

ENVIRONMENTAL ASSESSMENT COMMITMENTS FOR LOWER CHURCHILL HYDRO GENERATION PROJECT

Status Update and High Level Description of Supporting Documentation

August 2020

Commitment	Phase	Status	High level description of supporting documentation
Nalcor will provide detailed site-specific rehabilitation plans, including associated procedures, during the detailed design phase, prior to the start of construction. The development of these plans will be done in consultation with stakeholders and in compliance with regulatory requirements.	C	Completed - Closed	Rehabilitation plans are site specific and will be conducted in accordance with regulatory requirements.
Nalcor will maintain emergency preparedness plans and implement in the event of an accident or malfunction	C	Completed - Closed	Project Wide Emergency Response Plan
Nalcor will conduct activities in compliance with the Endangered Species Act and the Wild Life Act in consultation with the provincial Wildlife Division.	C, O&M	Completed - Currently Being Met	LCP Species at Risk Protection and Environmental Effects Monitoring Plan B5; LCP Species at Risk Impacts Mitigation and Monitoring Plan Caribou and Avifauna B2; Section 19, Endangered Species Act Permit
Nalcor will minimize the overall footprint of the Project where possible.	C	Completed - Closed	Nalcor will minimize the overall footprint of the Project where possible. Examples include: <ul style="list-style-type: none"> • Spoil area and contractors laydown area reconfiguration to avoid streams and water bodies • Fallen Down Brook bridge — revision of design from open bottom arch to clear span bridge • Realignment of ac Transmission line at Lower Brook to reduce overall length of stream
Nalcor will support the Forestry Services Branch in developing secondary wood processing in Labrador from the timber cleared during reservoir preparation and other construction activities.	C	Completed - Closed	Reservoir Preparation Plan; Minutes of Meeting with Forestry Branch
Nalcor will develop monitoring and Follow-up plans related to timber transportation and stockpiling activities will be finalized prior to the start of construction, in consultation with relevant stakeholders, including Aboriginal communities and government agencies. Nalcor will provide information to the public regarding timber volumes and storage locations.	C	Completed - Closed	Lower Churchill Project - Muskrat Falls - Generation and Labrador Transmission Assets Environmental Protection Plan; All requests regarding stockpiled timber have been directed to the Forestry Branch
Nalcor will make a determination on wood disposal (slash) methods and present to Department of Natural Resources for their approval.	C	Completed - Closed	Reservoir Preparation Plan; Reservoir Clearing Meeting Minutes; Reservoir Clearing Permit
Nalcor will conduct a pre-construction Stage 1 Historic Resources Overview Assessment of the route of any permanent access road once the centre-line has been surveyed and marked.	C	Completed - Closed	Nalcor Completed a Stage 1 Assessment of the south side access road. 2013 Historic Resources Reports; Muskrat Falls 2012 Recovery Final Report

Nalcor will recover Historic and Archaeological Resources through : systematic data recovery (SDR), additional field recording (AFR), systematic field recording and subsurface sampling (SFR and SS).	C	Completed - Closed	Lower Churchill Hydroelectric Development Project 2016 Historic Resources Assessment and Recovery Program; 2012 Historic Resources Assessment and Recovery Field Program; Lower Churchill Hydroelectric Development Project 2014 Historic Resources Assessment and Recovery Program; Lower Churchill Hydroelectric Development Project 2015 Historic Resources Assessment and Recovery Program; Lower Churchill Hydroelectric Development Project 2016 Historic Resources Assessment and Recovery Program; Lower Churchill Hydroelectric Development Project 2017 Historic Resources Assessment and Recovery Program. Final Historic Resources Report provided to Innu Nation for review and comment.
Nalcor will confirm cofferdam crest elevations to determine the probability of overtopping during construction.	C	Completed - Closed	The crest elevations of the cofferdams for the Muskrat Falls development have been determined for two phases of construction. Phase 1 construction is prior to river diversion. Phase 2 is during river diversion, including the creation of an upstream head pond with open-water and winter water levels of 24 m and 25 m, respectively.
Nalcor will complete a dam breach analysis based on detailed design to be approved by the Department of Environment and Conservation prior to construction.	C	Completed - Closed	Churchill Falls Dam Break Study - Volume 1, Churchill Falls Dam Break Study - Volume 2, North Spur Dam Break Analysis - MF1626, MF1330 - Hydraulic Modeling and Studies 2010 Update - Report 3: Muskrat Falls Dam Break Study (Final Report); Muskrat Falls Geotechnical Design Criteria; Muskrat Falls Civil Design Criteria; Muskrat Falls Hydraulic Design Criteria; Muskrat Falls Hydraulic Modeling and Studies, 2010 Update Report; Muskrat Falls Probable Maximum Flood and Construction Design Flood Study; Muskrat Falls Wind-Generated Wave Study; Supporting Information for Permit Application; Permit to Construct, Issued July 2013
Nalcor will conduct a Dam Safety Review during the detailed design phase that follows the Canadian Dam Association Guidelines.	C	Completed - Closed	Dam Break Analysis for Muskrat Falls Construction; Muskrat Falls Dam Break Study; North Spur Dam Break Analysis; Backgrounder: Application to Construct the Muskrat Falls Dam on the Churchill River, Labrador; Muskrat Falls Geotechnical Design Criteria; Muskrat Falls Civil Design Criteria; Muskrat Falls Hydraulic Design Criteria; Muskrat Falls Hydraulic Modeling and Studies, 2010 Update Report; Muskrat Falls Probable Maximum Flood and Construction Design Flood Study; Canadian Dam Association North Spur paper – October 2015
Nalcor will model seepage through the dam and provide to appropriate regulator.	O&M	Completed - Closed	South Rockfill Dam and Cofferdams Stability Analysis undertook stability analysis of earthen dams at site, including the South Dam. Detailed modelling was conducted for seepage through each structure to confirm the design provided required factor of safety. Most of the structures are temporary however the South Dam is permanent and is situated on bedrock with a grout curtain.
Nalcor will provide details on wells for control of seepage to appropriate regulator.	O&M	Completed - Currently Being Met	North Spur design has evolved, unsure of need for wells. If wells exist, details will be provided to regulators.
Nalcor will conduct additional analysis and field investigation on neotectonic faults, if warranted. The results will be provided to Natural Resources of Canada.	C	Completed - Closed	No additional analysis or field investigations that is ongoing or planned. See attached (NE-LCP-MEMO-000039)the point made by Gail Atkinson 2014 report. We are not aware of any other structural mapping for a recent local fault movement in the recent time.

Nalcor to complete seismic monitoring during reservoir filling by using seismographs to record ground motion and monitor whether any seismic event occurs during reservoir filling.	O&M	Completed - Closed	An accelerometer has been installed on the North Spur to measure seismic activity as part of the permanent dam safety instrumentation. This instrument is located in a small building on the upstream side of the Spur, near the rock knoll. The instrument was installed prior to impoundment and the data is accessed remotely by dam safety personnel at Muskrat. It was monitored daily during impoundment, and currently the data is checked once per week.
Nalcor will conduct work according to regulations, guidelines, the EPP and codes of good practice.	C, O&M	Completed - Currently Being Met	Lower Churchill Project – Muskrat Falls Generation and Labrador Transmission Assets – Environmental Protection Plan; LCP Regulatory Compliance Plan
Nalcor will prohibit burning of slash or debris.	C, O&M	Completed - Currently Being Met	Lower Churchill Project – Muskrat Falls Generation and Labrador Transmission Assets – Environmental Protection Plan prohibited the burning of slash a debris during all clearing operations.
Nalcor will rehabilitate work areas and access roads no longer required in accordance with the EPP to encourage formation of natural conditions.	C, O&M	Completed - Currently Being Met	Lower Churchill Project - Muskrat Falls Generation and Labrador Transmission Assets - Environmental Protection Plan; Rehabilitation is ongoing. Remediation of access along the ac transmission line currently being completed in the summer of 2020.
Nalcor will maintain vehicles and other equipment in good working order, with mufflers and regularly inspected; comply with federal emissions and efficiency standards.	C, O&M	Completed - Currently Being Met	Lower Churchill Project - Muskrat Falls Generation and Labrador Transmission Assets - Environmental Protection Plan; Lower Churchill Project Anti-Idling Policy; Corporate Policies and Procedures: Vehicle and Equipment Idling (EN-006)
Nalcor will control emissions of dust, vehicle emissions, and thereby GHG by posted speed limits and use of dust suppressants where and when needed; dust-control measures implemented during windy conditions.	C, O&M	Completed - Currently Being Met	Lower Churchill Project - Muskrat Falls Generation and Labrador Transmission Assets - Environmental Protection Plan; Lower Churchill Project Anti-Idling Policy; Corporate Policies and Procedures: Vehicle and Equipment Idling (EN-006)
Nalcor will implement anti-idling policy regarding vehicle operation.	C, O&M	Completed - Currently Being Met	Lower Churchill Project Anti-Idling Policy, Corporate Policies and Procedures: Vehicle and Equipment Idling (EN-006)
Nalcor will maintain 30 percent MAF during the reservoir filling periods.	C, O&M	Completed - Closed	MAF was maintained during the reservoir impoundment. Frequent communication with DFO during the impoundment period. 2019 Annual Construction Mitigation Report
Nalcor will locate construction and reservoir clearing roads within the reservoirs where possible.	C	Completed - Closed	Reservoir Preparation Plan; Map of Muskrat Falls Reservoir Clearing
Nalcor will control siltation, erosion and runoff in accordance with standard practices and guidelines from federal and provincial governments.	C	Completed - Currently Being Met	Lower Churchill Project - Muskrat Falls Generation and Labrador Transmission Assets - Environmental Protection Plan
Nalcor will reduce or avoid fording activities.	C	Completed - Closed	Lower Churchill Project - Muskrat Falls Generation and Labrador Transmission Assets - Environmental Protection Plan; Stream crossings have been culverts or bridges and fording has been avoided; Blanket Stream Crossing Permit
Nalcor will remove vegetation to moderate nutrient release into the aquatic ecosystem.	C	Completed - Closed	Reservoir Preparation Plan

Nalcor will implement measures to facilitate or create development of habitat consistent with the Fisheries Act.	C, O&M	Completed - Currently Being Met	Lower Churchill Hydroelectric Development Freshwater Fish Habitat Compensation Plan Muskrat Falls; Annual reports prepared: Lower Churchill Hydroelectric Development Freshwater Fish Habitat Compensation Plan; Fish Habitat Compensation - 1998 to 2012 Baseline Conditions - Muskrat Falls Reservoir Area; Fish Habitat Compensation - 1998 to 2013 Baseline Conditions - Muskrat Falls Reservoir Area; Fish Habitat Compensation - 1998 to 2014 Baseline Conditions - Muskrat Falls Reservoir Area; Fish Habitat Compensation - 1998 to 2015 Baseline Conditions - Muskrat Falls Reservoir Area; Fish Habitat Compensation - 1998 to 2016 Baseline Conditions - Muskrat Falls Reservoir Area; Fish Habitat Compensation 1998-2017 Baseline Conditions Muskrat Falls Reservoir Area; 2018 Fish Habitat Compensation Plan – Annual Report; 2019 Fish Habitat Compensation Plan Monitoring Report
Nalcor will require an authorization under Section 32 of the Fisheries Act that will include proposals for: further baseline sampling, development of a mitigation and adaptive management strategy, compensation measures and multi-year monitoring.	C, O&M	Completed - Currently Being Met	FAA approval received 9 July 2013; Fish Habitat Compensation Plan approved. Fish Habitat Compensation - 1998 to 2012 Baseline Conditions - Muskrat Falls Reservoir Area; Fish Habitat Compensation - 1998 to 2013 Baseline Conditions - Muskrat Falls Reservoir Area; Fish Habitat Compensation - 1998 to 2014 Baseline Conditions - Muskrat Falls Reservoir Area; Fish Habitat Compensation - 1998 to 2015 Baseline Conditions - Muskrat Falls Reservoir Area; Fish Habitat Compensation - 1998 to 2016 Baseline Conditions - Muskrat Falls Reservoir Area; Fish Habitat Compensation 1998-2017 Baseline Conditions Muskrat Falls Reservoir Area; 2018 Fish Habitat Compensation Plan – Annual Report; 2019 Fish Habitat Compensation Plan Monitoring Report
Nalcor will require an authorization under Section 35(2) of the Fisheries Act that will include a detailed fish habitat compensation plan and a multi-year habitat monitoring strategy with thresholds identified for further action and if, required, reporting processes and adaptive management measures. Also required will be a multi-year post-project monitoring and reporting downstream into Lake Melville on a variety of parameters including nutrients, primary production, fish and fish habitat utilization and sediment transport in order to assess changes to downstream habitat.	C, O&M	Completed - Currently Being Met	FAA approval received 9 July 2013; Fish Habitat Compensation Plan approved.
Nalcor to carry out impoundment of the Muskrat Falls reservoir as specified in the Section 35(2) Fisheries Act authorization.	C	Completed - Closed	Checklists of each condition have been prepared and completed to ensure compliance. 2019 Annual Construction Mitigation Report
Nalcor will submit an EPP which will outline the proposed erosion and sedimentation prevention strategies.	C	Completed - Closed	Lower Churchill Project - Muskrat Falls Generation and Labrador Transmission Assets - Environmental Protection Plan
Nalcor will enforce a no harvesting policy and no harassment of wildlife, and no possession of firearms or pets by Project personnel.	C, O&M	Completed - Currently Being Met	No Harvesting Policy; Lower Churchill Project Muskrat Falls Generation and Labrador Transmission Assets Environmental Protection Plan
Nalcor will implement environmental awareness training and regular briefings for all personnel.	C, O&M	Completed - Currently Being Met	Environmental Site Orientation; LCP Site Handbook ; All Nalcor employees are required to complete Environmental Management System Awareness - 2017
Nalcor will oversee EPP using environmental monitors; use existing roads, quarries and other disturbed areas where possible.	C	Completed - Currently Being Met	Lower Churchill Project - Muskrat Falls Generation and Labrador Transmission Assets - Environmental Protection Plan; LCP Regulatory Compliance Plan

Nalcor will restrict access to temporary roads and work areas; post speed limits.	C	Completed - Currently Being Met	Health and Safety Management Plan; Lower Churchill Project Security Management Plan
Nalcor will undertake blasting in accordance with permits and standard procedures; caribou sighted within 3 km of such locations would result in the delay of blasting until caribou have left the area.	C	Completed - Closed	Lower Churchill Project – Muskrat Falls Generation and Labrador Transmission Assets – Environmental Protection Plan; LCP Species at Risk Impacts Mitigation and Monitoring Plan Caribou and Avifauna
Nalcor will handle liquid waste treatment in accordance with provincial regulations; solid waste stored in bear-proof containers and recycling program implemented. Temporary camps will also have approved waste management systems.	C	Completed - Currently Being Met	Waste Management Plan
Nalcor will handle fuel and hazardous material consistent with Provincial regulations	C	Completed - Currently Being Met	Lower Churchill Project - Muskrat Falls Generation and Labrador Transmission Assets - Environmental Protection Plan
Nalcor will apply herbicides by hand from the ground, if used.	O&M	Completed - Currently Being Met	IR # JRP.91 - Use of Herbicides along the Transmission Corridor; ENV-SOP.24 - Vegetation & Biting Fly Management Procedures
Nalcor will remove trees during reservoir preparation such that surface will provide unimpeded access for wildlife.	C, O&M	Completed - Closed	Reservoir Preparation Plan; Lower Churchill Project - Muskrat Falls Generation and Labrador Transmission Assets - Environmental Protection Plan
Nalcor will reduce risk of disturbance to avifauna nests through an avifauna environmental management plan.	C, O&M	Completed - Currently Being Met	LCP Avifauna Management Plan (complete for construction); Operations has standard operating procedures around avifauna management (NAL-ENV-SOP-02 Procedure for Nesting Birds on Buildings, Structures and Equipment)
Nalcor will continue participation as member of the Labrador Woodland Caribou Recovery Team and support research and other management initiatives.	C, O&M	Completed - Currently Being Met	Boreal Caribou Recovery Team Membership
Nalcor will avoid disturbing and/or clearing sensitive wildlife areas during reservoir preparation where possible/practical. Wetland area will have a 15m riparian buffer that will remain during reservoir preparation.	C	Completed - Closed	Lower Churchill Project - Muskrat Falls - Generation and Labrador Transmission Assets Environmental Protection Plan
Nalcor will relocate active beaver colonies within reservoirs prior to impounding.	C	Completed - Closed	Variance received from Wildlife Division - Beaver Relocation Mitigation Options for Wildlife Department; 2016 and 2018 Beaver Harvesting - Muskrat Falls Reservoir
Nalcor will replace physically disturbed Osprey nests with artificial platforms. Restrict activities within 200 m of active nests.	C	Completed - Closed	No Osprey nests were physically disturbed. LCP Avifauna Protection and Environmental Effects Monitoring Plan
Nalcor will clear vegetation at FSL to encourage development of a new riparian zone.	C	Completed - Closed	Reservoir Preparation Plan; Map of Muskrat Falls Reservoir Clearing
Nalcor will create conditions for establishing the formation of hardwood forest at selected locations in the Muskrat Falls Reservoir.	C	Ongoing	Commitment is still undergoing review
Nalcor will encourage formation of riparian marsh wetland at selected locations in the watershed.	C	Completed - Currently Being Met	Muskrat Falls Wetland and Riparian Plan: Compensation and Monitoring

Nalcor will leave riparian vegetation in place at selected areas during reservoir preparation.	C	Completed - Closed	Reservoir Preparation Plan; Lower Churchill Project - Muskrat Falls Generation and Labrador Transmission Assets - Environmental Protection Plan
Nalcor will use existing right-of-way corridors for construction of transmission line where possible.	C	Completed - Closed	Construction of 315 kV HVac Transmission Lines (MF to CF) - Technical Document List; 315 kV HVac Lines Design Criteria; Route Selection Criteria - 315 kV HVAC Muskrat Falls to Churchill Falls Transmission Line - 1 & 2
Nalcor will develop mitigation measures for any species of plant to be in danger of extirpation in Labrador to the Project.	GULL	Future Commitment	This is specific to Gull Island and will be developed for the development of that facility.
Nalcor will schedule activities related to transmission line construction around sensitive periods (areas).	C	Completed - Closed	Sensitive periods are outlined in the Lower Churchill Project - Muskrat Falls Generation and Labrador Transmission Assets - Environmental Protection Plan; Caribou and Avifauna Impacts Mitigations and Monitoring Plan
Nalcor to develop a detailed wetland compensation plan in consultation with Environment Canada, the provincial Department of Environment and Conservation, Aboriginal groups and appropriate stakeholders.	C	Completed - Currently Being Met	The WRP has been developed in consultation with regulators and has been provided to indigenous groups for consultation. Revised version (B3 - Oct 2019) has been provided to GNL for distribution to the appropriate regulators.
Nalcor to develop a detailed riparian compensation plan in consultation with Environment Canada, the provincial Department of Environment and Conservation, Aboriginal groups and appropriate stakeholders.	C	Completed - Currently Being Met	The WRP has been developed in consultation with regulators and has been provided to indigenous groups for consultation. Revised version (B3 - Oct 2019) has been provided to GNL for distribution to the appropriate regulators.
Nalcor to submit an overall vegetation control plan in compliance with the practices of Integrated Vegetation Management	O&M	Completed - Currently Being Met	As a part of regulatory requirements, an annual vegetation plan is prepared and submitted to the provincial Pesticide Control Section of DMAE
Nalcor will establish a formal Emergency Response Plan for Muskrat Falls in the case of dam failure.	C, O&M	Ongoing	Muskrat Falls Dam Related Emergency (Full Supply Construction Phase) – Emergency Preparedness Plan; Muskrat Falls Dam Related Emergency (Winter Headpond Construction Phase) - Emergency Preparedness Plan
Nalcor will prepare and maintain an Emergency Preparedness Plan for use by external agencies in the case of dam failure.	C, O&M	Ongoing	Muskrat Falls Dam Related Emergency (Full Supply Construction Phase) – Emergency Preparedness Plan; Muskrat Falls Dam Related Emergency (Winter Headpond Construction Phase) - Emergency Preparedness Plan
Nalcor to ensure comprehensive emergency preparedness planning is undertaken in consultation with communities identified as potentially at risk from a catastrophic dam failure.	C, O&M	Ongoing	Muskrat Falls Dam Related Emergency (Full Supply Construction Phase); Muskrat Falls Dam Related Emergency (Winter Headpond Construction Phase) - Emergency Preparedness Plan; Emergency Preparedness Consultation
Nalcor to identify and allocate in its detailed Project budget financial support for environmental management for the duration of the Project construction. Nalcor to make a general commitment with a 10-year forecast, to be updated every 5 years, until such time as there is no longer evidence of ongoing environmental effects resulting from the Project.	C	Completed - Currently Being Met	Financial support has been provided for environmental management. See Muskrat Falls Project website for a list of environmental management programs, including major mitigation programs, such as historic resources and avifauna management programs and environmental effects monitoring programs: https://muskratfalls.nalcorenergy.com/environment/generation/

<p>Nalcor will undertake a comprehensive monitoring and follow-up program upon Project start-up, employing an adaptive management process that provides an opportunity for stakeholder participation.</p>	<p>C</p>	<p>Completed - Closed</p>	<p>EEMPs are sent for review by aboriginal groups and regulators and public stakeholders and are posted on LCP's website and reviewed annually. If unforeseen adverse environmental effects are identified during any of the monitoring or follow-up programs, Nalcor will, as per their ongoing adaptive management process, adjust the existing mitigation measures or, if necessary, develop new mitigation or other measures to address those effects. This could result in Nalcor refining or modifying the design and implementation of management plans, mitigation measures and Project operations, with the final approach selected depending on the issue identified. LCP Black Bear Protection and Environmental Effects Monitoring Plan; LCP Furbearers Protection and Environmental Effects Monitoring Plan; LCP Atmospheric Environmental Effects Monitoring Plan; LCP Avifauna Protection and Environmental Effects Monitoring Plan; LCP Caribou Protection and Environmental Effects Monitoring Plan; LCP Methylmercury Environmental Effects Monitoring Plan: Osprey and River Otter; LCP Aquatic Environmental Effects Monitoring Plan; LCP Small Mammals Protection and Environmental Effects Monitoring Plan; LCP Moose Environmental Effects Monitoring Plan; LCP Human Health Risk Assessment Plan; LCP Mud Lake Groundwater Environmental Effects Monitoring Plan; LCP Ice Formation Environmental Effects Monitoring Plan</p>
<p>Nalcor to establish a Monitoring and Community Liaison Committee.</p>	<p>C</p>	<p>Completed - Currently Being Met</p>	<p>The Community Liaison Committee was established in February 2013. https://muskratfalls.nalcorenergy.com/in-the-community/community-liaison-committee/ Stakeholder Relations Team continues to meet with the same stakeholders on a quarterly basis and not through the previous CLC process.</p>
<p>Nalcor will provide for the participation of the Innu in the Monitoring and Follow-up program and Adaptive Management process.</p>	<p>C, O&M</p>	<p>Completed - Currently Being Met</p>	<p>Many invitations to participate in the environmental programs, both the environmental effects monitoring and the environmental management programs, have been offered via the EMC and are documented in the EMC meeting minutes. Additionally, one of the key contractors for many of these programs is an Innu partnership - Stassinu Stantec.</p>
<p>Subject to the IBA and Benefits Strategy, Nalcor to hire local people to work on environmental monitoring and mitigation projects.</p>	<p>C, O&M</p>	<p>Completed - Currently Being Met</p>	<p>Monthly Benefits Reports document employment statistics.</p>
<p>Nalcor will require an authorization under Section 35(2) of the Fisheries Act that will include a multi-year post-project monitoring and reporting downstream into Lake Melville on a variety of parameters.</p>	<p>C, O&M</p>	<p>Completed - Currently Being Met</p>	<p>Fisheries Act Authorization - Nalcor Energy Dam at Muskrat Falls; LCP Aquatic Environmental Effects Monitoring Plan; Aquatic Environmental Effects Monitoring Program: 1998 to 2012 Baseline Conditions - Muskrat Falls; Aquatic Environmental Effects Monitoring Program: 1998 to 2013 Baseline Conditions - Muskrat Falls; Aquatic Environmental Effects Monitoring Program: 1998 to 2014 Baseline Conditions - Muskrat Falls; Aquatic Environmental Effects Monitoring Program: 1998 to 2015 Baseline Conditions - Muskrat Falls; Aquatic Environmental Effects Monitoring Program: 1998 to 2016 Baseline Conditions - Muskrat Falls; Aquatic Environmental Effects Monitoring Program: 1998 to 2017 Baseline Conditions - Muskrat Falls; Aquatic Environmental Effects Monitoring Program: 1998 to 2018 Baseline Conditions - Muskrat Falls; 2019 Muskrat Falls Aquatic Environmental Effects Monitoring Program</p>

Nalcor will monitor mercury levels in the reservoirs to maintain the required health advisories and as part of the follow-up program. Monitoring will include seals and fish downstream of Muskrat Falls. Mercury data collected pre-Project and post-Project will be collected and compiled for 10 years following reservoir filling, with the frequency thereafter determined by the results, relative to baseline levels.	C, O&M	Completed - Currently Being Met	LCP Aquatic Environmental Effects Monitoring Plan; Aquatic Environmental Effects Monitoring Program: 1998 to 2012 Baseline Conditions - Muskrat Falls; Aquatic Environmental Effects Monitoring Program: 1998 to 2013 Baseline Conditions - Muskrat Falls; Aquatic Environmental Effects Monitoring Program: 1998 to 2014 Baseline Conditions - Muskrat Falls; Aquatic Environmental Effects Monitoring Program: 1998 to 2015 Baseline Conditions - Muskrat Falls; Aquatic Environmental Effects Monitoring Program: 1998 to 2016 Baseline Conditions - Muskrat Falls; Aquatic Environmental Effects Monitoring Program: 1998 to 2017 Baseline Conditions - Muskrat Falls; Aquatic Environmental Effects Monitoring Program: 1998 to 2018 Baseline Conditions - Muskrat Falls; 2019 Muskrat Falls Aquatic Environmental Effects Monitoring Program; Human Health Risk Assessment Plan
Nalcor will monitor ice conditions and issue public advisories on the condition of ice.	C, O&M	Completed - Currently Being Met	As a part of the construction impoundment monitoring program, ice thickness data -week interval and collected at several locations throughout the system on and that data is provided to DMAE, Water Resources Division who post the data on their web portal.
Nalcor will measure ice thickness and communicate information regarding ice conditions during freeze-up and break-up at select locations on the lower Churchill River.	O&M	Completed - Currently Being Met	Ice Thickness data also provided to WRMD via weekly/bi-weekly sampling reports for construction impoundment water sampling program. That data is provided to DMAE who post the data on their web portal. Public notices regarding ice condition are published weekly on https://muskratfalls.nalcorenergy.com/newsroom/public-advisories/
Nalcor will consult the Woodland Caribou Recovery Team regarding potential effects to these species.	C	Completed - Closed	LCP Species at Risk Impacts Mitigation and Monitoring Plan: Caribou and Avifauna was reviewed and approved by the DMAE. Extensive consultation with the Wildlife Division was Completed on the development of the IMMP, and obtaining the Section 19 permit.
Nalcor will participate with the George River Caribou Herd Co-management Board that will be created to contribute to the management of the herd.	C	Completed - Closed	As per an email from Wildlife Division, "a co-management board does not exist, and there is no intent to create one at this time". The LCP Caribou Protection and Environmental Effects Monitoring Plan includes the George River Caribou Herd.
Nalcor will conduct winter aerial and ground or GPS telemetry surveys of moose in key wintering areas and areas where habitat is altered.	C	Completed - Currently Being Met	LCP Moose Protection and Environmental Effects Monitoring Plan; Nalcor Energy - Lower Churchill Project - Environmental Effects Monitoring Program - 2014 Moose Program, 2014 Aerial Survey; Nalcor Energy Lower Churchill Project, Environmental Effects Monitoring Program - 2015 Moose, 2015 Aerial Surveys; Environmental Effects Monitoring Program – Moose – Final Report; Additional survey to occur in 2021
Nalcor will keep a database of all species that may be road killed during the construction phase.	C	Completed - Currently Being Met	LCP Black Bear Encounter Report – 2013; 2014 Wildlife Sightings Report for the Lower Churchill Project; 2015 Wildlife Sightings Report for the Lower Churchill Project; 2016 Wildlife Sightings Report for the Lower Churchill Project; 2017 Wildlife Sightings Report for the Lower Churchill Project; 2018 Wildlife Sightings Report for the Lower Churchill Project; 2019 Wildlife Sightings Report for the Lower Churchill Project
Nalcor will re-deploy GPS/VHF collars on bears in the river valley.	C	Completed - Closed	Black Bear EEMP was prepared and approved by government. Collaring black bears presented a safety risk for the workers and was therefore avoided.
Nalcor will conduct periodic beaver surveys in pre-established block to verify the presence or absence of colonies. Nalcor will survey areas to be flooded for active colonies and relocate the animals, if necessary.	C	Completed - Closed	LCP Furbearers Protection and Environmental Effects Monitoring Plan; LCP EEMP 2014 Beaver Survey; LCP EEMP 2015 Beaver Survey; Variance received from Wildlife Division; Beaver Relocation Mitigation Options for Wildlife Division; 2016 and 2018 Beaver Harvesting - Muskrat Falls Reservoir
Nalcor will access marten data for post-Project trapping for analysis and comparison with pre-Project trapping data.	O&M	Ongoing	Furbearers PEEMP

Nalcor will confirm the presence of small mammals inside and outside the impoundment zone.	C	Completed - Closed	LCP Small Mammals Environmental Effects Monitoring Plan; EEM Program – 2013 Small Mammal Program
Nalcor will conduct transect surveys for winter tracks to confirm the presence or absence of porcupine.	C	Completed - Closed	LCP Furbearers Protection and Environmental Effects Monitoring Plan; Environmental Baseline Report - Furbearer Winter Habitat Use; EEMP - 2014 Furbearer, 2014 Winter Tracking Surveys; EEMP - 2015 Furbearer, 2015 Winter Tracking Surveys; Environmental Effects Monitoring Program – 2016 Furbearer, Beaver Component; Environmental Effects Monitoring Program – 2016 Furbearer, River Otter Component
Nalcor will access porcupine data for post-Project trapping for analysis and comparison with pre-Project trapping data.	O&M	Ongoing	Furbearers PEEMP - to be completed during operations
Nalcor will monitor river otter population levels pre- and post-impoundment.	C, O&M	Ongoing	Furbearers PEEMP - to be completed during operations
Nalcor will conduct aerial surveys of the river and surrounding locations for waterfowl and analyze temporal use of traditional ashkui sites. (including surf scoter)	C, O&M	Completed - Currently Being Met	LCP Avifauna Protection and Environmental Effects Monitoring Plan; LCP Ice Formation Environmental Effects Monitoring Plan; 2013/2014 Ice Observation Survey Mud Lake Crossing, Lower Churchill Project; 2014-2015 Ice Observation Survey Mud Lake Crossing, Lower Churchill River; 2015-2016 Ice Observation Survey Mud Lake Crossing, Lower Churchill River; 2016-2017 Ice Observation Survey Mud Lake Crossing, Lower Churchill River; 2017-2018 Ice Observation Survey Mud Lake Crossing, Lower Churchill River; 2018-2019 Ice Observation Survey Mud Lake Crossing, Lower Churchill River; Additional survey required during operations
Nalcor will monitor the development of natural and engineered wetland habitat post-impoundment.	O&M	Completed - Currently Being Met	Muskrat Falls Wetland and Riparian Plan: Compensation and Monitoring
Nalcor will conduct surveys of forest avifauna (ruffed grouse and wetland songbird habitat) at key intervals during construction, and operation and maintenance.	C, O&M	Completed - Currently Being Met	LCP Avifauna Protection and Environmental Effects Monitoring Plan; Avifauna EEM Final Report
Nalcor will conduct a survey for active osprey nests within 800 metres of the proposed construction zone. Nalcor will consult the provincial Wildlife Division regarding mitigation measures, if necessary.	C	Completed - Closed	LCP Avifauna Protection and Environmental Effects Monitoring Plan; LCP Avifauna Management Plan; Surveys were completed; No relocations were necessary. Consultation with Wildlife Division to work within 800m of active nests.
Nalcor will conduct a spring peeper and salamander survey prior to impoundment.	C	Completed - Closed	Environmental Effects Monitoring Program - 2014 Herptile, Field Surveys for Spring Peeper, Blue Spotted Salamander and Northern Two-Lined Salamander
Nalcor will conduct an amphibian relocation program prior to reservoir filling.	C	Completed - Closed	Variance obtained from Wildlife Division
Nalcor will relocate Canada Yew in the flood zone to suitable sites for re-establishment. Nalcor will follow-up to ensure the relocated Canada Yew have been successfully established in the new locations. Nalcor will consult the Innu Nation regarding the relocation and Monitoring and Follow-up program.	GULL	Future Commitment	Canada Yew locations were identified within the Gull Island footprint.
Nalcor will conduct a survey for regionally uncommon aquatic vegetation.	C	Completed - Closed	Lower Churchill Hydroelectric Generation Project Aquatic Vegetation Study
Nalcor will monitor methylmercury levels in river otter.	C, O&M	Completed - Currently Being Met	LCP Methyl-Mercury Environmental Effects Monitoring Plan: Osprey and River Otter

Nalcor will determine mercury levels in osprey during pre- and post-impoundment.	C, O&M	Completed - Currently Being Met	LCP Methyl-Mercury Environmental Effects Monitoring Plan: Osprey and River Otter; Environmental Effects Monitoring Program – 2014 Ecorisk, Baseline Methylmercury (MeHg) and Total Mercury (THg) Levels in the Lower Churchill River Valley
Nalcor will monitor and assess greenhouse gas fluxes as a result of Project activities.	C, O&M	Completed - Currently Being Met	Atmospheric Environmental Effects Monitoring Plan; Greenhouse Gas Emissions and Fuel Consumption Reporting 2013 & 2014; Greenhouse Gas Emissions and Fuel Consumption Reporting 2015; Greenhouse Gas Emissions and Fuel Consumption Reporting 2016; Greenhouse Gas Emissions and Fuel Consumption Reporting 2017; Greenhouse Gas Emissions and Fuel Consumption Reporting 2018; Greenhouse Gas Emissions and Fuel Consumption Reporting 2019
Nalcor to monitor and manage construction traffic and borrow pit activities to minimize dust and noise problems.	C	Completed - Closed	Lower Churchill Project - Muskrat Falls Generation and Labrador Transmission Assets - Environmental Protection Plan; LCP Atmospheric Environmental Effects Monitoring Plan
Nalcor may undertake ambient air quality monitoring (AAQM) to monitor accumulation of dust in terrestrial and aquatic habitats. Monitoring would be done as needed at the edge of buffer zones.	C	Completed - Closed	LCP Atmospheric Environmental Effects Monitoring Plan committed to this, however no complaints were received.
Nalcor will publish results of climate change research.	C	Completed - Closed	Investigation of the Projected Impacts of Climate Change on the Hydrology of Labrador's Churchill River Basin Using Multi-Model Ensembles. (2015) Jonas Roberts Thesis
Nalcor to support Gov. NL in capacity agreement negotiations with Happy Valley-Goose Bay to provide financial resources which will increase the Town's capacity to address additional administrative demands related to the Project.	C	Completed - Closed	The provincial government provided capacity funding the to Town of HVGB in August 2015. https://happyvalley-goosebay.com/media/provincial-government-and-town-of-happy-valley-goose-bay-announce-capacity-agreement/
Nalcor to develop a complaints resolution process in consultation with the Monitoring and Community Liaison Committee.	C, O&M	Completed - Currently Being Met	Stakeholders expressing concern or an impact related to the project can contact Nalcor via phone, email or in person at the Project office. Contact information is available on the project website, social media and all public information produced for the project. All concerns brought to the CLC were addressed.
Nalcor will publically post all training, employment and procurement/contracting opportunities.	C, O&M	Completed - Currently Being Met	Employment is posted on muskratfallsjobs.com. Procurement is posted on muskratfalls.nalcorenergy.com. Training conducted via the LATP.
Nalcor will continue to support the Labrador Aboriginal Training Partnership, subject to conclusion of a funding agreement with the Government of Canada.	C	Completed - Closed	Training partnership in place with the College of the North Atlantic.
Nalcor will apply measures required as part of the IBA between Nalcor Energy and Innu Nation.	C, O&M	Completed - Currently Being Met	IBA Implementation Committee established to ensure the IBA Commitments are being met. December 2013 Monthly Benefits Report
Nalcor will continually engage Aboriginal groups and offer opportunities for input throughout the construction and operation of the Project.	C, O&M	Completed - Currently Being Met	EMC Meeting Minutes; Monthly Benefits Report; Regulatory Compliance Plan; Aboriginal Consultation Guidelines requires relevant plans and permits to be sent for indigenous review and comment.
Nalcor will support the Innu Nation to develop an Innu Training Plan, hire an Innu Employment Training Coordinator, and provide Project employment and training information in Innu aimun.	C	Completed - Currently Being Met	Innu Employment & Training Coordinator hired and provides information in Innu aimun as required. Monthly Benefits Reports
Nalcor will support the Innu Nation to develop an Innu Training Plan.	C	Completed - Closed	Labrador Aboriginal Training Partnership (http://www.latp.ca/home/blog-29)

Nalcor will establish an on-site Innu liaison position.	C	Completed - Currently Being Met	Innu Liaison Coordinator has been hired to support Innu employees on site.
Nalcor will provide cultural sensitivity training to all employees.	C, O&M	Completed - Currently Being Met	Site Orientation; To ensure a safe and respectful workplace, all workers complete mandatory training in cultural awareness and gender sensitivity, diversity, equity, respectful workplace and inclusion. To ensure all workers on the Muskrat Falls site have a better understanding of the Innu culture, training is developed and delivered by a qualified Innu business from Sheshatshiu, with a program that was created specifically to meet the requirements of the LCP. This training is mandatory for all Lower Churchill Project employees and workers.
Nalcor will establish baseline levels for methylmercury exposure by local residents and liaise with government authorities to develop and post fish consumption advisories.	C, O&M	Completed - Currently Being Met	Baseline Dietary Survey & Human Bio monitoring Program; Human Health Risk Assessment Plan; Final Baseline Human Health Risk Assessment Report
If consumption advisories are required as a result of downstream mercury monitoring, Nalcor to consult with downstream resource users on further mitigation measures, including the potential for compensation.	O&M	Completed - Currently Being Met	Human Health Risk Assessment Plan
Nalcor to address issues related to mercury monitoring in people and the environment, including appropriate follow-up action that may be required to protect people from harm. Should downstream methylmercury monitoring identify the need for consumption advisories as a result of the project, Nalcor shall consult with relevant parties representing Lake Melville resource users. Based on the location of the consumption advisories these users could include Aboriginal Governments and organizations as well as other stakeholder groups. Following consultation, Nalcor shall provide reasonable and appropriate compensation measures to address the impact of the consumption advisory.	O&M	Completed - Currently Being Met	Human Health Risk Assessment Plan
Nalcor to support Gov. NL and Aboriginal groups to obtain relevant dietary data to determine the effectiveness of consumption advisories and the overall impact on fish and country food consumption.	C, O&M	Completed - Currently Being Met	Baseline Dietary Survey & Human Bio monitoring Program; Human Health Risk Assessment Plan; Final Baseline Human Health Risk Assessment Report; Nalcor Energy Lower Churchill Project, Environmental Effects Monitoring Program – 2014 Ecorisk, Baseline Methylmercury (MeHg) and Total Mercury (THg) Levels in the Lower Churchill River Valley

Nalcor to incorporate research on mercury in country food and its consumption as part of activities implemented regarding mercury effects.	C, O&M	Completed - Currently Being Met	Human Health Risk Assessment Plan; Aquatic Environmental Effects Monitoring Program 1998 to 2012 Baseline Conditions Muskrat Falls; Aquatic Environmental Effects Monitoring Program 1998 to 2013 Baseline Conditions Muskrat Falls; Aquatic Environmental Effects Monitoring Program 1998 to 2014 Baseline Conditions Muskrat Falls; Aquatic Environmental Effects Monitoring Program 1998 to 2015 Baseline Conditions Muskrat Falls; Aquatic Environmental Effects Monitoring Program 1998 to 2016 Baseline Conditions Muskrat Falls; Aquatic Environmental Effects Monitoring Program 1998 to 2017 Baseline Conditions Muskrat Falls; Aquatic Environmental Effects Monitoring Program 2018; Aquatic Environmental Effects Monitoring Program 2019; LCP Aquatic Environmental Effects Monitoring Plan; LCP Methylmercury Environmental Effects Monitoring Plan: Osprey and River Otter; Nalcor Energy Lower Churchill Project, Environmental Effects Monitoring Program – 2014 Ecorisk, Baseline Methylmercury (MeHg) and Total Mercury (THg) Levels in the Lower Churchill River Valley
Nalcor will liaise with the applicable government agencies to ensure that Project-related housing demands are addressed.	C	Completed - Closed	To address housing demands, Muskrat Falls Accommodations Complex constructed at Muskrat Falls
Nalcor will provide Project-related information to government and training institutions which provide training programs to those interested.	C	Completed - Currently Being Met	Monthly Benefits Reports; Oversight Committee; Ongoing through the project website: www.muskatfalls.nalcorenergy.com
Nalcor will develop a Project Diversity Plan through consultation with interested parties and identifications of Project-specific barriers to employment.	C	Completed - Closed	Lower Churchill Project Gender Equity and Diversity Program
Nalcor will liaise with Goose Bay Airport Corporation to provide information about the demands that the Project will place on the terminal.	C, O&M	Completed - Currently Being Met	Meeting held with the Airport Authority of the requirements.
Nalcor will cooperate with RCMP and RNC to promote public safety on highways at all times.	C, O&M	Completed - Currently Being Met	Nalcor has, and will continue to cooperate with the RCMP to promote public safety on highways as required and requested. Examples of this engagement and cooperation include the movement of large pieces of equipment along public highways.
Nalcor will provide residents of Mud Lake alternatives means of traveling to Happy Valley-Goose Bay if Project impedes transportation during reservoir impoundment periods. Additionally, if the Project adversely affects travel during ice break-up and freeze-up Nalcor to minimize any inconvenience to residents.	C, O&M	Completed - Currently Being Met	Contingency Transportation Plan for Mud Lake Residents during Reservoir Impoundment; 2013-2014 Ice Observation Survey – Mud Lake Crossing, Lower Churchill River; 2014-2015 Ice Observation Survey – Mud Lake Crossing, Lower Churchill River; 2015-2016 Ice Observation Survey – Mud Lake Crossing, Lower Churchill River; 2016-2017 Ice Observation Survey – Mud Lake Crossing, Lower Churchill River; 2017-2018 Ice Observation Survey – Mud Lake Crossing, Lower Churchill River; 2018-2019 Ice Observation Survey Mud Lake Crossing, Lower Churchill River
Nalcor will adopt an industrial benefits planning strategy.	C	Completed - Closed	Lower Churchill Construction Projects Benefits Strategy
Nalcor will develop an engagement and benefits strategy.	C	Completed - Closed	Lower Churchill Construction Projects Benefits Strategy
Nalcor will include Newfoundland and Labrador benefits as selection factors in awarding Project contracts.	C	Completed - Closed	Lower Churchill Construction Projects Benefits Strategy; Monthly Benefits Reports

Nalcor will provide access to an Employee Assistance Program.	C, O&M	Completed - Currently Being Met	<p>There are numerous avenues for basic counselling services as there are many different employment arrangements for the LCP.</p> <p>Muskrat Falls Generation: All bargaining unit workers under the Muskrat Falls Generation Collective agreement are covered under the RDTC/NLBTC Members Trust MFAP (Member Family Assistance Program and Drug and Alcohol Program). For any unions under the RDTC that don't participate in this plan, they have their own EAP that their members have access to. Counselling services are part of this EAP.</p> <p>Reservoir Clearing: The Labourers, Local 1208 are conducting all bargaining unit work for the reservoir clearing scope of work and this union has an EAP of their own that their members have access to. Counselling services are part of this EAP.</p> <p>Transmission and Associated IBEW Work: The IBEW, Local 1620 has a Member Family Assistance Program through Homewood Health. Counselling services are part of this EAP.</p> <p>Nalcor Energy Employees: All Nalcor Energy employees have access to the in Confidence Employee and Family Assistance Program through Shepell-fgi along with their medical benefits through Blue Cross.</p> <p>SNC-Lavalin Employees: LCP Project Delivery Team members employed through SNC-Lavalin have access to the EFAP with Shepell-fgi along with their medical benefits. Counselling services are part of this EAP. Innu Specific EFAP: In addition to the various EFAP's offered through unions/companies, there is an additional Employee and Family Assistance Program through Homewood Solutions that is available to all Innu workers associated with the LCP. This is an additional EFAP service that offers counsellors that can speak Innu Aimun.</p> <p>Recruitment Agency Employees: There are a variety of team members on the LCP Project Delivery Team that are employed by Recruitment Agencies. Each of these agencies have different employment arrangements, however if employed as an employee of these agencies, they would have medical benefits and some may have EAP services of their own.</p> <p>Aside from this, there are also numerous medical providers at each of the work sites with direct connectivity to medical professionals, Medical Review Officers, etc, along with our organization that has an Occupational Health Nurse on staff for Nalcor team members.</p>
Nalcor will establish a workplace improvement committee.	C, O&M	Completed - Currently Being Met	Innu Employment Advisory Committee has been established. The Innu Employment Advisory Committee is mandated to meet quarterly. They meet to discuss camp issues, as well as provide recommendations to better the camp environment. In addition, feedback has been sought from workers at site in underrepresented groups, in keeping with the continuous improvement commitment. LCP Human Resources has also solicited feedback from workers at all sites for consideration and improvement.
Nalcor will require construction contractors to draw labour from qualified local sources.	C	Completed - Currently Being Met	Monthly Benefits Reports
Nalcor will establish collective agreements with relevant labour organizations.	C	Completed - Closed	Collective Agreement between Muskrat Falls Employers' Association Inc. and Resource Development Trades Council of Newfoundland and Labrador; Lower Churchill Project Transmission Construction Collective Agreement between Lower Churchill Transmission Construction Employers' Association Inc. and International Brotherhood of Electrical Workers; Lower Churchill Reservoir Clearing Collective Agreement between Lower Churchill Reservoir Clearing Employers' Association Inc. and Labourers' International Union of North America and Construction and General Labourers' Union, Rock and Tunnel Workers Local 1208
Nalcor will provide information and updates on Project employment requirements and opportunities to local, regional and provincial groups and organizations.	C, O&M	Completed - Currently Being Met	Employment opportunities were published on www.muskratfallsjobs.com ; Monthly Benefits Reports

Nalcor will develop a human resources plan for women's employment.	C	Completed - Closed	Lower Churchill Project Gender Equity and Diversity Program
Nalcor will advance gender diversity on the Project.	C, O&M	Completed - Currently Being Met	Lower Churchill Project Gender Equity and Diversity Program
Nalcor will provide competitive wages and benefits and a progressive and respectful work environment.	C, O&M	Completed - Currently Being Met	Lower Churchill Project Respectful Workplace Standard; Monthly Benefits Reports
Nalcor will encourage preconstruction training initiatives.	C	Completed - Closed	Labrador Aboriginal Training Partnership
Nalcor will work with contractors for adequate workplace training.	C, O&M	Completed - Currently Being Met	An example of workplace training was provided during the Historic Resources archeological surveys in the Muskrat Falls reservoir. Each season, Stantec provided in-house training to support monitoring and mitigation field activities for new staff. This included standard project orientations as well as specific archaeology and avifauna training to identify key components of the work. Monthly Benefits Reports
Nalcor will work with contractors to implement apprenticeship programs.	C, O&M	Completed - Currently Being Met	LCP interfaces with the apprenticeship officer in Goose Bay to ensure he follows up with and has access to apprentices at site. During kickoff meetings, contractors are told that they have responsibility for their apprentices. The collective agreements signed by LCP and the respective representing unions also indicate the apprentice ration the contractor must follow. The respective unions work with the contractor to ensure they hire and support apprentices. During the Historic Resources archeological surveys in the Muskrat Falls reservoir, each season, Stantec provided in-house training to support monitoring and mitigation field activities for new staff. This included standard project orientations as well as specific archaeology and avifauna training to identify key components of the work. Supervisory Training provided to 20 Innu Nation individuals. As well, Shop Steward Training is provided to IBEW RDTG.
Nalcor will offer technical expertise and assist in coordination of training.	C, O&M	Completed - Currently Being Met	LCP Training department interface with all contractors to ensure their workers are oriented for their respective work sites. The LCP Trainers are called upon for advice regarding specific training required. LCP does not have the responsibility of training contractor employees, however when courses are offered, contractors have the ability to avail of empty seats.
Nalcor will establish a Labrador Business Opportunities Committee and a full-time coordinator position in Labrador.	C, O&M	Completed - Currently Being Met	A Business Opportunities Committee has been established and includes participation from Nalcor, Department of Innovation, Business and Rural Dev, St. John's Board of Trade and the Labrador North Chamber of Commerce. These organizations meet regularly. Full time coordinator in Labrador will not be hired. See letter ("Request to Partially Retract Commitment EA-G-0131") to the Minister from Marion Organ. No update on letter response.
Nalcor will maintain a work environment that facilitates the achievement of career goals.	C, O&M	Completed - Currently Being Met	Examples include: LCP hires 25 to 30+ work term students per term in a number of different career studies that are found at the Lower Churchill Project. Work terms are generally 3 - 4 months in length. During the Historic Resources archeological surveys in the Muskrat Falls reservoir, a number of employees grew in their responsibility from field assistants to field leads. For some it was additional safety responsibilities on-site, for others it was overall team leadership for nest searches. One individual participated in training in St John's to become the lead artifact cataloguer in HVGB. Operations: Nalcor Corporate Policies and Procedures: Apprentice, Graduate and Student Employment (TM8)

Nalcor will encourage journeypersons to participate in post-journeyperson training.	C, O&M	Completed - Currently Being Met	Nalcor Corporate Policies and Procedures: Apprentice, Graduate and Student Employment (TM8). LCP hires 25 to 30+ work term students per term in a number of different career studies that are found at the Lower Churchill Project. Work terms are generally 3 - 4 months in length. During the Historic Resources archeological surveys in the Muskrat Falls reservoir, a number of employees grew in their responsibility from field assistants to field leads. For some it was additional safety responsibilities on-site, for others it was overall team leadership for nest searches. One individual participated in training in St John's to become the lead artifact cataloguer in HVGB.
Nalcor will provide on-the-job training opportunities during the construction phase.	C	Completed - Currently Being Met	A training coordinator has been hired. Examples of this: 1) On the Job Training opportunities were made available to selected courses delivered by the College of the North Atlantic and the Labrador Aboriginal Training Partnership (LATP). These OJT opportunities were designed both for the construction of Muskrat Falls as well as the Transmission build. 2) During the Historic Resources archeological surveys in the Muskrat Falls reservoir, Stantec provided in-house training to support monitoring and mitigation field activities for new staff. This included standard project orientations as well as specific archaeology and avifauna training to identify key components of the work.
Nalcor will maintain a labour demand profile in support of identifying gaps, and make it available to training and education agencies and institutions.	C, O&M	Completed - Currently Being Met	Labour Acquisition Plan; Monthly Benefits Report
Nalcor will communicate with academic institutions and students about career options.	C, O&M	Completed - Currently Being Met	A relationship has been maintained with CONA throughout construction. Advice was given as to what programs would be applicable to the Project.
Nalcor will participate in activities to raise the profile of the skilled trades.	C, O&M	Completed - Currently Being Met	Nalcor and RDTC have completed joint presentations in Goose Bay and Sheshatshiu and during Labrador Expo
Nalcor will contribute to student achievement awards and provide work term placement opportunities on the Project.	C, O&M	Completed - Currently Being Met	LCP hires 25 to 30+ work term students per term in a number of different career studies that are found at the Lower Churchill Project. Work terms are generally 3 - 4 months in length. And scholarship as described here https://muskratfalls.nalcorenergy.com/in-the-community/scholarships/
Nalcor will develop a contracting policy that provides companies within the Province with full and fair opportunities.	C	Completed - Closed	Monthly Benefits Reports; Lower Churchill Construction Project Benefits Strategy
Nalcor will work with Gov. NL and the private sector interests to maximize supplier development opportunities and partnerships for Labrador and the province as a whole.	C	Completed - Closed	Supplier information sessions held across the province. Monthly Benefits Reports
Nalcor will develop a Project-wide safety culture to achieve world class safety performance.	C, O&M	Completed - Currently Being Met	Health and Safety Management Plan
Nalcor will liaise with relevant federal, provincial and local government agencies, and relevant transportation, health, education and other community and regional agencies, in the planning process and during Project construction and operations.	C, O&M	Completed - Currently Being Met	Consultation with relevant federal, provincial and local government agencies, and relevant transportation, health, education and other community and regional agencies since the early days of the environmental assessment process as documented in the EIS Section 7.4 During construction weekly reports were prepared and provided to key agencies regarding ongoing project activities. In addition, the Oversight Committee was provided information and updates.

Nalcor will maintain a community information centre in Happy Valley-Goose Bay to provide ongoing Project information to all stakeholders.	C, O&M	Completed - Currently Being Met	This office is open and continues to provide information to stakeholders in Happy Valley - Goose Bay. Burnwood Dr, Happy Valley-Goose Bay, NL A0P 1C0 Phone: (709) 896-6790
Nalcor will provide self-contained accommodations complexes with respect to water supply, sewage systems and communications.	C	Completed - Currently Being Met	Temporary Accommodations Complex Water and Sewer Plan; Temporary Accommodations Complex Sewer Plan and Profile; Temporary Accommodations Complex Sewer Outfall Profile and Details; Temporary Accommodations Complex Site Utilities Well Field and Water and Sewer Plan; Temporary Accommodations Complex Site Utilities Sections and Details
Nalcor will provide on-site paramedic and emergency response facilities and services at accommodations complexes.	C	Completed - Currently Being Met	Project Wide Emergency Response Plan
Nalcor will restrict non-worker access to accommodations complexes.	C	Completed - Currently Being Met	Health and Safety Management Plan; Lower Churchill Project Security Management Plan
Nalcor will promote healthy lifestyles through workplace programs.	C, O&M	Completed - Currently Being Met	Muskrat Falls Accommodations Complex Functional Specification includes promotion of healthy lifestyles; Nalcor Corporate Policies and Procedures: Employee Health and Wellness (SH-007)
Nalcor will adopt a zero tolerance policy towards alcohol and other drug abuse.	C, O&M	Completed - Currently Being Met	Standard for Drug and Alcohol; Nalcor Corporate Policies and Procedures Alcohol and Drugs in the Workplace (SH-008)
Nalcor will control the availability of alcohol in accommodations complexes.	C	Completed - Currently Being Met	Standard for Drug and Alcohol

<p>Nalcor will provide basic counselling service and workplace referrals.</p>	<p>C, O&M</p>	<p>Completed - Currently Being Met</p>	<p>There are numerous avenues for basic counselling services as there are many different employment arrangements for the LCP.</p> <p>Muskrat Falls Generation: All bargaining unit workers under the Muskrat Falls Generation Collective agreement are covered under the RDTC/NLBTC Members Trust MFAP (Member Family Assistance Program and Drug and Alcohol Program). For any unions under the RDTC that don't participate in this plan, they have their own EAP that their members have access to. Counselling services are part of this EAP.</p> <p>Reservoir Clearing: The Labourers, Local 1208 are conducting all bargaining unit work for the reservoir clearing scope of work and this union has an EAP of their own that their members have access to. Counselling services are part of this EAP.</p> <p>Transmission and Associated IBEW Work: The IBEW, Local 1620 has a Member Family Assistance Program through Homewood Health. Counselling services are part of this EAP.</p> <p>Nalcor Energy Employees: All Nalcor Energy employees have access to the in Confidence Employee and Family Assistance Program through Shepell-fgi along with their medical benefits through Blue Cross.</p> <p>SNC-Lavalin Employees: LCP Project Delivery Team members employed through SNC-Lavalin have access to the EFAP with Shepell-fgi along with their medical benefits. Counselling services are part of this EAP.</p> <p>Innu Specific EFAP: In addition to the various EFAP's offered through unions/companies, there is an additional Employee and Family Assistance Program through Homewood Solutions that is available to all Innu workers associated with the LCP. This is an additional EFAP service that offers counsellors that can speak Innu Aimun.</p> <p>Recruitment Agency Employees: There are a variety of team members on the LCP Project Delivery Team that are employed by Recruitment Agencies. Each of these agencies have different employment arrangements, however if employed as an employee of these agencies, they would have medical benefits and some may have EAP services of their own.</p> <p>Aside from this, there are also numerous medical providers at each of the work sites with direct connectivity to medical professionals, Medical Review Officers, etc, along with our organization that has an Occupational Health Nurse on staff for Nalcor team members.</p>
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<p>Nalcor will include stress management counselling, using community-based Aboriginal counsellors, in the Employee Assistance Program.</p>	<p>C, O&M</p>	<p>Completed - Currently Being Met</p>	<p>Employee Assistance Program. There are numerous avenues for basic counselling services as there are many different employment arrangements for the LCP. Muskrat Falls Generation: All bargaining unit workers under the Muskrat Falls Generation Collective agreement are covered under the RDTC/NLBTC Members Trust MFAP (Member Family Assistance Program and Drug and Alcohol Program). For any unions under the RDTC that don't participate in this plan, they have their own EAP that their members have access to. Counselling services are part of this EAP. Reservoir Clearing: The Labourers, Local 1208 are conducting all bargaining unit work for the reservoir clearing scope of work and this union has an EAP of their own that their members have access to. Counselling services are part of this EAP. Transmission and Associated IBEW Work: The IBEW, Local 1620 has a Member Family Assistance Program through Homewood Health. Counselling services are part of this EAP. Nalcor Energy Employees: All Nalcor Energy employees have access to the in Confidence Employee and Family Assistance Program through Shepell-fgi along with their medical benefits through Blue Cross. SNC-Lavalin Employees: LCP Project Delivery Team members employed through SNC-Lavalin have access to the EFAP with Shepell-fgi along with their medical benefits. Counselling services are part of this EAP. Innu Specific EFAP: In addition to the various EFAP's offered through unions/companies, there is an additional Employee and Family Assistance Program through Homewood Solutions that is available to all Innu workers associated with the LCP. This is an additional EFAP service that offers counsellors that can speak Innu Aimun. Recruitment Agency Employees: There are a variety of team members on the LCP Project Delivery Team that are employed by Recruitment Agencies. Each of these agencies have different employment arrangements, however if employed as an employee of these agencies, they would have medical benefits and some may have EAP services of their own. Aside from this, there are also numerous medical providers at each of the work sites with direct connectivity to medical professionals, Medical Review Officers, etc, along with our organization that has an Occupational Health Nurse on staff for Nalcor team members. Innu Employment & Training Coordinator has been hired and provides information in Innu aimun as required.</p>
<p>Nalcor will subject to reasonable Project requirements, provide flexibility in work schedules and rotations, jobsharing and leave provisions to enable employees to engage in traditional activities.</p>	<p>C, O&M</p>	<p>Completed - Currently Being Met</p>	<p>Contractors at Muskrat Falls have provided time off for Innu workers to engage in traditional activities and for other forms of cultural leave. Flexible work schedules and rotations are being scheduled.</p>
<p>Nalcor will provide, where feasible, flexible work schedules to accommodate work and family life balance.</p>	<p>C, O&M</p>	<p>Completed - Currently Being Met</p>	<p>Work schedules are designed to allow workers at the end of rotation can travel home on the same day the work is completed.</p>
<p>Nalcor will adopt a SHERP to reduce the likelihood of accidents.</p>	<p>C, O&M</p>	<p>Completed - Currently Being Met</p>	<p>Project-Wide Emergency Response Plan</p>
<p>Nalcor will work with relevant government agencies in their determination of the requirements for and the extent of fish consumption advisories.</p>	<p>O&M</p>	<p>Completed - Currently Being Met</p>	<p>Human Health Risk Assessment Plan</p>
<p>Nalcor will restrict access to Project roads and work areas during construction.</p>	<p>C</p>	<p>Completed - Closed</p>	<p>Health and Safety Management Plan; Lower Churchill Project Security Management Plan</p>

Nalcor will remove stream crossings along access roads as construction and reservoir preparation is completed.	C	Completed - Currently Being Met	Stream crossings within the future reservoir will be have been removedA temporary stream crossing permit exists for the crossings along the LTA. A field assessment of the crossings has been completed. A rehabilitation plan will be actioned. Reservoir Preparation Plan
Nalcor will implement a compensation program for flooded trap lines to trappers with demonstrated continuous and successional use.	C, O&M	Completed - Currently Being Met	Stakeholders expressing concern or an impact related to the project can contact Nalcor via phone, email or in person at the Project office. Contact information is available on the project website, social media and all public information produced for the project. Boating guides/trappers active in the lower Churchill River Valley that can substantiate a claim of loss of income due to the project will be compensated. To date, all claims received are being managed by the Indigenous Affairs team with Nalcor Energy.
Nalcor will prepare reservoirs through clearing of timber and removal of vegetation to reduce adverse aesthetic effects.	C	Completed - Closed	Reservoir Preparation Plan
Nalcor will clear riparian zone around the perimeter of the reservoir to enable access to the shoreline and/or reservoir and enable safe navigation of the reservoir.	C	Completed - Closed	Reservoir Preparation Plan; Navigation Mitigation and Monitoring Plan; Map of Muskrat Falls Clearing
Nalcor will clear riparian zone to provide habitat for furbearers and other hunted/trapped game.	C	Completed - Closed	Reservoir Preparation Plan
Nalcor will establish new boat launches to replace access points lost due to the Project.	C	Completed - Currently Being Met	Two boat launches have been identified in inundation zone for Gull Island and Muskrat Falls. The Muskrat Falls launch will be addressed by relocating the portage trails as part of the rehabilitation contract. This work has been completed. There has not been any identified physical boat launch near Gull Island and trails have regenerated naturally.
Nalcor will maintain access to portage routes at Gull Island and Muskrat Falls.	C, O&M	Completed - Currently Being Met	During construction, where river users would normally come ashore a sign has been established that provides direction on how to notify workers in the area that they are present and how to cross the North Spur. A permanent trail has been established.
Nalcor will develop snowmobile trails equal to the amount inundated.	C, O&M	Completed - Closed	Agreement between Labrador Winter Trails Inc. and Nalcor Energy to compensate - completed.
Nalcor will work with guides so that boat traffic and guided tours can continue with minimal interruption.	C, O&M	Completed - Currently Being Met	Stakeholders expressing concern or an impact related to the project can contact Nalcor via phone, email or in person at the Project office. Contact information is available on the project website, social media and all public information produced for the project. Boating guides/trappers active in the lower Churchill River Valley that can substantiate a claim of loss of income due to the project will be compensated. To date, no claims have been received.
Nalcor will enforce a no harvesting policy for Project employees, and firearms will be prohibited on-site.	C, O&M	Completed - Currently Being Met	LCP No Harvesting Policy
Nalcor will provide country foods at the accommodation complexes, where reasonable and commercially available.	C	Completed - Currently Being Met	Opportunities to provide country foods have been provided during special events (e.g., National Aboriginal Day served traditional food prepared by Innu Elder). Other opportunities to provide special meals including seal and fish have been coordinated with Labrador Catering.
Nalcor will notify commercial and other land and resource users about planned Project activities.	C	Completed - Closed	Notification occurs as required - one avenue is through https://muskratfalls.nalcorenergy.com/newsroom/public-advisories/ . Another avenue is through Stakeholder Updates.

Nalcor will consult with local stakeholders to determine the level of mitigation for historic tilts.	C	Completed - Closed	Annual permit applications which described the historic resources program and methods went to the ten Aboriginal groups identified by the provincial Aboriginal Consultation Guidelines for their review and comment <ul style="list-style-type: none"> • Nalcor has presented on the MF Historic Resources Assessment and received comment from the Innu Nation and NunatuKavut Community Council • Nalcor provides detailed information and reports to the Nalcor-Innu Nation Environmental Management Committee on an annual basis • Posted annual reports from the Historic Resources Program to the project website
Nalcor to involve Aboriginal groups in the management and protection of historic and archaeological resources.	C	Completed - Closed	<ul style="list-style-type: none"> • Historic Resources Management Plan for Muskrat Falls was provided to the EMC for review and comment • Nalcor facilitated a site visit for Richard Nuna of the EMC on September 14th, 2012. • Stage 3 Historic Resources Impact Assessment permit applications provided to 10 Aboriginal groups as required under the Intergovernmental and Aboriginal Affairs Aboriginal Consultation Guidelines for the Project. • Provision of annual Historic Resources Reports to the EMC and posted on our website, and comments received from Innu Nation have been reviewed and responded to by the project's archaeologists
Nalcor to undertake commemorative and educational efforts to preserve historical, archaeological, spiritual and cultural sites and artifacts.	C, O&M	Ongoing	<p>2017 Historic Resources Assessment and Recovery Field Program</p> <ul style="list-style-type: none"> • Historic Resources Management Plan for Muskrat Falls was provided to the EMC for review and comment • Provision of annual Historic Resources Report to Paula Reid and Richard Nuna • Meetings with Innu Elders • LCP Lead Archaeologist attending sessions with elders • Artifacts handed over to the Rooms <p>Work ongoing with stakeholders in relation to the commemorative site.</p>
Nalcor will collect and compile data on Project expenditures by type, amount, location and type of contractor (i.e. Aboriginal/Non-Aboriginal) and report to relevant government agencies on a quarterly basis.	C, O&M	Completed - Currently Being Met	Monthly Benefits Reports
Nalcor will collect and compile data on Project employment by number employed, location of primary residence, occupational category, gender, Aboriginal status.	C, O&M	Completed - Currently Being Met	Monthly Benefits Reports
Nalcor will conduct exit surveys to determine effectiveness of employment policies and understand employment challenges (e.g. reasons for quitting Project employment).	C, O&M	Completed - Currently Being Met	This is part of Nalcor's Human Resources process.
Nalcor will collect and compile data on Project expenditures to businesses by amount, location and type (e.g. sector, Aboriginal/Non-Aboriginal) and report to relevant government agencies on a quarterly basis.	C, O&M	Completed - Currently Being Met	Monthly Benefits Reports

Nalcor will provide government and community agencies with information on Project activities and plans (employment, traffic volumes, heavy loads, solid waste) on a quarterly basis to facilitate their planning regarding the provision of physical infrastructure and services.	C	Completed - Currently Being Met	Monthly Benefits Reports; Oversight Committee; Ongoing through the project website: www.musktratfalls.nalcorenergy.com
Nalcor will provide government and community agencies with information on Project activities and plans (employment) on a quarterly basis to facilitate their planning regarding the provision of social infrastructure and services.	C	Completed - Currently Being Met	Monthly Benefits Reports; Oversight Committee; Ongoing through the project website: www.musktratfalls.nalcorenergy.com
Nalcor will provide government and community agencies with information on Project activities and plans (employment) on a quarterly basis to facilitate their planning regarding the provision of community health services.	C	Completed - Currently Being Met	Monthly Benefits Reports; Oversight Committee; Ongoing through the project website: www.musktratfalls.nalcorenergy.com
Nalcor will provide government and community agencies with information on Project activities and plans on a quarterly basis to facilitate their planning regarding land and resource use.	C	Completed - Currently Being Met	Monthly Benefits Reports; Oversight Committee; Ongoing through the project website: www.musktratfalls.nalcorenergy.com
Nalcor will develop a Historic Resources and Archaeological Resources Contingency and Response Plan for Project construction, operation and maintenance. The Plan will include Follow-up to assess the condition of any new sites or materials discovered.	C	Completed - Closed	Lower Churchill Project - Muskrat Falls Generation and Labrador Transmission Assets - Environmental Protection Plan
Nalcor will evaluate the effects of the Project on local communities by participating in and seeking input from government agencies, committees/ groups and other groups that are identified during consultation on the Project.	C, O&M	Completed - Currently Being Met	Regular updates are provided to the Oversight Committee which includes representatives from various government departments and independent members. Monthly Benefits Reports; LCP Socioeconomic Environmental Effects Monitoring Plan; 2014 Socioeconomic Report; 2015 Socioeconomic Report; 2016 Socioeconomic Report; 2017 Socioeconomic Report; 2018 Socioeconomic Report; 2019 Socioeconomic Report
Nalcor will make the finalized Fish Habitat Compensation Plan and monitoring program available for public and aboriginal consultation prior to DFO authorization.	C	Completed - Closed	Multiple Fish Habitat Compensation information sessions and workshops were held. Lower Churchill Hydroelectric Development Freshwater Fish Habitat Compensation Plan - Muskrat Falls

<p>Nalcor make Project effects data on the downstream environment available to the parties/public and any interested academics/research organizations.</p>	<p>C, O&M</p>	<p>Completed - Currently Being Met</p>	<p>All reports available on website. Examples include: Environmental Effects Monitoring Program 1998 to 2012 Baseline Conditions Muskrat Falls; Aquatic Environmental Effects Monitoring Program 1998 to 2013 Baseline Conditions Muskrat Falls; Aquatic Environmental Effects Monitoring Program 1998 to 2014 Baseline Conditions Muskrat Falls; Aquatic Environmental Effects Monitoring Program 1998 to 2015 Baseline Conditions Muskrat Falls; Aquatic Environmental Effects Monitoring Program 1998 to 2016 Baseline Conditions Muskrat Falls; Aquatic Environmental Effects Monitoring Program 1998 to 2017 Baseline Conditions Muskrat Falls; Aquatic Environmental Effects Monitoring Program 1998 to 2018 Baseline Conditions Muskrat Falls; 2019 Muskrat Falls Aquatic Environmental Effects Monitoring Program; LCP Methylmercury Environmental Effects Monitoring Plan: Osprey and River Otter; Human Health Risk Assessment Plan; Nalcor Energy Lower Churchill Project, Environmental Effects Monitoring Program – 2014 Ecorisk, Baseline Methylmercury (MeHg) and Total Mercury (THg) Levels in the Lower Churchill River Valley</p>
<p>Nalcor will conduct groundwater monitoring at Mud Lake during impoundment to confirm salinity levels.</p>	<p>C, O&M</p>	<p>Completed - Closed</p>	<p>Mud Lake Groundwater Environmental Effects Monitoring Program; Mud Lake Groundwater Post Head Pond Diversion Report; Mud Lake Groundwater Post-impoundment Report</p>
<p>Nalcor has proposed monitoring for each Key Indicator (KI) and other aspects of the biophysical environment. These involve compliance monitoring and direct Project effects monitoring. It should be noted that some monitoring programs will have cross-functi</p>	<p>C</p>	<p>Completed - Closed</p>	<p>Examples of Key indicator and other aspect monitoring programs: LCP Atmospheric Environmental Effects Monitoring Plan; LCP Aquatic Environmental Effects Monitoring Plan; LCP Avifauna Protection and Environmental Effects Monitoring Plan; LCP Black Bear Protection and Environmental Effects Monitoring Plan; LCP Caribou Protection and Environmental Effects Monitoring Plan; LCP Furbearer Protection and Environmental Effects Monitoring Plan; Human Health Risk Assessment Plan; LCP Ice Formation Environmental Effects Monitoring Plan; LCP Methyl Mercury Environmental Effects Monitoring Plan; LCP Mud Lake Groundwater Environmental Effects Monitoring Plan; LCP Moose Protection and Environmental Effects Monitoring Plan; LCP Small Mammals Protection and Environmental Effects Monitoring Plan; LCP Species at Risk Protection and Environmental Effects Monitoring Plan</p>
<p>PEEMP Reporting Requirements - Aquatic, Annually. Annual Monitoring Program Results - An annual report for each prescribed monitoring year will be produced on the results of the monitoring program. This EEM report will be submitted to all required regulators including the provincial Department of Environment and Conservation by March 31 of the following year to allow for data to be analyzed and presented in time for review and incorporation of any revisions to subsequent sampling or analysis.</p>	<p>C</p>	<p>Completed - Currently Being Met</p>	<p>Aquatic PEEM Plan; Aquatic Environmental Effects Monitoring Program: 1998 to 2012; Aquatic Environmental Effects Monitoring Program: 1998 to 2013; Aquatic Environmental Effects Monitoring Program: 1998 to 2014; Aquatic Environmental Effects Monitoring Program: 1998 to 2015; Aquatic Environmental Effects Monitoring Program: 1998 to 2016; Aquatic Environmental Effects Monitoring Program: 1998 to 2017; Aquatic Environmental Effects Monitoring Program: 1998 to 2018; 2019 Muskrat Falls Aquatic Environmental Effects Monitoring Program</p>
<p>PEEMP Reporting Requirements - Atmospheric, Construction, Annually. Annual Fuel Consumption Report</p>	<p>C</p>	<p>Completed - Currently Being Met</p>	<p>Atmospheric Environmental Effects Monitoring Plan; Greenhouse Gas Emissions and Fuel Consumption Reporting – 2013 and 2014; Greenhouse Gas Emissions and Fuel Consumption Reporting 2015; Greenhouse Gas Emissions and Fuel Consumption Reporting 2016; Greenhouse Gas Emissions and Fuel Consumption Reporting 2017; Greenhouse Gas Emissions and Fuel Consumption Reporting 2018; Greenhouse Gas Emissions and Fuel Consumption Reporting 2019</p>

<p>PEEMP Reporting Requirements - Avifauna, Construction, Weekly. Weekly Report - A compilation of daily reports. This report will provide a synopsis of completed activities, any new mapping or data plots, photographs as well as a weekly look-ahead.</p>	C	Completed - Currently Being Met	A compilation of daily reports has been submitted to NLDEC-WD on a weekly basis. These reports have provided a synopsis of completed activities, any new mapping or data plots, photographs as well as a weekly look-ahead.
<p>PEEMP Reporting Requirements - Avifauna, Annually. Annual Report - summarizes the monitoring activities described in the APEEMP and any associated environmental effects monitoring conducted for the Project.</p>	C	Completed - Currently Being Met	Avifauna Report 2013-2015; 2016 Avifauna Report; 2014 Wildlife Sightings Report for the Lower Churchill Project; 2015 Wildlife Sightings Report for the Lower Churchill Project; 2016 Wildlife Sightings Report for the Lower Churchill Project; 2017 Wildlife Sightings Report for the Lower Churchill Project; 2018 Wildlife Sightings Report for the Lower Churchill Project; 2019 Wildlife Sightings Report for the Lower Churchill Project; Final Avifauna EEM Report
<p>PEEMP Reporting Requirements - Black Bear, Construction, Weekly. Weekly Black Bear Sightings and Interactions - The results of the On-Site Environmental Monitors' reports that reference sightings, interactions and consequences that relate to black bear encounters during construction, and will include regulatory compliance tracking.</p> <p>A compilation of daily reports will be submitted to the NLDEC-WD on a weekly basis which will document wildlife encounters</p>	C	Completed - Currently Being Met	A compilation of daily reports has been submitted to NLDEC-WD on a weekly basis. These reports have provided a synopsis of completed activities, any new mapping or data plots, photographs as well as a weekly look-ahead. LCP Annual Black Bear Encounter Report – 2013; 2014 Wildlife Sightings Report for the Lower Churchill Project; 2015 Wildlife Sightings Report for the Lower Churchill Project; 2016 Wildlife Sightings Report for the Lower Churchill Project; 2017 Wildlife Sightings Report for the Lower Churchill Project; 2018 Wildlife Sightings Report for the Lower Churchill Project; 2019 Wildlife Sightings Report for the Lower Churchill Project
<p>PEEMP Reporting Requirements - Black Bear, Construction, Annually. Annual Black Bear Sightings and Interactions - The data from the weekly report will be compiled by the LCP's EA/EEM Commitments Coordinators once a year during construction (December) and the data evaluated to determine if the observed effects of the Project on black bears would require changes to the mitigation through the LCP's adaptive management approach.</p>	C	Completed - Currently Being Met	LCP Annual Black Bear Encounter Report – 2013; 2014 Wildlife Sightings Report for the Lower Churchill Project; 2015 Wildlife Sightings Report for the Lower Churchill Project; 2016 Wildlife Sightings Report for the Lower Churchill Project; 2017 Wildlife Sightings Report for the Lower Churchill Project; 2018 Wildlife Sightings Report for the Lower Churchill Project; 2019 Wildlife Sightings Report for the Lower Churchill Project
<p>PEEMP Reporting Requirements - Black Bear, Operations, Annually. Annual Furbearer Sightings and Interactions - The data collected during operations of the Project will be the same as collected during the construction period, but will be collected by the LCP's Inspection Crews, Maintenance Crews and other operations staff during the first five years of operation.</p> <p>These data will be compiled once each year (December) and the data evaluated to determine if the observed effects of the Project on black bears would require changes to the mitigation through the LCP's adaptive management approach.</p>	O&M	Completed - Currently being Met	This will be completed during operations.

<p>PEEMP Reporting Requirements - Black Bear, Post-Operations, Single Report. Black Bear Follow-up and Monitoring - A final Follow-up and Monitoring Report will be generated that contains a section that compiles the information collected on Project interactions with black bears as outlined above to address Follow-up (i.e., verification of EIS predictions) and a section to address Monitoring (i.e., regulatory compliance), as discussed in the following subsections.</p>	O&M	Completed - Currently being Met	This will be completed during operations.
<p>PEEMP Reporting Requirements - Caribou, Operations, Single Report. Caribou Follow-up and Monitoring - A final Follow-up and Monitoring Report will be generated that contains a section that compiles the information collected on Project interactions with Caribou as outlined above to address Follow-up (i.e., verification of EIS predictions) and a section to address Monitoring (i.e., regulatory compliance), as discussed in the following subsections.</p>	O&M	Completed - Currently being Met	This report to be completed during operations and focuses on the GRH (i.e., not the RWH)
<p>PEEMP Reporting Requirements - Furbearers, Construction, Weekly. Weekly Furbearer Sightings and Interactions - The results of the On-Site Environmental Monitors' reports that reference sightings, interactions and consequences that relate to furbearer and small mammal encounters during construction, and will include regulatory compliance tracking.</p> <p>A compilation of daily reports will be submitted to the NLDEC-WD on a weekly basis which will document wildlife encounters</p>	C	Completed - Currently Being Met	A compilation of daily reports has been submitted to NLDEC-WD on a weekly basis. These reports have provided a synopsis of completed activities, any new mapping or data plots, photographs as well as a weekly look-ahead. 2014 Wildlife Sightings Report for the Lower Churchill Project; 2015 Wildlife Sightings Report for the Lower Churchill Project; 2016 Wildlife Sightings Report for the Lower Churchill Project; 2017 Wildlife Sightings Report for the Lower Churchill Project; 2018 Wildlife Sightings Report for the Lower Churchill Project; 2019 Wildlife Sightings Report for the Lower Churchill Project
<p>PEEMP Reporting Requirements - Furbearers, Construction, Annually. Annual Furbearer Sightings and Interactions - The data from the weekly report will be compiled by the LCP's EA/EEM Commitments Coordinators once a year during construction (December) and the data evaluated to determine if the observed effects of the Project on furbearers and small mammals would require changes to the mitigation through the LCP's adaptive management approach.</p>	C	Completed - Currently Being Met	A compilation of daily reports has been submitted to NLDEC-WD on a weekly basis. These reports have provided a synopsis of completed activities, any new mapping or data plots, photographs as well as a weekly look-ahead. 2014 Wildlife Sightings Report for the Lower Churchill Project; 2015 Wildlife Sightings Report for the Lower Churchill Project; 2016 Wildlife Sightings Report for the Lower Churchill Project; 2017 Wildlife Sightings Report for the Lower Churchill Project; 2018 Wildlife Sightings Report for the Lower Churchill Project; 2019 Wildlife Sightings Report for the Lower Churchill Project

<p>PEEMP Reporting Requirements - Furbearers, Operations, Annually. Annual Furbearer Sightings and Interactions - The data collected during operations of the Project will be the same as collected during the construction period, but will be collected by the LCP's Inspection Crews, Maintenance Crews and other operations staff during the first five years of operation.</p> <p>These data will be compiled once each year (December) and the data evaluated to determine if the observed effects of the Project on furbearers and small mammals would require changes to the mitigation through the LCP's adaptive management approach.</p>	O&M	Completed - Currently being Met	To be completed during operations
<p>PEEMP Reporting Requirements - Furbearers, Post-Operations, Single Report. Follow-up Program - A final Follow-up and Monitoring Report will be generated that contains a section that compiles the information collected on Project interactions with Furbearers as outlined above to address Follow-up (i.e., verification of EIS predictions) and a section to address Monitoring (i.e., regulatory compliance), as discussed in the following subsections. A section in the Follow-up portion of the Follow-up and Monitoring Report will be included to describe the Beaver relocation effort and the results.</p>	O&M	Completed - Currently being Met	To be completed during operations
<p>PEEMP Reporting Requirements - Human Health Risk Assessment Plan, Single Report. Final Baseline HHRA Report</p>	C	Completed - Closed	Final Baseline Human Health Risk Assessment; Nalcor LCHGP HHRA Program Status Memo and Supply Future MeHg Exp and Risk Estimates
<p>PEEMP Reporting Requirements - Ice Formation, Construction, Annually. Annual Report - - Reporting will include a summary of field results after each survey (i.e., Ice Observation Survey - Ice Formation Period, Ice Break-up Period, Ice Measurement Survey - Mud Lake Crossing, and Radar Satellite Imagery - Interpretation and analysis). The data will be compiled once each year and evaluated to determine the timing of ice formation and break-up along the river and, specifically, for the Mud Lake Crossing. The data will also be used to calibrate and validate satellite imagery products for use in the Radar Satellite Interpretation and Analysis described above.</p>	C	Completed - Closed	Ice Formation Environmental Effects Monitoring Plan; 2013-2014 Ice Observation Survey Mud Lake Crossing, Lower Churchill River; 2014-2015 Ice Observation Survey Mud Lake Crossing, Lower Churchill River; 2015-2016 Ice Observation Survey Mud Lake Crossing, Lower Churchill River; 2016-2017 Ice Observation Survey Mud Lake Crossing, Lower Churchill River; 2017-2018 Ice Observation Survey Mud Lake Crossing, Lower Churchill River; 2018-2019 Ice Observation Survey Mud Lake Crossing, Lower Churchill River

<p>PEEMP Reporting Requirements - Ice Formation, Operations, Annually. Annual Report - Reporting will include a summary of field results after each survey (i.e., Post-Impoundment Ice Observation Survey - Ice Formation Period, Ice Break-up Period, Ice Measurement Survey - Mud Lake Crossing, and Radar Satellite Imagery - Interpretation and analysis). The data will be compiled once each year and evaluated to determine the timing of ice formation and break-up along the river and, specifically, for the Mud Lake Crossing. The data will also be used to calibrate and validate satellite imagery products for use in the Radar Satellite Interpretation and Analysis described above.</p>	O&M	Completed - Currently Being Met	To be completed for 5 years into Operations
<p>PEEMP Reporting Requirements - Methyl Mercury, Pre-Impoundment, Single Report. Pre-Impoundment Osprey and River Otter Mercury Level</p>	C	Completed - Closed	Lower Churchill Project, Environmental Effects Monitoring Program, 2014 Ecorisk, Baseline Methylmercury (MeHg) and Total Mercury (THg) Levels in the Lower Churchill River Valley Report
<p>PEEMP Reporting Requirements - Methyl Mercury, Post-Impoundment, Single Report. Post-Impoundment Osprey and River Otter Mercury Level - will include a comparison with the pre-impoundment (baseline) data.</p>	O&M	Completed - Currently Being Met	To be completed 5 years post-impoundment
<p>PEEMP Reporting Requirements - ML Groundwater, Post-head pond diversion, Single Report. Post-head Pond Diversion Creation Report - summarizing the results of the Mud Lake drinking water analysis EEM program.</p>	O&M	Completed - Closed	Mud Lake Groundwater Post Head Pond Diversion Report
<p>PEEMP Reporting Requirements - ML Groundwater, Post-Impoundment, Single Report. Post-Impoundment Report - summarizing the results of the Mud Lake drinking water analysis EEM program.</p>	O&M	Completed - Closed	Mud Lake Groundwater Post-impoundment Report
<p>PEEMP Reporting Requirements - Moose, Single Report. Follow-up and Monitoring Report - will contain a section that compiles the information collected on Project interactions with Moose to address Follow-up and a section to address Monitoring. The scope of the effects monitoring is limited to aerial block surveys and observation of Moose sightings and interactions. Incidental observations of Moose during other Project-specific surveys will also be recorded. Telemetry the LCP's adaptive management approach. In addition, Moose sightings, interactions and consequences will be reported in a timely manner to the On-Site Environmental Monitor and the information distributed to crews to increase their level of awareness and caution when Moose are in the Project vicinity.</p>	O&M	Completed - Currently Being Met	In the winter of 2021, the final survey will be completed.

PEEMP Reporting Requirements - Small Mammals, Single Report. Follow-up Program Report - A report will be generated that compiles all data collected on Small Mammals, and documents any relevant monitoring activities (i.e., regulatory compliance). This report will be submitted to the provincial Wildlife Division within the year following the survey.	O&M	Completed - Currently Being Met	Small Mammal Study to be completed during Operations
PEEMP Reporting Requirements - Socioeconomic, Annually. Monitoring Reporting - Socioeconomic monitoring involves the collection, analysis and reporting of internal LCP information, related to, for example, success of recruitment and hiring locally, contracting and training opportunities, health and safety performance, grievances, engagement activity and contributions to communities. LCP's records can provide considerable monitoring data on commitments described in this SEEMP.	C, O&M	Completed - Currently Being Met	2014 Socioeconomic Annual Report; 2015 Socioeconomic Annual Report; 2016 Socioeconomic Annual Report; 2017 Socioeconomic Annual Report; 2018 Socioeconomic Annual Report; 2019 Socioeconomic Report
PEEMP Reporting Requirements - Socioeconomic, Construction, Monthly. Monthly Benefits Strategy - outlines the overall benefits strategy for the construction of the projects. The overriding objective of this Benefits Strategy is to provide opportunities and benefits to the people of Newfoundland and Labrador during the construction phase of the projects.	C	Completed - Currently Being Met	Monthly Benefits Reports
PEEMP Reporting Requirements - Socioeconomic, Construction, Quarterly. Quarterly Benefits Strategy - outlines the overall benefits strategy for the construction of the projects. The overriding objective of this Benefits Strategy is to provide opportunities and benefits to the people of Newfoundland and Labrador during the construction phase of the projects.	C	Completed - Currently Being Met	Monthly Benefits Reports
PEEMP Reporting Requirements - Species at Risk, Construction, Weekly. Caribou Weekly Report	C	Completed - Closed	Weekly Threatened Caribou Reports were provided to Wildlife Division.
PEEMP Reporting Requirements - Species at Risk, Construction, Annually. Caribou Annual Report - A yearly report will be submitted to NLDEC-WD that summarizes the monitoring activities described in this PEEMP and any associated environmental effects monitoring conducted for the Project related to species at risk in Labrador. The yearly report will include all data collected as part of monitoring programs. The data associated with field programs will also be provided to NLDEC-WD upon request.	C	Completed - Closed	2014 Annual Red Wine Mountain Caribou Report; 2015 Annual Red Wine Mountain Caribou Report; 2016 Annual Caribou Report – Red Wine Mountain Herd; 2017 Annual Caribou Report – Red Wine Mountain Herd; Red Wine Caribou Herd – Final EEM Report

PEEMP Reporting Requirements - Species at Risk, Construction, Weekly. Avifauna Weekly Report A compilation of daily reports will be submitted to NLDEC-WD on a weekly basis. This report will provide a synopsis of completed activities, any new mapping or data plots, photographs as well as a weekly look-ahead. Any alteration to habitat, monitoring updates and changes in activities, timeline or schedule will also be communicated to NLDEC-WD.	C	Completed - Currently Being Met	A compilation of daily reports has been submitted to NLDEC-WD on a weekly basis. These reports have provided a synopsis of completed activities, any new mapping or data plots, photographs as well as a weekly look-ahead. Any alteration to habitat, monitoring updates and changes in activities, timeline or schedule were also communicated to NLDEC-WD. 2014 Wildlife Sightings Report; 2015 Wildlife Sightings Report; 2016 Wildlife Sightings Report; 2017 Wildlife Sightings Report; 2018 Wildlife Sightings Report; 2019 Wildlife Sightings Report for the Lower Churchill Project
PEEMP Reporting Requirements - Species at Risk, Construction, Annually. Avifauna Annual Report - A yearly report will be submitted to NLDEC-WD and Environment Canada that summarizes the monitoring activities described in this PEEMP and any associated environmental effects monitoring conducted for the Project related to species at risk in Labrador. The yearly report will include all data collected as part of monitoring programs. The data associated with field programs will also be provided to NLDEC-WD upon request.	C	Completed - Closed	Avifauna Report 2013-2015; 2014 Wildlife Sightings Report; 2015 Wildlife Sightings Report; 2016 Wildlife Sightings Report; 2017 Wildlife Sightings Report; 2018 Wildlife Sightings Report; 2019 Wildlife Sightings Report for the Lower Churchill Project
A winter aerial survey will be conducted for the presence of RWM caribou (uncollared) near Project activities.	C	Completed - Closed	Nalcor Energy Lower Churchill Project, Environmental Effects Monitoring Program - 2014 Red Wine Mountains Caribou Herd, 2014 Aerial Survey and Collar Deployment; 2015 Annual Caribou Report – Red Wine Mountain Herd (includes Aerial survey); Nalcor Energy Lower Churchill Project, Environmental Effects Monitoring Program - 2016 Red Wine Mountains Caribou Herd, 2016 Aerial Survey
In the event that active Beaver colonies are found below the full supply level prior to reservoir impoundment, and Beaver are relocated, a follow-up survey will be conducted to determine the success / effectiveness of the Beaver colony relocation effort	O&M	Completed - Closed	Nalcor Energy Lower Churchill Project, Environmental Effects Monitoring Program – 2014 Beaver Survey; Nalcor Energy Lower Churchill Project, Environmental Effects Monitoring Program – 2015 Furbearer, Beaver Survey 2015; Nalcor Energy Lower Churchill Project, Environmental Effects Monitoring Program – 2016 Furbearer, Furbearer Environmental Effects Monitoring Program – Beaver Component, Beaver Relocation Mitigation Options for Wildlife; Variance obtained from WD
The portage route on the north bank around the Muskrat Falls site will be maintained during the operations phase, and a floating safety boom will be deployed across the river to guide vessels to the upstream portage access point and to prevent further downstream progress. This boom will be installed yearly during operations as soon as possible after spring breakup and removed in the fall just before freeze up.	O&M	Completed - Currently Being Met	To be completed during operations
A detailed report will be generated annually and distributed to TC and other regulatory agencies. The report will cover the environmental effects monitoring and follow up monitoring conducted during impoundment.	O&M	Completed - Currently Being Met	2019 Annual Report for the Navigable Waters Protection Act Authorization 8200-2013-700011-001

Definition		Results
Completed	All work required to fulfill the EA commitment has been Completed and no longer requires any further management	Completed
Future Commitment	Commitment has been put on hold either because it relevant to Gull Island or is not required at this time.	Future Commitment
Ongoing	Plan in place and being carried out or planning is underway to meet the commitment.	Ongoing