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January 27, 2010

Board of Commissioners of Public Utilities
120 Torbay Road
P.O. Box 21040
St. John's, NL
A1A 5B2

Attention: Cheryl Blundon, Director – Corporate Services and Board Secretary

Dear Ms. Blundon:

Re: Application by Nalcor Energy pursuant to Section 5.5(1) of the Electrical Power Control Act (Water Management Agreement)

Please find enclosed the original and eight copies of Hydro's responses to information requests PUB-NE-1 to PUB-NE-24 with regards to the above-noted application.

Sincerely,

Geoffrey P. Young
Senior Legal Counsel

GPY/jc

cc. Peter Hickman and Jamie Smith, Q.C., Counsel for Churchill Falls (Labrador) Corporation
Dan Simmons, Legal Counsel for Public Utilities Board
Jim Haynes, President, Twin Falls Power Corporation
David Schulze, DIONNE SCHULZE, Counsel for Innu of Ekuanitshit (Mingan)
Gary Carot, O'Reilly & Associates, Counsel for Innu of Uashat Mak Mani-Utenam et al

Q. The objectives of a Water Management Agreement are set out in section 3(b)(i) of the *EPCA* and in section 3(1) of the *Water Management Regulations*. Nalcor has, in Schedule A to its Application, presented a Table of Concordance matching provisions of section 3 of the *Water Management Regulations* to articles in the proposed Water Management Agreement. Please explain how each article referenced in the Table of Concordance implements the objective from the Water Management Regulations to which it is matched and its relation to the policy objective set out in section 3(b)(i) of the *EPCA*. Provide specific references and evidence detailing options considered, analyses undertaken, and reasons for decisions.

A. The power policy of the Province is set out in Section 3 of the *EPCA*. Section 3(b)(i) is the efficiency policy, providing that all sources and facilities for the production, transmission and distribution of power in the Province should be managed and operated in a manner that would result in the most efficient production, transmission and distribution of power.

Section 3(1) of the *Water Management Regulations* sets out the objective of a Water Management Agreement. It has the following components:

- the coordination of the power generation and energy production;
- in the aggregate;
- for all production facilities on a body of water;
- to satisfy the delivery schedules for all suppliers;
- in a manner that provides for the maximization of the long term energy generating potential of a body of water; and

- while ensuring that the provisions of a contract for the supply of power governed by Section 5.7 of the Act are not adversely affected.

Section 3(2) of the *Water Management Regulations* contains a list of mandatory provisions and/or matters that shall be included in a water management agreement. Section 3(2) provides a basic framework of regulatory provisions to be included in a water management agreement.

The purpose of the Table of Concordance is to assist the Board in determining where these required regulatory provisions are located in the Water Management Agreement.

The efficiency policy of Section 3(b)(i) of the *EPCA* and the regulatory objective of a Water Management Agreement contained in Section 3(1) of the *Water Management Regulations* are achieved through the operation of the Water Management Agreement as a whole. Each component contained in Section 3(2) forms part of that integrated whole and contributes to the achievement of the efficiency policy and the regulatory objective. It is therefore useful to first consider some general principles relating to the operation of the Water Management Agreement as a whole before turning to a consideration of the specific requirements of Section 3(2) of the Regulations.

The key objective of both the efficiency policy and the regulatory objective in the context of a Water Management Agreement is the maximization of the long term energy generating potential of the body of water through coordination of power generation and energy production. Coordination of generation and production permits (i) coordination of water flows between the Upper Churchill reservoirs and

the Lower Churchill reservoirs and (ii) the minimization of water spillage. Coordination of water flows ensures that the Lower Churchill facilities will have sufficient and regular flows of water to maximize the energy generating potential of the Lower Churchill River. This is explained at pages 12 through 15 of Nalcor's Pre-filed Evidence. In the absence of a Water Management Agreement, the Lower Churchill facilities would be constrained in the amount of continuous delivery of power. There would also be greater water spillage resulting in wasted energy. The proposed Lower Churchill facilities have been planned and designed on the premise that sufficient and regular flows of water will be available through water management coordination to meet the design requirements. Water management thereby maximizes the power generation and energy production obtainable at the Lower Churchill facilities.

The Water Management Agreement also ensures that the provisions of any contract for the supply of power governed by Section 5.7 of the *EPCA* are not adversely affected. Existing power purchasers will still receive the same amount of power and energy, at the same time, and subject to the same limitations as contained in any contract governed by Section 5.7 of the *EPCA*.

Turning next to the specific requirements of Section 3(2) of the Regulations:

S. 3.(2)(a) – WMA 4.3(a)

An Independent Coordinator is required to coordinate the power generation and energy production. The cost of the administration of the Independent Coordinator is to be jointly and sufficiently funded by the Suppliers in proportion to the energy benefits obtained by each Supplier. It is anticipated that the majority of the energy benefits will accrue to the Lower Churchill and that Nalcor will therefore bear most of the costs associated with the administration of the Independent Coordinator.

Funding the administration of the Independent Coordinator is necessary to achieve coordinated power generation and energy production, which in turn is necessary to achieve the efficiency policy and the regulatory objective.

S. 3.(2)(b) – WMA 4.3(c)(i) – (ix)

The Independent Coordinator must have necessary information in order to fulfill his coordination function. Section 3(b) ensures that the Independent Coordinator has the information necessary to enable him to properly perform the coordination function. Consequently, it fulfills the efficiency policy and the regulatory objective.

S. 3.(2)(c) – WMA 6.2(a)

The key function of the Independent Coordinator is to establish the production schedules for each of the production facilities through coordination of production scheduling. This is the fundamental step necessary to ensure coordination, which in turn fulfills the efficiency policy and the regulatory objective.

S. 3.(2)(d) – WMA 4.2

Suppliers must adhere to the production schedules set by the Independent Coordinator in order for the coordination function to be fulfilled. Requiring adherence to the production schedules therefore fulfills the efficiency policy and the regulatory objective.

S. 3.(2)(e)(i) – WMA 4.7(a)

The role of the Independent Coordinator is coordinated production to satisfy the delivery schedules of the Suppliers. Coordination operates on the premise that each of the Suppliers has, for the period requested, the capability to meet its own delivery schedules from its own production facilities. Consequently, a Supplier is precluded from making a power request to the Independent Coordinator which

exceeds its own maximum power generating capability for the period requested. Such a limitation is essential to ensure that the Independent Coordinator, at any particular time, has the ability to set production schedules to meet the delivery requirements of each of the Suppliers. Effective coordination depends upon such a limitation. It therefore fulfills the efficiency policy and the regulatory objective.

S. 3.(2)(e)(ii) – WMA 4.7(a) and 7.1(b)

Similarly, each Supplier is entitled to the generating capacity, storage capacity and transmission capability of its production facilities at any point in time. Again, the objective is coordination, not limitation of the ability of either Supplier to require delivery of whatever power and energy its facilities are capable of producing at any point in time, should it wish to do so. Coordination does not limit either Supplier's ability to set its delivery requirements at any point in time at the maximum capacity of its facilities. The principle of maximization of energy production and non-interference with the ability of a Supplier to establish its delivery requirements and fulfill any existing power contracts is preserved. This is in accordance with the efficiency policy and the regulatory objective.

S. 3.(2)(f) – WMA 4.4

Information sharing between the Suppliers and by the Suppliers with the Independent Coordinator is necessary to enable the Independent Coordinator to perform its functions. Information sharing permits coordination which in turn fulfills the efficiency policy and the regulatory objective.

S. 3.(2)(g) – WMA 4.6 and 6.2(a)(iv)

Maintenance of appropriate records and the availability of records for the Board and the Minister are appropriate regulatory requirements to ensure fulfillment of the efficiency policy and the regulatory objective.

S. 3.(2)(h) – WMA 6.2(a)(v) and 6.2(a)(vi)

Requiring the Independent Coordinator to provide Suppliers, the Minister and the Board with appropriate reports are appropriate requirements to ensure fulfillment of the efficiency policy and the regulatory objective.

S. 3.(2)(i) – WMA 10.1(a) and 10.1(b)

A deficiency is not expected since a Supplier may not make a power request to the Independent Coordinator which exceeds its own generating capability for the period requested. If one Supplier is producing for the other Supplier for a particular period and the producing Supplier suffers a failure, the other Supplier should have the generating capability to replace the lost production. Nevertheless, it is important to have provisions to remedy a deficiency or anticipated deficiency and, in the unlikely event that a deficiency occurs, to allocate any damages under a provision of a contract for the supply of power. Such provisions are appropriate to ensure that neither Supplier suffers a loss through coordinated operations as a result of a deficiency caused by the other Supplier. In doing so, the efficiency policy and the regulatory objective is fulfilled.

S. 3.(2)(j) – WMA 7.1(f) and Annex "A"

The Water Management Agreement must include mechanisms to appropriately assign energy storage amounts to each Supplier for water stored in the reservoirs and if water spillage occurs to assign the lost energy fairly to each Supplier. The relationship between banked energy and associated water volume is explained more fully in the response to PUB-NE-10. One of the objectives of water management is to minimize water spillage. Nevertheless, because of uncontrolled inflows or other factors beyond the control of the Independent Coordinator or the Suppliers, it is possible that water spillage from a reservoir may occur. It is essential to the coordination function that, if a spillage does occur, the lost energy be

assigned fairly. As a general proposition, if water is spilled from a Supplier's reservoir through no fault of that Supplier, water associated with any banked energy of the other Supplier is considered to be the first water spilled. This is in keeping with the requirement that each Supplier is entitled to the maximum capacity of its facilities for its own benefit, while permitting, to the extent possible, energy banking by the other Supplier. This is in accordance with the efficiency policy and the regulatory objective.

S. 3.(2)(k) – WMA 7.1(e) and Annex "A"

The amount of energy in storage is to be determined based upon average water to energy conversion rates for the respective production facilities calculated based upon the best data source available as tested in accordance with good utility practice. In order to ensure that each Supplier has available to it the full use of its facilities, including the storage capacity of its reservoirs, it is necessary to convert energy in storage to associated water volume based upon energy conversion rates for the applicable period. This is explained more fully in the response to PUB-NE-10. This ensures that the efficiency policy and the regulatory objective are fulfilled.

S. 3.(2)(l) – WMA 7.1(g) and Annex "A"

It is possible that the application of the Water Management Agreement may result in minor energy losses as a result of changes to a Supplier's energy capability. While these energy losses are not expected to be large, appropriate adjustments may be required. Such adjustments ensure the fulfillment of the efficiency policy and the regulatory objective.

S. 3.(2)(m) – WMA 1.5

The Water Management Agreement is governed by the laws of the Province. This further ensures that the power policy of the Province as set out in the *EPCA* and the regulatory objective of the Water Management Regulations are achieved.

S. 3.(2)(n)

The Water Management Agreement contains other provisions. These are discussed in the response to PUB-NE-2.

Q. The proposed Water Management Agreement contains articles that are not referred to in the Table of Concordance. Please confirm, for each of those articles, whether it has the potential to promote or detract from the achievement of the objectives set out in section 3(b)(i) of the *EPCA* and in the *Water Management Regulations*, and explain why. Provide specific references and evidence detailing options considered, analyses undertaken, and reasons for decisions.

A. The efficiency policy of Section 3(b)(i) of the *EPCA* and the regulatory objective of a water management agreement contained in Section 3(1) of the *Water Management Regulations* are achieved through the operation of the Water Management Agreement as a whole. Each provision of the Water Management Agreement forms part of that integrated whole and contributes to the achievement of the efficiency policy and the regulatory objective.

The proposed Water Management Agreement contains Articles in addition to those required pursuant to Section 3(2) of the *Water Management Regulations*. Section 3(2) provides a basic framework of regulatory provisions to be included in a water management agreement.

The proposed Water Management Agreement contains additional provisions to promote the efficiency policy of the *EPCA* and the regulatory objective of the Water Management Regulations.

Article 1 contains definitions and certain general provisions. The definitions and general provisions facilitate the other provisions of the Water Management Agreement.

Article 2 sets out the objective of the Agreement in the same language as the regulatory objective, incorporating defined terms from Article 1. The incorporation of the objective into the Agreement confirms the regulatory objective of the *Water Management Regulations*.

Article 3 deals with Prior Power Contracts. Section 3.1 defines Prior Power Contracts in the language used in Section 5.7 of the *EPCA*. The parties acknowledge that nothing in this Agreement shall adversely affect a provision of a Prior Power Contract and that all provisions of this Agreement and ancillary documents and agreements shall be interpreted accordingly. This section expressly confirms Section 5.7 of the *EPCA* and the regulatory objective in Section 3(1) of the *Water Management Regulations* relating to ensuring that the provisions of a contract for the supply of power governed by Section 5.7 of the Act are not adversely affected.

Section 3.1 thus provides an overarching provision confirming that Prior Power Contracts shall not be adversely affected. For even greater certainty, other provisions of the Water Management Agreement, such as Subsections 4.7(d), 6.3(a)(i) and 7.1(h)(i) provide additional confirmation that there shall be no interference with a Prior Power Contract.

Section 3.2 provides a definitive list of the contracts that the Suppliers acknowledge are contracts for the supply of power and energy entered into by a Supplier and a third party prior to the Water Management Agreement. This creates certainty as to what contracts are Prior Power Contracts. The identification of the Prior Power Contracts is an important first step in ensuring that they are not adversely affected.

Article 4 contains the Supplier's obligations. Section 4.1 provides for the appointment of the Water Management Committee in accordance with Article 5.

The parties considered that a Water Management Committee would be a useful mechanism to deal with all substantive matters, other than those assigned to the Independent Coordinator, as necessary to administer the Water Management Agreement.

Section 4.2 relates to the Suppliers' adherence to the production schedules as discussed in the response to PUB-NE-1. Section 3(4) of the Water Management Regulations expressly requires that each Supplier in complying with the requirements of Subsection 3(2) shall, *inter alia*, operate its facilities in a manner not inconsistent with principles of good utility practice. Section 4.2 contains certain agreed provisions with respect to good utility practice to maintain safety and facility integrity.

Section 4.3 deals with the administration of the Independent Coordinator. Subsection 4.3(b) includes a description of some of the items intended to be covered within the cost of administration.

Subsection 4.3(c) deals with the information to be provided to the Independent Coordinator. Subsections 4.3(c)(ix) and (x) have been added to further ensure that the Independent Coordinator has the information required for proper administration of the Agreement.

Section 4.7 contains important provisions relating to scheduling. As noted in the response to PUB-NE-1, Subsection 4.7(a) ensures that a Supplier cannot make a power request to the Independent Coordinator for a period which exceeds the maximum generating capability of the Supplier's production facilities for the period requested. Subsections 4.7(b) and (c) are modelled on and largely mirror the scheduling requirements contained in Section 5.3 of Schedule III of the HQ Power

Contract. This will enable the Independent Coordinator to have as much advance knowledge as possible with respect to the Suppliers' delivery requirements, while recognizing the right of each Supplier to make further changes to its delivery requirements. Subsection 4.7(d) acknowledges that CF(L)Co shall have the right to modify its delivery requirements to fulfill its obligations under any Prior Power Contract, thereby ensuring that delivery requirements under any Prior Power Contract will not be adversely affected.

Article 5 establishes the Water Management Committee. The Suppliers considered and agreed that a Water Management Committee would be an appropriate mechanism to deal with all substantive matters relating to the implementation and operation of the Agreement, other than those expressly assigned to the Independent Coordinator. The creation of the Water Management Committee provides a useful mechanism to enable the Suppliers to ensure that the regulatory objective and operational requirements are being appropriately fulfilled.

Under Subsections 5.2(a), (b) and (c), the Water Management Committee is given necessary authority to administer the Agreement, appoint the Independent Coordinator, establish operating procedures or guidelines for the Independent Coordinator, give directions to the Independent Coordinator, and amend, modify or supplement the operational provisions contained in Annex "A" to the Agreement. The Water Management Committee thus becomes the key operational oversight mechanism of the Suppliers with respect to administration of the Water Management Agreement.

Article 6 relates to the Independent Coordinator. Section 6.1 relates to the appointment of the Independent Coordinator. The duties of the Independent Coordinator need to be performed on a continuing basis with potential hourly

variations and even variations within the hour in certain circumstances. Consequently, it is recognized that the Independent Coordinator may be one or more persons. If the Independent Coordinator is one person, it will be necessary to have others operating under his direction.

Appointment mechanisms should contain provisions for replacement. These are contained within Section 6.1.

Subsection 6.2(a) contains the basic duties of the Independent Coordinator to establish production schedules as set out in Section 3(2)(c) of the Water Management Regulations. Subsections 6.2(a)(i) through (vii) contain functions included within the duties of the Independent Coordinator.

Subsections 6.2(b) and (c) are important provisions relating to the fulfilment of the regulatory objective in Section 3(1) of the Water Management Regulations. Pursuant to Subsection 4.7(a), a Supplier cannot make a power request to the Independent Coordinator for a period that exceeds the maximum generating capability of its production facilities for the period requested. Each Supplier has or will have its own contractual provisions to provide power from its own generating facilities. In accordance with Subsection 6.2(b), the Independent Coordinator then determines the total power to be produced at any time as the aggregate of each of the Supplier's delivery requirements. Under Subsection 6.2(c) the Independent Coordinator then determines and prepares the production schedule which specifies the amount of power to be produced by each Supplier's production facilities. As a result of the operation of these three subsections, each Supplier receives the amount of power it requires to meet its delivery requirements, up to the limit of its own available generating capacity. Any deficiency in its own available generating capacity (e.g. generators out of service) is an operational deficiency unrelated to

water management. Each Supplier receives the amount of power to meet its delivery requirements that it would have been able to produce itself. A Supplier will not receive less than it could produce from its own generating capacity. As a result, water management coordination will not adversely affect the delivery of power under any Prior Power Contract. Water management takes place within the limits of available capacity of each Supplier.

Section 6.3 contains additional provisions, further assuring no adverse effect on a Prior Power Contract. Under Subsection 6.3(a)(i), the Independent Coordinator cannot schedule CF(L)Co production for Nalcor to the extent that such production conflicts with CF(L)Co's obligations under Prior Power Contracts. For example, the Independent Coordinator could not schedule CF(L)Co production for Nalcor when CF(L)Co's production was required to fulfill obligations under Prior Power Contracts.

Under Subsection 6.2(a)(ii), the Independent Coordinator cannot schedule CF(L)Co production for Nalcor that exceeds the then current Nalcor Banked Energy, except in exceptional circumstances to avoid or limit spillage. In other words, CF(L)Co production for Nalcor is not normally allowed until Nalcor has banked energy and then only to the extent of such banked energy. This is further confirmed by Subsection 6.3(b) that the Independent Coordinator shall not schedule production by CF(L)Co for Nalcor that would result in Nalcor Banked Energy being a negative value.

Article 7, together with Annex "A", contains the mechanisms in relation to energy storage and energy losses. Subsection 7.1(a) expressly recognizes that each Supplier continues to have the same rights to store water in its reservoirs as it did prior to the Agreement, while at the same time recognizing the requirement to

allow energy banking by the other Supplier pursuant to the terms of the Agreement.

Subsections 7.1(c) to (g) then explain the mechanisms relating to energy storage and energy loss assignment.

Article 8 deals with metering and measurement. Metering and measurement is essential to ensure proper implementation and operation of the Water Management Agreement.

Article 9 deals with maintenance. The parties have agreed to cooperate with each other and the Independent Coordinator in scheduling equipment outages and derating for the maintenance of production facilities. Such cooperation will help ensure that maintenance occurs, to the extent possible, at times that best achieve the efficiency policy and the regulatory objective.

As noted in the response to PUB-NE-1, Article 10 deals with the allocation of deficiencies. In addition to the basic regulatory requirement that deficiency costs be paid by the Supplier who caused the deficiency, the parties recognized that there may be circumstances in which the deficiency is common to both parties or cannot be attributed to either. In those cases, the deficiency shall be allocated to Nalcor and CF(L)Co in proportion to their respective shortages in generation capability to fulfill their respective delivery requirements.

Article 11 deals with costs and expenses. Costs and expenses are required in order to implement, operate and administer the Water Management Agreement. Article 11 provides for the allocation of those costs.

Article 12 provides for the effective date and term. As noted in Nalcor's Pre-filed Evidence at page 10, lines 4-5, first power from the Lower Churchill facilities is projected to be after September 1, 2016. The parties have agreed that while the Agreement will come into effect on the date of approval by the Board, the essential day to day working provisions will become operational on the later of the date of renewal of the HQ Power Contract (September 1, 2016) and the commercial in-service date of the first Nalcor generating unit.

In keeping with the requirements of the *EPCA* that a water management agreement must be continually in effect, the Agreement will continue in force until (i) the permanent cessation of operations at either of the CF(L)Co production facilities or the Nalcor production facilities, and (ii) any earlier date, subject to the execution of a new Water Management Agreement agreed to by the Suppliers and approved by the Board.

Article 13 provides a dispute resolution mechanism to which the parties may refer disputes or differences.

Article 14 contains various miscellaneous provisions with respect to the Water Management Agreement.

In summary, the additional provisions compliment and enhance the basic regulatory requirements set forth in Subsection 3(2) of the Water Management Regulations. In doing so, the additional provisions help fulfill the efficiency policy of the *EPCA* and the regulatory objective of the Water Management.

Q. The Independent Coordinator to be appointed as set out in article 6.1 of the proposed Water Management Agreement would have responsibility to establish production schedules by which the policy objectives set out in the *EPCA* and the *Water Management Regulations* are met and by which adverse effects on existing power supply contracts are to be avoided. Please provide: i) an explanation of the criteria to be used in the selection of an Independent Coordinator; ii) the means to be employed to ensure that the Independent Coordinator possesses the skills and knowledge necessary to carry out his or her functions; iii) the intended audit procedure of the effectiveness of the performance of the Independent Coordinator; and iv) the methodology by which these concerns are to be addressed in the proposed Water Management Agreement.

A. (i) The Independent Coordinator essentially performs the functions that a senior system dispatch operator would perform if the same Supplier operated both facilities. The Suppliers will determine whether the Independent Coordinator will be an employee(s) of one or both of the Suppliers or an entirely separate entity. The Independent Coordinator must be a person or group of persons knowledgeable and skilled in system operations, including, without limitation, system dispatch, inflow forecasting, reservoir operations, system analysis, and hydraulic analysis. It is expected that the Independent Coordinator will have an engineering degree and 7 to 10 years of experience with system and plant operations. Each of the Suppliers, and other Nalcor subsidiaries such as Newfoundland and Labrador Hydro, are familiar with the skills and knowledge required for the position of Independent Coordinator since they have existing roles that incorporate these skills and knowledge. The precise qualifications for the Independent Coordinator will be established by the Water Management Committee.

(ii) It is anticipated that the Water Management Committee will perform a skills analysis and create an appropriate job description for the position of the Independent Coordinator, including the skills and knowledge necessary to carry out his or her functions. The Water Management Committee will engage in a selection process to ensure that the Independent Coordinator possesses the skills and knowledge necessary to carry out his or her functions. The precise mechanisms will be determined by the Water Management Committee.

(iii) The Water Management Committee will monitor the performance of the Independent Coordinator. Computer modeling of the energy benefits, as explained in the response to PUB-NE-8, will provide an indication of the effectiveness of the performance of Independent Coordinator. The audit process of the effectiveness of the Independent Coordinator will be determined by a retrospective analysis of hydraulic flow management to examine actual, versus possible, conversion rates, spill amounts, reservoir elevations and hydraulic shortages. Overall performance will be determined by the Water Management Committee.

(iv) Section 6.1 of the Water Management Agreement provides procedures for the appointment, removal and replacement of the Independent Coordinator.

Q. The Water Management Committee to be appointed as set out in article 5.1 of the proposed Water Management Agreement would also play an important role in ensuring that the policy objectives set out in the *EPCA* and the *Water Management Regulations* are met and that adverse effects on existing power supply contracts are avoided. Please provide: i) an explanation of the criteria to be used in the selection of the members of the Water Management Committee; ii) the means to be employed to ensure that the Water Management Committee members possesses the skills and knowledge necessary to carry out the functions of the Committee; iii) the intended audit procedure of the effectiveness of the performance of the Committee; and iv) the methodology by which these concerns are to be addressed in the proposed Water Management Agreement.

A. (i) Each Supplier will select its members to be appointed to the Water Management Committee in accordance with Section 5.1 of the Water Management Agreement. It is anticipated that the members of the Water Management Committee will be senior management persons of Nalcor and CF(L)Co respectively.

(ii) It is anticipated that Nalcor and CF(L)Co will appoint senior management persons to the Water Management Committee each of whom will have many years of knowledge and experience with large scale hydroelectric production facilities.

(iii) The performance of the Water Management Committee is subject to review by each of the Suppliers through their respective management teams, chief executive officers and boards of directors.

(vi) Appointment and replacement of the Water Management Committee is dealt with in Section 5.1 of the Water Management Agreement.

Q. For each of the existing power contracts identified in part 2.2 on page 5 of the Nalcor Pre-filed Evidence and at Tab 6 of the submission of CF(L)Co please identify, with reference to the terms of the contracts, the rights of the parties to those contracts that have the potential to be affected by a Water Management Agreement.

A. The proposed Water Management Agreement does not have the potential to adversely affect any provisions of the Prior Power Contracts for the reasons explained in PUB-NE-6.

The essential matters in relation to any power contract are: (i) the amount of power and/or energy to be delivered; (ii) the time of such delivery; and (iii) the price of the power and energy. Price cannot be affected by water management. Consequently, the relevant questions are the amount of power and/or energy to be delivered and the timing of such deliveries.

Also relevant are any provisions in the Prior Power Contracts relating to deficiencies in meeting the required production and delivery requirements under that Prior Power Contract.

The following response refers to the key provisions of the various Prior Power Contracts with respect to power and energy deliveries, timing of deliveries, and deficiency provisions. However, reference should be made to the entire contract to ensure a full and complete understanding of the various provisions relating to the power and energy deliveries, the timing of deliveries and deficiency provisions.

In the Hydro Québec Power Contract (Exhibit 3 to Nalcor's Application), the relevant provisions with respect to power and energy deliveries, the timing of deliveries and deficiency provisions are found in Schedule III, Article II, Article IV, in particular Subsection 4.1.1, Article V, in particular Sections 5.2, 5.3, 5.4 and 5.5 and Article VIII, incorporating various definitions contained in Article I, especially the definitions of Continuous Energy and Firm Capacity.

With respect to the Twinco Sublease (Exhibit 4.1) the relatively limited provisions are found on page 17. It should be noted that the Twinco Sublease will expire on December 31, 2014, before the Water Management Agreement will become operational.

With respect to the Hydro Recall Power Contract (Exhibit 6.1 as amended by Exhibit 6.4), the relevant provisions are contained in Article 3 and Article 5, incorporating various definitions contained in Article 1.

With respect to the Churchill Falls Guaranteed Winter Availability Contract (GWAC) (Exhibit 7), the relevant provisions are found in Article 2 and Article 4, incorporating various definitions from Article 1.

Q. Explain in detail how the clauses identified in response to PUB-NE-5 meet the requirement, set out in section 5.7 of the *EPCA*, that an agreement to develop a source of power, entered into by two or more persons and reviewed by the public utilities board, or, in the absence of an agreement by the parties, established by the public utilities board, not adversely affect a provision of a contract for the supply of power entered into by a person bound by the Water Management Agreement and a third party, which was entered into before the Water Management Agreement.

A. Nalcor understands that the question essentially asks how does the proposed Water Management Agreement ensure that there is no adverse effect on the provisions of the Prior Power Contracts referred to in the response to PUB-NE-5.

As explained in the response to PUB-NE-5, the essential question is whether the power and energy required to be delivered to the purchaser will be delivered, at the time, and in the amounts, required by the Prior Power Contracts.

Under the Water Management Agreement, CF(L)Co's delivery requirements for any period are the sum of all of its delivery requirements under its Prior Power Contracts and any other contracts that CF(L)Co may enter into. CF(L)Co currently has the generating capacity to fulfill its delivery obligations under its Prior Power Contracts, subject to potential deficiencies (i.e. generating or transmission outages which may result in deficiencies). Deficiencies resulting from CF(L)Co outages are either provided for in the Prior Power Contracts, or in the absence of provisions dealing with deficiencies, in accordance with applicable legal principles. Deficiency obligations under the Prior Power Contracts resulting from CF(L)Co outages are not related to water management.

As explained in the responses to PUB-NE-1 and PUB-NE-2, under the Water Management Agreement, CF(L)Co will submit to the Independent Coordinator its delivery requirements for each period, subject to the limits of its own generating capacity. Any deficiency in excess of its available generating capacity is not a function of water management. The Independent Coordinator is required to establish production schedules that will provide CF(L)Co with the full amount of its delivery requirements for the applicable period. The Independent Coordinator cannot schedule less than CF(L)Co's full delivery requirements. The Independent Coordinator may satisfy CF(L)Co's delivery requirements solely from CF(L)Co's production, from a combination of CF(L)Co production and Nalcor production, or solely from Nalcor production, depending upon CF(L)Co's delivery requirements, Nalcor's delivery requirements and the application of water management coordination principles. In any event, CF(L)Co receives the amount of its requested delivery requirements at the delivery time required.

Coordination of power generation and energy production through water management therefore has no effect on the amount of power and energy delivered or the timing of such delivery under any Prior Power Contract. The purchaser gets precisely the amount of power and energy at the time required under its Prior Power Contract. Consequently, the Water Management Agreement has no adverse effect on any Prior Power Contract.

Q. In particular, with reference to CF(L)Co's submission at Tab 3, pages 4 and 5, regarding the Churchill Falls Guaranteed Winter Availability Contract (GWAC) please confirm that the GWAC is a contract within the meaning of section 5.7 of the *EPCA*, 3.1 of the *Regulations*, and for all purposes of the *EPCA*.

A. During the negotiation of the Water Management Agreement, Nalcor and CF(L)Co had different views as to whether the Churchill Falls Guaranteed Winter Availability Contract (GWAC) is technically a "contract for the supply of power" within the meaning of Section 5.7 of the *EPCA*. As noted in Nalcor's Pre-filed Evidence at page 7, lines 9-19, GWAC is not strictly speaking a contract for the supply of power. No power is supplied through GWAC. However, if CF(L)Co maintains its unit availability under GWAC, then its units will be available for delivery under the HQ Power Contract. Consequently, GWAC is a contract which may affect the supply of power.

Nalcor and CF(L)Co resolved this technical difference of interpretation by mutually agreeing that GWAC is a contract for the supply of power within the meaning of Section 5.7 of the *EPCA*. The acknowledgement by Nalcor and CF(L)Co that GWAC is a contract within the meaning of Section 5.7 of the *EPCA* is contained in Article 3 of the Water Management Agreement, and specifically Subsection 3.2(b) thereof. GWAC is a contract for the supply of power within the meaning of Section 3(1) of the Water Management Regulations.

Insofar as the reference in the question to "…and for all purposes of the *EPCA*" is concerned, Nalcor considers this reference to be in the context of water management. Since other matters relating to the EPCA are not the subject of this proceeding, Nalcor can offer no opinion as to the significance of GWAC with respect

to other provisions of the EPCA, and further reserves its position with respect to other provisions of the EPCA which are unrelated to water management.

Q. In Annex "A" of the Water Management Agreement, page 25 of the Application, Article 7.1 states that *"Energy Benefits for each Supplier shall be determined by the Water Management Committee, in accordance with the Agreement, for each period established by the Water Management Committee, which period shall not exceed one year."* In Schedule A of the Water Management Agreement, page 3, Article 1.1 defines *"Energy Benefits"* as *"…the Energy accruing to a supplier for a period as a result of this Agreement in excess of the Energy that would have accrued to such Supplier for such period in the absence of this Agreement, as determined in Annex "A""*. Please outline the exact mechanism that will be used to determine the Energy Benefits.

A. The determination of energy benefits requires modeling of the river system and generating facilities to create a decision support system that will estimate the energy that would have accrued to a Supplier in the absence of the Water Management Agreement and comparing that result with the actual energy accruing to the Supplier with the operation of the Water Management Agreement. This will require computer simulation to determine the result that would have been achieved in the absence of water management.

The foregoing analysis will be required both with respect to Nalcor and with respect to CF(L)Co.

Because of the large size of the CF(L)Co reservoirs and the limited spillage that occurs from such reservoirs, the projected energy benefits to CF(L)Co will be relatively small, essentially limited to those circumstances where CF(L)Co may

produce for Nalcor to avoid or limit water spillage from its reservoirs. The majority of the energy benefits will accrue to Nalcor.

Q. In the Pre-filed Evidence of Nalcor, Section 5.4.2, Nalcor sets out how it intends to keep track of energy use and the corresponding estimated water volume used at each facility. On page 26, it states that: *"These steps have been proposed in order to avoid any adverse effect on CF(L)Co's prior power contracts."* Please explain this statement with reference to specific sections of any prior power contracts that may be affected, highlighting why it is necessary to track water volume in addition to energy used.

A. Under water management, CF(L)Co remains entitled to obtain the same amount of energy from the water available to it in its reservoirs that it otherwise would have obtained in the absence of water management. In no event should CF(L)Co obtain less energy from its available water under water management than it would have obtained without water management. That energy production enables CF(L)Co to fulfill its Prior Power Contracts, both in the short run and over the long term, potentially spanning many years of different hydrological conditions.

If Nalcor produces for CF(L)Co, resulting in Nalcor Banked Energy, CF(L)Co would have used a certain volume of water if it had produced that energy itself. The amount of water that CF(L)Co would have consumed would depend upon the precise energy conversion rate at the time of production. It is necessary to calculate that water volume associated with the Nalcor Banked Energy. Nalcor will ultimately receive the amount of energy that is actually produced using that amount of water at the time that CF(L)Co produces for Nalcor, depending upon the CF(L)Co energy conversion factor at that point in time. That may result in slightly more energy or slightly less energy to Nalcor. However, CF(L)Co will have obtained

exactly the amount of energy at all times that it would have obtained from the water in its reservoir if it had produced the energy itself.

Tracking water volume in this manner ensures that CF(L)Co always has the energy that it would have had to fulfill its contractual obligations under its Prior Power Contracts. If the amount of energy produced by a volume of water is not maintained, then CF(L)Co's ability to deliver energy to Hydro-Québec may be theoretically compromised under the HQ Power Contract.

Q. In considering the response to PUB-NE-9, and Section 5.4.2 of Nalcor's Pre-filed Evidence, page 26, lines 10-20 where it is stated that: *"Therefore a party may have banked energy at a lower conversion rate than when it is ultimately withdrawn, resulting in the consumption of the same water volume, however receipt of a lower amount of energy, or alternatively the same amount of energy for different water volumes."* In the event that a conflict arises relating to the calculation of the amount of energy banked and the consumption of a volume of water, which calculation will prevail? Please provide the relevant reference to the Water Management Agreement that addresses this issue.

A. See the response to PUB-NE-9.

It is not correct to view the issue as a conflict arising relating to the calculation of the amount of energy banked and the consumption of a volume of water. Each time energy is banked, it is necessary to determine the amount of water associated with the amount of banked energy. The Supplier banking the energy will ultimately receive the amount of energy that the volume of water is capable of producing at the time that the energy is produced. The amount of energy returned is the amount of energy produced by the volume of water associated with the original energy banking.

Annex "A" to the Water Management Agreement addresses this issue.

Q. With reference to the response to PUB-NE-9, will the same concerns exist upon the renewal of the Hydro Quebec Power Contract?

A. Yes. For the reasons explained in the response to PUB-NE-9, it will continue to be necessary to convert energy to water and back to energy even after the renewal of the Hydro Québec Power Contract. Even though Hydro Québec will have a fixed monthly entitlement after September 1, 2016, it is theoretically possible in sustained dry hydraulic conditions for the reservoir elevations to deplete to a level where CF(L)Co cannot supply the power and energy it has contracted to deliver, resulting in a deficiency under the HQ Power Contract. Specifically, CF(L)Co may not be capable of delivering the Continuous Energy under Schedule III of the HQ Power Contract. Consequently, it is important that CF(L)Co always receive the amount of energy that its water would have produced had CF(L)Co produced the energy itself.

Q. With reference to Schedule III of the Hydro Quebec Power Contract, Volume II of the Application, Exhibit 3, and the definition of Continuous Energy as found in Article I (1.1)(II), please explain the difference, if any, in the amount of energy that CF(L)Co is obligated to make available to Hydro Quebec under the existing terms and conditions of the Hydro Quebec Power Contract, and under the terms of the Renewal.

A. Under the current provisions of the HQ Power Contract, CF(L)Co is paid for the "Energy Payable", as defined in Article I, Section 1.1, Subsection IV, [page 3 of the HQ Power Contract]. After the Effective Date of the Contract, the Energy Payable is defined as (i) the amount of energy which is taken by Hydro-Québec during each month plus (ii) the amount of energy equivalent to water spilled during each month, as determined pursuant to Sections 4.2.6 and 4.6 and after excluding spillages attributable to the fact that CF(L)Co has, during the 12 months preceding the spillage, either incurred any penalty under Article X or avoided such penalty only by virtue of Sections 10.3.4 or 10.3.6. Such spillage shall not cause the total Energy Payable for the 12 month period which terminates with the cessation of spilling to exceed the amount obtained when the total amount of all prior recaptures is deducted from 35.4 billion kilowatthours.

Upon the renewal of the HQ Power Contract in 2016, the energy to be delivered becomes a fixed quantity and is no longer left to the discretion of Hydro-Québec. At that time, Hydro-Québec becomes entitled to delivery of Continuous Energy. Continuous Energy is derived from the Annual Energy Base, the amount of which becomes fixed at whatever its amount is at the time of expiry of the original term of

the HQ Power Contract. The same fixed amount remains in effect from the renewal of the HQ Power Contract until the expiry of the contract in 2041.

In accordance with the definition of Continuous Energy contained in Article 1, Section 1.1, Subsection II of Schedule III, in each year during the term of the renewal period, Continuous Energy will be delivered to Hydro-Québec in approximately equal monthly amounts (adjusted for the number of days in each month), which in total will equal the fixed amount of the Annual Energy Base.

Q. Has Nalcor consulted with the Conseil des Innus de Ekuanitshit regarding Nalcor's proposal to develop two hydroelectric generating facilities on the Lower Churchill River generally, and regarding the Water Management Agreement in particular?

A. Nalcor has consulted with the Conseil des Innus de Ekuanitshit regarding Nalcor's proposal to develop two hydroelectric generating facilities on the Lower Churchill River. That consultation process is continuing. The details of Nalcor's consultative efforts with the Conseil des Innus de Ekuanitshit with respect to the Lower Churchill Hydroelectric Generation Project are contained in the response to PUB-NE-14.

Nalcor has not consulted in particular regarding the Water Management Agreement. Nalcor does not believe that there is any requirement of consultation with respect to the Water Management Agreement. See responses to PUB-NE-23 and PUB-NE-24.

Q. If consultation with the Conseil des Innus de Ekuanitshit regarding the Water Management Agreement has occurred, please provide details of the consultation that has taken place regarding the project generally, and regarding the Water Management Agreement in particular.

A. Specific details of Nalcor Energy's consultation with Aboriginal groups, including the Conseil des Innus de Ekuanitshit, to the date of the Environmental Impact Statement (EIS) are contained in Section 8 of the Environmental Impact Statement, attached. Further information relating to land and resource usage and other relevant data respecting the Québec Innu which was taken into account in the preparation of the Environmental Impact Statement is referenced in the response to PUB-NE-23. There have been no consultations regarding the Water Management Agreement specifically. See the response to PUB-NE-23.

Section 4.8 of the *Environmental Impact Statement Guidelines* (the "*Guidelines*") requires Nalcor Energy to "demonstrate the Proponent's understanding of the interests, values, concerns, contemporary and historic activities, Aboriginal traditional knowledge and important issues facing Aboriginal groups and indicate how these activities will be considered in planning and carrying out the Project". Specifically, the *Guidelines* direct Nalcor Energy to consult with the Innu Nation, the Labrador Metis Nation, the Nunatsiavut Government and the six Québec Innu Communities of Uashat Mak Mani-Utenam, Ekuanitshit, Nutaskuan, Unamen Shipu, Pakua Shipi and Matimekush-Lake John.

In accordance with the requirements of the *Guidelines*, Nalcor Energy has been engaged in ongoing consultation with respect to these identified groups since the release of the *Guidelines*.

The consultative process between Nalcor Energy and the Conseil des Innus de Ekuanitshit commenced on May 20, 2008. On that date, Nalcor Energy provided Chief Pietacho with correspondence containing the following information:

- Two copies of the Lower Churchill Hydroelectric Generation Project Environmental Assessment Registration document (in French);
- Two copies of the reservoir Map book illustrating the anticipated reservoir areas and predicted extent of flooding;
- Two copies of the proposed site layouts at Gull Island and Muskrat Falls; and
- Five fact sheets: Aquatic Studies, Historic Resources, Reservoir Formation, Mercury in Reservoirs, Green House Gas Emissions and Construction Workforce.

In the accompanying correspondence, Nalcor Energy proposed to meet with the Conseil des Innus de Ekuanitshit to discuss the information provided, to provide additional project-related information and to discuss community-specific issues and concerns. Throughout the summer and fall of 2008, Nalcor Energy made repeated efforts by phone, e-mail and written correspondence to arrange a meeting with the Conseil des Innus de Ekuanitshit in Mingan. The determination of dates acceptable to both the Conseil and Nalcor Energy was complicated by a number of external factors, including the ongoing negotiations between Hydro Québec and Ekuanitshit in respect of the Romaine Hydro-electric Project.

As a result of these difficulties, Nalcor Energy was not able to meet with the Conseil until June 1, 2009. The meeting involved a Power Point presentation on the Project (delivered in French) followed by a question and answer session (also delivered in French), concluding with an invitation for further meetings as required by the community. Hard copies of the presentation were left with the community. Prior to this meeting, on March 3, 2009, Ekuanitshit was provided with a copy (in French) of the EIS Summary and provided with additional information with respect to the EIS.

In order to regularize consultation, facilitate the participation of the Innu of Ekuanitshit in the environmental assessment of the Project and ensure the collection of accurate and comprehensive data relating to the Project impacts upon the current land and resource usage of the Innu of Ekuanitshit, Nalcor Energy developed a draft community consultation agreement which was sent to the community for review and comment on May 13, 2009. The purpose of the draft community consultation agreement is threefold:

- to familiarize the community with the Project and its potential environmental effects;
- to identify issues and community concern respecting the potential environmental effects of the project; and
- to identify what actions Nalcor Energy proposes to take to address issues and concerns.

Accordingly, the agreement sets out a framework for the exchange of Project-related information between Nalcor and the community and for the collection of

aboriginal traditional knowledge and Innu land and resource usage information relevant to the Project. The agreement also provides for funding in support of such information exchange and collection. The specific terms of the Agreement are based in part upon the principles contained in the publication of the Canadian Environmental Assessment Agency "Considering Aboriginal traditional knowledge in environmental assessments conducted under the *Canadian Environmental Assessment Act -- Interim Principles*". The method by which information is to be exchanged with the community and procedures for the collection of information from the community, including aboriginal traditional knowledge, will be determined by a workplan, based upon community involvement, and supporting budget to be jointly negotiated by Nalcor Energy and the Conseil des Innus de Ekuanitshit.

On July 13, 2009, Ekuanitshit provided Nalcor Energy with a revised version of the community consultation agreement. Nalcor Energy reviewed the changes proposed by Ekuanitshit and discussed these changes with legal counsel to the Conseil during the month of August, 2009. Further discussions took place during the fall of 2009, and in response to concerns identified by Ekuanitshit, in early December, 2009 Nalcor Energy provided a significantly revised draft agreement for review by legal counsel to the Conseil. The parties had hoped to meet in Ekuanitshit during the second week of December 2009 to finalize the terms of the agreement but were unable to, due to prior commitments of the community. Nalcor will meet with Chief Pietacho and other members of the Conseil in Québec City on January 27, 2010 with a view to concluding a consultation agreement. If concluded, the agreement will be subject to immediate implementation and parties will negotiate a mutually satisfactory workplan and budget.

Nalcor Energy understands its obligation to provide opportunities for the Innu of Ekuanitshit to be consulted on the Project in order to integrate specific information,

including Aboriginal traditional knowledge, into the environmental assessment of the Project and to ensure that issues and concerns expressed by the Innu of Ekuanitshit are addressed in that process. Consequently, in the event that a community consultation agreement cannot be concluded, Nalcor Energy remains committed to providing opportunities to the community to provide input on the Project and has indicated its willingness to work with the community to address its concerns. In the event that a consultation agreement cannot be reached, Nalcor Energy will continue provide the Innu of Ekuanitshit with the opportunity to participate in the environmental assessment of the Project, through the ongoing provision of Project-related information and through the conduct of community meetings, open houses, technical workshops and site visits to solicit input directly from community residents.

A detailed description of the specific steps taken by Nalcor Energy to gather information from, and elicit the participation of the Innu of Ekuanitshit in the provision of information for the purpose of fulfilling the requirements of the *Guidelines* is set out in the attached table.

Consultation Record: Conseil des Innu d'Ekuanitshit			
Aboriginal Group	**Who**	**Date**	**Action Taken**
Conseil des Innu d'Ekuanitshit (Mingan)	Chief Pietacho	Jan 15, 2008	Letter to Minister Charlene Johnson regarding an extension to comment on the Lower Churchill Project Environmental Impact Statement draft guidelines and land negotiations.
	Gilbert Bennett	May 20, 2008	Letter to Chief Pietacho sending Project information package including: • Two copies of the Lower Churchill Project Environmental Assessment Registration document; • Two copies of the reservoir map book; • Two copies of the proposed site layouts at Gull Island and Muskrat Falls; and • Aquatic Studies, Historic Resources, Reservoir Formation, Mercury in Reservoirs, Green House Gas Emissions, and Construction Workforce Fact Sheets.
	Maria Giovaninni	June 05, 2008	Telephone call to Liette Boudreau regarding the possibility of a meeting.
	Maria Giovaninni	June 11, 2008	Telephone call to Liette Boudreau regarding the possibility of a meeting. Chief Pietacho to return call to Maria Giovaninni June 13th.
	Maria Giovaninni	June 16, 2008	Telephone call to Liette Boudreau to determine the prospects of a meeting. Liette Boudreau will call back within the next day or so with suitable dates.
	Chief Pietacho	June 25, 2009	Letter to Gilbert Bennett indicating a strong interest to meet but delaying the meeting until after consultation is concluded for La Romaine.
	Maria Giovaninni	June 30, 2008	Telephone call to Liette Boudreau regarding a proposed meeting. Liette Boudreau will get back to Maria Giovaninni in a few days regarding possible dates.
	Maria Giovaninni	July 08, 2008	Telephone call to Liette Boudreau, Maria Giovaninni left message for Liette Boudreau or Chief Pietacho to return call.
	Liette Boudreau	July 09, 2008	Telephone call to Maria Giovaninni; left message.

	Maria Giovaninni	July 09, 2008	Telephone call to Liette Boudreau; left message.

	Maria Giovaninni	July 11, 2008	Telephone call to Liette Boudreau regarding proposed July meeting. Liette Boudreau to confirm July meeting with Chief Pietacho and return call to Maria Giovaninni.
	Maria Giovaninni	July 15, 2008	Telephone call to Liette Boudreau. Liette Boudreau advised that the proposed July meeting is not suitable. Liette Boudreau to inquire into suitability of Aug 05th meeting.
	Liette Boudreau	July 22, 2008	Telephone call to Maria Giovaninni. Liette Boudreau will call Maria Giovaninni back July 30th to confirm the proposed Aug 05th meeting date.
	Maria Giovaninni	Aug 13, 2008	Telephone call to Liette Boudreau. Liette Boudreau on holidays, left message.
	Maria Giovaninni	Aug 27, 2008	Telephone call to Liette Boudreau; left message.
	Liette Boudreau	Sept 02, 2008	Telephone call to Maria Giovaninni. Liette Boudreau will call back Sep 11th to confirm meeting.
	Maria Giovaninni	Sept 15, 2008	Telephone call to Liette Boudreau; left message.
	Mike Wilkshire	Dec 12, 2008	Telephone call to Liette Boudreau; left message regarding possible January meeting.
	Mike Wilkshire	Dec 15, 2008	Telephone call to Liette Boudreau regarding possible January meeting.
	Todd Burlingame	Dec 30, 2008	Letter to Chief Pietacho proposing meeting date of Jan 13th, 2009.
	Todd Burlingame	Mar 03, 2009	Letter to Chief Pietacho sending the Lower Churchill Project Environmental Impact Statement Executive Summary.
	Gilbert Bennett	May 13, 2009	Letter to Chief Pietacho requesting meeting also including draft consultation agreement.
	David Schulze	May 25, 2009	Letter to Gilbert Bennett confirming receipt of draft consultation agreement and confirming meeting for June 01st in Mingan.
		June 01, 2009	Meeting in Mingan, Quebec attended by Paul Harrington, Todd Burlingame, Mary Hatherly, Jeanette Drover, Mike Wilkshire, Chief Jean-Charles Pietacho, Vice Chief Vincent Napish and Councillors.

	David Schulze	May 25, 2009	Letter to Todd Burlingame inviting Nalcor to a meeting in Ekuanitshit
		June 1, 2009	Meeting in Ekuanitshit between representatives of Ekuanitshit and Nalcor Energy
	David Schulze	July 13, 2009	Correspondence to Mary Hatherly and Todd Burlingame including revisions to draft community consultation agreement proposed by Ekuanitshit
	David Schulze/Mary Hatherly	August 11, 17 – 18	Series of e-mails to set up a conference call to discuss terms of proposed community consultation agreement and schedule a subsequent community meeting
	Mike Wilkshire/Liette Bourdreau		Phone call to propose second meeting in Ekuanitshit in early September to finalize agreement
	Todd Burlingame	August 18, 2009	Letter to Chief Piétacho proposing a meeting in Ekuanitshit in early September, 2009
	David Schulze/Mary Hatherly	August 24, 2009	Conference call to discuss terms of revised community consultation agreement
	David Schulze/Mary Hatherly	September 27 and 28, 2009	Exchange of e-mails re: status of revised consultation agreement
	Mary Hatherly/David Schulze	December 3, 2009	Redraft of community consultation agreement provided to Ekuanitshit
	David Schulze/Mary Hatherly	December 9, 2009	Exchange of e-mails to hold a conference call to discuss terms of revised agreement
	Mary Hatherly/David Schulze	December 10, 2009	Exchange of e-mails respecting conference call and possible meeting dates
	Mary Hatherly/David Schulze	December 11, 2009	Conference call re: draft community consultation agreement
	Mary Hatherly/David Schulze	December 14, 2009	E-mail respecting possible meeting in Ekuanitshit prior to end of year
	Mary Hatherly/David Schulze	December 18, 2009	E-mail containing revised community consultation agreement for review and request by Nalcor for meeting with Conseil in January, 2010
	Mary Hatherly/David Schulze	January 11 and 12, 2010	Exchange of e-mails requesting information on status of review of draft agreement and identification of meeting date in community
	Mary Hatherly/David Schulze	January 21, 2010	Exchange of e-mails to set a meeting date in Quebec City

8.0 ABORIGINAL CONSULTATION

The Aboriginal history in Labrador and contemporary culture provide an important context for the environmental assessment of the Project. A more detailed outline of the history of Labrador is provided in Volume III, Section 2.9. Aboriginal and public participation is a central objective of the environmental assessment process. Aboriginal consultation has a similar primary objective as described for public consultation (Chapter 7): to identify and address concerns and interests related to the Project.

8.1 Introduction

The Project is located in central Labrador, an area presently under land claims negotiation between Innu Nation and the provincial and federal governments. Nalcor Energy has been working directly with Innu Nation regarding the environmental assessment of hydro development on the lower Churchill River since 1998. More recently, other Aboriginal groups have been engaged in discussions about the Project.

8.2 Contemporary Aboriginal Groups and Governments

8.2.1 Labrador Innu

Labrador Innu (formerly known as Montagnais or Naskapi Indians) reside primarily in two communities: Sheshatshiu, in central Labrador and Natuashish, on the Labrador north coast. Innu also reside in other parts of Labrador, the Island of Newfoundland and elsewhere.

The Sheshatshiu Innu and the Mushuau Innu of Natuashish comprise separate Bands. Each community has a Reserve with an elected Chief and Council. These communities are collectively represented by Innu Nation, an elected political organization that represents Innu in aspects of governance including land claim negotiation and other processes related to resource development and management including consultation and negotiation with Nalcor Energy regarding the Project.

The Labrador Innu claim Aboriginal rights (Figure 8-1) and title to much of Labrador, and refer to the area as Nitassinan. The Innu land claim was accepted for negotiation by the Government of Newfoundland and Labrador, and the Government of Canada, with formal negotiation commencing July 1991. An Agreement-in-Principle (the interim step before a Final Land Claims Agreement) is now being negotiated. A recent agreement between Innu Nation, Nalcor Energy and Newfoundland and Labrador called Tshash Petapen (New Dawn) Agreement (Government of Newfoundland and Labrador 2008, Internet site), addressed the issue of land claims and included designation of lands as one important ingredient of the land claims settlement process.

The Labrador Innu Land Claim Area includes the lower Churchill River watershed. It is the only land claim in this watershed that has been accepted for negotiation by both the federal and provincial governments.

8.2.2 Labrador Inuit

Labrador Inuit are primarily resident in the area they call Nunatsiavut (the communities of Nain, Hopedale, Makkovik, Postville and Rigolet on the Labrador North Coast) and in the central Labrador communities of North West River and Happy Valley-Goose Bay (Figure 8-1), with other Inuit residing in Cartwright, Labrador City, St. John's and elsewhere. There are approximately 5,000 Labrador Nunatsiavut beneficiaries.

PUB-NE-14 Attachment
WMA Application

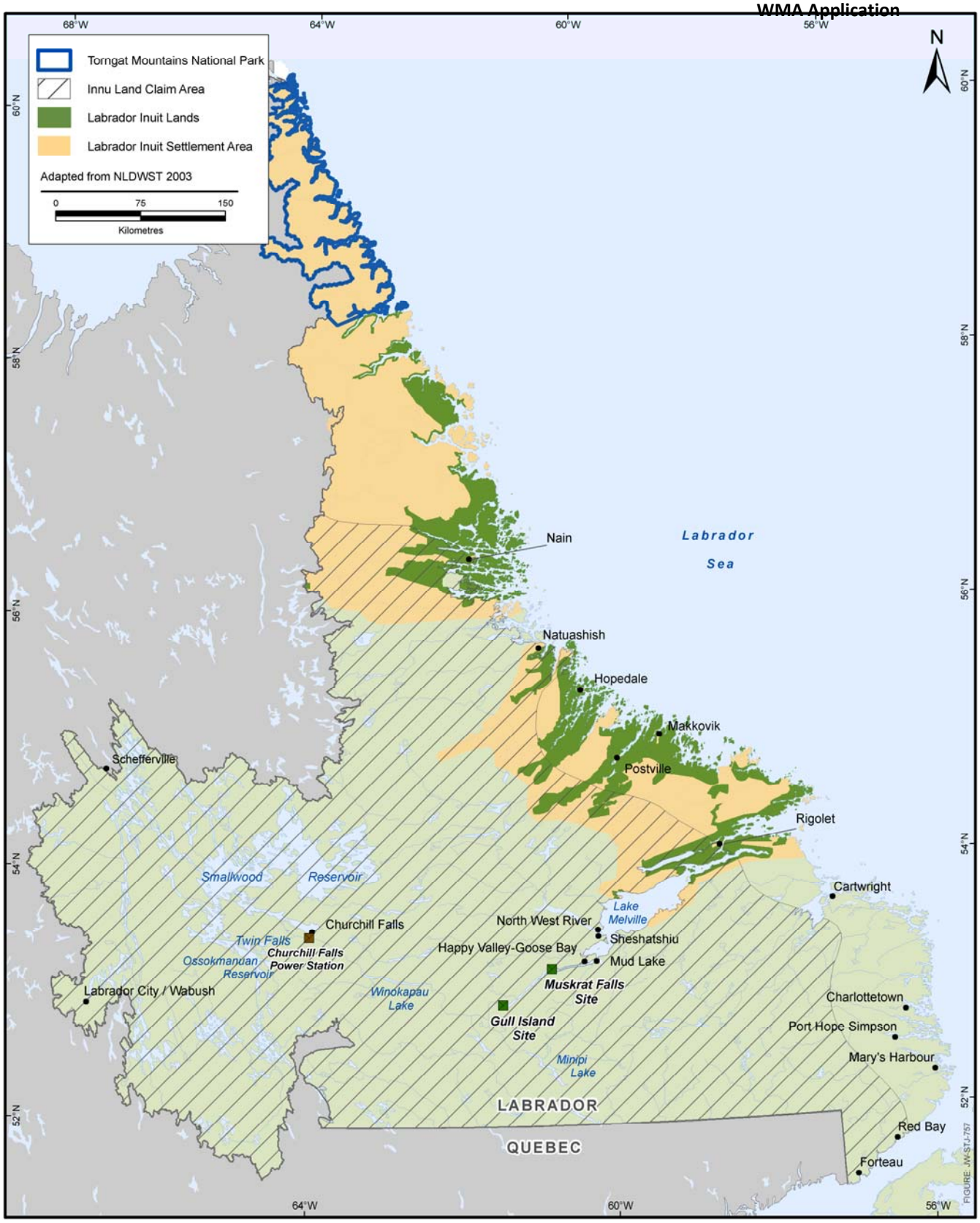

Figure 8-1 Labrador Innu Land Claims Area and Labrador Inuit Lands/Labrador Inuit Settlement Area

The Labrador Inuit Land Claims Agreement (Agreement) came into effect on December 1, 2005. This Agreement sets out the details of land ownership, resource sharing and self-government within the area covered by the Agreement in northern Labrador. The Agreement establishes the LISA, consisting of approximately 72,500 km^2 in northern Labrador and 48,690 km^2 of the Labrador Sea. Within the LISA, Labrador Inuit own 15,800 km^2 referred to as Labrador Inuit Lands (LIL) (Figure 8-1). While the LISA does not overlap the lower Churchill River watershed, there are a considerable number of Labrador Inuit residing adjacent to the Project in the communities of North West River, Happy Valley-Goose Bay and Labrador City.

Self-government is a key component of the Agreement. The Agreement provided for the establishment of a regional Inuit government, referred to as the Nunatsiavut Government, which has law-making authority over Inuit on LIL and Inuit rights throughout the LISA. In addition, the Agreement provided for the establishment of Inuit Community Governments to replace the previous municipal governments in Nain, Hopedale, Makkovik, Postville and Rigolet. These new governments exercise powers similar to those exercised by municipalities elsewhere in the Province.

8.2.3 Labrador Métis

The LMN comprises 6,000 members, who live throughout Labrador and elsewhere, with concentrations in the Lake Melville area and along the southern coast of Labrador from Cartwright to Mary's Harbour. The Labrador Métis Association was established in 1985 and renamed the LMN in 1998.

The LMN has several agreements with the federal and provincial governments. In July 2008, the LMN announced a multi-year funding agreement with the federal government to provide core funding and operational support. The agreements with the federal government pertain to Fisheries Management, Land Claims Research, Aboriginal Diabetes Awareness, Human Resource Development and Habitat Stewardship. The LMN has also worked with the provincial government to address sustainable forestry management.

The LMN has asserted a land claim in the region that overlaps the Project Area; however, this claim has not been accepted for negotiation by either the federal or the provincial governments.

8.2.4 Quebec Innu

There are also Innu (not considered part of Innu Nation) who reside in communities in Quebec throughout the Lac-Saint-Jean and Upper and Lower North Shore regions. Quebec Innu participate in land use and harvesting activities (particularly hunting) in Labrador (Mailhot 1997).

The land claim areas of seven Quebec Innu communities extend into Labrador, including Natashquan (Nutashkuan), Mingan (Ekuanitshit), La Romaine (Unamen Shipi), St-Augustin (Pakua Shipi) and Sept-Îles along the Lower North Shore, and the Innu of Schefferville (Matimekush-Lac John) and Kawawachikamach, 15 km northeast of Schefferville. These communities are in various stages of comprehensive land claims negotiations with the governments of Canada and Quebec. However, the land claims of Quebec Innu groups in Labrador have not been accepted for negotiation by the Government of Newfoundland and Labrador.

In land claims negotiations, the Innu from Natashquan are represented by the Conseil Tribal Mamuitun mak Nutakuan, which also represents other Quebec Innu communities whose claims do not extend into Labrador. The communities of Mingan, St-Augustin and La Romaine are represented by the Assemblée Mamu Pakatatau Mamit. Innu from Schefferville and Innu from Sept-Îles are represented by the Corporation Ashuanipi. The Naskapi Band of Quebec was created in 1984 by the *Cree Naskapi (of Quebec) Act* (CNQA). In April 1996, the name of the Band was changed to Naskapi Nation of Kawawachikamach (the Nation), effective May 1999. The Nation is a First Nation with a population of approximately 850 registered Indians, beneficiaries of the

Northeastern Quebec Agreement (NEQA). The Nation asserts a claim to parts of Labrador, including portions of the Project area.

8.3 Consultation

Consultation has been ongoing with Innu Nation since 1998 and, more recently, with other Aboriginal groups.

8.3.1 Innu Nation

Innu Nation has provided input and guidance to field studies for the environmental assessment of the Project beginning in 1998. At that time, the Project concept included power generation facilities at Gull Island and Muskrat Falls as well as diversion of additional water into the Smallwood Reservoir.

8.3.1.1 Environmental Assessment Consultation and Participation: 1998 to 2001

In spring 1998, a three party environmental planning group (Innu Nation, Hydro-Québec and Hydro) was established to consult on the overall environmental assessment approach and the field studies needed to support it. All three parties provided input into the design of the field programs and review of the associated reports.

While the group was active, more than 30 field studies were completed during the field seasons of 1998 through 2000. Innu were trained (particularly as archaeological field assistants) and employed in each field program. Elders were consulted regarding field programs near Muskrat Falls, and a consultation with elders was held in their winter camp south of Natuashish.

Prior to the start of engineering and environmental fieldwork in 1998, Innu Nation provided cultural sensitivity sessions to Project staff and consultants. The planning group also initiated an issues scoping workshop in 2001 that was well attended and provided important information for the current assessment through the report, *Churchill River/Mishta-shipu Power Project: Potential Residual Environmental Effects on Innu and Innu Communities* (Griffiths 2001).

During 1998 to 2001, the three parties negotiated a Process Agreement that formalized the working relationship on environment, community consultation and other matters, such as benefits. The environmental planning group was active until this concept of the Project was shelved in 2001. This planning group laid the foundation for the current assessment.

8.3.1.2 Environmental Assessment Consultation and Participation: 2005 and Ongoing

With renewed interest in developing the hydroelectric potential of the lower Churchill River in 2005, Innu Nation was asked to work with the Project Team on the environmental assessment.

Consultation and negotiations with the Labrador Innu resumed in late 2005 under a Process Agreement (May 2006 to August 2008), and focused on the following three activities:

- consultation on the environmental and engineering aspects of the Project;
- Innu community consultation; and
- IBA negotiations.

Further information on each of these processes, including the manner in which they have been considered and incorporated into the environmental assessment, is provided in the following sections.

8.3.1.3 Environmental and Engineering Task Force

A Task Force composed of representatives from the Project and Innu Nation was established in 2006 to facilitate Innu involvement in planning, conducting and reviewing the environmental and engineering work for the Project during the research and preparation for the environmental assessment.

The Task Force included Project environmental and engineering personnel, as well as a technical advisor and an environmental assessment advisor hired by Innu Nation through the Process Agreement. In addition to these two full time Task Force positions, resources were provided for Innu Nation to engage additional technical and expert advice, as required.

The Task Force reviewed and discussed the environmental assessment approach, methodology for the assessment, and the format and content of the EIS. This process included discussion of existing natural and human environments, potential environmental issues, potential environmental effects and mitigation to reduce potential environmental effects.

Through the Task Force, regular updates and briefings were provided on the nature and status of the Project. The Project Team also consulted with Innu Nation regarding the design, implementation and review of the Project's environmental baseline studies and the engineering program (including the technical designs for environmental and engineering studies). This process is detailed in the Process Agreement. Through the Task Force, Innu Nation provided technical review and comments, which were considered in the final design of the studies.

This same process was followed to review draft environmental baseline reports and engineering reports. Again, comments provided by Innu Nation were considered and incorporated, where appropriate, into the final reports. Tables of concordance that indicated responses to the comments provided were prepared and provided to Innu Nation.

The Task Force met regularly to:

- review and discuss technical specifications for planned and ongoing environmental and engineering studies;
- have regular updates on the status of this work while in progress; and
- review draft and final reports associated with these studies.

An Innu Nation Environmental Monitor, funded under the Process Agreement, observed activities during the environmental and engineering field programs. The monitor also assessed compliance with the associated environmental standards and permit conditions. Reporting to Innu Nation, the monitor identified issues that were discussed subsequently by the Task Force.

8.3.1.4 Innu Traditional Knowledge

The Task Force provided a forum to discuss ITK. The eventual result of these discussions was the development and implementation of an Innu-led process to document and share ITK for the EIS, based on an approach and methodology proposed by Innu Nation. This process is described in the ITKC Report:

> *Despite the importance of direct experience, the evidence is clear that Innu Elder knowledge is derived from a variety of additional sources. Oral tradition, which refers to the intergenerational transmission of knowledge, is one such source. For example, one ITKC member said "I went as far as Minai-nipiu-paushtik[u] but I heard stories from my grandparents about their hunting north and south of Uinukapau (Winokapau Lake)" (P1.28.11.06). Another member said she learned a great deal about Mishta-shipu from her husband's father who was a recognized expert in the region given his lengthy history of land use there. "They had different names for brooks and portages that came from Shimiu Pastitshi. Shimiu learned these from people who came before him" (P2.29.11.06). Knowledge of medicinal plants and their uses was transmitted among women from older to younger generations. "Assiuashik[u] is the name of the medicine. It has real medicine in it which is good to treat child fevers and stomach flu. I learned this from the old women, and I have kept this knowledge all along. They are like doctors; all the Innu women were like that" (P2.7.12.06). Knowledge acquired from older Innu may have been reinforced by direct experience, as indicated by another ITKC member who said, "I believe what they told us, because I have seen this. Our teachers were our parents, grandparents. That's how we learned, from the stories they told us. That's what I teach my children" (P3.8.2.07).*
>
> (pp. 12-13)

The ITKC was established as an adjunct to the Task Force. The role and purpose of the ITKC was to discuss, document and share ITK for consideration in the Project's environmental assessment. The ITKC, composed of Innu Elders and a Researcher/Facilitator, was in place from July 2006 until mid-2007. The Committee met regularly over that period to discuss and share Innu information and perspectives on:

- key ecological, historical and cultural features of the region;
- how Innu use the environment;
- the environmental studies undertaken for the environmental assessment;
- the potential environmental effects of the Project; and
- potential mitigation measures, their effectiveness, and any residual environmental effects.

Innu Nation provided ITK documented through this process to the Task Force for discussion and, as relevant and appropriate, incorporation into the environmental assessment, according to a protocol developed by the Project Team and Innu Nation (Section 9.1.1). The ITKC Report was provided to the Task Force (Appendix IB-H).

The Project also sponsored a visit by Elders to the site of the last known Shaking Tent ceremony in the fall of 2006. A video of the visit was made and a written report prepared. The report is presented in Appendix IB-J.

8.3.1.5 Innu Community Consultation

The Project Team and Innu Nation developed and implemented a process for consultation on the Project in the communities of Sheshatshiu and Natuashish. Through funding and resources provided by the Project, an Innu Community Consultation Team was established in 2000, before the current Project was defined.

The Innu Community Consultation Team provided information and conducted ongoing consultation with Innu with respect to the Project. A range of approaches and techniques have been used to date, including community meetings, newsletters, radio programs, drop-in centres and site visits. The Project Team participated in community meetings in Sheshatshiu and Natuashish (as requested by Innu Nation) to provide information and updates on the Project. Information and support is provided to the Innu communities to answer questions and discuss particular issues or concerns on an ongoing basis.

Ongoing Innu community consultation is an important means of informing Innu about the nature and status of the Project, and reveals what Innu think about the Project and its potential environmental and socio-economic effects. This information has provided input to Project planning and decision-making as well as to the environmental assessment. Innu community consultation has served as a forum for Innu Nation to consult with its membership during IBA negotiations. Innu questions and concerns were incorporated in the environmental assessment through the issues-scoping exercise for this EIS.

8.3.1.6 Impacts and Benefits Agreement Negotiations

Nalcor Energy and Innu Nation are currently involved in negotiations toward an IBA, which will define how Labrador Innu participate in and benefit from the Project. In September 2008, the Tshash Petapen (New Dawn) Agreement was announced between Innu Nation, Nalcor Energy and the Province (Government of Newfoundland and Labrador 2008, Internet site).This agreement addresses some of the aspects of an IBA including provisions for royalty payments to Innu Nation and mechanisms for participation by Labrador Innu in the Project as well as a schedule for conclusion of the IBA. The Tshash Petapen (New Dawn) Agreement represents an important milestone for both the Project and Labrador Innu.

The IBA will include processes for continued discussion and cooperation on the Project during its planning, construction, and operation and maintenance phases. The IBA will also include mechanisms for reducing potential adverse environmental effects on Innu and Innu communities and for creating and enhancing potential benefits. These will include processes and provisions related to Innu employment, training, business opportunities, workplace policies and conditions, environmental protection and Innu commercial participation in the Project. The IBA is referenced throughout this EIS as it pertains to potential Project effects and benefits for Innu.

8.3.1.7 Other Innu Nation Participation in the Project

While the Process Agreement that was negotiated with Innu Nation outlined more formal processes for consultation and negotiations respecting the Project, Innu Nation and its members have also participated in other aspects of Project planning and the environmental assessment.

The primary consultant team for the environmental assessment research and analysis for the Project was led by Minaskaut Limited Partnership (Minaskaut), a joint venture between Innu Economic Development Corporation and Jacques Whitford Limited. In addition to collaborating with Innu for a previous project design in 1998, the Project initiated training for Innu in techniques for archaeological investigations in Project field programs. Innu field assistants involved in various field studies for the Project also received standard safety orientation before going into the field on Project work. During the engineering and environmental fieldwork, from January 2006 through July 2008, more than 40 Innu worked on Project field studies as assistants, technicians, cutters, labourers and camp support.

In 2008, the Project Team worked with Innu Nation to develop a training and employment database that will facilitate efforts by Innu Nation and companies associated with the Project to attract Innu employees to the Project. Individuals at workshops in Natuashshish and Sheshatshiu, which were hosted and facilitated jointly by Innu Nation and Project personnel, provided information for the database.

Innu Nation officials and members participated in public open houses held in North West River, Sheshatshiu, Natuashish, and Happy Valley-Goose Bay in 2007 and 2008. These open houses sought public input regarding the Project for consideration in planning and the environmental assessment.

Innu Nation representatives, including members of the Task Force, were invited to Project technical workshops held in Happy Valley-Goose Bay and in St. John's. These workshops have proven to be effective forums for detailed discussion of key issues, and will be continued. Innu Nation representatives will be invited to future workshops.

8.3.2 Nunatsiavut Government

Although the Project's physical footprint does not include lands under Nunatsiavut Government jurisdiction, the Project Team met with the Nunatsiavut Executive Council in May 2008 to provide a Project briefing and open lines of communication between the two parties. A working session between the Director, Environment Division, Department of Lands and Natural Resources for Nunatsiavut and Project personnel followed this meeting.

Nunatsiavut Government representatives were invited to Project open houses and technical workshops. A Project open house was held in Rigolet, a community within Nunatsiavut, in September 2008. Project personnel also met with representatives of the community government and the elected member of the Nunatsiavut Assembly.

8.3.3 Labrador Métis Nation

Discussions were initiated with the executive of the LMN during spring 2007. LMN has provided comments on the draft EIS Guidelines as part of the public review process.

During spring and summer 2008, senior Project personnel held meetings with representatives of the LMN in Happy Valley-Goose Bay to exchange information about the Project, the environmental assessment and possible LMN interests. LMN was provided with:

- the Lower Churchill Hydroelectric Generation Project Environmental Assessment Registration document;
- a book of maps that illustrates the anticipated reservoir areas and predicted extent of flooding in detail;
- maps that show the proposed site layouts at Gull Island and Muskrat Falls; and
- Project information packages.

At that time, it was agreed to provide support for initial LMN community consultation on the Project, based on a jointly developed workplan. These meetings provided a basis for continued and ongoing Project-related discussions and for establishing a working relationship with LMN.

8.3.4 Quebec Innu

Quebec Innu communities provided comments on the draft EIS Guidelines during public review under the environmental assessment process. Shortly after receiving these comments, discussions were initiated in May 2008 with six Quebec Innu First Nations that assert land claims within Labrador. The Project Team offered to meet with these Chiefs and other representatives of the Bands to provide a general overview of the Project and to discuss and respond to any questions or issues. The Bands were also invited to provide any information that they felt would be relevant to consider for Project planning and the environmental assessment. The Bands were asked how they would like to be consulted on the Project, its environmental assessment and overall planning and development. Each Band was provided with the following information (translated into French):

- the Lower Churchill Hydroelectric Generation Project Environmental Assessment Registration document;
- a book of maps that illustrates the anticipated reservoir areas and predicted extent of flooding in detail;

- maps that show the proposed site layouts at Gull Island and Muskrat Falls; and
- Project information packages.

Ongoing communication mechanisms were established with each of the Quebec Bands and, as of the submission of the EIS, initial meetings have been held with most communities with schedules established for the remainder. In October 2008, the Naskapi Nation of Kawawachikamach contacted the CEA Agency requesting that the Nation be included in Project consultations with Aboriginal communities. In November 2008, the Naskapi Nation was provided with the same information sent earlier to Quebec Innu communities.

8.3.5 Incorporation of Issues and Concerns

8.3.5.1 Innu Nation

Consultation with Innu Nation regarding development of the hydroelectric potential of the lower Churchill River took place during 1998 through 2001, and resumed in 2005 for the current Project design. The above discussions and comments about the Project were used to develop a summary of the key Innu issues and associated responses (Table 8-1). A detailed list of all the issues identified through Innu Nation consultation is provided in Appendix IB-I.

Table 8-1 Innu Concerns

Innu Concerns	Project Team Comment
Consultation	
• There was no consultation with Innu regarding the construction of the Churchill Falls Project • Consultation should be meaningful • Project information must be available to all Innu	• A variety of means were used to consult with Innu in Sheshatshiu and Natuashish • ITK has been respected and used in the EIS • Special efforts were made to consult with Elders • Consultation with Innu has been ongoing since 2005
Culture	
• Concerns that the Project will affect the Innu spiritual connection to the land • Wage employment will conflict with traditional values • Concern that country foods will not be available (e.g., loss of access, contamination)	• Project Team has attended community meetings in Sheshatshiu and Natuashish • There have been extensive discussions with Innu and advisors to Innu Nation • Cultural sensitivity training has been provided • Provisions for cultural leave and country food at the work site are being discussed with Innu Nation
Community Health	
• Concern regarding more employment will worsen existing social problems such as alcohol and drug addiction • Need to understand the benefits of the Project to Innu	• Nalcor Energy supports efforts to increase the number of trained social services staff who speak Innu-aimun • A proposed new approach for job sharing, on-the-job training, and outreach family treatment will be discussed with Innu Nation
Benefits	
• There should be long term benefits for all Innu, including elders • Must include training and employment	• The Project environmental and engineering work to date has employed Innu and used Innu companies • There are ongoing efforts to assist Innu to build a training and employment database • Hiring policies will include specific efforts to train and hire Innu • Efforts will be made to create a comfortable and supportive work place for Innu • Nalcor Energy and Innu Nation are negotiating a Lower Churchill Project IBA. Key elements of the commercial terms of the IBA include a structured royalty regime under which Innu will be entitled to receive an annual royalty payment based upon a percentage of net proceeds from the generation component of the Project

Some issues of great importance to Innu are outside the scope of the EIS (e.g., land claims and the environmental effects of the Churchill Falls Project). However, the recent Tshash Petapen (New Dawn) Agreement is intended to address these matters. In addition to direct discussions with Innu Nation about the Project, the overall database and understanding of historical and contemporary presence and use of the Churchill River and surrounding landscape has been enhanced through traditional knowledge provided by Labrador Innu. This information is complemented by extensive research and field surveys conducted on cultural heritage resources for the EIS.

One example of cooperation with Innu Nation is the Elders' field trip to the location of the last known Shaking Tent ceremony held in Labrador (Appendix IB-J). This site will be lost to inundation when the Muskrat Falls Reservoir is impounded. Assisting and funding the visit and its documentation, has enhanced the memory and awareness of this culturally important site and activity.

Consultation with Innu Nation has included several approaches, described in Section 8.3.1. Many issues, comments and questions raised by members of Innu Nation have been documented during:

- Task Force discussions;
- open houses in Sheshatshiu and Natuashish in 2006 and 2007;
- a multi-party workshop in 2001 (prior to the current Project design);
- discussions with Elders;
- community consultation from 2005 to 2008;
- technical workshops;
- discussions with Innu Nation leaders; and
- comments on the draft EIS guidelines in February 2008.

8.3.5.2 Other Aboriginal Groups

In addition to consultation with Innu Nation, Nalcor Energy has also contacted Nunatsiavut Government, LMN and Quebec Innu to offer information and solicit discussion about the Project. These organizations have all provided comment on the draft EIS Guidelines and Nalcor Energy will continue its efforts to fulfill consultation requirements for these organizations in a manner that is both compliant with the Guidelines and consistent with Project objectives for consultation.

Q. Has Nalcor identified any issues arising from the implementation of the proposed Water Management Agreement that have the potential to affect any rights claimed by the Counsil des Innus de Ekuanitshit? If so please identify the issues.

A. The precise nature of any rights claimed by the Conseil des Innus de Ekuanitshit is not clear. Nalcor understands that the claim of the Conseil des Innus de Ekuanitshit is generally in relation to land or resource usage in the area of the Lower Churchill Project.

Nalcor has not identified any issues arising specifically from the implementation of the proposed Water Management Agreement that have the potential to affect land or resource usage by the Conseil des Innus de Ekuanitshit. See responses to PUB-NE-23 and PUB-NE-24.

Q. If any issues arising from the implementation of the proposed Water Management Agreement that have the potential to affect any rights claimed by the Conseil des Innus de Ekuanitshit have been identified, please confirm whether any consultation has occurred regarding those issues and provide details of the consultation.

A. See responses to PUB-NE-13, PUB-NE-14, PUB-NE-15, PUB-NE-23 and PUB-NE-24.

Q. Has Nalcor consulted with the Innu of Uashsat mak Mani-Utenam et al regarding Nalcor's proposal to develop two hydroelectric generating facilities on the Lower Churchill River generally, and regarding the Water Management Agreement in particular?

A. Nalcor has consulted with the Innu of Uashsat mak Mani-Utenam regarding Nalcor's proposal to develop two hydroelectric generating facilities on the Lower Churchill River. That consultation process is continuing. The details of Nalcor's consultative efforts with the Innu of Uashsat mak Mani-Utenam with respect to the Lower Churchill Hydroelectric Generation Project are contained in the response to PUB-NE-18.

Nalcor has not consulted in particular regarding the Water Management Agreement. Nalcor does not believe that there is any requirement of consultation with respect to the Water Management Agreement. See responses to PUB-NE-23 and PUB-NE-24.

Q. If consultation with the Innu of Uashsat mak Mani-Utenam et al regarding the Water Management Agreement has occurred, please provide details of the consultation that has taken place regarding the project generally, and regarding the Water Management Agreement in particular.

A. Specific details of Nalcor Energy's consultation with Aboriginal groups, including the Innu of Uashsat mak Mani-Utenam, to the date of the Environmental Impact Statement are contained in Section 8 of the Environmental Impact Statement, (see PUB-NE-14 Attachment). Further information respecting land and resource usage by Québec Innu and other relevant data which was taken into account in preparing the Environmental Impact Statement is referenced in the response to PUB-NE-23. There have been no consultations regarding the Water Management Agreement specifically. See the response to PUB-NE-23.

Section 4.8 of the *Environmental Impact Statement Guidelines* requires Nalcor Energy to "demonstrate the Proponent's understanding of the interests, values, concerns, contemporary and historic activities, Aboriginal traditional knowledge and important issues facing Aboriginal groups and indicate how these activities will be considered in planning and carrying out the Project". Specifically, the *Guidelines* direct Nalcor Energy to consult with the Innu Nation, the Labrador Metis Nation, the Nunatsiavut Government and the six Québec Innu Communities of Uashat mak Mani-Utenam, Ekuanitshit, Nutaskuan, Unamen Shipu, Pakua Shipi and Matimekush-Lake John.

In accordance with the requirements of the *Guidelines* Nalcor Energy has been engaged in ongoing consultation with respect to these identified groups since the release of the Environmental Impact Statement Guidelines.

The consultative process between Nalcor Energy and the Innu of Uashsat mak Mani-Utenam commenced on May 20, 2008. On that date, Nalcor Energy provided Chief Gregoire with correspondence containing the following information:

- Two copies of the Lower Churchill Hydroelectric Generation Project Environmental Assessment Registration document (in French);
- Two copies of the reservoir Map book illustrating the anticipated reservoir areas and predicted extent of flooding;
- Two copies of the proposed site layouts at Gull Island and Muskrat Falls; and
- Five fact sheets: Aquatic Studies, Historic Resources, Reservoir Formation, Mercury in Reservoirs, Green House Gas Emissions and Construction Workforce.

In the accompanying correspondence, Nalcor Energy proposed to meet with Uashsat mak Mani-Utenam to discuss the information provided, to provide additional project-related information and to discuss community-specific issues and concerns. Throughout the summer and fall of 2008, Nalcor Energy made repeated efforts by phone, e-mail and written correspondence to arrange a meeting with Uashsat mak Mani-Utenam in the community. The determination of dates acceptable to both Uashsat mak Mani-Utenam and Nalcor Energy was complicated by a number of external factors, including band council elections, persistent issues respecting unresolved land claims, the Romaine Project and other factors.

As a result of these difficulties, Nalcor Energy was not able to meet with Uashsat mak Mani-Utenam in Sept Iles until January 12, 2009. The meeting involved a Power Point presentation on the Project (delivered in French) followed by a question and answer session (also delivered in French), concluding with an invitation for further meetings as required by the community. Hard copies of the presentation were left with the community. Subsequent to this meeting, on March 3, 2009, the Chief of the community was provided with a copy (in French) of the EIS Summary and provided with additional information with respect to the EIS.

In order to regularize consultation, facilitate the participation of Uashsat mak Mani-Utenam in the environmental assessment of the Project and ensure the collection of accurate and comprehensive data relating to the Project impacts upon the current land and resource usage of the Innu of Uashsat mak Mani-Utenam, Nalcor Energy developed a draft community consultation agreement which was sent to the community for review and comment on May 13, 2009.

The purpose of the draft community consultation agreement is threefold:

- to familiarize the community with the Project and its potential environmental effects;
- to identify issues and community concern respecting the potential environmental effects of the project; and
- to identify what actions Nalcor Energy proposes to take to address issues and concerns.

Accordingly, the agreement sets out a framework for the exchange of Project-related information between Nalcor Energy and the community and for the collection of Aboriginal traditional knowledge relevant to the Project. The agreement also provides for funding in support of such information exchange and collection. The specific terms of the Agreement are based in part upon the principles contained in the publication of the Canadian Environmental Assessment Agency "Considering Aboriginal traditional knowledge in environmental assessments conducted under the *Canadian Environmental Assessment Act* -- *Interim Principles*". The method by which information is to be exchanged with the Innu of Uashat mak Mani-Utenam and procedures for the collection of traditional knowledge will be the subject of a workplan to be jointly negotiated by Uashat mak Mani-Utenam and Nalcor Energy. The workplan, which will be community-based, will be supported by a budget.

Repeated efforts by Nalcor Energy to contact the community to arrange a meeting to discuss the terms of the community consultation agreement were made during succeeding months but were unsuccessful. On November 10, 2009, Chief Gregoire wrote Nalcor Energy advising it of Uashat mak Mani-Utenam's outstanding grievances respecting land claims but indicating its willingness to participate in consultation, provided that agreement on suitable consultative arrangements could be reached. Nalcor Energy responded to this correspondence in early January, 2010, reiterating its willingness to meet with the community and suggesting a meeting date in early February.

In view of Uashsat mak Mani-Utenam's outstanding land claim in Labrador and ongoing litigation, it is unclear whether a community consultation agreement with this community can be concluded. However, Nalcor Energy understands its obligation to provide opportunities for the community to be consulted on the

Project in order to integrate specific information, including Aboriginal traditional knowledge, and issues and concerns expressed by the Innu of Uashsat mak Mani-Utenam, into the environmental assessment of the Project. As a result, in the event that a community consultation agreement cannot be concluded, Nalcor Energy remains committed to providing opportunities to the community to provide input on the Project and will work with the community to address its concerns. In the event that a consultation agreement cannot be reached, Nalcor Energy will provide the community with the opportunity to participate in the environmental assessment of the Project, through the ongoing provision of Project-related information and through the conduct of community meetings, open houses, technical workshops and site visits to solicit input directly from community residents.

A detailed description of the specific steps taken by Nalcor Energy to gather information from, and elicit the participation of Uashat mak Mani-Utenam in the provision of information for the purpose of fulfilling the requirements of the *Guidelines* is set out in the attached table.

Consultation Record: Conseil Innu Takuaikan Uashat mak Mani-Utenam			
Aboriginal Group	**Who**	**Date**	**Action Taken**
Conseil Innu Takuaikan Uashat mak Mani-Utenam (Sept Iles)	Gilbert Bennett	May 20, 2008	Letter to Chief Gregoire sending Project information package including: • Two copies of the Lower Churchill Project Environmental Assessment Registration document; • Two copies of the reservoir map book; • Two copies of the proposed site layouts at Gull Island and Muskrat Falls; and • Aquatic Studies, Historic Resources, Reservoir Formation, Mercury in Reservoirs, Green House Gas Emissions, and Construction Workforce Fact Sheets.
	Maria Giovaninni	June 05, 2008	Telephone call to Lyne Morissette to propose a meeting.
	Maria Giovaninni	June 11, 2008	Telephone call to Lyne Morissette to propose a meeting.
	Maria Giovaninni	June 16, 2008	Telephone call to Lyne Morissette. Lyne Morissette suggested July 9th or July 15th.
	Maria Giovaninni	June 30, 2008	Telephone call to Lyne Morissette; left message.
	Lyne Morissette	July 03, 2008	Telephone call to Madeline Holden; left message.
	Lyne Morissette	July 07, 2008	Telephone call to Madeline Holden; left message to confirm dates.
	Maria Giovaninni	July 07, 2008	Telephone call to Lyne Morissette; left message.
	Maria Giovaninni	July 07, 2008	Telephone call to Lyne Morissette. Lyne Morissette advised that July 15th is not suitable and suggested July 22nd or 23rd.
	Maria Giovaninni	July 08, 2008	Telephone call to Lyne Morissette; left message to confirm arrangements.
	Maria Giovaninni	July 08, 2008	Telephone call to Lyne Morissette. Lyne Morissette advised that July 23rd is more suitable for a meeting.
	Maria Giovaninni	July 09, 2008	Telephone call to Lyne Morissette. Lyne Morissette advised that July 23rd will not work but July 29th or 30th might. Meeting did not occur at the request of Conseil Innu Takuaikan Uashat mak Mani-Utenam.

	Maria Giovaninni	Sept 15, 2008	Telephone call to Lyne Morissette; left message.
	Mike Wilkshire	Dec 12, 2008	Telephone call to Lyne Morissette; left message.
	Mike Wilkshire	Dec 15, 2008	Telephone call to Lyne Morissette; no answer.
	Todd Burlingame	Dec 30, 2008	Letter to Chief Gregoire proposing meeting date of Jan 12th.
	Lyne Morissette	Jan 06, 2009	Letter to Todd Burlingame welcoming Jan 12th meeting.
	Todd Burlingame	Jan 08, 2009	Letter to Lyne Morissette regarding Jan 12th meeting.
	Lyne Morissette	Jan 09, 2009	Letter to Todd Burlingame confirming the Jan 12th meeting.
		Jan 12, 2009	Meeting in Sept Iles, Quebec attended by Todd Burlingame, Mike Wilkshire, Leslie Grattan, Deputy Chief and Council Members for Uashat mak Mani-Utenam, Uashat Technical Committee, Families from Matimekosh-Lac Jean, James O'Reilly, and Patricia Ochman.
	Todd Burlingame	Mar 03, 2009	Letter to Chief Gregoire sending the Lower Churchill Project Environmental Impact Statement Executive Summary.
	Gilbert Bennett	May 13, 2009	Letter to Chief Gregoire requesting meeting also including draft consultation agreement.
	Mike Wilkshire	August 3, 2009	Phone call to Chief Gregoire – no answer
	Mike Wilkshire	August 4, 2009	Phone call to Chief Gregoire – no response
	Mike Wilkshire	August 11, 2009	Phone call to Lynn Morissete – left message
	Mike Wilkshire	September 3, 2009	Phone call to Lynn Morissette who advised that draft community consultation agreement under review by community
	Chief Gregoire	November 10, 2009	Letter to Gilbert Bennett re: community consultation agreement
	Gilbert Bennet	January 5, 2010	Response to Chief Gregoire indicating willingness to consult and proposing meeting date in the community in early February

Q. Has Nalcor identified any issues arising from the implementation of the proposed Water Management Agreement that have the potential to affect any rights claimed by the Innu of Uashsat mak Mani-Utenam et al? If so please identify the issues.

A. The precise nature of any rights claimed by the Innu of Uashsat mak Mani-Utenam is not clear. Nalcor understands that the claim of the Uashsat mak Mani-Utenam is generally in relation to land or resource usage in the area of the Lower Churchill Project.

Nalcor has not identified any issues arising specifically from the implementation of the proposed Water Management Agreement that have the potential to affect land or resource usage by the Innu of Uashsat mak Mani-Utenam. See responses to PUB-NE-23 and PUB-NE-24.

Q. If any issues arising from the implementation of the proposed Water Management Agreement that have the potential to affect any rights claimed by the Innu of Uashsat mak Mani-Utenam et al have been identified, please confirm whether any consultation has occurred regarding those issues and provide details of the consultation.

A. See responses to PUB-NE-17, PUB-NE-18, PUB-NE-19, PUB-NE-23 and PUB-NE-24.

Q. Has Nalcor implemented an ongoing consultation process with the Conseil des Innus de Ekuanitshit and the Innu of Uashsat mak Mani-Utenam et al with regard to the Water Management Agreement?

A. Nalcor has not implemented an ongoing consultation process with regard to the Water Management Agreement. Nalcor does not believe that there is any requirement of consultation specifically with respect to the Water Management Agreement. See responses to PUB-NE-22, PUB-NE-23 and PUB-NE-24.

Q. Does Nalcor have a plan for future consultation with the Conseil des Innus de Ekuanitshit and the Innu of Uashsat mak Mani-Utenam et al regarding the Water Management Agreement or any other issues that may arise in the development of the Churchill River as a source for the production of power?

A. Nalcor does not believe that future consultation specifically regarding the Water Management Agreement is or will be required. See responses to PUB-NE-23 and PUB-NE-24. Nalcor recognizes that consultation is required with respect to the development of the Churchill River as a source of the production of power. Such consultation is taking place through the environmental assessment process. It will occur either through the framework of a community consultation agreement with each community if concluded or through other consultative initiatives if an agreement cannot be reached. Such consultative initiatives may include, as appropriate and as required by each community, one or more of the following:

- community meetings and open houses;
- technical workshops; and/or
- site visits.

Q. Please provide details of the consultation that has been undertaken with the Conseil des Innus de Ekuanitshit and the Innu of Uashsat mak Mani-Utenam et al in relation to the Environmental Impact Statement, and identify any aspects of that consultation that may relate to the terms and provisions of the Water Management Agreement.

A. See responses to PUB-NE-14 and PUB-NE-19.

The Aboriginal groups have been and continue to be consulted with respect to the development of the Lower Churchill Project, including the Environmental Impact Statement. That consultation process continues throughout the entire environmental assessment process.

In preparing the Environmental Impact Statement for the Lower Churchill Project, the Proponent, through Minaskuat Limited Partnership, retained the services of Paul F. Wilkinson & Associates Inc. to undertake a preliminary study on the relationship of the Québec Innu to the proposed Project Area. The final Report, entitled "Summary Report on the Québec Innu Phase I" and dated May, 2008, contained the following information:

- a summary of the status of land claims of the Québec Innu in the project area;
- a summary of the available information on contemporary land and resource use in the project area, including information relating to locations and types of harvesting activities, species, camp sites, travel routes and other socio-cultural sites known to be of importance to the Québec Innu; and

- a summary of the available socio-economic data on Québec Innu communities involved in contemporary land and resource-use activities.

The Report, which was based only on publicly available information, was taken into account in the preparation of those portions of the Environmental Impact Statement respecting Aboriginal groups, other than the Innu of Labrador. The full text of the Report is contained as Attachment A to Nalcor Energy's Information Response to JRP.2 (Canadian Environmental Assessment Agency (CEAA) Reference No. 07-05-26178) and can be found in the CEAA Registry.

Since the Lower Churchill Project was first registered for environmental assessment under the provincial *Environmental Protection Act* on November 30, 2006, Aboriginal groups in both Labrador and Québec with an asserted interest in the land and resources in the proposed Project Area have been provided with Project-related information and given the opportunity to be consulted at various stages of the Project's environmental assessment. On December 19, 2007, comments were invited from the public, including Aboriginal groups, on the contents of the draft *Environmental Impact Statement Guidelines* (the "*Guidelines*"). Both the Conseil des Innus de Ekuanitshit and the Innu of Uashat mak Mani-Utenam availed themselves of this opportunity and provided comments to the Canadian Environmental Assessment Agency on the draft *Guidelines* on February 27, 2008.

On June 6, 2008, following the decision to refer the Lower Churchill Project to a joint federal/provincial environmental assessment process to be administered by a Joint Review Panel, the Canadian Environmental Assessment Agency and the provincial Department of the Environment invited public comment on the Joint

Review Panel Agreement and associated Terms of Reference. The registry maintained by the Canadian Environmental Assessment Agency does not contain any comments from either group with respect to the Joint Review Panel Agreement and Associated Terms of Reference.

On March 6, 2009, Nalcor Energy submitted the Environmental Impact Statement (EIS) and on March 9, 2009, the Joint Review Panel invited public comment on the EIS. The Conseil des Innus de Ekuanitshit on June 27, 2009, and the Innu of Uashat mak Mani-Utenam, on July 7, 2009, each submitted comments on the conformity of the EIS with the Environment Impact Statement Guidelines and based in part upon such comments, the Joint Review Panel has issued a series of information requests to Nalcor Energy respecting the provision of supplemental information. A further period of public comment on this supplemental information has been provided and both the Conseil des Innus de Ekuanitshit and the Innu of Uashat mak Mani-Utenam have submitted comments in response to the additional information supplied to the Panel by Nalcor Energy and have, in addition, provided comments to the Panel respecting the translation of specific documents. A detailed inventory of the correspondence and other relevant documentation respecting each of these groups is contained in the Canadian Environmental Assessment Registry at the following web site: http://www.ceaa.gc.ca.

The Terms of Reference of the Joint Review Panel specifically mandate the Panel to "Invite information from Aboriginal Groups and people related to the nature and scope of potential or established Aboriginal Rights or title in the area of the Project, as well as information on the potential adverse impacts or potential infringement that the Project will have on asserted or established Aboriginal Rights and Title" (Terms of Reference, Part II "Scope of the Environmental

Assessment"). In addition, the Joint Review Panel is required to include the following information in the Report:

- Information provided by Aboriginal groups related to traditional uses and strength of claim as it relates to the potential environmental effects of the Project on recognized or asserted Aboriginal rights and title; and
- Any concerns raised by Aboriginal groups related to potential impacts on asserted or established Aboriginal rights or title.

As a result, it is clear that there will be continued Aboriginal consultation and opportunities for each of Ekuanitshit and Uashat mak Mani-Utenam, et al, to receive Project-related information and to provide relevant information to the Panel respecting the impact of the Project upon its land and resource usage in the proposed Project Area. Efforts have been made to facilitate participation by each of these groups in the environmental assessment process. On February 13 and February 15, 2008, representatives of the federal and provincial governments met with representatives of Ekuanitshit and Uashat mak Mani-Utenam, respectively. The purpose of these meetings was to provide each Aboriginal group with pertinent information respecting the operation of the Project's environmental assessment process, including timelines for submissions, and to hear each group's preliminary issues and concerns. Additional public information sessions were held by the Joint Review Panel in the fall of 2009.

In addition, the Canadian Environmental Assessment Agency provides participant funding through the Participant Funding Program (the "Program") established under the *Canadian Environmental Assessment Act*. The Program, which was created to facilitate public participation in comprehensive studies, mediations and

assessments by review panels, includes an Aboriginal Funding Envelope which is intended to strengthen the ability of Aboriginal groups to participate in federal and joint environmental assessment processes. According to the published report of the Funding Review Committee, each of Ekuanitshit and Uashat mak Mani-Utenam were awarded funding in the following amounts:

- Corporation Nishipiminan (Ekuanitshit): $55,850.25
- Fiducie Takuaikan (Uashat mak Mani-Utenam): $46,000

In addition to consultative initiatives undertaken by each level of government and the Joint Review Panel, Nalcor Energy, in conformity with section 4.8 of the *Guidelines*, has undertaken to provide Project-related information to both the Conseil des Innus de Ekuanitshit and the Innu of Uashat mak Mani-Utenam. The primary source of Project-related information is set out in the Environmental Impact Statement.

Further Project-related information has been provided through meetings with each group and will be provided through ongoing consultation activities as described in the responses to PUB-NE-14 and 18 and the tables appended to each of these responses.

Appendix B to Nalcor's Application contains the Project Description from the Environmental Impact Statement with respect to the Lower Churchill Project. The Project Description contains information with respect to the various components of the Project, including information with respect to the maximum flows through the Gull Island and Muskrat Falls generating facilities and information with respect to the Lower Churchill reservoirs.

Additional information with respect to the Operating Regime for the Gull Island facility and the Muskrat Falls facility is contained in Section 4.5 of the Environmental Impact Statement, attached. Subsections 4.5.1.1 and 4.5.2.1 explain the operating regime for the Gull Island Reservoir and the Muskrat Falls Reservoir respectively, including the fluctuations of reservoir levels.

The Water Management Agreement may affect flows on an hourly basis. It is not possible to determine in advance what the flows will be at any particular hour in the future since they will depend upon the Suppliers' delivery requirements, reservoir conditions, projected inflow conditions and a number of other factors at that specific point in time. These hourly management adjustments are simply the type of adjustments that would occur by either Supplier in relation to its own facilities acting independently or by one Supplier if that Supplier owned and operated both the upper and lower Churchill facilities. It is not necessary to consult with the Aboriginal groups concerning these types of hourly operational adjustments. This level of consultation with respect to hourly operational adjustments is not what is contemplated or required in the duty to consult founded in the Crown's honour and the goal of reconciliation with Aboriginal peoples.

In summary, consultation has occurred, and will occur, with respect to the overall parameters of water flows, reservoir levels, and other matters in relation to the Environmental Impact Statement and the Lower Churchill Project. However, the terms and conditions of the Water Management Agreement, which will operate within the parameters for the Lower Churchill Project established through the environmental assessment process, do not require consultation with the Aboriginal groups.

4.4.5 Traffic

The construction activities and delivery of materials outlined above will result in increased traffic around and in transit to the Project sites.

As part of the 2007 engineering studies, an estimate was developed of the total amount of materials moving through Happy Valley-Goose Bay. Approximately 184,500 tonnes will be required over the construction phase of the Project. For the basis of estimating traffic through Happy Valley-Goose Bay, it is assumed that all material delivery for the Project, with the exception of camp supplies, equipment supplies and miscellaneous items, will be through Happy Valley-Goose Bay. Distribution of the materials will not be the same over the life of the Project, and will peak at 60,000 tonnes per year, exclusive of fuel. Based on an average of 30 tonnes per trailer load, there will be 2,000 trips per year. With a shipping season of five months, the number of truck trips is 14 per day. Adding fuel trips and camp supplies, the truck traffic on the TLH will be approximately 16 round trips per day for material delivery. This traffic volume is well within design capacity of the public roads.

Given the size of the workforce, the Project will provide transportation from defined points in Labrador and the Island to the work site. Traffic will result from the requirement to transport personnel between the sites and Happy Valley-Goose Bay. There will be a regularly scheduled bus service operating to transport workers to the site, including local residents. All workers will be urged to use the bus system, and there will be limited parking on-site for private vehicles, the use of which will be discouraged for safety reasons. There will be approximately five bus trips per day to transport personnel.

In addition to personnel and materials, trucks may also use the TLH to transport up to 1,700,000 m^3 of fill and granular materials from borrow areas within hauling distance of the sites. The majority of these trips will be within each site and along construction roads. Transport of these materials will use 40 tonne semi-dump trailers or equivalent. This activity will produce 25 to 40 trips per day to transport rock and aggregate to the sites.

At present (2009) Hamilton River Road in Happy Valley-Goose Bay does experience peak-hour traffic congestion. The construction phase of the Project could add marginally to this. Alternatives will be examined to minimize congestion. The scheduling of traffic may be one simple solution. Alternately, road widening may reduce traffic congestion. An alternative access from the port to the TLH could be achieved along an upgraded South Branch Road or by extending an existing road around the west side of the airport to the TLH. As detailed planning continues, these various alternatives will be considered and discussed with the municipality.

4.5 Operation and Maintenance

The Gull Island and Muskrat Falls generation facilities will be operated remotely using the Hydro Energy Management System. This system operates the network for efficient delivery of electricity. For safe operation and protection of the environment, remote monitoring systems will be installed to monitor:

- weather conditions, including wind, rainfall and temperature;
- reservoir, intake, sump and tailrace water levels;
- trash rack differentials;
- ice conditions;
- fuel levels and flows of the emergency diesel storage system;
- presence of oil in interceptor tanks; and
- oil levels in equipment including main transformers, power transformers, turbine and generator bearings, governor sumps and accumulator tanks and any major oil storage tanks.

4.5.1 Gull Island

The Gull Island Generation Facility will be operated from the ECC in St. John's. The ECC will continuously monitor all critical points, including water levels and loading. The generation facility will also have the flexibility to be controlled locally from a control room at site.

4.5.1.1 Operating Regime

In order to maximize power and energy output, Gull Island Reservoir will be operated as close to FSL (125 m) as possible, while giving consideration to short term inflows and near-term production requirements, with minimum fluctuations in water level. The fluctuations will reflect daily/weekly load swings. The site will be operated primarily as a base/intermediate load plant; daily fluctuations will be in the order of a few centimetres and weekly fluctuations could be up to 1 m. These fluctuations will result from hydraulic and production imbalances, which will be minimized. Over the course of the year, there may be periods of time when the reservoir level will change. For example, in preparation for the substantial inflows that result from melting snow in the spring, the reservoir could be drawn down to LSL at 122 m and could rise in a few days to FSL at 125 m. The reservoir has the capacity for additional storage in order to handle extreme flood events up to a maximum flood elevation of 127 m.

Water management agreements are standard on rivers with more than one operator. The provincial government is currently moving to regulate the coordination of water management on provincial rivers so that hydroelectric facilities operating on the same river work together. This optimizes the value of the resource, and therefore benefits both the Province and power generators. As a result of this legislation, the reservoir level of the Gull Island facility will operate as close to the 125 FSL as possible to maximize the efficiency of the facility. The amendment to the *Electrical Control Power Act* (ECPA) provides a framework for the Public Utilities Board (PUB) to regulate the coordination of water management agreements. The amendment allows for the delivery commitments under existing power contracts to be honoured, including the 1969 power contract for the Upper Churchill. The amendment provides hydroelectric operators sharing a river system, as will be the case on the Churchill River with the Upper Churchill and the Project, with certainty over the coordination of water flow. Through this amendment, the needs of both the Churchill Falls Power Station and the Project will be accommodated.

4.5.1.2 Monitoring and Maintenance

Maintenance personnel will reside in the town of Happy Valley-Goose Bay. The normal work schedule requires that workers commute to site five days a week to conduct routine maintenance. Other ongoing activities include worker protection, minor preventative maintenance, operational checks, environmental checks and safety checks. General housekeeping and condition monitoring and analysis of the generation facility will also be required.

The maintenance crews will also assist other maintenance crews and contractors for major inspections and overhauls and will complete daily checks of instrumentation and equipment. The plant engineer(s) will perform frequent engineering analysis of any readings (data collected). If the engineer(s) observe any data changes or inconsistencies, the issue will be flagged for further investigation. Instrumentation will continuously monitor water, diesel fuel and oil systems.

Weekly checks will include dam surveillance to inspect for erosion, rainfall damage and sloughing. Each week, personnel will conduct a reconciliation of fuel tanks as well as tests on fire pumps and emergency diesels. On a monthly basis, personnel will inspect the domestic water system.

Personnel will also conduct semi-annual surveys of the dam to check for movement of the dam or elevation changes. There will be semi-annual operational checks of the spillway gates.

Each year, personnel will conduct a vegetation management program to remove vegetation from the dam and an annual calibration chart for the water level monitoring system. Personnel will also remove trash from the trash racks. An inspection of the spillway (including hoists, heating systems and gates) will determine if the spillway is functioning properly and whether components are corroded. Annual road and access road maintenance will also be required. Fire protection systems, generators, transformers and the powerhouse will be inspected annually, including the turbines and auxiliary equipment (pumps, compressors, air conditioning systems, overhead cranes). Personnel will also inspect transformers and switch gear.

4.5.1.3 Accommodations

As noted, maintenance personnel will reside in Happy Valley-Goose Bay; however, a small accommodation building will be provided at site for crews and contractors performing major inspections and overhauls.

4.5.2 Muskrat Falls

4.5.2.1 Operating Regime

The Muskrat Falls Generation Facility will be operated remotely using a system and maintenance schedule similar to that outlined in for the Gull Island Generation Facility in Section 4.5.1. The generation facility also has the flexibility to be controlled locally at site. Monitoring and maintenance will be completed by crews based in Happy Valley-Goose Bay.

As with Gull Island, Muskrat Falls will be operated as close to FSL (39 m) as possible, with minimum fluctuations in water level. These fluctuations will reflect daily load swings due to hydraulic and production imbalances, which will be minimized. The plant will operate as a base load plant; daily fluctuations will be in the order of a few centimetres and weekly fluctuations will be to a maximum of 0.5 m.

The reservoir is designed for additional storage in order to handle extreme flood events. Muskrat Falls Reservoir has a maximum flood elevation of 44 m.

It is not anticipated that ice, including frazil ice, will be an issue for plant operations. The reservoir will form a stable ice cover upstream of the dam; therefore, frazil ice generation will not be an issue. The intake gates will be located below this stable ice cover.

4.5.2.2 Monitoring and Maintenance

The operation and maintenance of the Muskrat Falls Generation Facility will be similar to the details outlined for the Gull Island Generation Facility in Section 4.5.1.2.

4.5.2.3 Accommodations

Given the proximity of the Gull Island Generation Facility to Happy-Valley-Goose Bay, there will be no accommodations at site.

4.5.3 Transmission Line

Line maintenance activities include regular inspection, repair of the line and the management of vegetation along the right-of-way. Line maintenance crews will be based in Labrador.

4.5.3.1 Inspection and Maintenance

The transmission line and right-of-way will be inspected and maintained via tracked vehicle or helicopter. General surveillance surveys are usually conducted by helicopter to establish condition of conductors, insulators and tower structures. Raptor nesting sites will be mapped and a no-fly zone will be applied. In winter, snowmobiles will be employed for closer inspection of the structures. Scheduled maintenance will be completed from tracked vehicles in summer. Only approved routes will be followed to access the right-of-way and environmental protection measures (as per the Operational EPP) will be applied.

4.5.3.2 Vegetation Management

Vegetation growth along rights-of-way can be a safety concern to maintenance crews and the public. Trees are very good conductors of electricity, and the presence of dense vegetation can prevent crews from responding promptly to emergency situations and outages.

Vegetation management encourages the development of plants compatible with utility operations, encouraging natural biological control of vegetation, and providing a safe environment for people and wildlife.

In Labrador, re-growth is slow with the result that following the initial right-of-way clearing, infrequent maintenance is required. As well, given the time scale for the Project, it can be expected that new and improved vegetation management practices will evolve. Nalcor Energy will stay current with such developments and implement changes as appropriate. The description below reflects current vegetation management practices and protocols.

The integrated vegetation management program employs several methods including the use of herbicides. The selective use of herbicides on rights-of-way, following cutting produces a low, dense plant cover that discourages the invasion of nuisance vegetation while encouraging the growth of compatible vegetation.

Cutting is often sufficient to control softwood such as spruce and balsam fir, but only provides short term control for hardwood such as birch, maple and aspen because of multiple sprouting from undisturbed roots. The selective use of herbicides, following cutting, offers long term control of tall trees. Only problem trees are selected for treatment, leaving a diversity of desirable species such as shrubs and wildflowers.

Vegetation management commences three to four years after construction is completed. Crews will use approved herbicides (e.g., Tordon 101), as per current standard operating practices, mixed with a surfactant such as Sylgard 300, which will be sprayed using a tracked vehicle with a 1,500 or 2,000 L tank. The quantities of chemicals used will depend largely on terrain, as well as quantity and type of vegetation. A detailed survey will be necessary prior to beginning each vegetation management program.

The herbicide will be sprayed directly so that application is confined to areas requiring treatment (i.e., tall-growing species). Shrubs and bushes will not be sprayed. This vegetation management program will be carried out every eight to 10 years. The management schedule varies with the type of vegetation, the extent of ground disturbance during construction, and terrain and experience gained in operations.

Cut and stump applications may also be used and involve cutting the vegetation and applying herbicide to the freshly cut stumps to control re-sprouting of woody species. This vegetation control method will use such products as Tordon 101, Garlon 4 and glyphosate products.

4.5.3.3 Electromagnetic Fields

Electromagnetic fields are associated with all transmission lines and their strength diminishes with distance from the transmission lines. In the design of high voltage transmission facilities, the conductor lines are suspended in the air and isolated from the tower structures such that large distances separate the transmission lines from the ground. As a result, measurable electromagnetic fields at ground level are within acceptable (low) levels and generally not detectable beyond the right-of-way.

4.6 Decommissioning and Restoration

There are no plans to decommission the Project and therefore, it is not part of the environmental assessment. Any future decommissioning/abandonment activities will be subject to future examination under the *NLEPA* and *CEAA* or other legislation as applicable at the time of decommissioning.

At the conclusion of construction, temporary infrastructure will be removed and restoration of sites will be conducted. These activities are described below.

4.6.1 Construction Site Restoration

During construction, areas of disturbance will be created by the works, storage and waste disposal areas. Areas of disturbance will also be created by borrow pits and quarries and both temporary and permanent access roads.

The restoration of work sites, including the transmission line and removal of construction infrastructure will be incorporated into the contract technical design specifications. This will assist in the progressive restoration at the work sites, quarries and borrow pits. All such activities will be in accordance with Restoration Plans and the Project EPP. An overall Project Construction Restoration Plan as well as site-specific rehabilitation plans will be developed and implemented. Standard, proven techniques are available and will be employed to return work sites to an environmentally appropriate state. Site restoration planning will apply from the start of construction. For example, during initial site clearing, the topsoil or organic layer will be stripped and stored separately for subsequent access and use in site rehabilitation. Removal of the temporary construction infrastructure and site rehabilitation is discussed in the following paragraphs.

4.6.1.1 Primary Construction Sites

All temporary surface infrastructure associated with the construction sites will be dismantled and removed. This includes the accommodation complexes, workshops, warehouses, material storage and laydown areas, marshalling yards and the concrete plants. Permanent drainage patterns will be established at the sites through grading, which will also reduce erosion.

Natural revegetation of disturbed surfaces will be encouraged where applicable and where required (e.g., by scarifying, then grading, contouring and spreading of stockpiled organics). Appropriate active revegetation (seeding or planting) will be conducted (soil and terrain conditions permitting).

Periodic inspections subsequent to rehabilitation and abandonment of the construction sites will be conducted to measure the success of the restoration measures and to apply adaptive management techniques if needed. Benchmarks for success will relate to the establishment of stable surface areas (e.g., with vegetative growth), and staying away from erosion/slumping phenomena. Surveyed areas will be re-treated and appropriate remediation measures applied to address any anticipated or observed failures of restoration measures.

Q. Please provide details of the consultation that has been undertaken with the Conseil des Innus de Ekuanitshit and the Innu of Uashsat mak Mani-Utenam et al in relation to the Environmental Impact Statement, and identify any aspects of that consultation that may relate to the implementation of the Water Management Agreement.

A. See responses to PUB-NE-14, PUB-NE-19 and PUB-NE-23.

As explained in the response to PUB-NE-23, consultation has occurred, and will occur, with respect to the overall parameters of water flows, reservoir levels, and other matters in relation to the Environmental Impact Statement and the Lower Churchill Project. However, the implementation of the Water Management Agreement, which will operate within the parameters for the Lower Churchill Project established through the environmental assessment process, does not require consultation with the Aboriginal groups.