

Brunswick Pipeline Commitment List
Section A: Commitments Related to Information Requests

Commitment #	Information Requested By	Information Request Number	NEB Regulatory Document Number	Commitment	Commitment Response Method	Target Date
A1	National Energy Board	NEB 1.12	B-11-n	If the HDD of the Saint John River was not successful, the contingency plan would be to modify the HDD plan (change angle of entry or exit, drill depth, drill length) with an alignment still within the preferred corridor. As mentioned in the response to 1.7, further technical studies are planned for later in 2006. Should the results of these studies result in the need to consider an alternative crossing method and analysis will be provide of the potential significance of any environmental effects of this proposed crossing method. This mitigation will be developed in consultation with appropriate regulating agencies.	Develop an Environmental Assessment for a Saint John River wet crossing. Prepare and file a Section 58 Application for the wet crossing.	September 1, 2007
A2	National Energy Board	NEB 1.13	IR #1 (not online)	Personnel will work closely with landowner and local ATV clubs for access control plans on the Brunswick Pipeline.	Address in Access Management Plan to be included in the Environmental Protection Plan	August 31, 2007
A3	National Energy Board	NEB 1.15	B-11-q	Any mitigation designed for additional species would be carried out in consultation with regulatory authorities.	Address in Environmental Protection Plan	August 31, 2007
A4	National Energy Board	NEB 1.19	B-11-u	As part of its continuing operational activities, EBPC will implement a program of monitoring post-construction of the RoW. The criteria to be used will be developed and included in the Project EPP, which will be developed in consultation with appropriate regulating agencies (Response B)	Address in Environmental Protection Plan	August 31, 2007
A5	National Energy Board	NEB 1.19	B-11-u	Re-vegetation measures will be used where there is a potential for soil erosion to adversely effect adjacent resources such as watercourse and wetlands (Response A)	Address in Environmental Protection Plan	August 31, 2007
A6	National Energy Board	NEB 1.22	B-11-x	It is the intent of the Proponent to communicate labour and material requirements to labour unions and local suppliers in advance of tenders to allow the local markets time to prepare for bids and adjust the labour force and training requirements where practicable.	Pipeline construction contractor to meet with local labour unions. EBPC to host Local Business Opportunity Information Sessions in Saint John, St. Stephen and St. George. Meet with First Nations communities to introduce them to the pipeline construction contractor and discuss business opportunities.	Meetings with labour unions have been held and Information Sessions were hosted June 19 through June 21, 2007. Ongoing dialogue with businesses and First Nations communities will continue throughout the project.
A7	National Energy Board	NEB 2.20	B-23-a (IR #2)	A Pre-Construction Report will be completed with all affected landowners to capture special requests by landowners so they may be entered onto the Construction Line List.	Develop the Pre-construction reports	November 1, 2007
A8	National Energy Board	NEB 2.20	B-23-a (IR #2)	Emera Brunswick RoW personnel will be contacting landowners at the conclusion of construction to determine if there are any outstanding issues regarding construction and clean up.	Contact landowners at the conclusion of construction	December 1, 2008
A9	National Energy Board	NEB 2.20	B-23-a (IR #2)	Emera Brunswick RoW personnel will establish an ongoing working relationship with all affected landowners that will carry through construction and continue during the operation stage of the project.	Meet with landowners	Ongoing
A10	National Energy Board	NEB 3.1	B-44	Wetland mapping and rationale for not avoiding specific wetlands will be provided to regulatory authorities once the detailed routing process is completed.	Meet with Environment Canada and provide mapping/rationale	July 31, 2007
A11	National Energy Board	NEB 3.1	B-44	A post construction review of the ARD Management Plan will be undertaken and provided to regulatory agencies.	Address in Acid Rock Drainage Management Plan to be included in the Environmental Protection Plan	August 31, 2007
A12	National Energy Board	NEB 3.1	B-44	Emera Brunswick will be contacting Transport Canada in early 2007 to meet and discuss the application requirements.	Address in Environmental Protection Plan and detailed blasting plan developed by blasting consultant.	Completed (Feb 21, 2007)
A13	National Energy Board	NEB 3.1	B-44	Emera Brunswick will contact Environment Canada to determine what is intended by the term "interior forest".	Meet with Environment Canada	Completed (Dec 2006)
A14	National Energy Board	NEB 3.1	B-44	Emera Brunswick will provide information pertaining to the LCM products to be used with HDD and the potential environmental effects of these products in the EPP to be prepared for the project.	Address in Environmental Protection Plan	August 31, 2007
A15	National Energy Board	NEB 3, Attachment 1, Part 2, Recommendation 2.23	B-44	Mapping and area calculation of old growth and mature forest habitat will be provided to regulatory authorities once the detailed route process is completed. Mitigation measures for construction through these areas will be provided in the project Environmental Protection Plan (EPP).	Address in Environmental Protection Plan	August 31, 2007

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A16	National Energy Board	NEB 3, Attachment 2, #3	B-45	Additional information and explanation will be provided in the revisions to the ARD Management Plan to be provided to NRCan and the other regulatory agencies to better clarify how Emera Brunswick proposes to calculate the maximum amount of acid generating rock that would not cause a negative effect on the receiving environment.	Address in Acid Rock Drainage Management Plan to be included in the Environmental Protection Plan	August 31, 2007
A17	National Energy Board	NEB 3, Attachment 2, #6	B-44	Emera Brunswick will undertake a site specific vulnerability review of the Dennis Stream and Spruce Lake watersheds as part of the detailed route process and identify site specific mitigation where potential issues are noted	Address in Environmental Protection Plan	August 31, 2007
A18	National Energy Board	NEB 3, Attachment 2, #8	B-44	Emera Brunswick will employ the Pipeline Research Council International guidelines in the final design of the Brunswick Pipeline to be compliant with the CSA Z662 Code. (In response to seismic design concerns)	Address necessary design considerations in construction alignment plans.	November 1, 2007
A19	National Energy Board	NEB 3 Attachment 3, Health Canada - Question #3	B-44-a	Spill Response Procedures will direct workers and contractors to quickly contain and clean up spills should they occur, and prevent hazardous or toxic materials from reaching water supplies. In the unlikely event that a hazardous material spill is not contained and remediated at the source, groundwater quality and the potential for contaminant migration to nearby water supplies will be monitored through the installation of groundwater monitor wells. If the results of the groundwater monitoring program identify a drinking water supply as being at risk of harmful exposure to groundwater contaminants, this water supply will be included as part of the monitoring program and further remedial action or water supply replacement will be undertaken as required.	Address in Environmental Protection Plan	August 31, 2007
A20	National Energy Board	NEB 3, Attachment 3, Health Canada - Question #5	B-44-a	Emera Brunswick will have a program in place for residents to communicate concerns regarding noise. In addition, it was recommended in the EA that spot checks of noise levels be conducted at the nearest residences on a periodic basis during HDD activities to monitor the effectiveness of the implemented mitigation and to provide a basis for implementing further actions aimed at preventing significant environmental effects during Construction.	Address in Environmental Protection Plan	August 31, 2007
A21	National Energy Board	NEB 3, Attachment 3, Air Quality #2	B-44	Unnecessary idling of vehicles will be avoided to the extent practicable to eliminate unnecessary emissions and fugitive dust emissions will be minimized by the application of dust suppressants such as water during periods of heavy activity and dry periods. Also, scheduling of construction activities should be conducted to minimize dust during periods of high winds.	Address in Environmental Protection Plan	August 31, 2007
A22	National Energy Board	NEB 3, Attachment 3, Air Quality #4	B-44	Mitigation measures to be included in EPP: application of dust suppressants; follow equipment maintenance schedules; use of low sulphur fuels where feasible; preserve natural vegetation where practicable; and minimize activities that generate large quantities of dust during high winds.	Address in Environmental Protection Plan	August 31, 2007
A23	National Energy Board	NEB 3, Attachment 3, Noise #2	B-44	Notice will be provided to nearby residents in the event that a planned blow down is required and planned blow downs will be completed during daytime hours whenever possible.	Address in Environmental Protection Plan	August 31, 2007
A24	National Energy Board	NEB 3, Attachment 3, Noise #3	B-44	Notice of blasting will be provided to nearby residents in Saint John.	Address in Environmental Protection Plan	August 31, 2007
A25	National Energy Board	NEB 3, Attachment 3, Water Resources - Recommended Post Construction Monitoring #2	B-44	Post-construction monitoring program: Health Canada recommends including specific parameters in these two recommendations (i.e., pH, Al, Fe, Mn, As, Cn, Zn, alkalinity and sulphate), as some of these parameters (primarily the metals) are not routinely analyzed as part of the general chemistry suite.	Address in Environmental Protection Plan	August 31, 2007
A26	Natural Resources Canada	E03-NRC 1.2	B-17-ee	Ensure that any buildings required as part of facilities associated with the Brunswick Pipeline will be designed to the seismic hazard values outlined in Table C-2 in NBCC Appendix C as well as Commentary J from the NRC User's Guide to the NBCC.	Address necessary design considerations in construction alignment plans.	November 1, 2007

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A27	Environment Canada	C68-EC 1.1	B-17-p	A site-specific geotechnical study of the RoW will be initiated and completed in 2007. Consequently, if disposal of sulphide bearing rock is warranted, Emera Brunswick will meet with Environment Canada to discuss the options and permitting requests.	Complete Geotechnical Study	December 31, 2007
A28	Environment Canada	C68-EC 1.10	B-17-p	Emera Brunswick will require that the successful awarded HDD contractor provide details including MSDS sheets for any proposed loss circulation material (LCM) product that the contractor may want to introduce should loss circulation occur.	Include requirement in the project's construction contract.	Completed
A29	Environment Canada	C68-EC 1.11	B-17-p	Chemical additives, other than potentially methanol, will not be used in hydrostatic test water. The only pipeline section that has the potential to be tested in winter conditions and thus may require methanol would be the Saint John River HDD section.	Address in Environmental Protection Plan	August 31, 2007
A30	Environment Canada	C68-EC 1.13	B-17-p	A sufficient vegetation buffer will be ensured when dewatering the pipeline trench in the area of wetlands such that CCME guidelines for water quality will not be exceeded. If the buffer zone is not sufficient, additional protection measures, such as filter bags, will be used.	Address in Environmental Protection Plan	August 31, 2007
A31	Environment Canada	C68-EC 1.13	B-17-p	The erosion and sediment control measures will be implemented at all times of year. Some measures will be seasonally specific. Measures to be implemented will be results-oriented.	Address in Environmental Protection Plan	August 31, 2007
A32	Environment Canada	C68-EC 1.13	B-17-p	A sufficient vegetation buffer will be ensured when dewatering the pipeline trench in the area of wetlands such that CCME guidelines for water quality will not be exceeded. If the buffer zone is not sufficient, additional protection measures, such as filter bags, will be used.	Address in Environmental Protection Plan	August 31, 2007
A33	Environment Canada	C68-EC 1.14	B-17-p	A blasting plan, which will include a list of the types of blasting material to be used for the Project, will be developed prior to any blasting activities.	Address in Environmental Protection Plan	August 31, 2007
A34	Environment Canada	C68-EC 1.14	B-17-p	Ensure no waste wood is burned within the City of Saint John.	Address in Environmental Protection Plan	August 31, 2007
A35	Environment Canada	C68-EC 1.17	B-17-p	If used, storage tanks will be designed and located in accordance with various provincial and federal regulations. Fuel suppliers are not allowed to deliver to these tanks unless all necessary permits and authorizations are held by the contractor.	Address in Environmental Protection Plan	August 31, 2007
A36	Environment Canada	C68-EC 1.18	B-17-p	Any spill of a POL or other hazardous materials within 30m of a watercourse, wetland, groundwater resources, that exceed 100 litres within 30m of a residence will be reported as an emergency. All emergency releases will be reported within four hours of the time from when the release first becomes known.	Address in Environmental Protection Plan	August 31, 2007
A37	Environment Canada	C68-EC 1.2	B-17-p	Old growth forest is a Class 2 constraint for the routing process and will be avoided where practical.	Address when selecting the Detailed Route.	July 15, 2007
A38	Environment Canada	C68-EC 1.2	B-17-p	Temporary work areas will be rehabilitated.	Address in Environmental Protection Plan	August 31, 2007
A39	Environment Canada	C68-EC 1.20	B-17-p	Emera Brunswick will report on any deficiencies in the TEK report identified by Aboriginal communities.	Monitor and report if necessary.	Ongoing
A40	Environment Canada	C68-EC 1.3	B-17-p	Any excessive damage caused by ATV traffic, such as rutting, which has the potential to affect the integrity of the proposed facilities would be repaired as soon as practical by Emera Brunswick. Less significant damage would be evaluated in conjunction with the landowner and any agreed upon repairs would be carried out consistent with Emera Brunswick's environmental protection plan.	Address in Access Management Plan to be included in the Environmental Protection Plan	August 31, 2007
A41	Environment Canada	C68-EC 1.3	B-17-p	The Public Awareness Program for the pipeline should also include a discussion of trespass and the potential consequences of unauthorized and/or unlawful entry onto properties along the RoW. The pipeline RoW should be routinely monitored for unauthorized activities during Operation and Maintenance. If unauthorized activities in the RoW are detected, additional measures to stop and/or discourage unauthorized activities should be implemented after discussions with landowners, stakeholders and regulatory agencies, as appropriate.	Address in Access Management Plan to be included in the Environmental Protection Plan	August 31, 2007

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A42	Environment Canada	C68-EC 1.3	B-17-p	The specific measures to be employed for controlling and monitoring unauthorized vehicle access to the RoW will be determined following completion of the detailed route process.	Address in Access Management Plan to be included in the Environmental Protection Plan	August 31, 2007
A43	Environment Canada	C68-EC 1.4	B-17-p	Emera Brunswick will endeavor to identify beaver dams that need to be removed sufficiently early to have them released prior to the establishment of nests by waterfowl, which could include the fall before construction, when clearing activities are taking place. However, due to the potential duration of the nesting periods for waterfowl, it may not be possible to delay the removal of beaver dams built during the year of construction, where they are flooding either the RoW or a critical access route.	Address in Environmental Protection Plan	August 31, 2007
A44	Environment Canada	C68-EC 1.7	B-17-p	Implement special mitigation and monitoring measures should populations of the following species arise in field personnel reports: Wood Turtle, Monarch Butterfly, Dusky Salamander	Address in Environmental Protection Plan	August 31, 2007
A45	Environment Canada	C68-EC 1.8	B-17-p	Efforts will be made to select ancillary facilities in brownfield or already developed areas. Where this is not practical, a rare plant survey of the area will be implemented before any clearing and/or grubbing activities are undertaken. The results of these surveys will be forwarded to the appropriate regulating agency(s). Where rare plants are encountered, an alternative site will be selected. As a last resort, an appropriate form of mitigation for the plant species will be developed in consultation with regulating agencies and implemented prior to development of the site.	Address in Environmental Protection Plan	August 31, 2007
A46	Environment Canada	C68-EC 1.9	B-17-p	Phase II Environmental Site Assessments to take place once detailed route is completed. When finalized, the results of these assessments will be made available to the appropriate regulating agencies.	Address in Contaminated Soil Management Plan to be included in the Environmental Protection Plan	August 31, 2007
A47	Environment Canada	C68-EC-1.14	B-17-p	The entire pipeline route will undergo a leak survey annually by operations staff using a flame ionization instrument. This instrument is designed to detect very small concentrations of combustible gas and is verified and calibrated before each use. Any confirmed leaks would be repaired immediately.	Include in O&M Specifications Manual	September 18, 2008
A48	Environment Canada		B-17-p	An Environmental Management Plan (EMP) will be prepared that will establish a framework for monitoring excavating activities through the urban corridor. Qualified environmental inspectors or consultants will be on site to monitor soils removed during trenching activities in all areas within the urban portion of the pipeline to evaluate the potential presence and nature of any suspected contamination. A sampling program will be established to verify the presence/absence of specific contaminants (petroleum, hydrocarbons, PAHs, etc.) prior to disposing spill materials elsewhere.	Address in Contaminated Soil Management Plan to be included in the Environmental Protection Plan	August 31, 2007
A49	Environment Canada	C68-EC 1.3	Environment Canada	The additional wetland surveys for site-specific permitting are expected to be completed during the summer of 2006 ... and results will be provided in the form of wetland functional assessments according to the most current functional assessment method of Bond et al. (1992).	Submit 2006 Field Study Report, Appendix B - Wetland Functional Analysis to NEB and regulatory authorities	Completed (Jan 2007)
A50	Anadarko	C04-ANA 2.6	B-17-b	Emera Brunswick will follow the recommendations [in Section 5.2.5.1 of the EA] pertaining to contaminated soils in the construction of the Brunswick Pipeline.	Address in Contaminated Soil Management Plan to be included in the Environmental Protection Plan	August 31, 2007
A51	Baldwin, Dawn	C29-DB 1.10	B-17-e	Emera Brunswick will develop a comprehensive field Emergency Response Plan (ERP), with input from all relevant first responders and emergency measures organizations. This ERP will address the worst case pipeline incident scenario and be designed to ensure that public safety is the number one priority in the event of such an incident.	Address in Emergency Response Plan	October 3, 2008
A52	Baldwin, Dawn	C29-DB 1.10	B-17-e	Once an Emergency Planning Zone (EPZ) is determined, Emera Brunswick will work to develop an accurate database of occupied structures within the EPZ. Residents within this EPZ will be targeted with an EPZ Continuing Education Program.	Develop database	October 3, 2008
A53	Baldwin, Dawn	C29-DB 1.22	B-17-e	Damaged or missing [pipe marking] signs will be replaced as needed.	Address in O&M Specifications Manual	September 18, 2008

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A54	Baldwin, Dawn	C29-DB 1.24	B-17-e	A 24 hour, 7 days per week toll free number will be in place for the life of the pipeline. This number will reach an actual customer care professional with the skills and experience referenced in the information request.	Address in O&M Specifications Manual	September 18, 2008
A55	Ball, Bernard	C30-BB 1.2	B-17-f	Emera Brunswick will consult with Rockwood Park stakeholders to develop a specialized construction plan to ensure that the environmental effects of construction in the park are minimized.	Address in Rockwood Park Specialized Construction and Reclamation Plan to be included in the Environmental Protection Plan	August 31, 2007
A56	Ball, Bernard	C30-BB 1.5	B-17-f	Much of the habitat will be restored following completion of construction. Animal species living within the RoW will be displaced to adjacent habitats along the edge of the RoW. Depending on the animal species habitat preference, the RoW may be available for habitation following its restoration after construction. Plant species will be allowed to recolonize the RoW after the restoration of the RoW, immediately following construction. Species currently inhabiting the lands within and adjacent to the RoW will re-establish themselves in the years after construction, replacing the various grass species that will be seeded during clean-up to prevent erosion. Mitigation to protect animals is required on the active RoW.	Address in Rockwood Park Specialized Construction and Reclamation Plan to be included in the Environmental Protection Plan	August 31, 2007
A57	Ball, Bernard	C30-BB 1.6	B-17-f	Assuming that the park landowner wishes to limit ATV access along this section of the pipeline ROW, Emera Brunswick will work closely with the landowner to agree on and construct ATV access control measures appropriate for the portion of the proposed pipeline through Rockwood Park.	Address in the Access Management Plan and the Rockwood Park Specialized Construction and Reclamation Plan to be included in the Environmental Protection Plan	August 31, 2007
A58	Court, Patrick B.	C34-PBC 1.38	B-17-i	Emera Brunswick plans to conduct, at Emera Brunswick's expense, first responder training as one component of the Brunswick Line Emergency Preparedness and Response Program.	Address in Emergency Management Program	September 15, 2008
A59	Dawson, Dorothy	C35-DD 1.11	B-17-j	Emera Brunswick will be monitoring wells in the area to determine if wells are impacted and Emera Brunswick will compensate for damages if they occur [as a result of acid rock blasting].	Address in Environmental Protection Plan	August 31, 2007
A60	Debyl, Teresa (Pembina)	C21-TD 1S.13	B-17-k	To minimize the amount of gas emitted to the atmosphere, pump down techniques can be used to lower the gas line pressure before venting.	Address in O&M Specifications Manual	September 18, 2008
A61	Inkpen, Tom	C45-TI 1.1	B-17-y	Meet with SJRH officials in regards to emergency planning. NOTE: Meeting should take place before the pipeline goes into operation and after the detailed route is selected, if the SJRH is found within EPZ.	Meet in conjunction with development of Emergency Procedures Manual	October 3, 2008
A62	Friends of Rockwood Park	C23-FORP 1.12	B-17-v	Emera Brunswick will develop a specialized construction plan for Rockwood Park in consultation with the stakeholders (in regards to scheduling and construction working hours).	Address in Rockwood Park Specialized Construction and Reclamation Plan to be included in the Environmental Protection Plan	August 31, 2007
A63	Friends of Rockwood Park	C23-FORP 1.15	B-17-v	Present 2006 Fish and Fish Habitat surveys to appropriate regulators once the studies are complete.	Provide 2006 Field Study results to DFO	Completed (Dec 2006 and Jan 2007)
A64	Friends of Rockwood Park	C23-FORP 1.22	B-17-v	A specialized construction plan will be developed in consultation with stakeholders.	Address in Rockwood Park Specialized Construction and Reclamation Plan to be included in the Environmental Protection Plan	August 31, 2007
A65	Friends of Rockwood Park	C23-FORP 1.29	B-17-v	While the construction phase of the Project is estimated to extend over a 12-month period, every effort will be made to minimize disruption to daily living in adjacent communities during construction and operation/maintenance phases of the project. (In Urban Area)	Address in Access Management Plan to be included in the Environmental Protection Plan	August 31, 2007
A66	Friends of Rockwood Park	C23-FORP 1.34	B-17-v	Emera will develop a Pipeline Security Management Program for the Brunswick Pipeline which will meet the requirements of the NEB and be subject to NEB review. For obvious reasons, details of this plan are considered confidential.	Address in Pipeline Security Management Plan	September 15, 2007
A67	Friends of Rockwood Park	C23-FORP 1.40	B-17-v	Plan work schedules to minimize the period of time required for dewatering and excavation, particularly near ponds and watercourses. (In Rockwood Park)	Address in Rockwood Park Specialized Construction and Reclamation Plan to be included in the Environmental Protection Plan	August 31, 2007
A68	Friends of Rockwood Park	C23-FORP 1.61	B-17-v	Properly dispose of contaminated soils in the Spar Cove Road area.	Address in Contaminated Soil Management Plan to be included in the Environmental Protection Plan	August 31, 2007

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A69	Moir, Rob	C54-RM 2	B-17-dd	Emera Brunswick will obtain NEB approval for its security plan.	Develop Security Management Plan and file with NEB	September 15, 2008
A70	Quinlan, Jack	C58-JQ 1.4	B-17-ll	A complaint registration/response program will be established prior to the construction phase. Emera Brunswick staff or agents will be available to address all concerns.	Address in Landowner Letter of Commitments	Completed
A71	Quinlan, Jack	C58-JQ 1.3	B-17-mm	Emera Brunswick would respond as quickly as possible and repair the leak.	Address in Emergency Procedures Manual	October 3, 2008
A72	Richard, Darlene	C59-DR 1.1	B-17-mm	Emera Brunswick will adopt all the noise mitigation recommendations outlined in Section 2.4.2 of EA.	Address in Noise Management Plan to be included in the Environmental Protection Plan	August 31, 2007
A73	Richard, Darlene	C59-DR 1.1	B-17-mm	Noise controls will be put in place to attenuate sound levels associated with the HDD operation.	Address in Noise Management Plan to be included in the Environmental Protection Plan	August 31, 2007
A74	Richard, Darlene	C59-DR 1.12	B-17-mm	The blasting plan will be developed in recognition of the types of structures located in the Milford area: 1. Blasts will be designed to limit the Peak Particle velocity (vibration levels) to a maximum of 50 mm/sec. This limit is a generally accepted upper limit for blast vibrations established by the United States Bureau of Mines. Vibrations below this maximum limit have been shown to be unlikely to cause damage to structures. For vibration sensitive structures, the maximum allowable limit will be reduced to 25 mm/sec. A professional engineer will assess the older homes in the Milford area to determine if they warrant a "sensitive structure" status. 2. Prior to full scale production blasting, the Contractor will carry out a series of at least 3 initial blasts based upon the Contractor's approved blasting procedures. These initial blasts will be conducted at a location away from any structures. If the test blasts do not produce a satisfactory level of vibration (less than the maximum allowable limit) at the monitoring locations, then the Contractor will have to submit a revised blasting procedure for review. 3. All structures and facilities located within 200 m of the pipeline blasting zone will be surveyed prior to blasting. Any claims for blasting damage will be reviewed by comparing the results of this pre-blast survey with a post-blast survey. If damage should occur, the owner of the damaged structure will be advised and repairs will be made to the satisfaction of the owner and the Company.	Include requirement in the project's construction contract and develop blasting plans and execute monitoring during construction.	Ongoing during construction
A75	Richard, Darlene	C59-DR 1.18	B-17-mm	Emera Brunswick does not anticipate testing to be required since the pipeline crossing is expected to be an adequate distance away from the overpass structure. However, Emera Brunswick will do so if concerns for the structural integrity of the [Louis Murphy] overpass arise during construction.	Monitor overpass for construction impacts	Ongoing during construction
A76	Richard, Darlene	C59-DR 1.4	B-17-mm	Emera Brunswick will be responsible for the continuing education of the first responders.	Address in Emergency Management Program	September 15, 2008
A77	Richard, Darlene	C59-DR 1.4	B-17-mm	Emera Brunswick will cover the costs for emergency response training and emergency response exercise programs.	Address in Emergency Management Program	September 15, 2008
A78	Robichaud, Dan	C70-DR 1.3	B-17-nn	Emera Brunswick will conduct a regular series of emergency planning exercises throughout the life of the pipeline as part of the Emergency Preparedness and Response Program. These exercises will be table top exercises, internal field mock emergencies and full scale mock emergencies involving external agencies such as EMO, fire, police and ambulance brigades.	Address in Emergency Management Program	September 15, 2008
A79	Rooney, Ernestine	C61-ER 1.1	B-17-oo	All watercourses in Rockwood Park will be crossed using an isolated crossing method.	Address in Rockwood Park Specialized Construction and Reclamation Plan to be included in the Environmental Protection Plan	August 31, 2007
A80	Rooney, Ernestine	C61-ER 1.1	B-17-oo	Various permits relating to construction work near and in watercourses and wetlands will be required for this project.	Permits to be obtained prior to construction	November 1, 2007

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A81	Sauerteig, Horst	C62-HS 1.14	B-17-qq	Ensure the following documents are in place: 1) Monitoring and Surveillance Program 2) Emergency Preparedness and Response Plan 3) Field Emergency Response Plan 4) Environmental Protection Plan 5) Pipeline Integrity Management Plan 6) Environmental Protection and Safety Management Plan	1) Develop Security Management Plan 2) Develop Emergency Procedures Manual 3) Emergency Procedures Manual 4) Develop Environmental Protection Plan 5) Develop Integrity Management Plan 6) Develop Safety Management Plan	1) September 15, 2007 2) October 3, 2008 3) October 3, 2008 4) August 31, 2007 5) September 15, 2008 6) October 15, 2007
A82	Sauerteig, Horst	C62-HS 1.8	B-17-qq	Emera Brunswick will have snow plowing equipment and helicopter services on contractual stand-by for use if required in the event of emergency access.	Address in Emergency Procedures Manual	October 3, 2008
A83	Sauerteig, Horst	C62-HS 1.8	B-17-qq	There will be a Duty Manager and one Field Technician officially on call at all times. Also, an additional four Field Technicians will be expected to respond to an incident depending on its severity. All of these personnel will reside within two hours or less of the rural based proposed facilities, and some of these personnel will reside within a half hour or less of the urban based proposed facilities. All of these personnel will be fully trained in the operation and maintenance of the proposed facilities, including emergency response. The mode of transportation is truck, ATV, snowmobile, or helicopter based on the situation. All personnel will communicate with Houston Gas Control as well as first responders through use of cell phone, satellite phone, or land line telephone.	Address in Emergency Procedures Manual	October 3, 2008
A84	Thomas, Leland T.	C64-LT 1.29	B-17-rr	Once the project proceeds to final route selection, the entire route will be studied to identify and avoid potential problem areas such as existing geological structures that may pose a problem during blasting operations	Address in Blasting Plans	Ongoing during construction
A85	New Brunswick Technical Review Committee	TRC Question #02	B-32-b	As in the case of a serious pipeline incident at any location along the proposed pipeline, Emera Brunswick would invoke the Brunswick Pipeline Field Emergency Response Plan (ERP). As is the case for the Saint John Lateral (SJL) pipeline, the ERP will detail roles and responsibilities of pipeline response personnel and their supporting Crisis Management Team, a notification matrix, and the roles and responsibilities of first responders and emergency measures organizations.	Address in Emergency Response Plan	October 3, 2008
A86	New Brunswick Technical Review Committee	TRC Question #04	B-32-b	If vegetation control is contemplated within 30m of a designated watercourse, the appropriate permits and approvals will be acquired. For crossings that require activities not included as permissible under this Program, a New Brunswick Watercourse Alteration Permit will be applied for.	Address in Environmental Protection Plan	August 31, 2007
A87	New Brunswick Technical Review Committee	TRC Question #06	B-32-b	Emera Brunswick will provide the City of Saint John with a daily update of construction activities and will work with the City to mitigate any adverse environmental effects from construction.	RoW agents to provide daily reports to the City of Saint John	Ongoing during construction
A88	New Brunswick Technical Review Committee	TRC Question #07	B-32-b	Emera Brunswick will consult with City of Saint John officials regarding the location of underground services and an effort will be made to minimize interactions with these facilities. If it becomes necessary to interrupt water or sewer systems to allow for pipeline construction, Emera Brunswick will work with the City to minimize the duration of any interruptions and notify residents, and will assume responsibility for any costs related to such interruptions.	Address when selecting the Detailed Route and during construction	Ongoing during construction
A89	New Brunswick Technical Review Committee	TRC Question #10	B-32-b	Emera Brunswick will continue to communicate with the City of Saint John regarding any new future subdivision developments proposed since the completion of the EA.	Address when selecting the Detailed Route	July 15, 2007
A90	New Brunswick Technical Review Committee	TRC Question #12	B-32-b	Emera Brunswick will ensure that proper regulatory authorities are contacted for all matters relating to endangered fish species that may be recorded/observed in the Project corridor.	Address in Environmental Protection Plan	August 31, 2007
A91	New Brunswick Technical Review Committee	TRC Question #16	B-32-b	Emera Brunswick has consulted and will continue to consult with DFO on such matters as high risk activity, and will seek authorization for construction activities as required.	Address in Environmental Protection Plan	August 31, 2007
A92	New Brunswick Technical Review Committee	TRC Question #21	B-32-b	All water sources will be identified as per applicable permits, laws and regulations. Where possible, water will be shunted from one test section to the next to minimize the amount of new water needed. No chemical additives will be used in hydrostatic test water with the possible exception of methanol for hydrostatic tests undertaken in freezing conditions. This would only be applicable for the pipe section for the Saint John River HDD. Where there are no chemical additives, the water will be returned to the same watershed from which it was withdrawn, and will not be discharged directly to a water body. For test water that contains harmful additives, the test water will be disposed of at an approved facility.	Address in Environmental Protection Plan	August 31, 2007

Brunswick Pipeline Commitment List
Section A: Commitments Related to Information Requests

Commitment #	Information Requested By	Information Request Number	NEB Regulatory Document Number	Commitment	Commitment Response Method	Target Date
A93	New Brunswick Technical Review Committee	TRC Question #28	B-32-b	Trench plugs will only be implemented at watercourses where the water flow into or out of the watercourse is considered to result in potential adverse environmental effects.	Address in Environmental Protection Plan	August 31, 2007
A94	New Brunswick Technical Review Committee	TRC Question #29	B-32-b	Active water pumps being used to implement a watercourse crossing pipeline installation will be attended to at all times while the pumps are running	Address in Environmental Protection Plan	August 31, 2007
A95	New Brunswick Technical Review Committee	TRC Question #30	B-32-b	All Temporary Work Room will be subject to environmental review prior to it being cleared and landowner agreement and compensation.	Address in Environmental Protection Plan	August 31, 2007
A96	New Brunswick Technical Review Committee	TRC Question #41	B-32-b	Licenses/sub-licenses will be compensated for any timber harvested and used for construction purposes for the Brunswick Pipeline Project.	Address during easement negotiations	March 13, 2008
A97	New Brunswick Technical Review Committee	TRC Question #43	B-32-b	Any bridges to be installed will meet the requirements of the WAWA permits to be issued for the Project and will be sufficiently height over the watercourse water levels to minimize the potential for a washout. All temporary watercourse crossings will be designed to allow for fish passage.	Address in Environmental Protection Plan	August 31, 2007
A98	New Brunswick Technical Review Committee	TRC Question #44	B-32-b	Inspectors will be required to have previous pipeline construction experience and an educational background in environmental sciences.	Address in Environmental Protection Plan	August 31, 2007
A99	New Brunswick Technical Review Committee	TRC Question #46	B-32-b	The pipeline RoW will be routinely monitored for unauthorized activities during Operation and Maintenance. If unauthorized activities in the RoW are detected, additional measures to stop and/or discourage unauthorized activities will be implemented after discussions with landowners, stakeholders and regulatory agencies, as appropriate. In all instances, Emera Brunswick has and will work closely with the landowner and local ATV clubs.	Address in Access Management Plan to be included in the Environmental Protection Plan	August 31, 2007
A100	New Brunswick Technical Review Committee	TRC Question #57	B-32-b	Following the completion of the surveys, a detailed report including a listing of all watercourses encountered as well as corresponding maps will be presented to the appropriate agencies.	Submit 2006 Field Study Report to NEB and regulatory authorities	Completed (Dec 2006 and Jan 2007)
A101	New Brunswick Technical Review Committee	TRC Question #76	B-32-b	It is anticipated that any watercourse whose width exceeds 20m will require an in stream pier(s) to be installed in order to support temporary bridge crossings for these watercourses. All bridges will be installed as per applicable NBENV and DFO permits. Emera Brunswick will ensure that site conditions allow for the safe and environmentally responsible implementation of this activity.	Address in Environmental Protection Plan	August 31, 2007
A102	New Brunswick Technical Review Committee	TRC Question #83	B-32-b	Excessive damage caused by ATV traffic, such as rutting, which has the potential to affect the integrity of the proposed facilities would be repaired as soon as practical by Emera Brunswick. Less significant damage on the ROW would be evaluated in conjunction with the landowner and any agreed upon repairs would be carried out consistent with Emera Brunswick's Construction EPP.	Address in Access Management Plan to be included in the Environmental Protection Plan	August 31, 2007
A103	New Brunswick Technical Review Committee	TRC Question #83	B-32-b	For watercourses, any significant ATV damage leading to sedimentation or damage to the stream bed or bank would also be evaluated in conjunction with the landowner and any agreed upon repairs would be carried out consistent with Emera Brunswick's EPP	Address in Environmental Protection Plan	August 31, 2007
A104	New Brunswick Technical Review Committee	TRC Question #84	B-32-b	Please refer to the response to #4 with respect to watercourses. In addition, patrols will be scheduled for a timeframe where ground conditions are stable, and all activities will be consistent with Emera Brunswick's Construction EPP, which is also used for guidance in operation and maintenance activities.	Address in Environmental Protection Plan	August 31, 2007
A105	New Brunswick Technical Review Committee	TRC Question #92	B-32-b	In the urban setting, any streets disturbed for pipeline construction will be restored following the installation of the pipeline. In an urban, rural or forested setting, any soils removed from the RoW are returned following the installation of the pipeline. Re-vegetation efforts such as seeding are implemented within sufficient time for grass seed to establish itself prior to the onset of winter. In areas where this is not possible, other erosion protection measures will be implemented if required.	Address in Environmental Protection Plan	August 31, 2007
A106	New Brunswick Technical Review Committee	TRC Question #95	B-32-b	A Quantitative Risk Assessment and design study for the Brunswick pipeline near the Penstock and in the vicinity of the Musquash facilities will be provided to the appropriate regulatory authorities once completed.	Develop Quantitative Risk Assessment for the penstock and provide to agencies	December 31, 2007
A107	New Brunswick Technical Review Committee	TRC Question #121	B-32-b	Emera Brunswick will undertake a baseline survey for all private wells located within 500m of blasting activities or representative sample where well density warrants. (2008 Field Studies)	Address in Environmental Protection Plan	August 31, 2007
A108	New Brunswick Technical Review Committee	TRC Question #121	B-32-b	Regarding the monitoring of wells associated with trench excavation and dewatering, the commitment to monitoring wells within 50m of an excavation is based on the assumption that blasting is not required. Where blasting is required for trench excavation, however, wells within 100m of the blasting activity will be monitored.	Address in Environmental Protection Plan	August 31, 2007

Brunswick Pipeline Commitment List
Section A: Commitments Related to Information Requests

Commitment #	Information Requested By	Information Request Number	NEB Regulatory Document Number	Commitment	Commitment Response Method	Target Date
A109	New Brunswick Technical Review Committee	TRC Question #128	B-32-b	If any construction does occur through agricultural land, crops will be lost for one growing season. The landowner will be compensated for this loss. Emera Brunswick will monitor agricultural land and work with landowners as appropriate to ensure that agricultural land has returned to its previous status.	Address in Environmental Protection Plan	August 31, 2007

Brunswick Pipeline Commitment List

Section B: Commitments Related to the Application to the National Energy Board and GH-1-2006 Reply Evidence

Commitment #	Commitment Source	Document Reference	NEB Regulatory Document Number	Commitment	Method to Address	Target Date
B1	Reply Evidence	3.2.4 #1	B-40-a	Emera Brunswick will provide and pay for Command Staff-Incident Command Training for natural gas emergencies.	Address in Emergency Management Program	September 15, 2008
B2	Reply Evidence	3.2.4 #5	B-40-a	Emera Brunswick emergency planning, first responder training and public education will be subject to NEB requirements under the Onshore Pipeline Regulations, 1999 (OPR99) and CSA Z731	Address in Emergency Management Program	September 15, 2008
B3	Reply Evidence	3.2.4 #6	B-40-a	Emera Brunswick will fund EMO planning costs in the amount of \$50,000 on a one-time basis. This would support the integration of the Brunswick Pipeline in Saint John emergency planning.	Address in Emergency Management Program	September 15, 2008
B4	Reply Evidence	3.2.4 #6	B-40-a	Emera Brunswick commits to initiating a series of exercises to build response capability within the first year of operation.	Implement Emergency Response Exercises	November 1, 2009
B5	Reply Evidence	3.2.4 #6	B-40-a	Emera Brunswick will fund staff of the SJFD to attend the Natural Gas/LNG/LP Firefighting and Safety Training School offered by the Northeast Gas Association in Massachusetts.	Address in Emergency Management Program	September 15, 2008
B6	Reply Evidence	3.2.4 #6	B-40-a	Emera Brunswick will fund the re-instatement of a Training Officer position within the SJFD to the level of \$25,000 annually.	Address in Emergency Management Program	September 15, 2008
B7	Reply Evidence	3.2.4 #6	B-40-a	Emera Brunswick commits to systematically sharing with the City, results of operation, maintenance and integrity management system audits conducted by the NEB, subject to NEB concurrence.	Address in Emergency Management Program	September 15, 2008
B8	Reply Evidence	3.2.4 #6	B-40-a	Examine the request to place an additional line blocking valve in the City of SJ.	Meet with SJFD to discuss	July 31, 2007
B9	Reply Evidence	3.2.4 #6	B-40-a	The Brunswick Pipeline Field Emergency Response Plan will include as a Standard Guideline a Valve Closure Decision Tree. This Valve Closure Decision Tree will serve as an Operating Protocol which will address the closure of Line Block Valves.	Address in O&M Specifications Manual	September 18, 2008
B10	Reply Evidence	5.2.3	B-40-a	Emera Brunswick will continue to consult with the UNBI regarding the burial ground and will work with the UNBI to thoroughly review and assess the area referred to as a burial ground.	Consult with UNBI	Completed
B11	Reply Evidence	Attachment #7	B-40-a	The operational hazards and threats will be managed as a component of the Brunswick Pipeline Integrity Management Plan	Address in Integrity Management Plan	September 15, 2008
B12	Witness Testimony	Hearing Transcripts	Volume 4, page 4143	Blasting surveys: we will conduct it in the homes or other structures, check the foundations, document the existing condition, and then, as a follow up, we'll go back to those locations, and determine if there was any impact of the blasting. And if there is, then we would either rectify the damage, or compensate for it.	Address in Environmental Protection Plan and detailed blasting plan developed by blasting consultant.	August 31, 2007
B13	Witness Testimony	Hearing Transcripts	Volume 4, page 4314	We will work with stakeholders, landowners, to determine the best possible detailed route within the corridor (for Red Head blasting).	Address when selecting the Detailed Route	July 15, 2007

Brunswick Pipeline Commitment List
Section B: Commitments Related to the Application to the National Energy Board and GH-1-2006 Reply Evidence

Commitment #	Commitment Source	Document Reference	NEB Regulatory Document Number	Commitment	Method to Address	Target Date
B14	Witness Testimony	Hearing Transcripts	Volume 5, page 6467	Work with specific landowners on the issue of the width of the easement but it would be done on a specific basis.	Address during easement negotiations	March 13, 2008
B15	Witness Testimony	Hearing Transcripts	Volume 5, page 6898	Prepare documentation with respect to a contingency plan of an open cut crossing of the Saint John River.	Develop an Environmental Assessment for a Saint John River wet crossing. Prepare and file a Section 58 Application for the wet crossing.	September 1, 2007
B16	Witness Testimony	Hearing Transcripts	Volume 5, page 7319	Ensure blast surveys includes an inspection and record of the condition of all existing headstones, which would be surveyed post-blast to ensure that no damage has occurred to those features. (Including photos)	Address in Environmental Protection Plan	August 31, 2007
B17	Witness Testimony	Hearing Transcripts	Volume 6, page 7832	The company will construct two new entrances to Rockwood Park, including much needed parking spaces. Emera Brunswick Pipeline will also expand and improve the extensive trail system.	Address in Rockwood Park Specialized Construction and Reclamation Plan to be included in the Environmental Protection Plan	August 31, 2007
B18	Witness Testimony	Hearing Transcripts	Volume 7, page 10305	Our overall inspection program and environmental management program, we will have an environmental awareness program in place whereby the contractor as well as the inspection staff -- and that's even -- and I'm thinking broader than just the environmental inspection staff, but the company inspection staff will be fully informed of the sensitivities around the S-1 and S-3 species	Address in Environmental Protection Plan	August 31, 2007
B19	Witness Testimony	Hearing Transcripts	Volume 7, page 10309	Outline protection requirements of rare species in the event that they're uncovered during our construction program.	Address in Environmental Protection Plan	August 31, 2007
B20	Witness Testimony	Hearing Transcripts	Volume 7, page 10390	Sit down with Environment Canada and the Province to identify and discuss the information that's been gathered to this point in time with regards to wetlands, as well as to bring forward at that time our preliminary detailed route to the best of our ability to define at that time relative to these wetlands, and we can talk about our route and its rationale relative to wetlands.	Meet with Environment Canada and the NB Dept of Environment to consult on the draft EPP and discuss these matters.	August 31, 2007
B21	Witness Testimony	Hearing Transcripts	Volume 7, page 10454	Further discussion with the City of SJ Planning Dept. / Planning group as the specific detailed route selection is made for the pipeline.	Address when selecting the Detailed Route	July 15, 2007
B22	Witness Testimony	Hearing Transcripts	Volume 7, page 9515	Bathometric surveys of Saint John harbour to be completed.	Undertake surveys	Completed
B23	Witness Testimony	Hearing Transcripts	Volume 8, page 11180	Ensure pipeline operation staff would be fully informed and aware of best practices provided by Environment Canada to minimize greenhouse gas emissions	Address in Environmental Protection Plan	August 31, 2007
B24	Witness Testimony	Hearing Transcripts	Volume 8, page 11190	EBPC has committed to assessing the site specific vulnerabilities of Dennis Stream and Spruce Lake watersheds and identifying site specific mitigation where potential issues are noted.	Address in Environmental Protection Plan and in 2007/2008 field work and review which incorporates geotechnical work.	August 31, 2007
B25	Witness Testimony	Hearing Transcripts	Volume 8, page 11524	Review health and safety programs of contractors before hiring them.	Review programs	Ongoing
B26	Witness Testimony	Hearing Transcripts	Volume 9, page 12731	Emergency Measures Organization, both in Saint John and provincially, will be consulted extensively, as we develop our emergency response plan for the proposed facilities.	Dialog with the EMO as the Emergency Response Plan is developed	October 3, 2008
B27	Witness Testimony	Hearing Transcripts	Volume 9, page 13452	We made a commitment as a company to establish a walking or a biking trail over that 2.2 km stretch, as well as parking lots at each end. [in Rockwood Park]	Address in Rockwood Park Specialized Construction and Reclamation Plan to be included in the Environmental Protection Plan	August 31, 2007
B28	Witness Testimony	Hearing Transcripts	Volume 9, page 14219	Follow up on the commitment to the SJFD to do some modeling on an extra line block valve and talk to them further about that.	Meet with SJFD to discuss	July 31, 2007
B29	Witness Testimony	Hearing Transcripts	Volume 10, page 15091	Use US studies, such as those done by the US Dept. of Energy, as part of the security management plan to combat terrorism.	Address in Pipeline Security Management Plan	September 15, 2007

Brunswick Pipeline Commitment List
Section C: Commitments Related to the Environmental and Socio-Economic Assessment (EA)

(All Commitments listed below are to be addressed in the Environmental Protection Plan
proposed to be completed by Aug 31, 2007)

Commitment #	EA Page Number Reference	Commitment
C1	33	Access over watercourses will be facilitated using swamp mat bridges or equivalent portable bridges installed to span the watercourse from top of bank to top of bank. These bridges will be installed as per requirements noted in associated permit approvals. Brush matting and/or corduroy will be used at approaches to watercourse crossings to minimize rutting in the riparian zone.
C2	33	Access through wetland areas will be achieved through the construction of corduroy roads, as required
C3	33	Any environmentally sensitive features, and all watercourses and wetlands, will be flagged prior to commencement of clearing
C4	33	Any safety concerns identified within the RoW (e.g., rock ledges) will be flagged
C5	33	Boundaries of the RoW, facilities sites, additional temporary workspaces, and any temporary access roads will be surveyed and staked to prevent potential environmental effects to adjacent areas
C6	33	Clearing crews will brace and cut all fences that cross the RoW and install temporary gates where required
C7	33	Environmental flagging will be placed on the RoW to delineate the Minimal Disturbance Zone (MDZ) adjacent to watercourses and placed to delineate where temporary work room will be cleared
C8	33	Flagging of all environmental features such as watercourses, wetlands, and archaeological monitoring areas, will take place prior to the start of grading activities
C9	33	In agricultural areas, the topsoil will be stripped by bulldozers and/or graders so that it is not mixed with subsoil and trench spoil
C10	33	In forested areas, stumps will be separated from forest soil and forest soil will be preserved by removing the duff/topsoil layer and storing it separately from the subsoil materials. Stumps will be buried within the RoW or disposed at an approved facility
C11	33	Landowners affected by the Project will be notified of the intended Project schedule
C12	33	Merchantable timber will be salvaged and used for construction purposes where prior agreements have been made with the individual landowners and/or the Crown
C13	33	Water flow in ditches will be maintained with the installation of culverts or swamp mats as required. Drainage noted as flowing across the RoW during grading will be managed using culverts and field drainage systems will be restored to their original performance
C14	33	Watercourses that cannot be spanned will be accessed by going around the watercourse using existing or temporary access roads. Temporary bridge structures installed for clearing may be left for the geotechnical crews who will immediately follow the clearing crews
C15	34	Blast mats will be used to prevent scattering of rock and debris.
C16	34	Blasting activity will be conducted in accordance with applicable regulations and guidelines, and will take into account adjacent structures, facilities, and services (e.g., other pipelines)
C17	34	Concurrent with trenching activities, a slip boring crew will install the pipeline at road and railway crossings that cannot be open cut which involves excavation on both sides of the proposed crossing to for boring equipment to be operated and the pipe to be installed at the correct elevation. Typically, major roads will be bored unless prohibited by soil conditions or other obstacles and smaller roads will be crossed using an open cut method. Open cuts of roads typically achieved in one day and the road surface is restored
C18	34	In agricultural areas, subsoil will be placed back into the trench and the trench will then be covered with topsoil
C19	34	In agricultural areas, tiles that are cut during trench excavation will be flagged and repaired

Brunswick Pipeline Commitment List
Section C: Commitments Related to the Environmental and Socio-Economic Assessment (EA)

(All Commitments listed below are to be addressed in the Environmental Protection Plan
proposed to be completed by Aug 31, 2007)

Commitment #	EA Page Number Reference	Commitment
C20	34	In areas of steep slopes, diversion berms and soil stabilization techniques will be employed to restore the RoW
C21	34	Laneways and driveways will be left over the trench as long as practicable, where requested by the landowner
C22	34	Safety barricades, fences, signs and/or flashers will be installed as required in the area of any road excavations. NBDOT traffic control regulations will be followed
C23	35	A drilling mud release contingency plan will be prepared for all HDDs. Only bentonite based drilling mud will be used for HDDs. Any additives to the drilling mud will be non toxic.
C24	35	During clean-up, crews will also repair fences, pick up debris, seed and restore the RoW, and restore sensitive areas such as steep slopes, ditch banks, and watercourse and wetland crossings.
C25	35	HDD equipment will be set up a minimum of 10 m from the edge of the watercourse and no clearing or grading will be conducted within the 10 m zone
C26	35	Pipeline sections to be installed under watercourses are typically pre-pressure tested prior to installation under the watercourse.
C27	35	Water will be obtained from nearby lakes, watercourses, or municipal sources in accordance with applicable permits for water withdrawal. Upon completion of testing water will be returned to the same watershed within an vegetated area and protective riprap and/or tarpaulins should be used to dissipate energy
C28	35	Watercourse crossing restoration and erosion and sediment control protection will be initiated and completed immediately following the installation of the pipeline
C29	36	A control zone will be established that extends 30 m on either side of the pipeline RoW (as per Section 112 of the NEB Act). To ensure safety, excavation using mechanical equipment or explosives within this control zone will require approval from the Proponent. The existence of the control zone will not preclude development of the land
C30	36	Land use along the RoW will be monitored, and land use will need to conform to guidelines for permitted uses on the RoW. Heavy equipment use will be restricted directly over the pipeline and will only be allowed to cross the pipeline at properly installed crossings
C31	36	Pipeline valves and above ground facilities will be properly secured and protected by suitable fences to prevent tampering by unauthorized parties. The fenced areas will be inspected and maintained to ensure safety and an acceptable condition. The pipeline will be patrolled on a routine basis and emergency maintenance will be handled by qualified personnel
C32	36	The pipeline RoW will be clearly marked at public roads, railroads, navigable water crossings, and other areas as required to reduce the possibility of damage or interference resulting from the construction activities of other projects. Aerial markers will allow for rapid identification of pipelines during aerial surveillance
C33	36	Vegetation control will be by methods that have been approved, where required. Mechanical means will be used to control vegetation growth on the RoW. No chemical spraying will be undertaken on the RoW; however, limited chemical spraying may be used, where allowed by regulation, within the fenced and graveled meter stations and other fenced areas. Only herbicides of low persistence and low ecological toxicity will be used
C34	37	Emergency Planning Zones will be established in accordance with CSA Z731-95 and NEB requirements and based on hazard assessment for the pipeline. The Proponent will establish and maintain liaison with the agencies that may be involved in an emergency response on the pipeline and will consult with them in developing and updating a Field Emergency Response Plan for the pipeline
C35	37	Prior to commissioning the pipeline, the Proponent will file an Operations manual with the NEB - this manual will take into consideration current and ongoing discussions with regulatory agencies, stakeholder, and community groups, to ensure consideration of local needs, and will meet or exceed the requirements of Part 6 of the NEB Onshore Pipeline Regulation
C36	37	The Proponent will take all reasonable steps to inform all persons who may be associated with an emergency response activity on the pipeline (i.e., residents, institutions, and businesses falling within the EPZ) of the practices and procedures to be followed, and will make available to them the relevant information contained in the Field Emergency Response Plan and associated emergency response plans and procedures
C37	41	All hazardous materials spills will be reported to the appropriate regulatory authorities, as required (e.g., for watercourses, NBENV will be notified if the spill occurs during regular office hours, and the Coast Guard (1-800-565-1633) will be notified if the spill occurs after hours. All information at hand will be provided, in the event that a response from the Emergency Measures Organization is also required.
C38	41	Material management (i.e., fuel and other hazardous materials) and operational procedures (e.g., storage, handling and transfer) will reduce the potential for and extent of accidental fires related to the Project. In the unlikely event of a fire, local emergency response and fire fighting capability will respond to reduce the severity and extent of damage

Brunswick Pipeline Commitment List

Section C: Commitments Related to the Environmental and Socio-Economic Assessment (EA)

(All Commitments listed below are to be addressed in the Environmental Protection Plan
proposed to be completed by Aug 31, 2007)

Commitment #	EA Page Number Reference	Commitment
C39	42	An EPP for Construction will be prepared for the Project that will include erosion and sediment control measures to mitigate and protect the environment from potential environmental effects that may arise as a result of construction activities. Inspection and monitoring of these measures will be conducted by qualified inspectors, particularly during and after extreme precipitation events or snow melts that result in visible overland flow of water
C40	42	During Construction, due care and attention will be made to reduce the potential for starting forest fires. In particular, construction activities will be planned such that potential ignition sources are minimized and emergency response capability is provided at the site to respond to any small fires that may start onsite
C41	42	Workers and contractors will be trained in the fire prevention and fire response procedures contained in the EPP and in accordance with the New Brunswick Forest Fires Act. Safety program audits and site inspections will also be implemented throughout the Project Construction, and Operation and Maintenance phases to ensure compliance with program policy and procedures
C42	43	A Construction Safety Manual, a Maintenance Safety Manual, and operation and maintenance procedures will be prepared that will describe how to perform work safely and prevent accidents, and will prescribe measures, such as use of personal protective equipment, that will mitigate the effects of accidents if they occur. Workers and contractors will be trained in the policies and procedures contained in the Environmental Protection and Safety Management Program
C43	43	During routine operation and maintenance activities, personnel will be aware of the potential for wildlife encounters and will be trained to respond appropriately. Project personnel will not harass or feed wildlife, and waste materials that could attract wildlife to work sites will be appropriately stored and disposed. All vehicles will operate at appropriate speeds and will yield to wildlife
C44	43	pre-qualified contractors that have comprehensive health and safety programs and a good track record of safety performance will be preferred. Contractors selected to work on pipeline construction will be required to develop comprehensive safe work plans for the construction work they will be performing. Contractors will be monitored for compliance during the course of Project Construction.
C45	43	The EPP for Construction will include procedures to minimize potential environmental effects of a temporary watercourse crossing washout. These will be authorized under WAWA permits and, as applicable, HADD authorizations. Procedures will include design requirements, use of construction materials to minimize sedimentation, and maintaining fish passage, where required
C46	44	To minimize the potential environmental effects of unauthorized access to the RoW during Operation and Maintenance, fencing or other barriers and signage will be installed, as per agreements with individual landowners, to minimize access along the RoW
C47	46	Operation and maintenance procedures will be developed for the Project that will ensure that regulatory requirements are met and the pipeline is operated and maintained to a high standard and the probability of unplanned releases of natural gas from the pipeline are kept low. Further, a Pipeline Integrity Management Plan (Pipeline IMP), including condition monitoring measures such as routine internal inspections of the pipeline to detect time dependant material defects (e.g., corrosion) and routine monitoring of corrosion protection measures (i.e., cathodic protection equipment and facilities) will further reduce the probability of a pipeline rupture or leak from occurring from corrosion
C48	46	The Project will be designed in accordance with the design criteria, specifications, programs, manuals, procedures, measures, and plans identified in CSA Z662. A Quality Assurance Program will be implemented to ensure that construction materials are used in the pipeline meet specifications provided for in the pipeline design to reduce the probability of material defects. The QAP will include inspection and test procedures (e.g., pressure testing and non destructive tests) in accordance with CSA Z662 to assure pipeline and weld integrity.
C49	48	the Proponent's Environment, Health & Safety Policy objectives will be achieved through a comprehensive design process that includes meeting pipeline design standards and codes prescribed by applicable legislation, conducting a quantitative risk analysis of the pipeline, and implementing a Quality Assurance Program for Construction
C50	50	Routine pipeline monitoring and surveillance programs, including line patrol surveys, will be conducted to identify potential operational problems and/or security issues and unauthorized activities in the RoW that could compromise the integrity of the pipeline system. Line patrol surveys (by land and by air), implemented concurrently with the installation of natural barriers, signage, and fencing, and a public awareness program (described below), will be directed at preventing unauthorized access to the RoW and potential damage to the pipeline system. Further, ongoing engineering assessments of the pipeline will be conducted as required to evaluate changing conditions (e.g., changes in pipe class location). The Pipeline IMP will also define the qualifications and training requirements for technical staff involved in the development and implementation of the Pipeline IMP, and technical staff will be required to keep themselves current with ongoing research and development initiatives related to pipeline integrity management. The monitoring of the effectiveness of the Pipeline IMP will be established through an internal oversight committee and regular dialogue with the NEB and industry. Audits and site inspections will be conducted to ensure that the Environmental Protection and Safety Management Program policies and procedures are being implemented effectively, deficiencies recorded, and corrective actions taken
C51	52	A public awareness and education program will be implemented in accordance with NEB regulatory requirements - the program will include "call before you dig" advertising, the posting or warning signs along the RoW, the promotion of "one call" locate services, and ongoing discussions with forestry contractors, excavation contractors, sign installers, and local authorities - further, landowners will be consulted on an ongoing basis through the Project Construction, and Operation and Maintenance phases
C52	83	Recommendations from consultation are: <input type="checkbox"/> Develop a detailed informational package on M&NP's (contractor) safety procedures and distribute to each of the New Brunswick First Nation communities

Brunswick Pipeline Commitment List

Section C: Commitments Related to the Environmental and Socio-Economic Assessment (EA)

(All Commitments listed below are to be addressed in the Environmental Protection Plan
proposed to be completed by Aug 31, 2007)

Commitment #	EA Page Number Reference	Commitment
C53	219	<ul style="list-style-type: none"> <input type="checkbox"/> Application of dust suppressant <input type="checkbox"/> Follow equipment maintenance schedules <input type="checkbox"/> Use of low sulphur fuels where feasible <input type="checkbox"/> Preserve natural vegetation where practicable <input type="checkbox"/> Minimize activities that generate large quantities of dust during high winds <input type="checkbox"/> Minimize idling <input type="checkbox"/> Follow equipment maintenance schedules
C54	219	<ul style="list-style-type: none"> <input type="checkbox"/> Noise controls where warranted (e.g. sound barriers) <input type="checkbox"/> Timing restrictions where warranted <input type="checkbox"/> Locate equipment at a distance from near-by receptors where practicable (welding machines, compressors, pumps) <input type="checkbox"/> Use of shrouds or enclosures to surround stationary mechanized equipment where warranted <input type="checkbox"/> Other mitigation as recommended in RSE (2006) <input type="checkbox"/> Detailed noise mitigation design is recommended for the Saint John River HDD; further predictions of drilling sound levels at the nearest residences prior to the commencement; sound pressure levels be monitored during HDD activities, during daytime hours at the nearest residence prior to the continuation of HDD activities on a 24-hour basis.
C55	220	<ul style="list-style-type: none"> <input type="checkbox"/> Additional noise monitoring or mitigation to address any potential complaints during construction; spot checks of noise levels at the nearest residences on a periodic basis during HDD to monitor the effectiveness of the mitigation and to provide a basis for implementing further actions aimed at preventing significant environmental effects during construction.
C56	242	<ul style="list-style-type: none"> <input type="checkbox"/> Identify wells within 500 m <input type="checkbox"/> Inspect/test wells within 100 m or with low yield <input type="checkbox"/> Collect water samples for at-risk wells and archive samples from others <input type="checkbox"/> Design blasts to minimize vibration <input type="checkbox"/> provide seismic monitoring of the closest well within 500 m of either side of a blast
C57	242 252	<ul style="list-style-type: none"> <input type="checkbox"/> ARD management plan including no storage within 60 m of a watercourse <input type="checkbox"/> minimize groundwater through flow along trenches using impermeable plugs or barriers; <input type="checkbox"/> collect baseline water samples for pH, Al, Fe, Mn, As, Cu, Zn, alkalinity, and sulphate for watercourses in Designated Watershed Protection Areas where the detailed RoW is within 250 m of a watercourse in acid generating bedrock;
C58	242	<ul style="list-style-type: none"> <input type="checkbox"/> Minimize dewatering <input type="checkbox"/> Use sediment control <input type="checkbox"/> Avoid interruptions of major springs <input type="checkbox"/> Adjust schedule to minimize duration of excavation dewatering <input type="checkbox"/> Monitor wells and water supply lakes and rivers within 50 m of excavation
C59	242	<ul style="list-style-type: none"> <input type="checkbox"/> Use rock breakers instead if feasible or alternatively smaller charges <input type="checkbox"/> Follow regulatory guidelines for blasting <input type="checkbox"/> Provide temporary water supplies if required <input type="checkbox"/> Deepen or replace permanently affected wells <input type="checkbox"/> All blasting areas shall be identified on maps during the routing of the pipeline RoW
C60	243 255	<ul style="list-style-type: none"> <input type="checkbox"/> Adjust water withdrawal procedures in accordance with water source water levels <input type="checkbox"/> Use sediment control including velocity dissipaters (rip rap) for hydrotest water release <input type="checkbox"/> Qualitatively evaluate hydrotest water prior to release and have analyzed if necessary <input type="checkbox"/> Provide temporary water supplies when required <input type="checkbox"/> If necessary pursuant to qualitative analysis of hydrotest water, have water analyzed and compared with CCME Guidelines
C61	243	<ul style="list-style-type: none"> <input type="checkbox"/> Suspended solids should be monitored upstream and downstream of any stream crossing on a daily basis during the implementation of the crossing
C62	243	<ul style="list-style-type: none"> <input type="checkbox"/> If identified as a water supply for a sensitive habitat or wetland, suspended solids monitoring should be performed during stream crossing work period (Dennis Stream Site Specific) <input type="checkbox"/> Use materials in trench backfill that resemble aquifer hydraulic properties <input type="checkbox"/> Install groundwater flow barriers in trench annulus <input type="checkbox"/> Provide temporary water supplies <input type="checkbox"/> Deepen or replace affected wells
C63	244	<ul style="list-style-type: none"> <input type="checkbox"/> Avoid placing high-traffic work sites (e.g., marshalling or storage yards) in protected watersheds, slopes and recharge areas
C64	244	<ul style="list-style-type: none"> <input type="checkbox"/> Only herbicides of low persistence and low ecological toxicity should be used within the confines of the valve and metering sites <input type="checkbox"/> Land applications of chemicals are prohibited in Designated Watershed Protection Areas; meter stations and other facilities requiring such treatments will be located outside of these areas

Brunswick Pipeline Commitment List

Section C: Commitments Related to the Environmental and Socio-Economic Assessment (EA)

(All Commitments listed below are to be addressed in the Environmental Protection Plan
proposed to be completed by Aug 31, 2007)

Commitment #	EA Page Number Reference	Commitment
C65	252	<ul style="list-style-type: none"> <input type="checkbox"/> carry out excavation work, including disposal, in accordance with appropriate regulatory guidelines such as the Nova Scotia Sulphide Bearing Material Disposal Regulations; <input type="checkbox"/> minimize over-break of bedrock during excavation blasting; <input type="checkbox"/> minimize the extent of excavations in acid generating bedrock areas;
C66	252	<ul style="list-style-type: none"> <input type="checkbox"/> Conduct a drilling and sampling program with emphasis on bedrock areas near domestic water wells and in Designated Watershed Protection Areas that present an acidic drainage risk; <input type="checkbox"/> Inventory water wells within 500 m and down-gradient of the acidic drainage risk zones; <input type="checkbox"/> Minimize exposure of acid rock by minimizing the time that the excavation remains open <input type="checkbox"/> collect baseline water samples for pH, Al, Fe, Mn, As, Cu, Zn, alkalinity, and sulphate for wells within 100 m of excavation zones in acid generating bedrock
C67	252	<ul style="list-style-type: none"> <input type="checkbox"/> Monitor down-gradient water resources in bedrock excavation areas <input type="checkbox"/> engage a qualified professional to conduct an initial screening for evidence of acidic drainage (drop in pH or visual evidence of iron precipitate) within seven days of the implementation of acid rock mitigation in areas where rock with ARD potential was encountered within 250 m of a watercourse in a Designated Watershed Protection Area; and <input type="checkbox"/> monitor wells and watercourses in Designated Watershed Protection Areas situated closest to pipeline RoW within 500 m down-gradient of pipeline in acidic drainage risk areas for at least two years following Construction.
C68	252 265	<ul style="list-style-type: none"> <input type="checkbox"/> divert surface water and shallow groundwater away from excavation in acid generating bedrock areas; <input type="checkbox"/> minimize volume of sulphide-bearing material requiring storage or disposal <input type="checkbox"/> isolate the mineralized portion of the trench with impermeable fills; <input type="checkbox"/> the nearest down-gradient residential well within 500 m of the RoW should be used as a monitoring well. This well should be checked on a quarterly basis for two years for general chemistry in order to identify any changes in groundwater quality that might be indicative of acidic drainage
C69	259	<ul style="list-style-type: none"> <input type="checkbox"/> Provide temporary water supplies, if necessary <input type="checkbox"/> Replace infrastructure, if damaged <input type="checkbox"/> Environmental Protection and Safety Management Program
C70	261	<ul style="list-style-type: none"> <input type="checkbox"/> Engineered barriers are recommended to ensure that any spills be confined within a small area
C71	278	<ul style="list-style-type: none"> <input type="checkbox"/> Limit area of disturbance especially within 30 m of a watercourse <input type="checkbox"/> For winter clearing, maintain a 30 m buffer zone at watercourse crossing locations <input type="checkbox"/> Obtain DFO approval for blasting near/through watercourses <input type="checkbox"/> Conduct winter blasting in accordance with DFO restrictions <input type="checkbox"/> Follow DFO's watercourse blasting guidelines <input type="checkbox"/> Apply for WAWA permit, follow requirements <input type="checkbox"/> Regular sampling of TSS when visible overland flow of water <input type="checkbox"/> Regular inspection and monitoring of erosion and sediment controls
C72	279	<ul style="list-style-type: none"> <input type="checkbox"/> Erosion control measures <input type="checkbox"/> Monitor dewatering areas for erosion <input type="checkbox"/> Follow EPP including intake screen and avoidance of low water periods <input type="checkbox"/> Implement Hydrostatic Testing section of EPP <input type="checkbox"/> Dispose of hydrostatic test waters within the same watershed from which water was obtained <input type="checkbox"/> Implement the Environmental Protection and Safety Management Program
C73	280	<ul style="list-style-type: none"> <input type="checkbox"/> Adhere to DFO's HADD authorization conditions <input type="checkbox"/> Implement mitigation for Dennis Stream <input type="checkbox"/> Environmental monitoring for HDDs and all crossings upstream of critical Atlantic salmon habitat
C74	280	<ul style="list-style-type: none"> <input type="checkbox"/> Adhere to the in stream work windows <input type="checkbox"/> Ensure water flow around work site is not interrupted <input type="checkbox"/> Pump intakes should be screened as per DFO's Freshwater Intake-End-of-Pipe Fish Screen Guideline <input type="checkbox"/> Restore stream to pre-construction status <input type="checkbox"/> Contour, stabilize, armor and vegetate disturbed stream banks bringing the contour as close as possible to original conditions
C75	280	<ul style="list-style-type: none"> <input type="checkbox"/> Avoid critical Atlantic salmon spawning and rearing habitat in WC11 (Dennis Stream) in consultation with DFO <input type="checkbox"/> Floating silt curtains and pump around for in stream sediment control during wet-crossings <input type="checkbox"/> In stream equipment should be clean and inspected for drips and leaks prior to entering a watercourse and inspected regularly for leaks while in stream <input type="checkbox"/> Crossing construction should only be started when the chance of heavy precipitation is low

Brunswick Pipeline Commitment List

Section C: Commitments Related to the Environmental and Socio-Economic Assessment (EA)

(All Commitments listed below are to be addressed in the Environmental Protection Plan
proposed to be completed by Aug 31, 2007)

Commitment #	EA Page Number Reference	Commitment
C76	280	<ul style="list-style-type: none"> <input type="checkbox"/> Minimize in stream work, work in the dry where practicable <input type="checkbox"/> Field identify and flag critical Atlantic salmon spawning and rearing habitat in WC109 (Dennis Stream) with Atlantic Salmon Federation personnel Effectiveness monitoring, to be developed by the Proponent in consultation with DFO and NBENV, should consist of the following core elements for comparison with pre-development baseline conditions: <ul style="list-style-type: none"> <input type="checkbox"/> assessment of fish habitat following Hooper et al. 1995; and <input type="checkbox"/> a substrate and embeddedness study for visual assessment of the extent of potential sedimentation resulting from construction activities
C77	280 306	<ul style="list-style-type: none"> <input type="checkbox"/> Limit area of disturbance especially within 30 m of a watercourse Surface Water compliance monitoring to include: <ul style="list-style-type: none"> <input type="checkbox"/> development of a watercourse monitoring program in consultation with DFO that includes TSS and pH where ARD is present <input type="checkbox"/> inspection of sediment and erosion controls <input type="checkbox"/> inspections of hazardous materials (including sediment) storage <input type="checkbox"/> inspection of temporary bridge structures for verification of correct installation and subsequent signs of degradation <input type="checkbox"/> development and maintenance of a log for erosion-prone areas <input type="checkbox"/> exceedance thresholds (CCME Guidelines) and remedial actions
C78	282	<ul style="list-style-type: none"> <input type="checkbox"/> Limit area of disturbance especially within 30 m of a watercourse <input type="checkbox"/> Designated fuel storage areas to be at least 100 m from watercourses <input type="checkbox"/> Designated refueling areas to be at least 30 m from watercourses <input type="checkbox"/> Proper containment measures for hazardous materials storage tanks
C79	283	<ul style="list-style-type: none"> <input type="checkbox"/> Trees felled within the MDZ should be cut by hand clearing or by equipment able to reach into the zone from outside <input type="checkbox"/> Avoid felling or skidding trees across a watercourse <input type="checkbox"/> Heavy machinery should be avoided within 10 m of the banks of the watercourse and grubbing within that zone undertaken only immediately prior to trench excavation and pipeline installation when the water has been diverted <input type="checkbox"/> Clearing should occur only within the areas required for the RoW particularly within the 30 m buffer zone
C80	286	<ul style="list-style-type: none"> <input type="checkbox"/> In the event of late season work exposed soils should be stabilized within 5 days in the buffer zone or prior to the onset of a storm or frozen ground conditions <input type="checkbox"/> In the event of late season work soils should be stabilized within 30 days of disturbance outside of the buffer zone or prior to the onset of a winter storm or frozen ground conditions <input type="checkbox"/> Beaver dam removal will be preceded by the removal of the beaver by a Wildlife Nuisance Control Officer and dam removal will be in accordance with applicable guidelines
C81	287	<ul style="list-style-type: none"> <input type="checkbox"/> A pre-construction meeting will be held with DFO, NBDNR and NBENV to review authorization conditions for wet-crossings <input type="checkbox"/> A wet weather shut down policy will be in place and include action thresholds (minimum amounts and corresponding action) <input type="checkbox"/> Temporary crossings will accommodate fish passage <input type="checkbox"/> Fish salvage will be conducted as required
C82	287	<ul style="list-style-type: none"> <input type="checkbox"/> Blasting will be conducted in consultation with DFO and will be carried out between June 1 and September 30 <input type="checkbox"/> Fish will be excluded from the area prior to blasting <input type="checkbox"/> non-propagating explosives will be used <input type="checkbox"/> time delay blasting caps will be used for smaller blasts <input type="checkbox"/> ammonium nitrate fuel oil mixtures will be avoided <input type="checkbox"/> blasting components will be recovered <input type="checkbox"/> detonations will be avoided that could produce an instantaneous pressure change of 100 kPa in the swim bladder
C83	291	<ul style="list-style-type: none"> <input type="checkbox"/> If a wet crossing is required for Dennis Stream consider pumping around the site, use of floating silt curtains downstream and minimizing the duration of the crossing <input type="checkbox"/> Prior to construction of the crossing at Atkinson Brook notify Point Lepreau Nuclear Generating Station personnel: Charles Hickman Licencing Manager, Point Lepreau Refurbishment Project Box 600 Lepreau, NB E5J 2S6 Mr. Hickman has asked that a letter of the plan be sent to him indicating a wet-crossing is being considered, approximate timing of construction, and a point of contact. (Susan)
C84	292	<ul style="list-style-type: none"> <input type="checkbox"/> It is recommended that berms be constructed at HDD sites to contain any potential fluid migration <input type="checkbox"/> Sufficient materials should be on hand to respond to and contain a frac-out
C85	294	<ul style="list-style-type: none"> <input type="checkbox"/> Limit use of herbicide <input type="checkbox"/> Use herbicide of short persistence and low ecological toxicity

Brunswick Pipeline Commitment List

Section C: Commitments Related to the Environmental and Socio-Economic Assessment (EA)

(All Commitments listed below are to be addressed in the Environmental Protection Plan
proposed to be completed by Aug 31, 2007)

Commitment #	EA Page Number Reference	Commitment
C86	297 300	<input type="checkbox"/> Spill response materials to facilitate a rapid containment and clean-up of hazardous materials spills should be available onsite during construction in or near watercourses and wetlands <input type="checkbox"/> Audits and Inspections
C87	298	<input type="checkbox"/> Monitor approach roads, abutments and bridge decks regularly. Correct deficiencies immediately <input type="checkbox"/> Dry-crossing impoundment structure washouts should be mitigated in consultation with DFO and NBDNR if HADD authorization required for a dry-crossing
C88	317	<input type="checkbox"/> Cleaning stations for equipment and vehicles be available, where required, to reduce the spread and introduction of invasive species of plants <input type="checkbox"/> Limit area of disturbance <input type="checkbox"/> Follow EPP <input type="checkbox"/> Use designated roadways and access; limit off-road activity <input type="checkbox"/> Erosion control measures <input type="checkbox"/> Implement Environmental Protection and Safety Management Program
C89	317	<input type="checkbox"/> Develop site-specific EPP measures to protect plant species at risk and species of conservation concern concentrations including flagging locations of these plants <input type="checkbox"/> Include vascular plant species at risk and species of conservation concern in employee awareness training <input type="checkbox"/> Use designated roadways and access; limit off-road activity
C90	317	<input type="checkbox"/> Planning for watercourse crossings using Watercourse Alteration Technical Guidelines
C91	317 319	<input type="checkbox"/> Any ancillary structures and facilities not currently identified that could be situated outside of the RoW and developed in a previous greenspace will be subjected to a vascular plant survey <input type="checkbox"/> Temporary workspaces should be surveyed and flagged prior to Construction to ensure their reclamation and maintenance with the rest of the RoW <input type="checkbox"/> Revegetation with native vegetation should occur on exposed soils to ensure long-term stabilization; mixes should be free of weed species to the extent feasible
C92	320 326	<input type="checkbox"/> Pipeline repairs should occur only within the confines of the area previously disturbed and revegetated <input type="checkbox"/> Monitoring at meter stations and other station facilities should be conducted for potential environmental effects of herbicide use on vascular plant species at risk or species of conservation concern is recommended; details of the program should be developed and site-specific baseline conditions should be established prior to herbicide use
C93	321 324	<input type="checkbox"/> Engineered barriers (e.g., secondary containment) should be used to ensure that spills are confined within a small area and will not disperse in the environment to any great extent
C94	322 324	<input type="checkbox"/> Avoid placement of drainage channels in proximity to species of concern
C95	334	<input type="checkbox"/> Avoid directing runoff water flow toward wetland
C96	334	<input type="checkbox"/> Use designated roadways and access; limit off-road activity <input type="checkbox"/> Avoid locating temporary work areas in wetland, where practicable <input type="checkbox"/> Stockpile surface wetland soils separately and then return them to wetland <input type="checkbox"/> Maintain water flow within or across wetland
C97	335	<input type="checkbox"/> Any wood riprap and gravel material used for temporary access should be removed to original wetland elevation unless approved by owners/agency to remain for future access <input type="checkbox"/> Avoid seeding in and within 30 m of wetland
C98	337	<input type="checkbox"/> Designated fuel storage areas to be at least 100 m from wetlands <input type="checkbox"/> Designated refueling areas to be at least 30 m from wetlands
C99	344 347	<input type="checkbox"/> Avoid directing temporary ditches/runoff channels towards wetland
C100	356	<input type="checkbox"/> Minimize length of time that trenches are left open <input type="checkbox"/> Erect fencing around boreholes and pits to protect wildlife

Brunswick Pipeline Commitment List
Section C: Commitments Related to the Environmental and Socio-Economic Assessment (EA)

(All Commitments listed below are to be addressed in the Environmental Protection Plan
proposed to be completed by Aug 31, 2007)

Commitment #	EA Page Number Reference	Commitment
C101	356	<input type="checkbox"/> Confine clearing and grubbing to RoW
C102	356	<input type="checkbox"/> Isolate work and ensure no wood turtles present before commencing work
C103	356	<input type="checkbox"/> Minimize removal of shrubs and grubbing and grading within 30 m of all streams <input type="checkbox"/> Within 10 m of streams grub only the trench area not the entire RoW <input type="checkbox"/> In forested areas, the duff/topsoil layer should be preserved and stored separately from the subsoil layer
C104	360	<input type="checkbox"/> Retain surface soils for reinstatement following maintenance or repairs
C105	361	<input type="checkbox"/> A WAWA permit will be obtained for any mechanical vegetation management within 30 m of a wetland greater than 1 ha or contiguous to a watercourse <input type="checkbox"/> Only mechanical vegetation management to be used <input type="checkbox"/> Vegetation management to occur outside of the breeding season for birds
C106	378	<input type="checkbox"/> a post-work evaluation of contractor safety performance and compliance with applicable health and safety policy and procedures should be used to confirm the contractor's qualifications for future work for the Proponent
C107	403	Notify forestry harvesting operations during finalization of RoW
C108	403	<input type="checkbox"/> Pre-blast survey of homes within a certain radius of the blasting activities
C109	403 407	<input type="checkbox"/> Work with City of Saint John officials and local business owners to minimize any temporary disruptions to local business operations
C110	403 407	<input type="checkbox"/> Maintain soil layers separately for re-placement during restoration <input type="checkbox"/> Maintain a single travel path over agricultural lands <input type="checkbox"/> work with farmers/landowners to monitor any residual crop loss and if required implement additional mitigation in order to return the land to its pre-Construction capacity
C111	404	<input type="checkbox"/> Potentially contaminated sites, if encountered during Construction, will be managed in accordance with the Guideline for Management of Contaminated Sites (NBDELG 2003b). <input type="checkbox"/> The site should be evaluated in a timely manner to determine whether there are offsite effects or unacceptable onsite effects, and to minimize the effects on the Project construction schedule
C112	404	<input type="checkbox"/> Signage for all navigable waters notifying change in navigability during pipeline installation as applicable <input type="checkbox"/> Recreational trails quickly re-opened <input type="checkbox"/> Schedule work to minimize interference with recreational activities (soccer fields) and reestablish in time for high usage periods
C113	422	<input type="checkbox"/> Pipeline will be installed by bore, if practicable, under major transportation corridors or corridors with high traffic volumes <input type="checkbox"/> Minimize time that crossings are trenched on secondary routes <input type="checkbox"/> Pipeline installation timed to occur during periods of low traffic volumes
C114	422	<input type="checkbox"/> Site temporary facilities to minimize conflict with existing traffic flow
C115	450 453	<input type="checkbox"/> Provide opportunity to access to exposed rock to paleontologists <input type="checkbox"/> Adjacent off-RoW areas of known archaeological and heritage resources should be marked <input type="checkbox"/> Any facilities required for the Project that do not fall within the Project footprint, which have not yet been identified, should be subject to an archaeological review prior to their development to determine the presence of known resources or archaeological potential

Brunswick Pipeline Commitment List
Section D: Commitments Related to the Draft Report -
Environmental Field Study 2006

(All Commitments listed below are to be addressed in the Environmental Protection Plan
proposed to be completed by Aug 31, 2007)

Commitment #	Source Document Page #	COMMITMENTS
D1	29	Although Emera is optimistic that the Saint John River can be successfully crossed with a HDD, they are considering an open cut crossing as a contingency plan. Emera has committed to conducting a separate environmental assessment for this contingency crossing method which will be undertaken in consultation with regulatory authorities.
D2	31	In the case of the Dennis Stream, and any other fish habitat, all habitat disturbance will be mitigated by habitat restoration and enhancement activities.
D3	45	The detailed route selection process will take the locations of vascular plant species of conservation concern into question. Early in 2007, the proponent and their environmental consultants will meet with the appropriate regulatory agencies and present the preliminary detailed route and its relationship to the rare plant locations identified in this report.
D4	56	Additional wetland surveys will be carried out if warranted, in particular if there are any changes to the current understanding of the preliminary detailed route alignment.
D5	57	Ongoing communication will take place with regulatory agencies and stakeholders as required.
D6	58	It is anticipated that Emera and its consultants will meet with appropriate regulatory agencies to present the preliminary detailed route and discuss the wetland data provided in this document.

Brunswick Pipeline Commitment List
Section E: National Energy Board - Reasons for Decision GH-1-2006 Certificate
Conditions

Condition Number	Condition	Target Date
1	General Conditions EBPC shall cause the approved Project to be designed, located, constructed, installed, and operated in accordance with the specifications, standards and other information referred to in its application or as otherwise agreed to during questioning or in its related submissions.	Ongoing
2	EBPC shall implement or cause to be implemented all of the policies, practices, programs, mitigation measures, recommendations and procedures for the protection of the environment included in or referred to in its application or as otherwise agreed to during questioning or in its related submissions.	Ongoing
3	Prior to Construction Commitments EBPC shall file with the Board and post on its company website, at least one hundred and twenty (120) days before the planned start of construction, a table listing all commitments made by EBPC during the proceedings, conditions imposed by the NEB, and the deadlines associated with each	July 4, 2007
4	Consultation EBPC shall file with the Board for approval, at least seventy-five (75) days prior to the planned start of construction, a public consultation program for the construction and the operation phases of the Project.	August 18, 2007
5	Environmental Protection Plan EBPC shall file with the Board for approval, at least sixty (60) days prior to construction, a Project-specific Environmental Protection Plan (EPP). This EPP shall be a comprehensive compilation of all environmental protection procedures, mitigation measures, and monitoring commitments, as set out in EBPC's application for the Project, subsequent filings, evidence collected during the hearing process, or as otherwise agreed to during questioning or in its related submissions. The EPP shall describe the criteria for the implementation of all procedures and measures, and shall use clear and unambiguous language that confirms EBPC's intention to implement all of its commitments. Construction shall not commence until EBPC has received approval of its EPP from the Board. 102 GH-1-2006 The EPP shall address, but is not limited to, the following elements: a) environmental procedures including site-specific plans, criteria for implementation of these procedures, mitigation measures and monitoring applicable to all Project phases, and activities; b) site-specific construction plans for wetlands where they cannot be avoided; c) site-specific plans for habitat harboring Species at Risk and of Conservation Concern where it cannot be avoided; d) project-specific acid rock drainage mitigation measures; e) a construction and reclamation plan for Rockwood Park with evidence demonstrating consultation with stakeholders; f) a reclamation plan which includes a description of the condition to which EBPC intends to reclaim and maintain the right of way once the construction has been completed, and a description of measurable goals for reclamation; and g) evidence of consultation with relevant regulatory authorities that either confirms satisfaction with the proposed mitigation or summarizes any unresolved issues with the proposed mitigation.	August 31, 2007

Brunswick Pipeline Commitment List
Section E: National Energy Board - Reasons for Decision GH-1-2006 Certificate
Conditions

Condition Number	Condition	Target Date
6	<p>Environmental Follow-up Programs</p> <p>EBPC shall file with the Board for approval, at least sixty (60) days prior to construction, a description of follow-up programs as required by the Canadian Environmental Assessment Act. The programs shall verify the accuracy of the environmental assessment predictions and assess the effectiveness of mitigation for:</p> <ul style="list-style-type: none"> • fish and fish habitat as outlined in the Brunswick Pipeline Project Environmental and Socio-Economic Assessment (Volume 1); • wetlands as outlined in the Brunswick Pipeline Project Environmental and Socio-Economic Assessment (Volume 1); • access management as detailed in the Access Management Plan (Condition 11); and • horizontal directional drill (HDD) noise management (Condition 15); and • reclamation of Rockwood Park (Condition 5e). <p>Copies of all correspondence demonstrating consultation with the appropriate regulatory agencies and stakeholders shall be included in the submission to the Board.</p> <p>These descriptions of follow-up programs shall include a schedule for the submission of follow-up reports to the Board.</p>	August 31, 2007
7	<p>Traditional Ecological Knowledge Study Recommendations</p> <p>EBPC shall file with the Board, at least sixty (60) days prior to construction, an update on the implementation of the six recommendations identified in the <u>Traditional Ecological Knowledge Study (July 2006)</u>.</p>	August 31, 2007
8	<p>Construction Schedule</p> <p>EBPC shall, at least thirty (30) days prior to construction, file with the Board a detailed construction schedule or schedules identifying major construction activities and shall <u>notify the Board of any modifications to the schedule or schedules as they occur.</u></p>	October 2, 2007
9	<p>Construction Inspection Program</p> <p>EBPC shall file with the Board for approval, at least thirty (30) days prior to construction, a construction inspection program. The program shall include:</p> <ol style="list-style-type: none"> a) a preliminary list of the number and type of each inspection position, including job descriptions, qualifications, roles, responsibilities, and decision-making authority; b) a discussion of how any changes to the items outlined in (a) would be determined during the course of construction; and c) the reporting structure of personnel responsible for inspection of the various pipeline construction activities, including environment and safety. 	October 2, 2007
10	<p>Archaeological Studies and Monitoring Plan</p> <p>EBPC shall consult with the Archaeological Services Unit of New Brunswick on further studies and a monitoring plan for areas with high potential for heritage resources, once the locations for detailed right of way, facility sites and temporary work space have been determined. EBPC shall file with the Board for approval, at least thirty (30) days prior to construction:</p> <ol style="list-style-type: none"> a) for approval, a report that documents how archaeological and heritage resources within the detailed route have been identified, recorded and mitigated; b) copies of any correspondence from, or a summary of any discussions with the Archaeological Services Unit of New Brunswick regarding the acceptability of EBPC's report and proposed mitigation measures; and c) for approval, a copy of any proposed monitoring plan. 	October 2, 2007

Brunswick Pipeline Commitment List
Section E: National Energy Board - Reasons for Decision GH-1-2006 Certificate
Conditions

Condition Number	Condition	Target Date
11	<p>Access Management Plan</p> <p>EBPC shall file with the Board for approval, at least thirty (30) days prior to construction, a Project-specific Access Management Plan that includes:</p> <p>a) EBPC's goals and measurable objectives regarding the Access Management Plan;</p> <p>b) the methods and procedures to be used to achieve the mitigation goals;</p> <p>c) the criteria to determine if the mitigation goals have been met;</p> <p>d) the frequency of monitoring activities along the right of way;</p> <p>e) a description of the adaptive measures that will take place in the event that access management measures are ineffective; and</p> <p>f) evidence of consultation with relevant regulatory authorities and landowners that either confirms satisfaction or summarizes any unresolved issues with the proposed mitigation.</p> <p>Construction shall not commence until EBPC has received approval of its Access Management Plan from the Board.</p>	October 2, 2007
12	<p>Construction Manuals</p> <p>EBPC shall file with the Board the following programs and manuals within the time specified.</p> <p>a) Construction safety manual fourteen (14) days prior to construction;</p> <p>b) Field joining program fourteen (14) days prior to joining; and,</p> <p>c) Field pressure testing program fourteen (14) days prior to pressure test.</p>	October 18, 2007
13	<p>Infrastructure Facilities</p> <p>EBPC shall file with the Board, at least seven (7) days prior to construction, the identity of all underground infrastructure utilities to be crossed by the Project, and confirmation that all the agreements or crossing permits for those facilities to be crossed have been acquired or will be acquired prior to construction.</p>	October 25, 2007
14	<p>During Construction</p> <p>Construction Progress Reports</p> <p>EBPC shall file with the Board, on a monthly basis until construction is completed, in a form satisfactory to the Board, construction progress reports. The reports shall include information on the activities carried out during the reporting period, any environmental and safety issues and non-compliances, and the measures undertaken for the resolution of each issue and non-compliance.</p>	Ongoing during Construction
15	<p>HDD Noise Management Plan</p> <p>EBPC shall file for approval, at least ninety (90) days prior to the start of the HDD activity proposed for the Saint John River Crossing, a detailed noise management plan containing information on day-time and night-time HDD operations at the drill exit and entrance sites, including but not limited to the following:</p> <p>a) ambient sound levels at noise sensitive areas close to the HDD exit and entrance sites to establish a baseline for assessing potential noise impacts;</p> <p>b) predicted noise level at the most affected residences caused by the HDD without mitigation;</p>	October 3, 2007

Brunswick Pipeline Commitment List
Section E: National Energy Board - Reasons for Decision GH-1-2006 Certificate
Conditions

Condition Number	Condition	Target Date
	<p>c) proposed HDD noise mitigation measures, including but not limited to the following:</p> <ul style="list-style-type: none"> i. all technologically and economically feasible mitigative measures as presented in Section 5.1.7 of the Environmental and Socioeconomic Assessment (Jacques Whitford, 2006) and in the Resource Systems Engineering assessment; ii. the use of full enclosures on diesel powered units; iii. the use of quiet machinery (where feasible); iv. the undertaking of HDD activities during periods where residential windows would be expected to be closed (i.e., during winter months); <p>d) predicted noise level at the most affected residences with implementation of the mitigation measures;</p> <p>e) noise contour map(s) showing the potentially affected residences at various noise levels;</p> <p>f) a noise monitoring program including locations, methodology and schedule;</p> <p>g) confirmation that residents potentially affected by HDD noise will receive contact information for EBPC in the event they have concerns about the HDD noise;</p> <p>h) a contingency plan with proposed mitigative measures for addressing noise complaints, which may include the temporary relocation of specific residents; and</p> <p>i) confirmation that EBPC will provide notice to nearby residents in the event that a planned blowdown is required and that planned blowdowns will be completed during day-time hours whenever possible.</p>	
16	<p>Saint John River Crossing</p> <p>EBPC shall construct the crossing(s) of the Saint John River using the HDD method or, if this is not feasible, shall apply to the Board for approval of an alternative crossing technique and include an environmental assessment of the proposed alternative with its application.</p>	September 1, 2007
17	<p>Archaeological or Heritage Resource Discovery</p> <p>EBPC shall notify the Board, at the time of discovery, of any archaeological or heritage resources and, as soon as reasonable thereafter, file with the Board for approval a report on the occurrence and proposed treatment of the archaeological/heritage resources, any changes to the archaeological/heritage monitoring plan, and the results of any consultation, including a discussion on any unresolved issues. If no discoveries are made, please indicate that when complying with condition 20.</p>	As Required During Construction
18	<p>Prior to Operation</p> <p>Emergency Procedures Manual</p> <p>EBPC shall file with the Board, at least sixty (60) days prior to operation, an Emergency Procedures Manual (EPM) for the Project and shall notify the Board of any modifications to the plan as they occur. In preparing its EPM, EBPC shall refer to the Board letter dated 24 April 2002 entitled "Security and Emergency Preparedness Programs" addressed to all oil and gas companies under the jurisdiction of the National Energy Board.</p>	September 2, 2008
19	<p>Consultation on Emergency Procedures Manual</p> <p>EBPC shall file with the Board, at least sixty (60) days prior to operation, evidence of consultation with stakeholders identified in the EPM, including a summary of any unresolved issues identified in consultations, and evidence that the EPM addresses, to the extent possible, any issues raised during consultation.</p>	September 2, 2008

Brunswick Pipeline Commitment List
Section E: National Energy Board - Reasons for Decision GH-1-2006 Certificate
Conditions

Condition Number	Condition	Target Date
20	<p>Post-construction and During Operations Condition Compliance by a Company Officer</p> <p>Within thirty (30) days of the date that the approved Project is placed in service, EBPC shall file with the Board a confirmation, by an officer of the company, that the approved Project was completed and constructed in compliance with all applicable conditions in this Certificate. If compliance with any of these conditions cannot be confirmed, the officer of the company shall file with the Board details as to why compliance cannot be confirmed. The filing required by this condition shall include a statement confirming that the signatory to the filing is an officer of the company.</p>	December 1, 2008
21	<p>Emergency Response Exercise</p> <p>a) Within six (6) months after commencement of operation of the Project, EBPC shall conduct an emergency response exercise with the objectives of testing:</p> <ul style="list-style-type: none"> • emergency response procedures; • training of company personnel; <p>GH-1-2006 107</p> <ul style="list-style-type: none"> • communications systems; • response equipment; • safety procedures; and • effectiveness of its liaison and continuing education programs. <p>b) EBPC shall notify the Board, at least thirty (30) days prior to the date of the emergency response exercise, of the following:</p> <ul style="list-style-type: none"> • the date and location(s) of the exercise; • the participants in the exercise; and • the scenario for the exercise. <p>c) EBPC shall file with the Board, within sixty (60) days after the emergency response exercise outlined in (a), a report on the exercise including:</p> <ul style="list-style-type: none"> • the results of the exercise; • areas for improvement; and • steps to be taken to correct deficiencies. 	May 1, 2009
22	<p>Emergency Response Exercise Program</p> <p>Within six (6) months after commencement of operation of the Project, EBPC shall file with the Board a description of the company's emergency response exercise program, including:</p> <ul style="list-style-type: none"> • the frequency and type of exercises (full-scale, table-top, drill) it plans to conduct; and • how the results of any emergency response exercises will be integrated into the company's training and exercise programs. 	May 1, 2009
23	<p>Post-construction Environmental Reports</p> <p>Within six (6) months following commencement of operation of the Project, and on or before the 31st of January following each of the second (2nd) and fourth (4th) complete growing seasons following commencement of the operation of the Project, EBPC shall file with the Board a post-construction environmental report that:</p> <ul style="list-style-type: none"> a) identifies on a map or diagram any environmental issues which arose during construction; b) provides a discussion of the effectiveness of the mitigation applied during construction; c) identifies the current status of the issues identified, and whether those issues are resolved or unresolved; and d) provides proposed measures and the schedule EBPC shall implement to address any unresolved concerns. 	May 1, 2009

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Conditions

Condition Number	Condition	Target Date
24	Environmental Follow-up Program Reports EBPC shall file with the Board, based on the schedule referred to in Condition 6, the report(s) outlining the results of the follow-up programs.	As per scheduled submissions
25	Certificate Expiration Unless the Board otherwise directs prior to 31 December 2008, this Certificate shall expire on 31 December 2008 unless construction in respect of the Project has commenced by that date.	December 31, 2008