde donne raison à ceux qui appréhendent les répercussions néfastes du Complexe Grande Baleine. De façon générale, les méga-projets bénéficient à la société globale au détriment de la population qui habite la région immédiate. D'autre part, le Complexe Grande Baleine peut être un point de départ, un catalyseur qui peut créer une dynamique positive.

Nous sommes prêts à relever le défi, nous l'avons dit et répété à plusieurs reprises et tout particulièrement en octobre 1988 lorsque nous avons signé avec Hydro-Québec l'Entente Kuujuaq (1988). Nous nous sommes engagés de la façon suivante :

"L'entièr e coopération avec Hydro-Québec dans les processus de consultation et d'information reliés à toute activité future et de tout projet de développement électrique qui pourraient avoir des répercussions au nord du 55<sup>e</sup> parallèle, cette coopération étant assurée par la Société Makivik ou son successeur au nom des Inuit. Toutefois, ladite coopération ne diminue en rien les droits des Inuit concernant les activités d'Hydro-Québec qui pourraient avoir des répercussions au nord du 55<sup>e</sup> parallèle." (p 3-3).

D'autre part, Hydro-Québec est-elle prête à faire de même? C'est là une occasion unique pour un promoteur et un peuple autochtone de s'associer pour mener à bien un méga-projet. Le dialogue doit donc s'engager pour rendre le développement bénéfique non seulement pour la société québécoise dans son ensemble mais aussi pour nous en tant que peuple.

**ANNEXE 1**



LPA

société Makivik corporation

July 21st, 1981

WITHOUT PREJUDICE  
BY MESSENGER

Me. Gilles Legault,  
Contentieux,  
Hydro-Québec,  
75 Dorchester Blvd. West,  
Montréal, Québec

Dear Mr. Legault,

Re: Preliminary comments of Inuit of  
Great Whale River regarding certain  
aspects of proposed Great Whale  
River Hydroelectric Project

This letter is in response to Hydro-Québec's  
repeated requests to the Inuit of Great Whale River for their  
comments with respect to certain aspects of the proposed Great  
Whale River Hydro-electric Project.

As you are aware, the Inuit of Great Whale  
River do not accept the proposed Great Whale River Hydro Project  
and shall take all steps necessary to oppose the proposed project  
unless a satisfactory agreement is reached with Hydro-Québec,  
S.E.B.J. and any other interested parties with respect to all  
aspects of the proposed project and in particular, remedial  
works and compensatory measures and benefits.

Subject to the foregoing, the Inuit of  
Great Whale River have reviewed certain Hydro-Québec information  
documents and preliminary reports entitled "Choice of the Location  
of the Airport to Serve the GB-1 Sites", "Drinking Water Supply  
for Great Whale River", and "The Development Options". Based on  
the limited information contained in these preliminary feasibility  
reports, the Inuit of Great Whale River present at a public meeting  
held on June 23rd, 1981, including the delegates appointed to the  
Coordination Table, discussed and took the following positions  
with respect to (1) a drinking water supply for Great Whale River,  
(2) the siting of the airport for GB-1, (3) the possibility of a  
road to Great Whale River and (4) the project variants.

Mr. Gilles Legault,  
Page 2,  
July 21st, 1981

These positions are not meant to be exhaustive and are under reserve of the right of the Inuit of Great Whale River to modify them as further information becomes available.

(1) Drinking Water Supply for Great Whale River

The Inuit have reviewed the three options presented by Hydro-Québec respecting drinking water supply and, among those options, prefer that drinking water be supplied through Option B: an intake pipe in the Great Whale River at a point 11 Km upstream from the community with a twelve-month pumping of the water through a heated pipeline. Maintenance and operational costs of such a system must of course be determined as part of this solution and, if they are not the responsibility of Hydro-Québec or S.E.B.J., must be assumed by the government of Québec in one manner or another.

Both Option A (source of water from a dammed lake at 2.4 Km North East of the community) and Option C (intake in river at 11 Km from community with a four-month pumping to a reservoir) involve use of reservoirs which are likely to materially affect the taste, color and odor of the drinking water. Neither Option A nor Option C would provide as adequate a year-round supply of good quantity and quality water to the community of Great Whale River as Option B.

(2) Airport Site

On the basis of present information, the airport site preferred by the Inuit of Great Whale River is site GB-1A. Protection of the coastal area north of Great Whale River is of critical importance to Inuit. Siting of an airport in the vicinity of the coast will cause irreparable harm to the environment of the region and to Inuit harvesting activities. Sites such as H, C, D, B and E are too close to Great Whale River and air traffic and worker movements in and near the community will severely disrupt the community of Great Whale River. Further, site H aside from being close to the community of Great Whale River, involves use of Inuit Category I lands whereas site GB-1A would be on joint Cree-Inuit Category II land and on Category III land.

Even though GB-1A is also near the coast, we think it is preferable to site H because it would serve to restrict the environmental disruption and impacts to the immediate vicinity of GB-1 rather than spreading them out as would be the case if the airport sites closer to the community of Great Whale River were chosen. Further, from our point of view the GB-1A site would preclude any necessity for a road from GB-1 to the community of Great Whale River.

Mr. Gilles Legault,  
Page 3,  
July 21st, 1981.

(3) Road between GB-1 and Great Whale River

As presently proposed, the Inuit of Great Whale River do not want a road connection from GB-1 to their community. They consider that the negative social impacts of such a road upon the Inuit and the potential negative environmental impacts of such a road in proximity to the coast would be disastrous. Further, it appears that Hydro-Québec has not contemplated or studied these potential impacts. Results of the recent land use study for the Great Whale River region indicate intensive Inuit harvesting activities in the coastal area north of the community and any road in the vicinity of such area would create negative impacts highly detrimental to the wildlife resources and Inuit harvesting activities in this region.

(4) Variant Choice

The Inuit of Great Whale River view variant # 4 (development only of the Great Whale River) as the only variant that provides some protection of their harvesting rights and interests in the region. Any variant which involves use of the Little Whale River drainage basin threatens to generate negative environmental impacts to the critical ecosystems of the Little Whale River and the Nastapoca River. The estuaries of these rivers are particularly sensitive areas ecologically. Variant # 4 is the only one of the variants proposed by Hydro-Québec which provides some measure of protection of the estuaries of the Little Whale River and the Nastapoca River. Unlike variant 1, 2 and 3 which involve use of the upper basin of the Little Whale River and in turn affect the discharge regime of the Nastapoca River, variant # 4 would leave untouched the Little Whale River basin thus providing some degree of protection for the white whales using the estuaries of the Little Whale River and the Nastapoca River. Further, the land use study of this region indicates heavy usage of the Little Whale River and Nastapoca River by the Inuit for harvesting activities.

The preliminary feasibility studies of Hydro-Québec deal only superficially with the potential environmental impacts of variant # 1 on the estuary of the Little Whale River and not at all with the impacts on the Nastapoca River as a whole. Indeed, the Hydro-Québec feasibility studies to date suggest a lack of knowledge as to the extent of water exchange between the Little Whale River basin and the Nastapoca River drainage system. Further studies are clearly called for with respect to the potential impacts of each of the variants upon these important river systems.

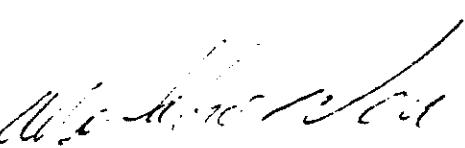
Mr. Gilles Legault,  
Page 4,  
July 21st, 1981

The Inuit of Great Whale River and Makivik Corporation shall submit more comprehensive comments and positions with respect to the proposed Great Whale River Project and the particular aspects mentioned above. This shall be done in the form of a proposal for remedial works, compensatory benefits and project modifications for the proposed Great Whale River Project.

Very truly yours,

INUIT GREAT WHALE RIVER DELEGATES  
TO THE COORDINATION TABLE

MAKIVIK CORPORATION

Per: 

Mark R. Gordon  
First Vice-President

D. Dushieuk  
C. Tookaloh  
J. Sall  
P. Crow  
R. Tookaloh

**ANNEXE 2**



LPA

société Makivik corporation

February 23, 1990

Mr. Robert Brunette  
Vice-President  
Amerindian and Inuit Affairs  
Hydro-Québec  
75 boul. René Lévesque West  
Montréal, Québec H2Z 1A4

Re: Proposed Great Whale Hydroelectric Complex

Dear Mr. Brunette:

We acknowledge your letter of January 26, 1990 informing Makivik officially that Hydro-Québec plans to request a Certificate of authorization for the proposed Great Whale hydroelectric project from the Ministry of Environment in October 1990.

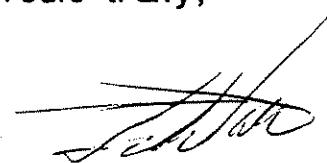
Be advised that Makivik Corporation cannot endorse Hydro-Québec's request for a Certificate of Authorization for the proposed Great Whale hydroelectric complex for the following reasons:

1. Your notice to us of January 26, 1990 is misleading as it omits mention of the fact that Hydro-Québec is requesting a Certificate of Authorization from the Ministry of Environment in the summer of 1990 for permission to construct the access roads and airstrips necessary for the project. It is our view that such infrastructure is an integral part of the proposed overall project and must be dealt with as such by the appropriate environmental and social impact assessment bodies.
2. Your notice ignores Makivik Corporation's understanding that there would be certain discussions and negotiations between Hydro-Québec and Makivik leading to a satisfactory agreement on certain matters of substance, in particular environmental and social matters, prior to Hydro-Québec proceeding with the proposed

Great Whale hydroelectric complex. Such discussions and negotiations have not to date occurred.

Be advised that Makivik Corporation informed Hydro-Québec on July 21, 1981 by letter that it is opposed to the proposed Great Whale hydroelectric complex and that it will take all steps necessary to do so unless a satisfactory agreement could be reached in regard to various substantive matters related to the project and its possible impacts on the region north of the 55th parallel. This continues to be Makivik's position and, in fact, has been restated on several occasions to Hydro-Québec by Inuit representatives at the Working Group on the Great Whale Hydro Project during 1989.

Yours truly,



Charlie Watt  
President

**ANNEXE 3**

## **LA BASE DE DONNÉES SUR L'UTILISATION ET L'EXPLOITATION DES TERRES**

Les Inuit de Kuujjuarapik et de Umiujaq exploitent les ressources de la région située au sud-est de la baie d'Hudson. Sur ce vaste territoire, les conditions changent suivant les saisons et selon les divers types d'écosystèmes, par exemple les milieux terrestre, dulcicole et marin ou le régime des glaces. Ces écosystèmes renferment les habitats saisonniers de trente espèces fauniques qui sont exploitées par les Inuit, activité produisant environ 105 266 kilogrammes de denrées alimentaires par année.

La figure 1 dépeint la partie du territoire et les collectivités du Nunavik pouvant être affectées par les éventuelles répercussions du projet Grande Baleine. La figure 2 illustre les limites des zones d'exploitation des mammifères marins, des mammifères terrestres, des poissons et des oiseaux. Le tableau 1 indique les niveaux de récolte que produisent les activités de chasse dans chaque zone.

La figure 3 illustre l'aménagement hydroélectrique proposé dans la région de Kuujjuarapik. La figure 4 montre les diverses catégories des terres des Inuit et des Cris en rapport avec le projet. La figure 5 donne un exemple de conflit potentiel entre l'utilisation des terres, d'une part par le Complexe Grande Baleine, et d'autre part, par les Inuit. La figure 6 illustre, par l'exemple du béluga, le type de données écologiques dont on dispose sur les espèces de la région. Quant aux figures 7 et 8, elles montrent, à l'aide du cas du méthylmercure, comment les incidences potentielles du projet sur certaines espèces peuvent se répercuter dans toute la région.

Les données illustrées par les cartes concernant l'utilisation des terres et l'écologie proviennent d'une étude menée sur le terrain de 1983 à 1989. Au cours de cette étude, 78 chasseurs de Kuujjuarapik et de Umiujaq ont été individuellement interviewés. Les renseignements ainsi obtenus ont été analysés, regroupés, puis transcrits sur des cartes que les chasseurs ont ensuite revisées et mises à jour. L'information relative à l'écologie a été recueillie par le biais d'interviews individuelles et collectives, et la base de données qui en est résulté a aussi été revue et mise à jour par les chasseurs. Les données sur les niveaux d'exploitation proviennent d'une étude quinquennale, effectuée de

1976 à 1980 en conformité avec les dispositions du chapitre 24 de la Convention de la Baie James et du Nord québécois.

Plusieurs des cartes comportent un bref exposé destiné à fournir aux membres de la Commission des renseignements plus précis.



BRIEF TO  
**THE COMMITTEE ON LABOUR  
AND THE ECONOMY**

MAKIVIK CORPORATION  
650 - 32<sup>ND</sup> AVENUE, 6<sup>TH</sup> FLOOR  
LACHINE, QUÉBEC H8T 1Y4  
TÉL.: (514) 634-8091

**May 1990**

**SUMMARY**



société **Makivik** corporation  
**LPA'**

SUMMARY OF BRIEF TO  
COMMISSION DE L'ÉCONOMIE ET DU TRAVAIL  
SUBMITTED BY: MAKIVIK CORPORATION

---

Makivik Corporation represents the Inuit of Nunavik who enjoy treaty rights north of the 55th parallel in Québec and hold unextinguished aboriginal title to the offshore region. The Inuit of the territory north of the 55th parallel will be directly affected by the impacts of the Complexe Grande Baleine in its present design.

This brief describes our territory and certain historical background including the James Bay and Northern Québec Agreement signed by the Inuit in 1975. It explains the legal status of Nunavik Inuit in regard to the proposed Grande Baleine project as well as the legal regimes established by the Agreement with respect to land categories, the protection of the environment and of Inuit harvesting rights and socio-economic development guarantees for the Inuit society.

After describing the Complexe Grande Baleine as presently proposed, we explain the potential conflicts between the Complexe and the use of land and resources by the Inuit around Kuujjuarapik, Umiujaq and Inukjuak. To this end, maps appended to the brief illustrate wildlife productivity in the region and harvesting activities of the Inuit in the area surrounding the proposed Complexe.

We also discuss the negative environmental and social impacts which may be caused by the proposed Complexe, including mercury contamination of marine habitats, rivers

and their wildlife; cumulative impacts on Hudson Bay and Hudson Strait; damages to the ecology of Manitounek Sound; displacement of animals in the area surrounding the project; destruction of rivers due to the lack of downstream flow-maintenance; negative impacts on Belugas due to the diversion of the flow from the Nastapoca and Little Whale Rivers; and negative impacts on rare species in the region. Our brief also discusses the general negative impacts of Hydro-Québec's choice of variant #1 to build the project. Obviously, further research as well as a serious consultation between Hydro-Québec and ourselves are mandatory even before finalizing the design of the Complexe Grande Baleine.

However, our brief emphasizes that if the construction and operation of the project take into account the concerns of the people of the region, then the Complexe could have positive impacts such as job creation, training of a qualified Inuit workforce, contracts for Inuit firms, establishment of joint ventures and the development of resources. In particular, we emphasize the need for a much more equitable distribution of the wealth generated by such a megaproject in order for our region, which will be directly affected by the impacts, to substantially benefit from the advantages that the Complexe Grande Baleine will bring to the whole of Québec.

Our Brief points out that past experiences with large-scale projects elsewhere in the world justify the fears that people have over negative impacts of the Complexe Grande Baleine. Generally speaking, megaprojects benefit the global society to the disadvantage of the population residing in the immediate region of the project. On the other hand, the Grande Baleine Complexe can be a point of departure, a catalyst which can create positive benefits.

We also indicate that we are ready to take up the challenge but we ask whether Hydro-Québec is ready to do the same. For us, the dialogue must begin in order to make development beneficial not only for Québec society as a whole, but also for Inuit as a people.

BRIEF TO

**THE COMMITTEE ON LABOUR**

**AND THE ECONOMY**

**May 1990**

## TABLE OF CONTENTS

|  | <u>PAGE</u> |
|--|-------------|
| 1- INTRODUCTION .....  | 1           |
| 2- THE INUIT AND THEIR TERRITORY .....   | 3           |
| 3- THE CONTEXT .....   | 6           |
| 4- LEGAL STATUS OF NUNAVIK INUIT IN REGARD<br>TO GRANDE BALEINE COMPLEX .....          | 8           |
| 5- LACK OF LAND-USE AND DEVELOPMENT PLAN<br>FOR THE TERRITORY .....                    | 10          |
| 6- DESCRIPTION OF THE GRANDE BALEINE<br>COMPLEX .....                                  | 12          |
| 7- ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT<br>OF THE GRANDE BALEINE COMPLEX .....   | 15          |
| 8- LACK OF ADEQUATE CONSULTATION PROCESS REGARDING<br>THE GRANDE BALEINE PROJECT ..... | 18          |
| 9- INUIT RESOURCE AND LAND USE: CONFLICTS WITH<br>THE GRANDE BALEINE COMPLEX .....     | 20          |
| 10- MAJOR NEGATIVE IMPACTS OF THE GRANDE<br>BALEINE COMPLEX .....                      | 22          |
| a) Mercury Contamination .....   | 22          |
| b) Cumulative Impacts .....  | 25          |
| c) Migratory Birds .....   | 26          |
| d) Marine Mammals .....  | 27          |
| e) Contamination of Manitounuk Sound .....   | 28          |
| f) Displacement of animals .....   | 29          |

|   | <u>PAGE</u> |
|---|-------------|
| g) Downstream flow-maintenance .....                                  | 30          |
| h) Diversion of flow from Nastapoca and<br>Little Whale Rivers .....  | 31          |
| i) Siting of GB-1 Spillways .....                                     | 33          |
| j) Rare Species .....   | 34          |
| k) Road Access .....  | 35          |
| <br>  |             |
| 11- POTENTIAL POSITIVE IMPACTS OF THE GRANDE<br>BALEINE COMPLEX ..... | 38          |
| a) Employment and Training .....                                      | 39          |
| b) Inuit Enterprises .....  | 43          |
| c) Access: Roads and Airports .....                                   | 45          |
| d) Resource Development .....   | 46          |
| e) Resource Enhancement Programs .....                                | 48          |
| f) Economic Measures for the Region .....                             | 48          |
| <br>  |             |
| 12- CONCLUSION .....  | 50          |

A N N E X E S

- Annex 1 - Letter of July 21, 1981 from Makivik Corporation to Hydro-Québec requesting the commencement of discussions and negotiations between Hydro-Québec and the northern Québec Inuit regarding the proposed Grande Baleine Complex.
- Annex 2 - Letter of February 23, 1990 from Makivik Corporation to Hydro-Québec requesting the commencement of discussions and negotiations between Hydro-Québec and northern Québec Inuit regarding the proposed Grande Baleine Complex.
- Annex 3 - Data on Inuit land-use and resource harvesting.
- Figure 1 - The Nunavik Region and Inuit Communities
- Figure 2 - Hunting territories: main species groups
- Figure 3 - Grande Baleine Hydroelectric Development
- Figure 4 - Inuit and Cree land categories in relationship to the Complex
- Figure 5 - Potential conflicts in land-use
- Figure 6 - Beluga seasonal ecology in the south-east sector of Hudson Bay
- Figure 7 - Regional ecology of the Beluga whale in the Great Whale River area
- Figure 8 - Potential distribution of methylmercury through Beluga consumption

1- INTRODUCTION

Makivik Corporation welcomes this opportunity to present the views of Nunavik Inuit before the Commission de l'économie et du travail.

Makivik Corporation, created under the James Bay and Northern Québec Agreement <sup>1</sup> and enacted into law by Québec legislature on June 23, 1978 <sup>2</sup>, was established to promote and protect the rights and interests of its sole members, the Nunavik Inuit.

We understand that the mandate of the Commission de l'économie et du travail in this series of public hearings beginning on May 8, 1990, concerns the present and future situation regarding electric energy in Québec, and that the Commission will be examining the following matters:

- the place of electricity in Québec's energy needs;
- the situation and evolution of respecting mid and long-term demand for electricity in Québec;

---

1 This Agreement was approved, given effect to and declared valid by dual federal and provincial legislation, namely, An act approving the Agreement concerning James Bay and Northern Québec, R.S.Q., C-67 and the James Bay and Northern Québec Native Claims Settlement Act, S.C. 1976-77, c. 32.

2 An Act to establish the Makivik Corporation, S.Q., 1978, c. 91.

- the directions and choices possible to satisfy the mid- and long-term demand for electricity in Québec;
- the means, in terms of resources and equipment proposed by Hydro-Québec in the framework of its development plan, to carry out its mandate and to provide the electricity necessary for Québec;
- the means by which satisfying Québec's needs for electricity, the quality of the environment and sustained economic growth can be reconciled.

Though Makivik is concerned with all these matters, the present brief focuses on the last of the above issues. In particular, this brief addresses the question of how the proposed Grande Baleine Complex may impact Nunavik Inuit, their lands and the environment and resources upon which they depend. Moreover, it is our primary concern that, if built, such a project should generate positive and enduring economic benefits to our region while respecting the quality of our northern environment.

2-

## THE INUIT AND THEIR TERRITORY

Nunavik Inuit occupy and use the region north of the 55th parallel in Québec (320,000 square kilometres) and the offshore. Inuit reside in fifteen communities scattered along the Hudson Bay, Hudson Strait and Ungava Bay coasts. Archaeological evidence confirms that Inuit use and occupancy of this region extends over 4,000 years.

Distances are great in the region and, though a regional airline connects the communities, no roads connect them either among themselves nor to the South. Characteristic of the region are high costs for basic services and elements such as postal services, food, transportation, communication, equipment, fuel, as well as a lack of economic opportunities at both the community and regional levels.

For the past thirty years, profound transformations have affected all aspects of our henceforth sedentary society. We have drifted from a subsistence economy to a mixed economy where salaried employment plays a vital role. Our traditional values based on nature have been gradually replaced by new values from the south.

The consequences of these rapid changes have had a negative effect on the adaptation and integration of Inuit society as a whole, for example: alcohol and drug abuse, a rapid increase in juvenile delinquency, suicides, accidental deaths, unemployment and welfare. The substandard level of education in the North coupled with the foregoing has left the northern population at a great disadvantage. Despite improvements to housing, medical services and community infrastructure, Inuit society still faces enormous difficulties and numerous problems. There are few solutions to these problems.

As further discussed below, no balanced comprehensive land-use and development plan exists for the region. The region lacks a reliable system for training Inuit and providing them with the necessary qualifications to work in various industries. In particular, with respect to construction, Inuit training and qualification has been virtually neglected until recently. Consequently, most Inuit workers, if hired, are hired as unskilled labourers. Existing Québec laws and regulations in the construction industry prevent Inuit from obtaining the necessary qualifications and competency cards and such other documents to legally work on construction sites in their own region and elsewhere.<sup>3</sup> The communities also suffer a severe lack of recreational and cultural facilities for all ages of Inuit.

In this context, the hydroelectric megaproject raises a number of fundamental questions and leaves no one indifferent. Some people categorically oppose the project, some show a certain interest, particularly economic, and lastly, others have, in exasperation, resigned themselves to the eventuality of the project, which they say is a catastrophe and will only prove detrimental to them.

---

<sup>3</sup> See, for example, Décret #647-89 (May 3, 1989) "Concernant l'instruction relative aux services éducatifs pour les adultes pour l'année scolaire 1989-1990", subsection 2.1.5 (b)(i), as well as "Règlement sur la délivrance de certificats de compétence" Décret #673-87, the "Loi sur les relations du travail, la formation professionnelle et la gestion de la main-d'oeuvre dans l'industrie de la construction", R.S.Q., c. R-20, as amended by S.Q. 1986, c. 89.

Along side all this, Nunavik Inuit are currently working towards self-government for the region and its people, but will require extensive delegation of powers from Québec as well as a reliable source of revenue for the region in order to fully achieve such a goal. Preliminary discussions have recently commenced between the Inuit and Québec with respect to self-government.

3-

THE CONTEXT

The James Bay and Northern Québec Agreement, though signed in 1975 by Québec, Canada, Hydro-Québec, Société d'énergie de la Baie James, Société de développement de la Baie James, the James Bay Crees and the northern Québec Inuit, has been formally amended eleven times since that date, by means of complementary agreements. Several of these amendments were undertaken in order to accommodate Hydro-Québec which requested modifications to the original description of La Grande Complex (1975) as contained in the James Bay and Northern Québec Agreement.

Though the Inuit have never consented to the construction or operation of future large-scale hydro-electric projects in Québec, the J.B.N.Q.A. does provide for specific environmental and social assessment procedures to govern all future development in the regions north of both the 49th parallel and the 55th parallel. These procedures were all incorporated into law in 1978 in the form of Divisions II and III of the Québec Environment Quality Act.

The J.B.N.Q.A. also contemplates the possibility of remedial agreements between the Native parties, Hydro-Québec and S.E.B.J. with respect to future development projects. Such agreements could address such issues as technical modifications to the proposed projects; compensation for present and future possible damage to the environment and its resources; remedial measures to minimize known and foreseeable environmental and social impacts of the proposed projects; as well as concrete proposals to promote the economic well-being of the region. To date, no

negotiations between Hydro-Québec and Nunavik Inuit concerning the Grande Baleine Complex have taken place, despite Makivik requests for such discussions.<sup>4</sup>

---

<sup>4</sup>

Letter of July 21, 1981 from Makivik Corporation to Hydro-Québec and letter of February 23, 1990 from Makivik Corporation to Hydro-Québec.  
(See Annexes 1 and 2).

4-

LEGAL STATUS OF NUNAVIK INUIT IN REGARD TO  
GRANDE BALEINE COMPLEX

With respect to Inuit rights and interests north of the 55th parallel in Québec, Nunavik Inuit enjoy rights and guarantees in regard to land, environmental protection, hunting, fishing and trapping (native harvesting) as well as economic and social development. Because the James Bay and Northern Québec Agreement is a Native land claims settlement, it constitutes a treaty under section 35 of the Constitution Act, 1982 and thereby enjoys constitutional protection. The laws implementing that Agreement provide for:

- land replacement or compensation when development encroaches upon Inuit Category I or Category II lands (J.B.N.Q.A., Chapter 7 - Inuit Land Regime and Chapter 8 - Technical Aspects);
- basic technical description of the proposed Grande Baleine Complex, should it be built (J.B.N.Q.A., Chapter 8 - Technical Aspects);
- environmental protection through environmental and social impact assessment of the proposed complex, such a project being on a list of those automatically subject to impact assessment (J.B.N.Q.A., Chapter 23 - Environment and Future Development North of the 55th Parallel - now incorporated into law through Division III of the Environment Quality Act, L.R.Q. c. Q-2);
- entrenchment and protection of Inuit harvesting rights (hunting, fishing and trapping)

with exclusivity in Category I and II lands and priority in Category III lands north of the 55th parallel (J.B.N.Q.A., Chapter 24 - Hunting, Fishing and Trapping - and incorporated into law in An Act Respecting Hunting and Fishing Rights in the James Bay and New Québec Territories, L.R.Q., c. D-13.1);

- economic and social development guarantees providing employment and contract priority for Inuit in the case of development in the region north of the 55th parallel; these provisions are designed to ensure Inuit and Inuit companies with employment and contract priority in the case of projects such as the proposed Grande Baleine Complex (J.B.N.Q.A., Chapter 29 - Inuit Economic and Social Development).

With respect to the offshore in Hudson Bay which will be impacted by the proposed Grande Baleine Complex, the Inuit enjoy unextinguished aboriginal title and claims throughout the offshore area surrounding Québec in Hudson Bay, Hudson Strait and Ungava Bay. Inuit aboriginal title and claims are recognized and affirmed by section 35 of the Constitution Act, 1982 and as such enjoy constitutional protection.

From the above, it can be seen that any interference with these rights could constitute a breach of the Agreement or of the laws implementing it.

5-

LACK OF LAND-USE AND DEVELOPMENT PLAN FOR THE TERRITORY

Nunavik Inuit have not yet really participated in the planning process for land-use and development of the territory because Québec has not provided adequate funds to the Kativik Regional Government and local municipal governments to formulate and implement an effective land-use plan.<sup>5</sup> Moreover, new land-use powers recently conferred by Québec upon other municipalities in Québec have not been extended to those north of the 55th parallel.<sup>6</sup>

Rather, the Government of Québec has turned over the planning role for the territory to Hydro-Québec through the enactment of specific statutory provisions (in this regard). More particularly, Section 21.3 of the Hydro-Québec Act (L.R.Q., c. H-5) provides as follows:

"The Corporation shall establish a development plan in accordance with the form, tenor and period fixed by the Government.

The development plan must be submitted to the Government for approval."

---

5

See an Act concerning Northern Villages and the Kativik Regional Government, R.S.Q., c. V-6.1, Sections 176 and 244. This situation is supposed to be changed in part by the Québec decision in 1990 to provide limited funds to the Kativik Regional Government for such regional planning.

6

See an Act Respecting Land Use Planning and Development, R.S.Q., c. A-19.1, Section 266 of the Act provides:

"This Act does not apply in the territory situated north of the 55th parallel..." In addition, Section 1A of the Act excludes Northern Village Corporations north of the 55th parallel from the definition of municipal corporations under this Act.

When one couples this mandate aiming to create a development plan with Hydro-Québec's overall objectives, it is not difficult to conclude that such a development plan will be heavily focused on energy development with little or no consideration given to present or potential other uses of the region. The objects of Hydro-Québec are set forth in Section 22 of the Hydro-Québec Act as follows:

"The objects of the Corporation are to supply power and to pursue endeavours in energy-related research and promotion, energy conversion and conservation and any field connected with or related to the power or energy."

Makivik believes it is inappropriate for the Government to leave the responsibility for development planning of the region to Hydro-Québec, with its obvious bias towards large-scale hydroelectric development. A comprehensive land-use and development plan must be created for Nunavik in a manner according particular consideration to Inuit land uses and to Native cultural values of the region. Without such a balanced approach, the development of Nunavik will continue to be viewed solely in terms of its hydroelectric development potential, resulting in other resource-users, including Inuit, being ignored.

Adequate funds must be provided to the local and regional bodies to ensure their full participation in the formulation and implementation of a land-use and development plan for Nunavik. Such a plan is an essential tool for ensuring orderly use and development of the territory's land and resources at a pace compatible with rational land-use criteria, resource conservation, and sustainable development. Obviously, Inuit cultural needs and aspirations should be incorporated into this plan along with Québec's energy needs.

6-

DESCRIPTION OF THE GRANDE BALEINE COMPLEX

To date, Hydro-Québec has offered four options (variants) for construction of the Grande Baleine Complex and has clearly indicated its preference for Variant #1. These options are the following:

Variant #1:

This variant calls for a system of three power plants (GB-1, GB-2 and GB-3) along the Great Whale River. Flow storage and regulation of water is provided by a reservoir at Lac Bienville, which will be enlarged by two-thirds of its size, up to approximately 1680 square kilometres (roughly two-thirds of the area of the present LG-2 and LG-3 reservoirs). Reservoirs and forebays above, the GB-1 and GB-2 powerhouses, will produce extensive flooding. The GB-1 forebay will flood the Coats River valley, an area of 350 kilometres square. The GB-1 powerhouse will have a capacity of nearly 2,000 megawatts (about the same as LG-2A) and is the key powerhouse of the proposed Complex. The combined generating capacity of GB-1, GB-2 and GB-3 is up to 3,080 megawatts.

In addition to the waters of the Great Whale River, 75% of the waters of the Little Whale River and Boutin River, which now flow into Hudson Bay, will be diverted through a series of diversion channels into the Coats River and thereafter into the reservoir above GB-1, thus increasing the amount of water available at GB-1 by approximately one-third.

The water of the Great Whale River will be raised and diverted (to be dammed at approximately kilometre 66 from its mouth) in a westerly direction through secondary

valleys, then combined with the water diverted from the Little Whale River and discharged directly into Hudson Bay through the GB-1 powerhouse situated approximately 32 kilometres north of Kuujjuarapik.

Hydro-Québec has undertaken that any dam or powerhouse built as part of the project will not raise water levels above the following sea level elevations:

|               |   |            |
|---------------|---|------------|
| GB-1          | - | 650 feet   |
| GB-2          | - | 960 feet   |
| GB-3          | - | 1,280 feet |
| Lac Bienville | - | 1,315 feet |

Variant #2:

This Variant is similar to Variant #1 except that the reservoirs at powerhouses GB-2 and GB-3 will contain higher levels; Lac Bienville will constitute the reservoir for the GB-3 powerhouse. Electric production from Variant #2 will total approximately 2,315 MW.

Variant #3:

This Variant involves development of both the Little Whale River system and the Great Whale River systems, but on a separate basis. This option is the most expensive in dollars of all four variants. Electric production from the Little Whale River system is estimated at approximately 670 MW. Electric production from the Great Whale River system is estimated at approximately 1,924 MW.

Variant #4:

This Variant involves development of only the Great Whale River system, leaving the Little Whale River system untouched. Electric production from this Variant is approximately 1,924 MW and is the least costly in dollars of all four Variants.

The map provided in Figure 3, Annex 3 of the present brief outlines the geographic region impacted by the project.

7-

ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT OF THE  
GRANDE BALEINE COMPLEX

The following discussion about potential impacts of the Grande Baleine Complex illustrates that these impacts extend north of the 55th parallel as well as into offshore areas of Hudson Bay.

There may indeed be extensive offshore impacts involving numerous areas of federal jurisdiction, including:

- freshwater fish in the rivers flowing into Hudson Bay and marine fish species in the Bay itself;
- diadromous fish species;
- marine mammals, including Beluga whales;
- migratory birds and their migratory routes and habitats;
- navigable waters;
- aeronautics;
- mercury and other toxic contaminant accumulation in both waters and wildlife species of Hudson Bay;
- water quality, particularly downstream from the installations;
- inter-basin transfers of water;
- climatic effects;
- harvesting activities of Nunavik Inuit.

Because of the multi-jurisdictional and overlapping federal and Québec jurisdictions with respect to the project, five environmental and social impact assessment regimes could be applied to the Grande Baleine Complex:

- (1) Impact assessment procedures applicable to the territory located north of the 55th parallel in Québec pursuant to Division III of the Québec Environment Quality Act, L.R.Q. c. Q-2. (Kativik Environmental Quality Commission, sections 181, seq.);
- (2) Impact assessment procedures applicable to the territory located south of the 55th parallel pursuant to Division II of the Québec Environment Quality Act, L.R.Q., c. Q-2. (Evaluating Committee and Review Committee, sections 148 et seq.);
- (3) Federal impact assessment procedure applicable to the territory north of the 55th parallel pursuant to sub-section 23.4 of the James Bay and Northern Québec Agreement (Screening Committee and Review Panel);
- (4) Federal impact assessment procedure applicable to the territory located south of the 55th parallel pursuant to sub-section 22.5 of the James Bay and Northern Québec Agreement;
- (5) Federal impact assessment for the offshore area and any other areas of federal jurisdiction pursuant to federal EARP process environmental assessment and review process (EARP Guidelines Order adopted by P.C. 1984 - 2132 of June 21, 1984).

With respect to the region north of the 55th parallel and the offshore areas of Hudson Bay, it is Makivik's position that the federal and provincial impact

assessment regimes described above could be combined by an administrative oblique delegation of powers by Ottawa to the Kativik Environment Quality Commission in such a manner that this Commission could carry out a comprehensive environmental and social impact assessment and review of the entire Grande Baleine Complex. In such a case, all rules and procedures of the Kativik Environment Quality Commission would continue to apply, but criteria and guideline assessment would be augmented by those included in the federal delegation of powers. The basic structure and voting balance of the Commission members would be preserved but could be augmented by, for example, two (2) federal members, one appointed by Canada and the other by the Kativik Regional Government.

In order for the work of the Commission and of such a delegation to be effective, adequate funds and resources must be provided by Québec and Canada to the Kativik Environment Quality Commission so that it can undertake adequate research and evaluation of the project and all the necessary consulting, travel and public hearings associated with this process.

8-

LACK OF ADEQUATE CONSULTATION PROCESS REGARDING  
THE GRANDE BALEINE COMPLEX

Ever since Hydro-Québec first initiated studies and discussions on the proposed Grande Baleine Complex in 1978, it has provided a series of information sessions with Inuit which were designed to create an "appearance of consultation" with aboriginal peoples. In reality, however, we have had little or no opportunity to influence the design, scheduling or other fundamental aspects of the Grande Baleine Complex, all of which aspects constitute the core elements of the project.

Over the last twelve years, Hydro-Québec has proceeded with only Variant #1 (development of both the Little Whale and Great Whale River systems) as if this was the only possible option, regardless of the fact that, of the four variants, the Inuit preference is Variant #4. In outlining our position, our letter of July 21, 1981 to Hydro-Québec provides the following:

"The Inuit of Great Whale River view Variant #4 (development of only the Great Whale River) as the only Variant which provides some protection of their harvesting rights and interests in the region. Any Variant which involves use of the Little Whale River drainage basin threatens to generate negative environmental impacts to the critical ecosystems of the Little Whale River and the Nastapoca River."

Hydro-Québec's manifest lack of consultation with Inuit is particularly surprising in light of its own "Politique d'environnement" of which Principle No. 5, entitled "Participation des publics au processus d'étude", provides as follows:

"Hydro-Québec makes sure it obtains the participation of individuals, groups and organizations involved during the study and design process of its activities.

The public's participation in the study of projects requires that not only scientific and technical data be taken into account but also political and social values; in this way, the project plan gains the knowledge of the general public or groups potentially affected by it. In addition, the public's participation is an effective means for decision-makers to understand problems concerning the environment and the implementation of activities, to define various options, and to come to an enlightened arbitration between energy and economic development and the protection and enhancement of the environment.

Means

- A. Hydro-Québec shall collaborate with governmental, regional and local authorities to implement or incorporate the studies, plans, diagrams of the territories concerned and of their resources, or to take into account other manifestations of their will; to this effect, it undertakes additional studies if necessary.
- B. Hydro-Québec shall encourage individuals, groups and organizations to participate in its studies, notably through communication programs, in order to obtain their knowledge of the milieu in the identification of significant resources, of impacts, in the choice of options as well as remedial and enhancement measures. To this end, it can also constitute a committee of environmental consultants.
- C. Hydro-Québec shall respond to requests and points of view raised by the public during the course of the study process."

The Inuit position on the project as indicated in the July 21st letter from Makivik to Hydro-Québec remains equally valid today and has not been given serious response in a real consultative process.

---

7

Hydro-Québec's "Politique d'Environnement" undated.  
Principle No. 5 - "Participation des publics au  
processus d'étude."  
(Unofficial translation by Makivik Corporation)

9-

INUIT RESOURCE AND LAND USE: CONFLICTS WITH THE  
GRANDE BALEINE COMPLEX

The attached maps (Annex 3) illustrate that extensive wildlife resources exist throughout the area envisaged for the Grande Baleine Complex. Moreover, there is intensive Inuit harvesting and use of certain wildlife resources in many areas of the proposed project, particularly along the coast.

The attached maps show the potential conflicts between Inuit use of the territory and the area of the Grande Baleine Complex:

- Figure 1

This figure illustrates the region and Inuit communities of Nunavik that could be affected by the Grande Baleine Complex;

- Figure 2

This figure represents zones where Inuit harvest birds, fish, land mammals and marine mammals;

- Figure 3

This figure illustrates the proposed hydro-electric project in the area of Kuujjuarapik;

- Figure 4

This figure shows the various Inuit and Cree land categories in relation to the project. (Note the conflict between the GB-1 power house and Inuit-Cree joint Category II lands);

- Figure 5

This figure gives an example of potential conflict in land use by the Complex and by the Inuit;

- Figures 6 & 7

These figures use the example of Beluga to illustrate the type of ecological data available on the species in the region;

- Figure 8

This figure uses the example of methylmercury to show how the potential impact of the project on certain species may affect the whole region.

10-

MAJOR NEGATIVE IMPACTS OF THE GRANDE BALEINE COMPLEX

The following is a list of major concerns regarding impacts of the Grande Baleine Complex. Though major impacts of the project are probably much easier to identify than they are to evaluate, the mere fact that these impacts are possible should dictate serious study prior to actual implementation of such a project.

a) Mercury Contamination

Hydroelectric power generation has been viewed as a relatively "clean" form of energy in comparison to electric generation by nuclear plants, oil plants or coal-burning plants. However, it has been discovered over the last decade that large impoundments of water produce methyl mercury in high concentrations. This methyl mercury is transmitted to fish through the food chain, rendering these fish dangerous for human consumption.

Research following construction and operation of La Grande Complex (La Grande 2, Opinaca and Caniapiscau Reservoirs) has discovered high levels of mercury in the flesh of fish, particularly predatory species living in those reservoirs. Warnings have been issued to the Inuit and Cree living below the LG-2 powerhouse to refrain from eating certain species of highly-contaminated fish. There is every scientific reason to believe that similar high levels of mercury will be found in the fish in the Grande Baleine Complex reservoirs, given the similar geological and biological make-up of the areas scheduled to be flooded.

The James Bay Mercury Committee created by Hydro-Québec, the James Bay Cree and the Government of Québec pursuant to the Mercury Agreement (1986) to determine the

nature and extent of the mercury problem with particular reference to the Complexe La Grande (1975), describes the issue as follows (Report of Activities - James Bay Mercury Committee - 1987-1988):

"This change is called mercury methylation and it occurs in natural aquatic environments as well as in reservoirs. Mercury methylation is essentially a biological process which begins with the bacterial activity association with the decomposition of submerged organic matter in surface sediment or from the catchment area of the aquatic environment. In reservoir and diversion areas, the process is identical, but impoundment intensifies the process; large quantities of organic matter on dry land (vegetation as well organic soils) are suddenly submerged and hence bacterial decomposition is intense for the first few years after impoundment. Demethylation, the reverse process which also occurs in natural environments as well as in reservoirs, is less effective than methylation. Downstream and in the power station and spillway and in the stretch of river effected by the structures, the problem seems to be associated with the descent of reservoir fish high in mercury content. These fish become attractive prey for species living in the river, which quickly take advantage of the abundance of prey.

...

But methyl mercury is a highly elusive substance; it is very rapidly transferred along the food chain and is difficult to detect in water. It is in the fish, at the end of the food chain, that the scope of mercury penetration of the environment becomes evident, varying with species, metabolism and feeding habits.

In Canada, it was not until the beginning of the 1980s that the cause and effect relationship between reservoir creation and methyl mercury production was established, thanks to research conducted by the Freshwater Institute at Churchill-Nelson Complex in Manitoba, to studies by the Société d'énergie de la Baie James in La Grande Complexe (Grande 2, Opinaca and Caniapiscau Reservoirs) and to other investigations in 1985 of older Hydro-Québec reservoirs (Gouin, Dozois and Manic-Outardes).

Investigation at Churchill Falls by Fisheries and Oceans Canada showed comparable findings. Elsewhere in the world, at hydroelectric developments in Brazil and Finland, similar problems have arisen.

In general, fish are good indicators of the quality of the environment in which they live, and mercury concentrations are no exception. Hence mercury content in the flesh of fish in the above-mentioned altered aquatic environments has risen very sharply and, among predators in particular, now exceeds the Canadian total-mercury marketing standard of 0.5 p.p.m."

The seriousness of mercury contamination in the region is made evident when one considers the fact that Inuit consume large quantities of fish and marine mammals. Research must be done to determine the facility and rapidity with which mercury contamination moves up the foodchain and ultimately enters the Inuit population's diet. No serious research is presently being effected by Hydro-Québec to determine the extent of mercury contamination in the marine environment and marine species, including fish, marine mammals and migratory birds.

Mercury research conducted to date by Hydro-Québec has found mercury levels as high as 3.0 p.p.m. in some fish inhabiting the La Grande 2 Reservoir and the river system below that reservoir. However, even the commercially acceptable Canadian mercury standard of 0.5 p.p.m. is misleading when applied in relation to Native peoples' weekly fish consumption which is much greater than that of Canadians living in the South. Even Health and Welfare Canada has suggested that 0.2 p.p.m. might be a more appropriate standard for Native peoples.

Without the appropriate extensive research, Hydro-Québec is unable to assure Nunavik Inuit of the nature and extent of mercury contamination (and even contamination by

other toxic substances) from the proposed flooding. Seventy-five percent of Inuit food comes from the marine environment. Fish from the La Grande and Great Whale River systems are also consumed by marine mammals such as seals, which are in turn consumed by Inuit. In addition, the migratory patterns of these marine mammals could mean that mercury contamination could spread through Hudson Strait into Ungava Bay and even as far as the Labrador coast, all areas used by Nunavik Inuit for food harvesting.

b) Cumulative Impacts

Cumulative impacts of the Grande Baleine Complex on Hudson Bay, given the Complexe La Grande and possibly other hydroelectric development in the region, requires serious study. Neither the Québec Government nor Hydro-Québec have undertaken any such research. This is particularly disturbing in light of findings showing that many nutrients are already limited in marine ecosystems in Hudson Bay, particularly in the Bay's southeastern area. For example, Environment Canada's data on Manitounuk Sound (May 1980) notes that, in general, mineral nutrients, particularly nitrates and nitrites, may already be limiting primary productivity in southeastern Hudson Bay. If this is true, any further reduction of nutrient input into Hudson Bay from the land (through accumulation of sediments and nutrients absorbed in the waters of the reservoirs) may prompt an overall reduction in productivity of the entire Hudson Bay marine ecosystem.

Cumulative impacts on Hudson Bay marine ecosystems resulting from the progressive impoundments of major Québec rivers such as La Grande, the Great Whale River, the Little Whale River, and possibly the N-B-R system, may be significant especially as regards nutrient levels, not to

mention mercury contamination as discussed above. Over time, hydroelectric projects may be progressively limiting the biological and ecological productivity of the Hudson Bay region.

The whole issue of cumulative impacts must be thoroughly addressed in any environmental and social impact review of the Grande Baleine Complex. However, effective prediction of cumulative impacts requires rigorous and comprehensive study of the Hudson Bay biology and ecology over an extended period of time.

Further complicating the cumulative impacts issue is the alteration by the project of the freshwater input into Hudson Bay which will decrease in the spring and increase in the winter. Potential changes in salinity levels, nutrient levels and ice melting patterns over time may have a significant impact on the ecology of Hudson Bay, given the fact that salinity and nutrient levels play a major role in defining the entire ecosystem of both James Bay and Hudson Bay.

Determining cumulative impacts of hydroelectric development on Hudson Bay is further complicated by the fact that impacts such as mercury, are only now being discovered. How many other impacts are as yet undiscovered due to lack of research?

c) Migratory Birds:

The eastern coastal areas of James Bay and Hudson Bay are a major staging area and flyway for migratory birds and water fowl. Some of the more common species using this habitat are the Canada Goose and a large variety of ducks, all relied upon as a food source by Inuit. These shores are

also used by these migratory bird species as a food source during their migratory flights. If feeding areas along this coast are damaged or destroyed by hydroelectric development, many migratory bird species would be threatened.

Once again, cumulative impacts are very significant here because the various types of marsh grasses (spartina) and sedges (carex) found in various salinity regimes of James Bay and Hudson Bay are the main food sources for migratory birds. Any major alteration in these salinity regimes could result in a destruction of these important food sources for migratory birds.

Since 1916, migratory birds are subject to the protection of an international treaty between the United States and Canada (Migratory Bird Convention), and such a treaty has been adopted into law in both Canada and the United States. However, this does not seem to have activated either government towards concern or action in light of the potential threat to migratory birds and their habitat posed by hydroelectric development in James Bay and Hudson Bay, and in particular, by the proposed Grande Baleine Complex.

d) Marine Mammals

Inuit reliance upon marine mammals is well-documented. What is not well-documented is the extent to which marine mammals will be affected by the proposed Grande Baleine Complex, given the major disruption of Manitounuk Sound by a new fresh water circulation regime caused by discharge into the Sound of all waters from the proposed Complex. Moreover, diversion of the headwaters of the Nastapoca River and the Little Whale River may significantly impact upon Beluga whales using the estuaries of these

rivers. What is also unknown is how seals in Manitounuk Sound will react to the increased noise and human presence throughout the region during both construction and operation of the project. Again, mercury contamination is also a major threat to most marine species including seals, Beluga whales, diadromous and marine fish species.

The migratory nature of many marine mammals is relied upon by Inuit in the hunting of these species; any shifts or changes in their natural patterns may severely prejudice Inuit hunting. General physical disruption of the region by both construction and operation of the proposed Grande Baleine Complex as well as potential ecological and hydrologic changes in the marine environment may all have significant, and as yet undetermined, negative impacts on marine mammals.

e) Contamination of Manitounuk Sound

Manitounuk Sound is heavily relied upon for its marine resources by the Inuit of several communities, including Kuujjuarapik, Umiujaq and Inukjuak. The significance of Manitounuk Sound for Nunavik Inuit is confirmed in maps depicting biological productivity and the intensity of Inuit harvesting (See Annexe 3). Use of the Sound as the exit flow for the entire proposed Grande Baleine Complex may significantly affect the ecology of the Sound. Included in this exit flow from the project are the following elements, any one of which or any combination of which may significantly and negatively alter the nature and extent of productivity in Manitounuk Sound:

- mercury-contaminated waters and mercury contaminated fish;

- tremendous volumes of fresh water in the winter months when natural fresh water discharge rates would be low;
- new systems of freshwater circulation within the Sound;
- creation of an estuary and an associated estuarine environment;
- alterations in ice formation along the coast of Manitounuk Sound and consequent effects on Inuit winter and spring travel on the ice;
- increased water temperature;
- increased level of various nutrients;
- erosion of parts of the coast in the vicinity of the tailrace.

Contrary to the natural hydrologic regime, the peak discharge of fresh water into the Sound will be in winter and the low discharge in summer. Extensive research is required to evaluate the impacts on Manitounuk Sound of the above changes.

f) Displacement of animals:

The degree to which animal populations, including marine mammals, will be displaced due to flooding, construction, noise, habitat alteration or habitat destruction, remains largely unknown in regard to the proposed Grande Baleine Complex.

The main concerns of the Inuit in this regard are that waterfowl populations could be displaced from the Lower Coats River and the Hudson Bay coast, and that Beluga whales could be displaced from the estuaries of the Nastapoca River and the Little Whale River. They anticipate that numerous fish species will leave the Great Whale River

as well. Aside from the impacts on Inuit harvesting of these resources, the displaced populations could negatively impact other animal populations.

Hydro-Québec does not share Inuit concerns regarding displacement of animals, preferring instead to rely heavily upon limited precedents (from geographic regions which have been subjected to man-made disturbances outside the James Bay and Hudson Bay area) as well as upon the migratory instincts of these species for returning to the same habitats. None of Hydro-Québec's views or hypotheses are supported by concrete research or data collected in the immediate areas of the proposed Grande Baleine Complex.

g) Downstream flow-maintenance:

The proposed Grande Baleine Complex involves cutting off the Great Whale River at approximately kilometre 66 from its mouth, thereby redirecting the flow of the Great Whale River in a westerly direction into the reservoir above the GB-1 powerhouse. The dam will include a spillway enabling water to be spilled, should this be necessary, into the Great Whale River riverbed below the cut-off dam.

From the cut-off dam on the upper part of the Great Whale River downstream to the Denys River at approximately kilometre 33, Great Whale River will essentially become dry. So, the Great Whale River will be greatly reduced in volume and flow below Denys River. Above its confluence with the Denys River, the Great Whale River's average discharge will be reduced from 577 M<sub>3</sub>/s to 13 M<sub>3</sub>/s. Consequently, that part of the Great Whale River located between the cut-off dam and the Denys River will end up consisting of a series of oblong lakes surrounded by low riparian vegetation.

The part of the Great Whale River below the Denys River will essentially resemble the latter, smaller river. No downstream flow maintenance (minimum flow) is contemplated by Hydro-Québec. This general policy applied by Hydro-Québec to all of its projects has been highly criticized given the fact that downstream flow maintenance policy is a well-established one in the United States and Europe, notably in the Scandinavian countries.

Basic downstream flow-maintenance would protect essential habitats for both fauna and flora otherwise eliminated by the complete cut-off of Great Whale River.

Further negative impacts of cutting off Great Whale River include loss of habitat for Otter and Mink; loss of spawning areas for Salmon; loss of habitat for Brook trout and Lake trout; loss of nesting sites for Canada Geese and diving ducks.

h) Diversion of flow from Nastapoca and Little Whale Rivers

As proposed, the Grande Baleine Complex diverts the head waters of the Boutin River and the Nastapoca River in such a way that there is no downstream flow maintenance in the Boutin River, thereby reducing the volume of water at the mouth and the lower parts of the Little Whale River which the Boutin feeds. As concerns the Nastapoca, Hydro-Québec's data is not clear but it would appear that the Nastapoca Rivers' average flow at its mouth will be reduced by at least twenty-five percent (25%) by the diversion dam to be built at the River's head waters.

The reduced flows in both the Little Whale River and the Nastapoca River could have significant impacts on Beluga whales which frequent the mouths of those rivers

during the summer months. These areas are the last remaining habitats for Beluga whales. This whale population has already been classified as an endangered species by COSEWIC (Committee on the Studies of Endangered Wildlife in Canada). In August 1985, the Québec Department of the Environment, in a report commenting on the project, stated as follows in regard to Beluga whales:

"According to various authors, the Beluga whales of the east coast of Hudson Bay constitute a species deserving special attention, given the precariousness of their small population, one which could be seriously affected by any interference with their preferred habitats such as the estuaries of Petite rivière de la Baleine and of the Nastapoca River. The information supplied by different documents in the impact study remains incomplete and Hydro-Québec must supply the following:

- specify the size and composition of the Beluga population frequenting the Petite rivière de la Baleine estuary. This would make it possible to evaluate the status of the population;
- better knowledge of the biology and behaviour of the Belugas inhabiting the east coast of Hudson Bay (importance of the thermal role in the estuaries, relative to frequentation by Belugas);
- better documentation of the use and frequency of occupation of the Petite rivière de la Baleine estuary and its importance for the survival of the Belugas;
- intensified biological studies comparing various estuarine areas actively frequented by Beluga whales".

---

<sup>8</sup> Ministère de l'environnement, Commentaire sur l'étude d'impact de Complexe Grande Baleine, August 1985, Page 7. Unofficial translation by Makivik Corporation.

Greater salt water intrusion will occur in both the Little Whale River and Nastapoca River as a result of reduced freshwater flow in those systems. These changes in salinity, along with temperature and productivity changes in the mouths of the Little Whale River and the Nastapoca River, may result in displacement of Beluga whales from those systems. Freshwater fish inhabiting these systems also risk being affected.

i) Siting of GB-1 Spillways

Any significant spillage, whether periodic or not, from the spillway at the cut-off of the Great Whale River will result in a destructive flushing of the riverbed. This could destabilize the riverbed and its banks which at that point will have to adjust to a much lower discharge level. Moreover, any habitats for small mammals and water fowl which may have formed along the lower parts of the Great Whale River after the cut-off would be disrupted, if not destroyed, by high-volume spills.

In addition, if the water intake for the Kuujjuarapik community is located in the lower Great Whale River, any massive erosion and sedimentation caused by high-volume spills could damage the water supply and could overtax the village's filtration system. The safety of workers using the lower parts of the Great Whale River at the moment of a large spill could also be at stake.

According to Hydro-Québec, alternatives to the spillway are too costly or environmentally disruptive. They would involve spilling into the lower 6 kilometres of the Domanchin River or into a 5-kilometre artificial spillway cut into rock near Manitounuk Sound. Cutting the spillway into rock would add \$300 Million to the cost of the project.

Though it is true that a spill of thousands of cubic metres of fresh water into the Sound would cause an extreme shock to the ecology, other alternatives for spillage from this system must be developed to minimize the impact on both the Sound and the lower Great Whale River.

j) Rare Species:

Hydro-Québec's research so far has failed to provide a systematic treatment of rare, endangered or protected species, both plants and animals, for the entire region of the Grande Baleine project. Hydro-Québec feasibility studies say very little about rare animal species and even less, if anything, about rare plants. The Osprey, the Peregrine Falcon, the Gyrfalcon and the Golden Eagle are all rare species found in the vicinity of the project. Fresh water seals found in Lac Des Loups-Marins, are considered by many specialists as unique in the world.

As for the flora, given that much of the territory to be flooded by the project is in ecological terms in a transition zone between taiga forest and tundra, it is quite possible that a number of rare plant species living in unique habitats may be affected or destroyed. Research must be done on these species to determine their nature and attributes.

Early identification of nesting sites or feeding areas of rare animals, or specific habitats of rare plant species, could allow for the protection of these sites through appropriate timing of construction of the project or of parts of it; re-routing of access roads; appropriate timing of blasting and other heavy construction; avoidance of over-flights or other disruptive activities. However, a lack of data on these species will undoubtedly result in severe disturbance.

k) Road Access:

Adequate studies are required on the environmental and social impacts of road access to a region formerly inaccessible by land. In fact, if Kuujjuarapik is connected to the La Grande road system, it will be the first time in Nunavik history that an Inuit community is accessible by road. The social and economic benefits and disadvantages of such a connection must be fully anticipated, and appropriate corrective measures or programs developed. Moreover, roads will extend inland to the Bienville Reservoir area, no doubt bringing about major changes in Inuit hunting activities. Easier access to inland wildlife will also doubtlessly have an impact on the future of those species.

Serious consultation with the Inuit of Kuujjuarapik must take place in order to determine whether a road connection is in fact desirable, and what the economical, social and environmental consequences will be for that community should the road end at GB-1, instead of in Kuujjuarapik.

---

From the above list, which is by no means exhaustive, it is apparent that extensive research and consultation with the Inuit is required before even a project design of the Grande Baleine Complex can be finalized. It is uncertain whether even the most fundamental baseline data presently exists in order that some of these project designs and variant choices can be made. At the very least, the following baseline studies should be executed immediately:

- a study of the Ringed and Bearded Seals in Manitounuk Sound and of hunting effort and catch for a period of at least five (5) years prior to the initial operation of the proposed GB-1 power plant;
- a study of the White Whale populations in the eastern Hudson Bay region for a period of at least five (5) years prior to the initial operation of the GB-1 power plant;
- a study of the Caribou and Caribou migration routes potentially affected by the Grande Baleine Complex for a period of at least five (5) years prior to the initial operation of the proposed GB-1 power plant;
- a study of Geese migration routes (particularly the autumn migration route), feeding and staging habits for a period of at least five (5) years prior to the initial operation of the proposed GB-1 power plant;
- a study to determine the location and ecology of Blue Clams in Manitounuk Sound prior to the initial operation of the proposed GB-1 power plant (either distinct from or as part of the study related to Seals in Manitounuk Sound);
- a study to obtain samplings of sediment in Manitounuk Sound near the proposed GB-1 tailrace for mercury content analysis, prior to the initial operation of the proposed GB-1 power plant;

- a study of all significant rare and endangered species in the region including fresh water seals, Peregrine falcons, Osprey, Golden eagles and Gyrfalcon.

11-

POTENTIAL POSITIVE IMPACTS OF THE GRANDE BALEINE COMPLEX

The preceding sections describe a number of anticipated repercussions following the construction of the Grande Baleine Complex. It is only a summary description and many other negative effects will appear in the coming years. Just as we have done for the negative impacts, we will now list the possible main positive impacts. These rest on the presumption that the Complex will be built, but this presumption is intended for purposes of analysis only and must in no way be construed as an acceptance or approval of the project by the Inuit.

As opposed to the negative impacts which will arise from the very fact of the project's construction, the positive aspects must be determined and addressed.

Until now, energy production has been the only factor taken into account in the construction of hydro-electric projects. Indeed, the James Bay project was conceived in such a way that when water levels increased dramatically in 1984, the physical constraints of its construction prevented Hydro-Québec from discharging the overflow into Hudson Bay. As a result, 10,000 caribou drowned in the Koksoak River. But if the "environment" factor was incorporated into the initial concept, the project would have a good chance of being designed in an way to avoid such mistakes. Modifying a project once it is built almost always requires investing huge sums of money and so the work never gets done.

This "environment" factor must also be incorporated into the management of the Complex. Here again, water levels in the reservoirs are controlled only in relation to electrical productivity. If, however, these water levels

were taken into account, the tidal range in the reservoirs would have fewer consequences and downstream rivers would experience fewer negative repercussions.

The same is true for the social environment, which simply cannot be dismissed. Inuit society as a whole will experience profound upheavals. Social and family relations, the milieu and the lifestyle, work, recreational activities, everything may be considerably altered. The milieu is already suffering from a deep malaise and there is a great risk that things will get worse. The economy will also change. Salaried employment will play a larger part, small and medium-size businesses will be more numerous, relocating to work more frequent. So Inuit society must be perceived as a factor in the project; otherwise, chances are that it will bear the consequences of the construction.

This being said, construction and operation of a megaproject like the Grande Baleine Complex can have positive effects and we want to present a few here.

(a) Employment and Training

Employment and training are the most obvious aspects and perhaps the easiest ones to consider. The construction and operation of a megaproject requires a great variety of human resources. Obviously the skills required will be imported into the region, but there is nothing preventing Hydro-Québec from creating interest for these jobs among the Inuit and giving them the means to benefit from them: vocational training schools, general education, on-the-job training.

Section 29 of the 1975 Agreement already provides for a number of rights and obligations in this respect:

- Inuit right to adequate training programs and facilities. (Subsections 29.0.25 and 29.0.27(a));
- Inuit right to priority in respect to employment and contracts. (Subsections 29.0.31 and 29.0.32);
- The obligation on the part of Québec and Canada to interpret requirements for various categories of jobs so that Inuit people able to perform the work shall be deemed eligible. (Subsection 29.0.31 (a)(i));
- The obligation on the part of Québec and Canada to adopt measures for unilingual Inuit candidates who complete training courses to be examined either in Inuktitut or with the assistance of a translator or an interpreter. (Subsection 29.0.26).

As a matter of fact, Makivik has produced a document on this subject which will be submitted to Hydro-Québec shortly. It deals with the importance of employment and training and suggests concrete measures to ensure success in this area. We propose a hiring and training policy for Inuit workers, the main objectives of which are:

- To provide Inuit with as many jobs as possible during the construction of the Grande Baleine Complex;
- To train a qualified, competent and experienced Inuit workforce so that Inuit may benefit from skilled job opportunities;

- To train Inuit workers for permanent jobs related to operating the Complex;
- To promote the development of a skilled and experienced Inuit workforce so that the entire Nunavik region may benefit by reducing reliance on non-Native skilled workers imported from the South.

In order to achieve these goals, an integrated approach must be elaborated with the following principle components: 1) Inuit training; 2) qualification of a workforce; 3) a hiring policy.

#### Objective 1: Inuit Training

It is imperative to ensure that the Inuit will benefit from adequate professional training in keeping with their needs. To this effect, in addition to institutional training, on-the-job training must be furthered. Consequently, Hydro-Québec could, within the framework of its own activities, design and implement on-the-job training courses for Inuit workers and encourage firms involved in the implementation of the Complex to do the same.

#### Objective 2: Qualification

Until now, Inuit workers have experienced enormous difficulty in obtaining official recognition of their skills in the construction sector.

Presently, in Québec, a candidate cannot enter apprenticeship without a Secondary V diploma, regular sector, or a diploma in a trade at the secondary level. This regulation represents a major obstacle for a vast majority of Inuit.

This regulation should be revised, given the fact that the government had already committed itself over six years ago to finding other methods, making it possible to better evaluate apprentices' knowledge.<sup>9</sup>

Objective 3: Hiring Policy

Such a policy should be framed around six principles:

- Identification of realistic objectives, in percentage terms, for hiring Native and Northern residents by category of employment;
- A commitment stated in all contractors' and sub-contractors' work contracts to give employment priority first to qualified Native manpower and second, to non-Native Northern workers;
- The establishment of a flexible and functional mechanism to coordinate hiring and training with the participation of Hydro-Québec, the Société d'énergie de la Baie-James (S.E.B.J.), contractors, unions, native organizations and government agencies;

---

<sup>9</sup>

See the "Rapport du comité ministériel relatif aux dépositions des représentants autochtones à la Commission permanente de l'économie et du travail" du 8 août 1984 (submitted November 30, 1984)

- The creation of a central hiring and placement service obliging contractors to recruit their employees first among the region's Native population, second among non-Native regional workers;
- The development of an official process to ensure follow-up, adjustment and assessment of objectives with respect to Native hiring;
- The consolidation, in their respective roles, of regional organizations in regards to recruiting and placing the workforce, co-ordinating training activities and maintaining workers' qualification.

(b) Inuit Enterprises

Small and medium-size businesses. Section 29 of the Agreement provides the following Inuit rights:

- The rights of Inuit entrepreneurs to technical and professional advice and to financial assistance. (Subsection 29.0.39);
- The right of the Inuit to priority in respect to employment and contracts. (Subsections 29.0.31 and 29.0.32).

Inuit enterprises already exist, others must be created. Indeed, Inuit entities already have enterprises such as, Air Inuit, for air transportation, Sapummiq, for building project management and Kigaaq Travel Agency. In addition,

the Fédération des Coopératives du Québec runs general stores, a construction company and a tourist agency.

Contracts must be attributed to these firms in priority. This can be done in at least two ways: 1) Hydro-Québec must ensure that all contracts contain a clause obliging contractors to give priority to Native firms for sub-contracts; and 2) that contracts be designed in such a way that Inuit enterprises can have reasonable opportunity to submit competitive tenders.

There is surely a way of dividing up contracts into more modest portions than normally done. In this way, they would correspond more closely to what Inuit firms can reasonably offer.

On the other hand, the creation of new local or regional firms must be encouraged. Locally, especially in Kuujjuarapik, many contracts could be attributed to entrepreneurs who are already established and to several others who are only waiting for the opportunity to go into business. In the immediate, local entrepreneurs could easily take charge of projects involving deforesting and the preparation of land for road access work, or trade contracts such as plumbing, carpentry and electricity.

At the regional level, if such a policy is adopted, Inuit organizations could establish firms which would satisfy Hydro-Québec's needs relative

to completing the road access work. In the longer term, these same firms will be able to obtain contracts related to project construction as such.

Joint Ventures. Another option which would surely have positive economic fallout would be the association of Inuit organizations with firms having expertise in various fields of activity: road and airport construction, equipment supply, catering and all other services required for seeing project construction through to completion. With the assurance of contract priority, it would be possible for several joint ventures to obtain interesting contracts and to allow the Native population to benefit from these on the economic level through training and employment.

(c) Access: Roads and airports

As indicated in Section 10(k), the Inuit of Kuujjuarapik must be consulted before determining if road access to the community is in fact desirable. It is also important to establish not only what the economic consequences would be, but also the social and environmental effects on the community, should the road be built to Kuujjuarapik.

From an economic point of view, the construction of access roads can have positive impacts, especially in Kuujjuarapik, but in other Hudson Bay communities as well.

The new airport can greatly improve air services and allow everyone to travel more easily towards urban centres.

The construction of the road linking Kuujjuarapik to urban centres in the South can lead to the economic development of this community. For example, it can become a centre for transferring merchandise trucked in from Montréal, which will create many jobs. A greater diversity of products, as well as fresh fruit and vegetables, will also be available at a lower cost and on a daily basis.

The road will allow Kuujjuarapik contractors and workers to participate more easily in the project because they will have access by land and not only by air. In addition, it will provide access to new hunting and fishing areas located further away from Kuujjuarapik and not easily accessible at present.

The road will also contribute to the economy of Kuujjuarpik if Hydro-Québec establishes the Grande Baleine Complex administrative office there. The office will benefit the community because of its needs: construction and maintenance of offices and residences, hotels and restaurants, transportation and other services required by the staff.

(d) Resource Development

The North is rich in many resources other than hydroelectricity. Nature there is practically untouched, the vastness and beauty of its landscapes make it very attractive for tourists. The varied and abundant wildlife already attracts several hundred sports fishermen and hunters

annually. These renewable resources are virtually unexploited and the Grande Baleine Complex could be a catalyst for dynamic development.

We are presently working out a tourism development plan for the whole region. However, tourism is an industry requiring enormous financial resources to set up the infrastructure and to promote the region in order to attract customers. With this in view, we believe that Québec should work exclusively with the Inuit in developing potential tourism north of the 55th parallel.

Therefore the Government of Québec should launch, via the Department of Tourism, an international advertising campaign to make the region north of the 55th parallel known world-wide. In addition, the moratorium on provincial parks should be lifted so as to create at least two more parks in the region.

The previously mentioned road access construction will open the territory to the rest of Québec. This road must be built with tourism in mind and we must have the possibility of choosing preferred neighbouring sites to build hotels, restaurants and outfitting camps.

The thousands of workers who will be present in the region over a ten-year period could become a prime clientele for outfitters. Hydro-Québec must implement special programs encouraging its personnel to vacation in the region and to use outfitters' services.

(e) Resource Enhancement Programs

There is no doubt that the environment will sustain numerous harmful effects and we have described many of them in the preceding section. In order to remedy these effects, Hydro-Québec will have to determine mitigative measures and elaborate resource enhancement programs.

These mitigative measures include the implementation of a complete follow-up and research program with sufficient funds for human resources and the infrastructure necessary to carry it through. This is all the more imperative in the case of mercury, not only to allow a follow-up but also to find solutions to this grave problem.

Resource enhancement programs will, in the more or less distant future, benefit the Inuit population. Stocking lakes, establishing fish farms and breeding farms, especially for caribou, are three areas of possible positive effects.

(f) Economic Measures for the Region

Any project whose construction is expected to enrich the province should of course bring wealth to its region of origin. In order that Nunavik Inuit benefit directly and fully from the effects of the Grande Baleine Complex and, in order to reduce disparities with other Québec regions, Hydro-Québec must allocate funds to the population (compensation, revenue-sharing, joint ventures) as

well as adopt equivalence programs for the cost of electricity sold to businesses as well as to private homes.<sup>10</sup> These measures will enhance the social and economic development of the communities and of the region as a whole.

---

<sup>10</sup> Electricity produced by diesel is very expensive and at present Hydro-Québec is funding the electricity destined to private homes in order to balance this cost against those related to the network. However, businessmen in the region are not being funded and therefore cannot be competitive with businesses in the South.

12. CONCLUSION

Past experiences of large projects built everywhere in the world would prove that those who apprehend the negative impacts of the Grande Baleine Complex are right. Generally speaking, megaprojects benefit the global society to the disadvantage of the population residing in the immediate region. On the other hand, the Grande Baleine Complex can be a new starting point, a catalyst which can create a positive dynamic.

We are ready to take up the challenge. We have said and repeated this on several occasions and more especially in October 1988 when we co-signed the Kuujjuaq (1988) Agreement with Hydro-Québec. We committed ourselves in the following manner:

"To cooperate fully with Hydro-Québec in the consultation and information procedures associated with any future activities or any electric development project which may have impacts north of the 55th parallel. Makivik Corporation or its successor, shall, on behalf of the Inuit, ensure the said corporation. Nevertheless, the said corporation shall in no way diminish Inuit rights with respect to activities of Hydro-Québec which may have impacts north of the 55th parallel." (p. 3-3)

But is Hydro-Québec ready to do the same? This is a unique opportunity for a promoter and a Native people to work together in order to bring a megaproject to completion. The dialogue must therefore begin in order to make this development project beneficial not only for Québec society as a whole, but for us as a people.

ANNEX I



July 21st, 1981

WITHOUT PREJUDICE  
BY MESSENGER

Me. Gilles Legault,  
Contentieux,  
Hydro-Québec,  
75 Dorchester Blvd. West,  
Montréal, Québec

Dear Mr. Legault,

Re: Preliminary comments of Inuit of  
Great Whale River regarding certain  
aspects of proposed Great Whale  
River Hydroelectric Project

This letter is in response to Hydro-Québec's  
repeated requests to the Inuit of Great Whale River for their  
comments with respect to certain aspects of the proposed Great  
Whale River Hydro-electric Project.

As you are aware, the Inuit of Great Whale  
River do not accept the proposed Great Whale River Hydro Project  
and shall take all steps necessary to oppose the proposed project  
unless a satisfactory agreement is reached with Hydro-Québec,  
S.E.B.J. and any other interested parties with respect to all  
aspects of the proposed project and in particular, remedial  
works and compensatory measures and benefits.

Subject to the foregoing, the Inuit of  
Great Whale River have reviewed certain Hydro-Québec information  
documents and preliminary reports entitled "Choice of the Location  
of the Airport to Serve the GB-1 Sites", "Drinking Water Supply  
for Great Whale River", and "The Development Options". Based on  
the limited information contained in these preliminary feasibility  
reports, the Inuit of Great Whale River present at a public meeting  
held on June 23rd, 1981, including the delegates appointed to the  
Coordination Table, discussed and took the following positions  
with respect to (1) a drinking water supply for Great Whale River,  
(2) the siting of the airport for GB-1, (3) the possibility of a  
road to Great Whale River and (4) the project variants.

Me. Gilles Legault,  
Page 2,  
July 21st, 1981

These positions are not meant to be exhaustive and are under reserve of the right of the Inuit of Great Whale River to modify them as further information becomes available.

(1) Drinking Water Supply for Great Whale River

The Inuit have reviewed the three options presented by Hydro-Québec respecting drinking water supply and, among those options, prefer that drinking water be supplied through Option B: an intake pipe in the Great Whale River at a point 11 Km upstream from the community with a twelve-month pumping of the water through a heated pipeline. Maintenance and operational costs of such a system must of course be determined as part of this solution and, if they are not the responsibility of Hydro-Québec or S.E.B.J., must be assumed by the government of Québec in one manner or another.

Both Option A (source of water from a dammed lake at 2.4 Km North East of the community) and Option C (intake in river at 11 Km from community with a four-month pumping to a reservoir) involve use of reservoirs which are likely to materially affect the taste, color and odor of the drinking water. Neither Option A nor Option C would provide as adequate a year-round supply of good quantity and quality water to the community of Great Whale River as Option B.

(2) Airport Site

On the basis of present information, the airport site preferred by the Inuit of Great Whale River is site GB-1A. Protection of the coastal area north of Great Whale River is of critical importance to Inuit. Siting of an airport in the vicinity of the coast will cause irreparable harm to the environment of the region and to Inuit harvesting activities. Sites such as H, C, D, B and E are too close to Great Whale River and air traffic and worker movements in and near the community will severely disrupt the community of Great Whale River. Further, site H aside from being close to the community of Great Whale River, involves use of Inuit Category I lands whereas site GB-1A would be on joint Cree-Inuit Category II land and on Category III land.

Even though GB-1A is also near the coast, we think it is preferable to site H because it would serve to restrict the environmental disruption and impacts to the immediate vicinity of GB-1 rather than spreading them out as would be the case if the airport sites closer to the community of Great Whale River were chosen. Further, from our point of view the GB-1A site would preclude any necessity for a road from GB-1 to the community of Great Whale River.

Me. Gilles Legault,  
Page 3,  
July 21st, 1981.

(3) Road between GB-1 and Great Whale River

As presently proposed, the Inuit of Great Whale River do not want a road connection from GB-1 to their community. They consider that the negative social impacts of such a road upon the Inuit and the potential negative environmental impacts of such a road in proximity to the coast would be disastrous. Further, it appears that Hydro-Québec has not contemplated or studied these potential impacts. Results of the recent land use study for the Great Whale River region indicate intensive Inuit harvesting activities in the coastal area north of the community and any road in the vicinity of such area would create negative impacts highly detrimental to the wildlife resources and Inuit harvesting activities in this region.

(4) Variant Choice

The Inuit of Great Whale River view variant # 4 (development only of the Great Whale River) as the only variant that provides some protection of their harvesting rights and interests in the region. Any variant which involves use of the Little Whale River drainage basin threatens to generate negative environmental impacts to the critical ecosystems of the Little Whale River and the Nastapoca River. The estuaries of these rivers are particularly sensitive areas ecologically. Variant # 4 is the only one of the variants proposed by Hydro-Québec which provides some measure of protection of the estuaries of the Little Whale River and the Nastapoca River. Unlike variant 1, 2 and 3 which involve use of the upper basin of the Little Whale River and in turn affect the discharge regime of the Nastapoca River, variant # 4 would leave untouched the Little Whale River basin thus providing some degree of protection for the white whales using the estuaries of the Little Whale River and the Nastapoca River. Further, the land use study of this region indicates heavy usage of the Little Whale River and Nastapoca River by the Inuit for harvesting activities.

The preliminary feasibility studies of Hydro-Québec deal only superficially with the potential environmental impacts of variant # 1 on the estuary of the Little Whale River and not at all with the impacts on the Nastapoca River as a whole. Indeed, the Hydro-Québec feasibility studies to date suggest a lack of knowledge as to the extent of water exchange between the Little Whale River basin and the Nastapoca River drainage system. Further studies are clearly called for with respect to the potential impacts of each of the variants upon these important river systems.

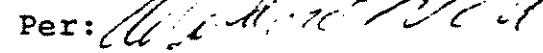
Me. Gilles Legault,  
Page 4,  
July 21st, 1981

The Inuit of Great Whale River and Makivik Corporation shall submit more comprehensive comments and positions with respect to the proposed Great Whale River Project and the particular aspects mentioned above. This shall be done in the form of a proposal for remedial works, compensatory benefits and project modifications for the proposed Great Whale River Project.

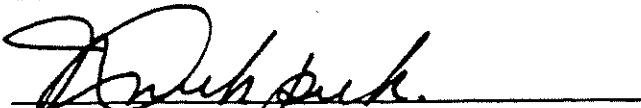
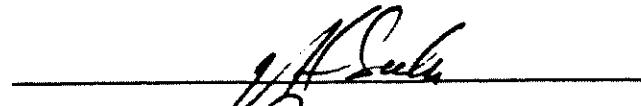
Very truly yours,

INUIT GREAT WHALE RIVER DELEGATES  
TO THE COORDINATION TABLE

MAKIVIK CORPORATION

Per: 

Mark R. Gordon  
First Vice-President


ANNEX 2



LPA

société **Makivik** corporation

February 23, 1990

Mr. Robert Brunette  
Vice-President  
Amerindian and Inuit Affairs  
Hydro-Québec  
75 boul. René Lévesque West  
Montréal, Québec H2Z 1A4

Re: Proposed Great Whale Hydroelectric Complex

Dear Mr. Brunette:

We acknowledge your letter of January 26, 1990 informing Makivik officially that Hydro-Québec plans to request a Certificate of authorization for the proposed Great Whale hydroelectric project from the Ministry of Environment in October 1990.

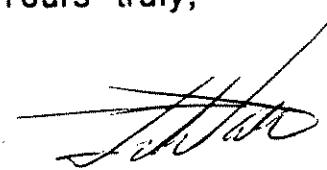
Be advised that Makivik Corporation cannot endorse Hydro-Québec's request for a Certificate of Authorization for the proposed Great Whale hydroelectric complex for the following reasons:

1. Your notice to us of January 26, 1990 is misleading as it omits mention of the fact that Hydro-Québec is requesting a Certificate of Authorization from the Ministry of Environment in the summer of 1990 for permission to construct the access roads and airstrips necessary for the project. It is our view that such infrastructure is an integral part of the proposed overall project and must be dealt with as such by the appropriate environmental and social impact assessment bodies.
2. Your notice ignores Makivik Corporation's understanding that there would be certain discussions and negotiations between Hydro-Québec and Makivik leading to a satisfactory agreement on certain matters of substance, in particular environmental and social matters, prior to Hydro-Québec proceeding with the proposed

Great Whale hydroelectric complex. Such discussions and negotiations have not to date occurred.

Be advised that Makivik Corporation informed Hydro-Québec on July 21, 1981 by letter that it is opposed to the proposed Great Whale hydroelectric complex and that it will take all steps necessary to do so unless a satisfactory agreement could be reached in regard to various substantive matters related to the project and its possible impacts on the region north of the 55th parallel. This continues to be Makivik's position and, in fact, has been restated on several occasions to Hydro-Québec by Inuit representatives at the Working Group on the Great Whale Hydro Project during 1989.

Yours truly,



Charlie Watt  
President



## **LAND USE AND HARVEST DATA BASE**

The Inuit of Kuujjuarapik and Umiujaq harvest the resources in the region south-east of Hudson Bay. On this vast territory, conditions change according to the seasons and the various ecosystems, including land, freshwater and marine environments as well as the ice regimes. These ecosystems include the seasonal habitats of thirty wildlife species harvested by the Inuit and producing approximately 105 266 kg of food supply per year.

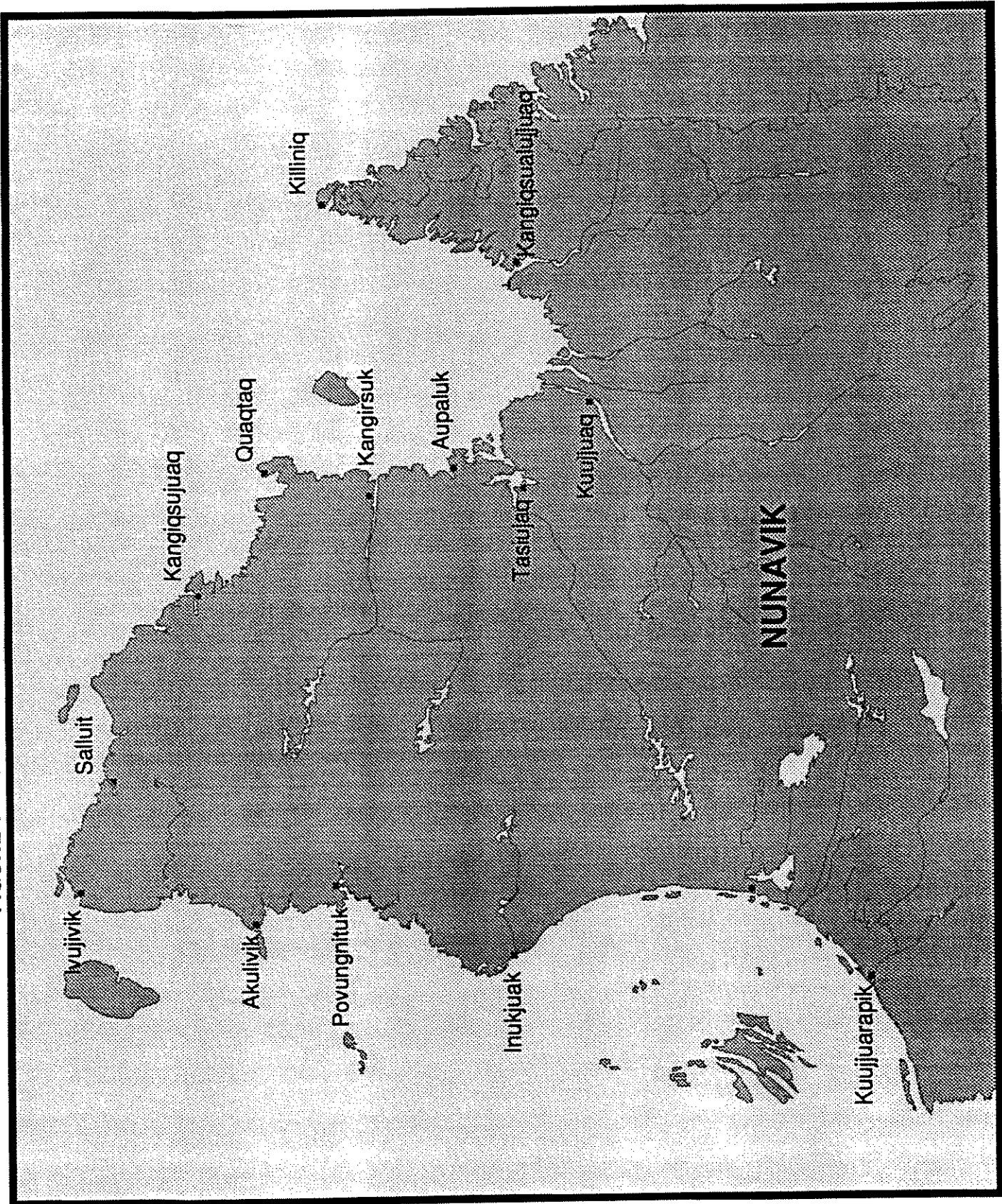
Figure 1 depicts the part of the Nunavik territory and collectivities that could be affected by the possible impacts of the Grande Baleine Complex. Figure 2 shows the outer boundaries of marine mammals, land mammals, fish and birds being harvested. Table 1 indicates the harvest levels produced by hunting in each zone.

Figure 3 illustrates the proposed hydroelectric development in the region of Kuujjuarapik. Figure 4 shows the various Inuit and Cree land categories in relation to the project. Figure 5 gives an example of potential conflicts in land use by the Inuit and by the project. Figure 6 uses the beluga example to illustrate potential conflicts in land use by the Inuit and by the Grande Baleine Complex. As for Figures 7 and 8, they show, with the example of methylmercury, how possible impacts generated by the project may affect certain species in the whole region.

Data shown on the land use and ecological maps were obtained during a field study conducted from 1983 to 1989. During this study, 78 Kuujjuarapik and Umiujaq have been personally interviewed. The data were analyzed, compiled and transcribed on maps which were then reviewed and updated by the hunters. Ecological information was collected through individual and group interviews, and the resulting data base was also revised and updated by the hunters. Harvest levels data were produced by a five-year study conducted from 1976 to 1980 pursuant to Section 24 of the James Bay and Northern Québec Agreement.

Several maps contain a brief comment destined to provide further information to the members of the Commission.

**FIGURE 1 THE NUNAVIK REGION AND INUIT COMMUNITIES**



## FIGURE 2 HUNTING TERRITORIES: MAIN SPECIES GROUPS

The thirty species harvested by the Kuujjuaq and Umiujaq Inuit can be divided in four groups. The hunting territories for each of these groups are illustrated above. Hunting for waterowl and other birds occurs in the coastal region outlined in map 2.1. The Inuit harvest nine migratory bird species; in particular Brant and Canada Geese are the most important, providing 14 850 kg of meat per year. As a whole, avifauna contributes approximately 21% of the total subsistence harvest. All species come in and out of the region according to seasonal migration patterns, but only the Canada Goose migrates over long distances. Eider ducks inhabit the Hudson Bay region throughout the year but the species also follows well-defined migratory routes.

Map 2.2 illustrates fishing zones. In this region, Arctic Char is less exploited than elsewhere in Nunavik because it is at the limit of its range. Indeed, Arctic Char is found only in the northern part of the region, particularly north of Richmond Gulf. Here, the most important species is Brook Trout. It is harvested in all seasons, but most intensively late in spring and at the beginning of the fall run. Inuit also fish Cod near the coast and Lake Trout in inland lakes, usually in winter and early spring.

Map 2.3 depicts zones where Inuit harvest land mammals, big and small. Caribou constitute a major source of food; an annual harvest of 242 animals provides more than 14 000 kg of meat. The species could be used more intensively, but the herd is far from Kuujjuaq and the cost of hunting is high. Consequently, the Inuit share their monetary resources and equipment to organize collective hunts in winter. Since the late 1970's, major changes occurred in the number and migratory habits of the caribou population. As it grows, the herd migrates closer and closer from Kuujjuaq and Umiujaq. Finally, Fox is consumed depending on its fat contents. This species can provide up to 180 kg of meat per year.

The hunting territory for marine mammals is outlined on map 2.4. This species group contributes the greatest part of the harvest. Available in the whole region and in all seasons, Ringed Seal is the species most harvested by Inuit in the region and represents about 26% of the total harvest. Until recently, Beluga occupied the second place in the harvest, but its hunting is now limited for reasons of wildlife management. The Inuit hunt Walrus on offshore islands; there is no doubt that this species will become more important as the Inuit start using fishing boats again. Finally, the region is home to a rare species of Seal which has adapted to the ecology of the Loups Marins Lakes.

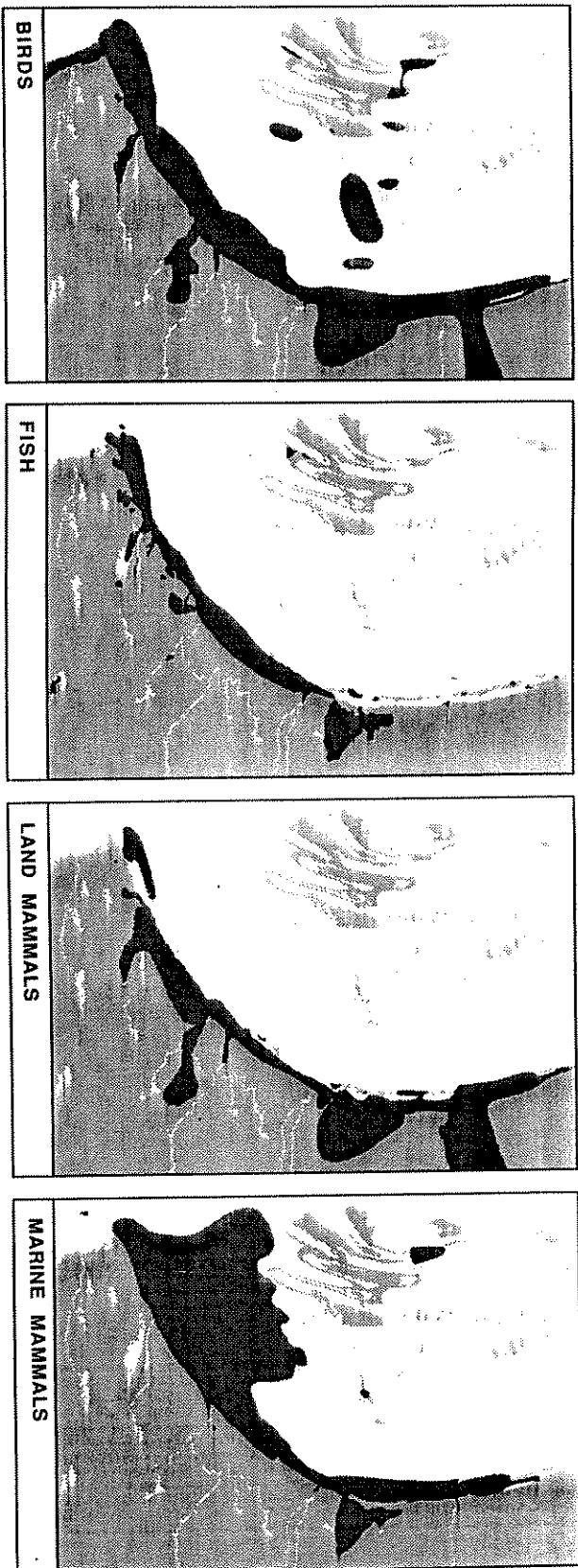


TABLE 1: TOTAL CATCH (1976-80), ALL SPECIES - KUUJJUARAPIK

| SPECIES           | 1976  | 1977  | 1978   | 1979   | 1980  | Total Catch | 5 Year Average |
|-------------------|-------|-------|--------|--------|-------|-------------|----------------|
| Ringed Seal       | 3,276 | 2,114 | 1,282  | 1,375  | 1,451 | 9,498       | 1,900          |
| Bearded Seal      | 107   | 66    | 42     | 93     | 111   | 419         | 84             |
| Ranger Seal       | 1     | 0     | 2      | 0      | 0     | 3           | 1              |
| Harp Seal         | 2     | 2     | 0      | 8      | 5     | 17          | 3              |
| Beluga Whale      | 60    | 55    | 51     | 63     | 75    | 304         | 61             |
| Walrus            | 2     | 0     | 0      | 0      | 0     | 2           | 0              |
| Polar Bear        | 9     | 1     | 8      | 4      | 3     | 25          | 5              |
| Caribou           | 385   | 140   | 212    | 238    | 235   | 1,210       | 242            |
| Wolf              | 4     | 3     | 6      | 7      | 6     | 26          | 5              |
| Arctic Fox        | 208   | 32    | 115    | 39     | 210   | 604         | 121            |
| Arctic Hare       | 44    | 82    | 18     | 51     | 42    | 237         | 47             |
| Snow Geese        | 1,315 | 600   | 577    | 7,529  | 4,610 | 14,631      | 2,926          |
| Canada Geese      | 5,292 | 4,991 | 3,869  | 5,418  | 3,787 | 23,357      | 4,671          |
| Ducks/Brant       | 2,849 | 3,686 | 3,163  | 4,061  | 3,521 | 17,280      | 3,456          |
| Murre             | 12    | 46    | 84     | 25     | 21    | 188         | 38             |
| Guillemot         | 192   | 46    | 92     | 26     | 38    | 394         | 79             |
| Loon              | 682   | 316   | 360    | 536    | 305   | 2,199       | 440            |
| Ptarmigan/Grouse  | 9,471 | 8,325 | 11,478 | 10,588 | 9,868 | 49,730      | 9,946          |
| Snowy Owl         | 14    | 8     | 17     | 60     | 13    | 112         | 22             |
| Duck Eggs         | 1,543 | 4,538 | 962    | 372    | 602   | 8,017       | 1,603          |
| Goose Eggs **     | ---   | ---   | ---    | 19     | 0     | 19          | 10             |
| Arctic Charr      | 1,423 | 1,499 | 695    | 333    | 381   | 4,331       | 866            |
| Salmon            | 54    | 184   | 67     | 0      | 2     | 307         | 61             |
| Lake Trout        | 1,632 | 1,180 | 231    | 644    | 405   | 4,092       | 818            |
| Cod Fish          | 4,782 | 3,276 | 1,832  | 1,361  | 1,154 | 12,405      | 2,481          |
| Whitefish         | 7,127 | 3,301 | 1,496  | 3,905  | 4,491 | 20,320      | 4,064          |
| Brook Trout       | 6,948 | 5,346 | 1,673  | 3,264  | 4,239 | 21,470      | 4,294          |
| Sculpin           | 5,777 | 3,307 | 5,073  | 3,863  | 4,200 | 22,220      | 4,444          |
| Land Locked Charr | 0     | 93    | 0      | 371    | 7     | 471         | 94             |

\*\* Two year average

--- Data missing

**FIGURE 3**

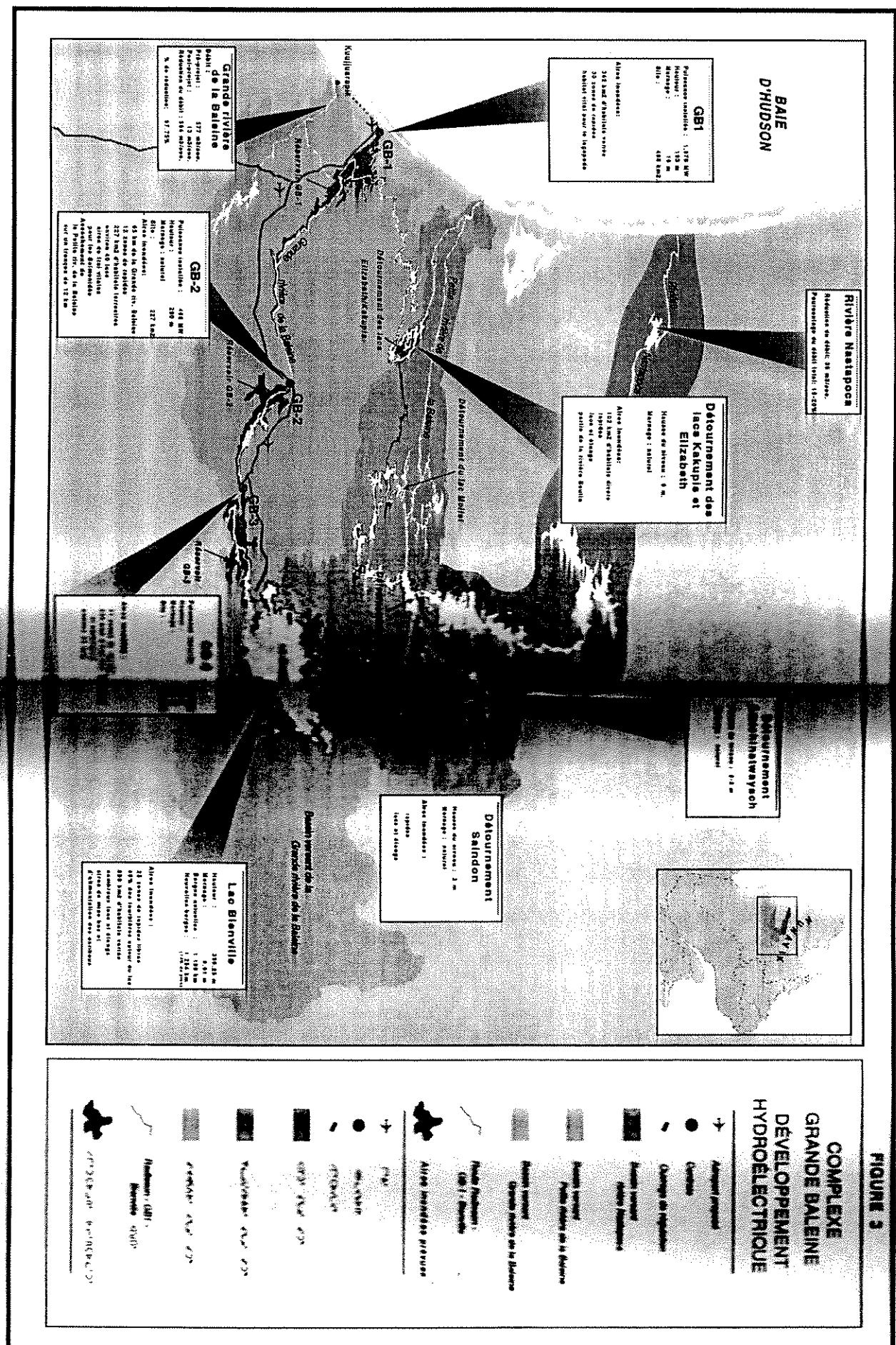


FIGURE 4

## BAIE DHUDSON

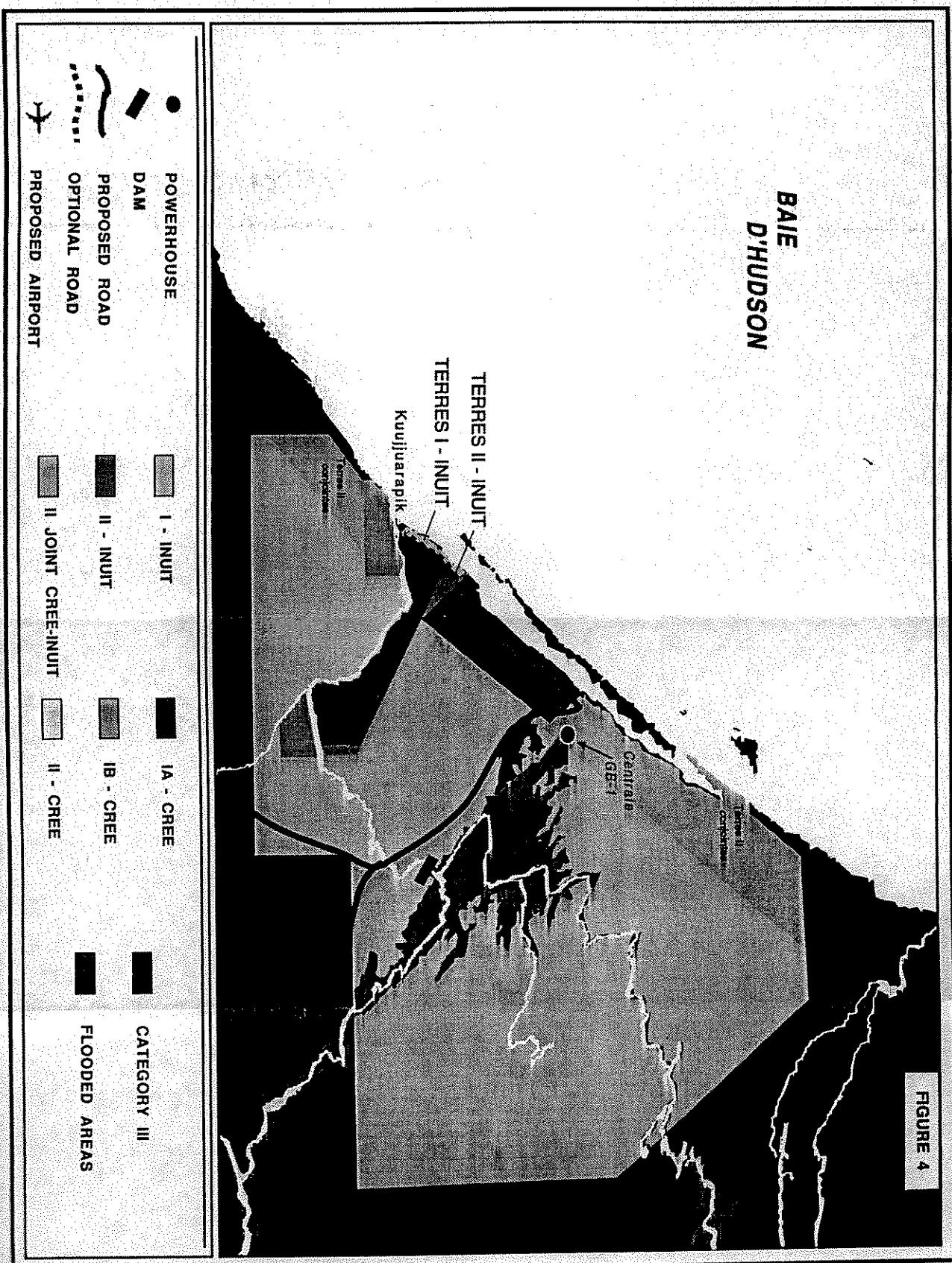
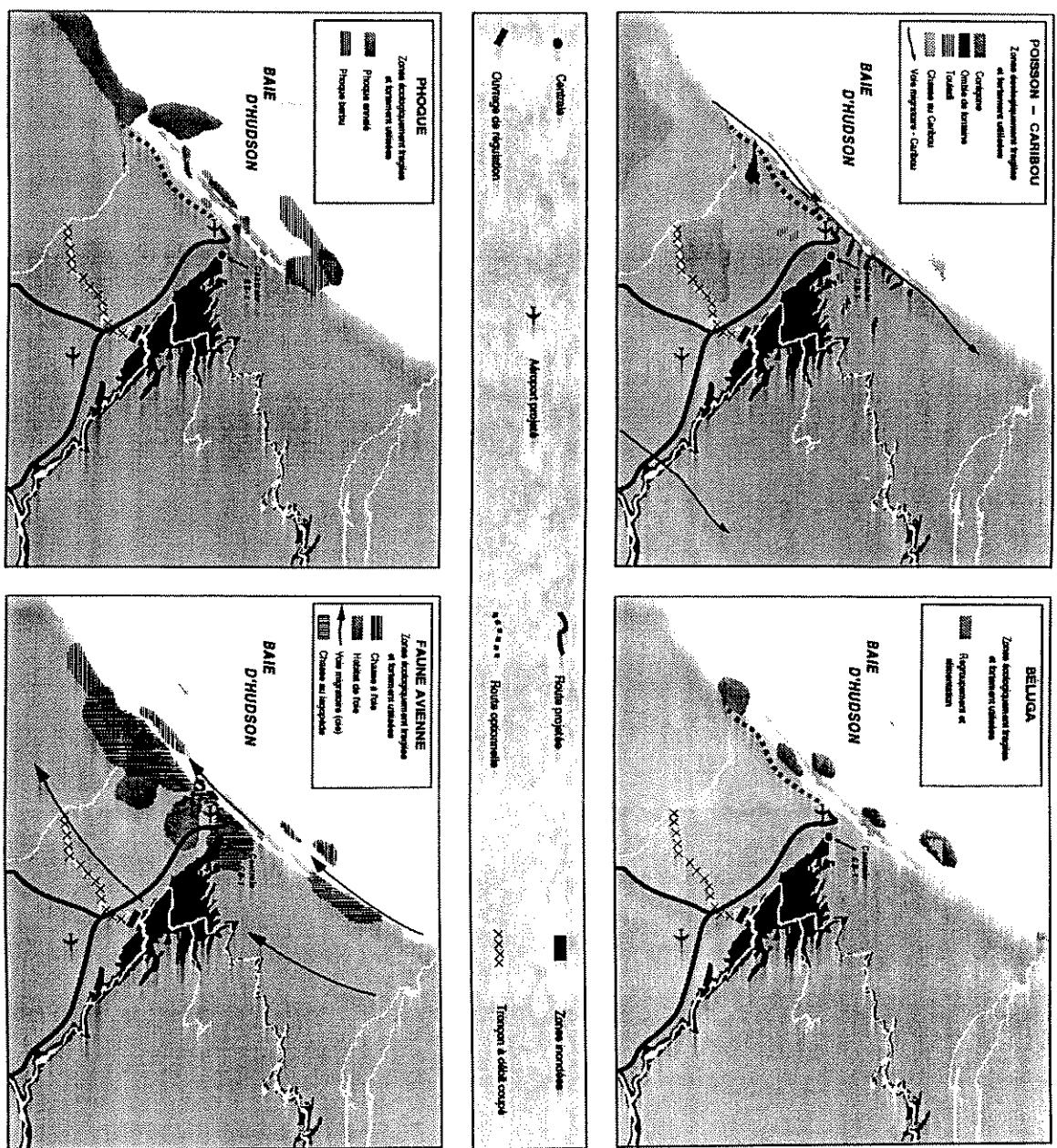


FIGURE 5

### POTENTIAL CONFLICTS IN LAND USE



These maps show that land use is closely linked to the coastal zone. Inuit hunters use certain areas around Kuujjuaq, mainly for caribou hunting (map 5.1) and for geese and ptarmigan hunting (map 5.4). Further inland, hunters principally use the Lake Minto region which required a 300 km trip by skidoo.

The maps show that land use is closely linked to the coastal zone. Inuit hunters use certain areas around Kuujjuaq, mainly for caribou hunting (map 5.1) and for geese and ptarmigan hunting (map 5.4). Further inland, hunters principally use the Lake Minto region which required a 300 km trip by skidoo.

One primary element to take into account is that coastal habitats are part of a much wider ecosystem which relies in part on the inland vegetation and freshwater environments. Therefore, changes in the environment and ecology of the area inland will cause certain changes in the coastal ecology. This is particularly true for ecologically sensitive zones occupied by belugas (map 5.2) and seals (map 5.3). Changes in the hydrology of the catchment basin are likely to generate modifications in the freshwater regime of smaller lakes and rivers, which in turn could affect sensitive zones.

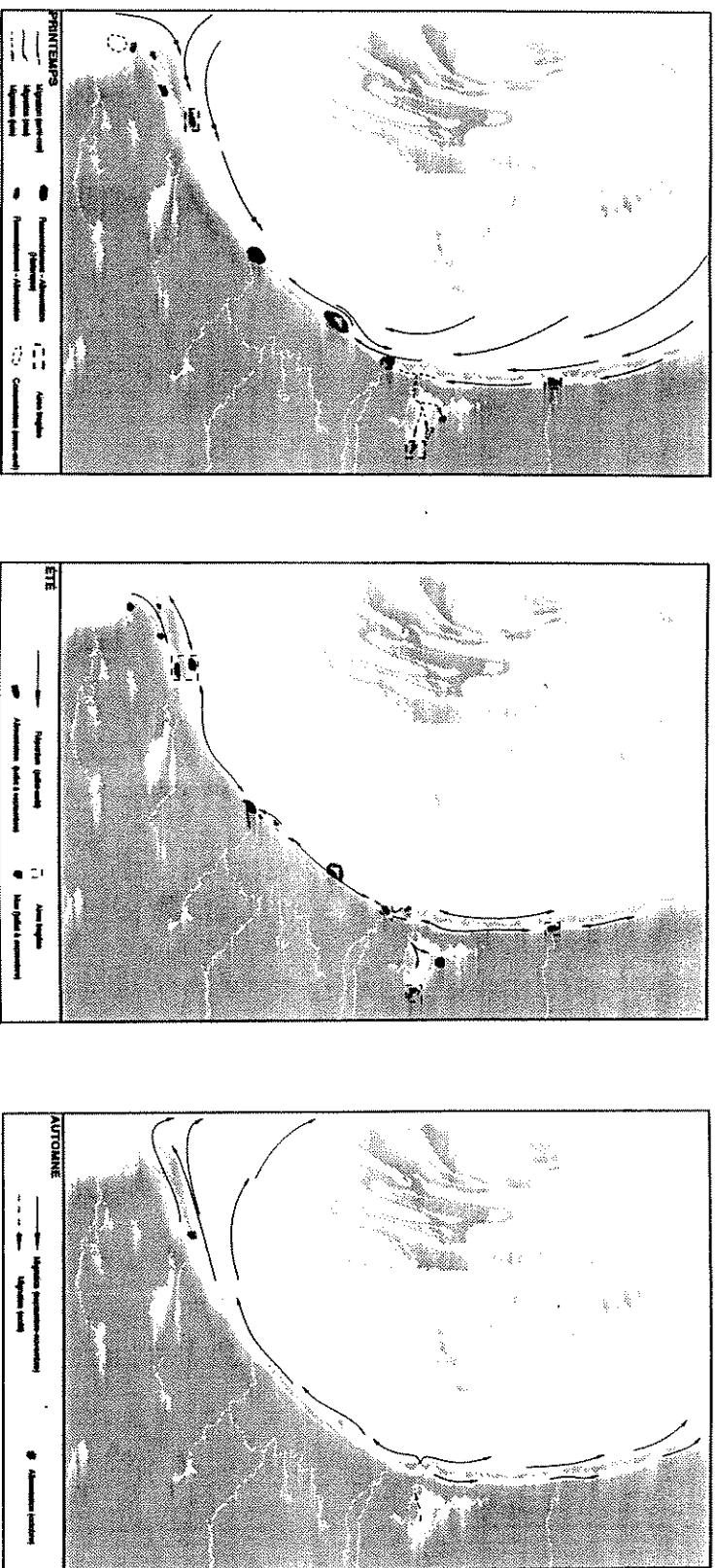


FIGURE 6

### BELUGA SEASONAL ECOLOGY IN THE SOUTH-EAST SECTOR OF HUDSON BAY

The south-east sector of Hudson Bay has always been an important ecological zone and hunting territory for beluga whales. As soon as 1750, beluga whales were commercially harvested in the estuaries between Great Whale River and Richmond Gulf. This commercial harvest went on sporadically until about 1870. From 1853 to 1860 some 500 beluga whales were taken by the Hudson Bay Company in the estuaries of Great Whale and Little Whale Rivers. In 1860 only, 1,500 whales were commercially hunted in Little Whale River and 800 in Great Whale River.

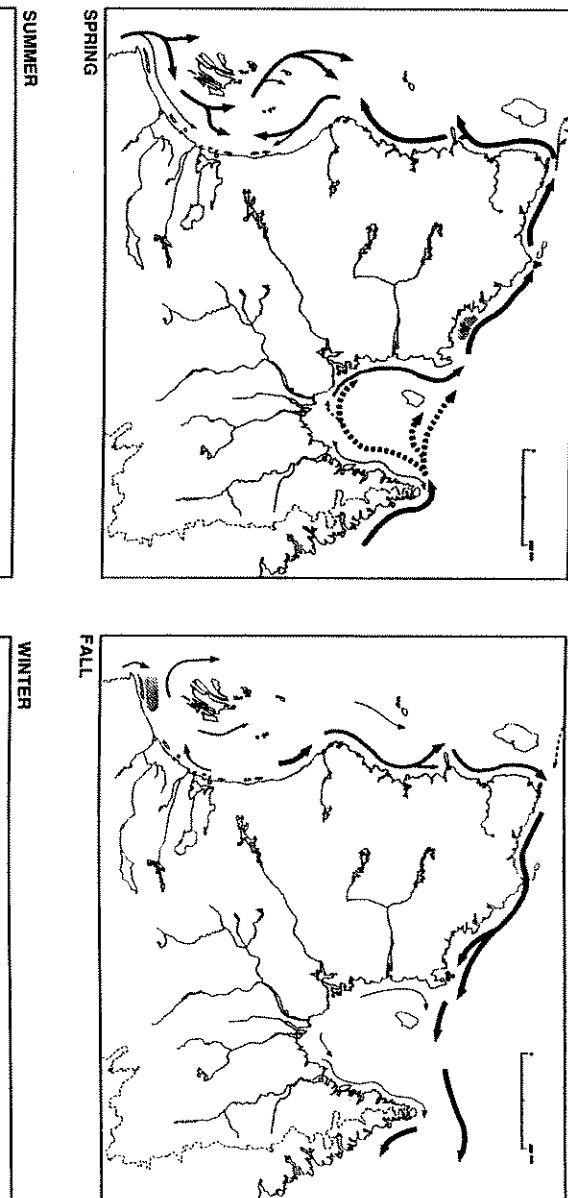
This intensive commercial harvesting of beluga whales has had impacts which are still felt today on Inuit harvesting activities. Inuit hunters provided the data presented here. They show the extent of Inuit knowledge with respect to seasonal migrations of some thirty species. Data collected through more conventional studies often pertain to a well-defined but limited segment of the biology and ecology of the studied species. On the other hand, Inuit ecological knowledge is based on the observation of a species over many years. Inuit hunters are therefore well able to inform us on the distribution and behavior of a species, for example beluga, and to provide important baseline data which can then be integrated to information collected through more conventional studies.

These maps illustrate the type of information that Inuit hunters can provide. They show the migratory paths of the beluga in various seasons and include specific environmental factors which influence migration patterns, such as winds and ice. They also inform us on grouping and feeding areas; note here the use of warmer estuary waters and shallow gravel beds where moulting takes place. With this information, Inuit can establish their own criteria with respect to the determination of ecologically sensitive zones.

**FIGURE 7**

### REGIONAL ECOLOGY OF THE BELUGA WHALE IN THE GREAT WHALE RIVER AREA

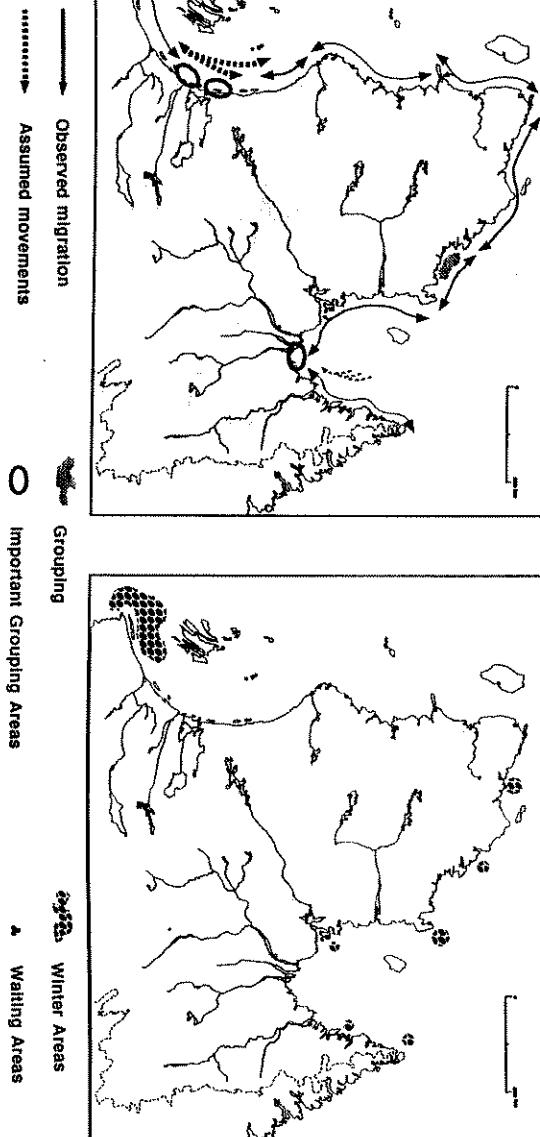
These seasonal maps illustrate the inter-relationships in the beluga ecology. Similar relations exists for other species, in particular caribou and migratory birds, the latter being part of an ecosystem which ranges far beyond Nunavik boundaries. Although less extensive, the distribution of other species ranges far enough to influence the choice of hunting territories of various Inuit communities.



Throughout Nunavik, there seems to be certain relationships between the ecological patterns of the Hudson Bay, Hudson Strait and Ungava Bay beluga populations. It should now be inferred from these maps, however, that all beluga whales in Nunavik belong to the same population. Research must be conducted to determine the levels of inter-relationships between the populations of various regions because these data are essential to good beluga management.

For now, it seems that the beluga population on the south-east coast of Hudson Bay requires management initiatives. This is why Inuit hunters of affected communities have imposed restrictions on their own hunting activities. Nevertheless, the Committee on the Status of Endangered Wildlife in Canada decided to add beluga of Hudson Bay to the list of endangered species. It is important to consider this decision in the context of a hydroelectric development which will have important impacts on the use of the estuaries by the beluga.

Figure 8 (next page) also show the potential danger presented by hydroelectric development with respect to methylmercury contamination of beluga whales and, eventually of the Inuit of Nunavik.



— Observed migration

— Assumed movements

○ Grouping

● Important Grouping Areas

■ Winter Areas

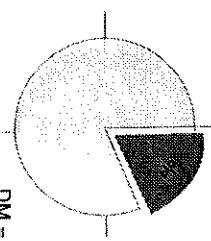
▲ Waiting Areas

FIGURE 8

POTENTIAL DISTRIBUTION OF  
METHYLMERCURY THROUGH  
BELUGA CONSUMPTION



Movement of methylmercury  
via the food chain



SOURCE :  
Recherche sur l'exploitation  
par les Inuit

% of beluga in the  
total annual harvest of  
each community

DM = Missing data

0  
200 km

