3.0 SCOPE OF THE ASSESSMENT

The following section provides the scope of the Project and scope of the factors to be considered for the environmental assessment, as well as the assessment method.

3.1 SCOPE OF THE PROJECT AND ITS ASSESSMENT

The physical activities of the Project consist of the following elements.

- Clearing of vegetation
- Topsoil stripping and salvage
- Construction of new access driveways and upgrading of existing roads
- Ploughing and trenching for underground electrical cabling and pole placement for aboveground cables
- Delivery of equipment and materials including the wind turbines, foundation materials, electrical cables and ancillary equipment
- Foundation construction
- Wind turbine installation
- Electrical cabling installation
- Clean-up and reclamation of the construction area
- Operation and maintenance of the Project
- Decommissioning of the turbines and the overall Project

The potential effects of accidents and malfunctions are also considered, as are the potential cumulative effects of this Project in relation to other projects in the Regional Study Area (see Section 3.3), including the existing wind farm. The potential effects of the environment on the Project are also addressed.

As per the requirements of *New Brunswick Environmental Impact Assessment Regulation*, environmental components pertain to both biophysical and socio-economic issues. Valued Components (VCs) are any part of the environment that is considered important by the proponent, members of the public, scientists and government agencies involved in the assessment process. These VCs provide the basis for a focused review of potential environmental effects from a proposed undertaking.

VCs for the Project include the following and are consistent with VCs assessed for the Kent Hills 1 and Kent Hills 2 Wind Farm EIA registrations:

- Soil
- Aquatic Environment (including fish and fish habitat and water quality)
- Birds and Other Wildlife
- Terrestrial Vegetation
- Wetlands
- Heritage Resources
- Land Use (including Recreation and Tourism)
- Visual Aesthetics
- Noise
- Health and Safety

With respect to atmospheric environment: air quality and greenhouse gases are not carried forward as VCs, as is discussed in Chapter 4, Sections 4.5.2 and 4.5.3, respectively.

3.2 ENVIRONMENTAL ASSESSMENT METHOD

The environmental assessment (EA) method used in this document is structured to include proposed mitigation for environmental impacts, which would reduce or avoid potential adverse effects. The determination of significance of predicted adverse effects is based on post-mitigation (residual or net) effects, rather than unmitigated potential effects. The significance of residual or net effects of the Project was determined using the following criteria, based on federal EA guidance (FEARO 1994).

- Geographic extent of the effect
- Magnitude of the effect
- Duration and frequency of the effect
- Reversibility of the effect
- Ecological and/or social context

A significant adverse environmental effect is defined as a permanent change in the quality or condition of a component of the environment. It must be spatially and temporally extensive and not within acceptable limits in terms of magnitude or nature based on guidelines, standards and professional judgement. Many construction-related effects are not considered to be significant as they are relatively brief (six months or less), restricted to the existing site and temporary in extent, and reversible over the short term. The potential level of effect after mitigation measures (i.e., residual effects) were identified based on NRCan's criteria and definitions provided in their Environmental Impact Statement Guidelines for Screenings of Inland Wind Farms under the *Canadian Environmental Assessment Act* (NRCan 2003) (Table 3.1).

Table 3.1 Level of Effect After Mitigation Measures

Level	Definition
High	Potential impact could threaten sustainability of the resource and should be considered a management concern. Research, monitoring and/or recovery initiatives should be considered.
Medium	Potential impact could result in a decline in resource to lower-than baseline but stable levels in the study area after Project closure and into the foreseeable future. Regional management actions such as research, monitoring and/or recovery initiatives may be required.
Low	Potential impact may result in a slight decline in resource in study area during the life of the Project. Research, monitoring and/or recovery initiatives would not normally be required.
Minimal	Potential impact may result in a slight decline in resource in study area during construction phase, but the resource should return to baseline levels.

Table 3.1 Level of Effect After Mitigation Measures

Level	Definition
N/A	There is no interaction possible between the Project activity in question and the associated potential adverse effect.
Source: NRCan 2003	

Issues scoping is the first step in the environmental assessment process and is an important part of identifying potential issues and focusing the assessment. The issues scoping process included the following activities.

- Initiation of the process by the proponent
- Review of regulatory guidelines
- Public and agency consultation
- Literature and background information review
- Field studies

The following sections discuss these activities in more detail.

3.2.1 Initiation of EIA Process

To initiate the provincial environmental impact assessment process, pre-registration consultation included discussing the Project plans with relevant regulatory agencies, including comments or concerns that would direct the scope of the impact assessment.

TransAlta received feedback from open houses conducted for the original and expanded wind farms and from an Open House on June 20, 2017. All comments received were considered as part of the issues scoping for the current Project assessment.

3.2.2 Regulatory Guidelines

As a modification of an electrical power generating facility with a production rating of 3.0 MW or more, the proposed expansion of the Kent Hills Wind Farm is an "undertaking" as defined in Schedule A of the *New Brunswick Environmental Impact Assessment Regulation - Clean Environment Act* and requires an environmental impact assessment registration.

Registration of any undertaking must follow "A Guide to Environmental Impact Assessment in New Brunswick" (NBDELG 2012). Registration of wind turbines must also adhere to requirements in "Additional Information Requirements for Wind Turbines" (NBDELG n.d.). This document outlines information required for wind power projects such as site considerations, description of the existing environment, and the summary of environmental impacts. With the proposed Project location on Crown land, the proponent is also required to meet the requirements specified in "Allocation of Crown Lands for Wind Power Projects" (NBDNR 2012). This document provides criteria for the allocation of Provincially-administered Crown lands in New Brunswick for wind farm exploration and development. Outlined in

the document are the granting rights for wind power projects, Project location criteria, evaluation of wind farm applications, and requirements of wind farm rightsholders.

Regulatory guidance for this Project was also obtained from "Wind Turbines and Birds – A Guidance Document for Environmental Assessment" (Environment Canada 2007a) and "Recommended Protocols for Monitoring Impacts of Wind turbines on Birds" (Environment Canada 2007b). This document was used to identify expectations of Environment and Climate Change Canada (ECCC) for pre-construction fieldwork and data collection for birds. Provincial guidelines concerning bats in "Bats Pre-construction Survey Guidelines for Wind Farm Project Proposals for New Brunswick" (NBDNR 2009) was used to guide planning and implementation for pre-construction bat surveys.

3.2.3 Public Consultation

Public consultation is an integral part of the environmental planning process and plays a key role in identifying potential concerns in early stages of the study. A consultation plan was created for the Kent Hills 3 Wind Project and is summarized in Appendix B. The plan was based on the protocols and results of the two former consultation programs executed for the original Kent Hills 1 Wind Farm in 2007 and subsequent Kent Hills 2 Wind Farm predevelopment activities in 2009.The information collected through these opportunities and through TransAlta's operating experience at this location assisted in developing a list of relevant stakeholders, potential concerns, and issues and suitable remedies. A complete summary of consultation activity and outcomes has been provided in the Stakeholder Consultation Summary in Appendix B. During its operating life, the project has been well received in the community and there have been no issues of regulatory noncompliance impacting stakeholders.

For the Kent Hills 3 Wind Project, an Open House event was hosted at the Turtle Creek Community Hall close to the wind farm site on June 20, 2017, and on July 13, a Supplier Open House was hosted in Moncton. Both events were publicly advertised in the *Moncton This Week* weekly newspaper. Agencies were sent the invitation in print as well as electronically in a format suitable for broader distribution on social media and within their organizations. A summary of principal issues or concerns raised during the Open House and contact with landowners and the relevant section of the EIA where they are addressed is provided in Table 3.2 and in broader detail under Appendix B.

Table 3.2 Summary of Issues Raised by Public During Consultation for Kent Hills 3 Wind Project

Issue/Concern/Question	EIA Reference
Effects of turbine noise on moose mating.	Section 5.2.1.2
Requests for Project layout once turbine locations are finalized.	NA

3.2.4 Stakeholder Consultation

TransAlta provided multiple opportunities for comment on the existing project during the original EIA process and the update for the expansion. A number of non-governmental organizations (NGOs) and

stakeholder groups as well as Crown Land lessees were contacted to gauge interest and solicit comments. The same stakeholder groups and NGOs contacted for the original assessment, and having an interest in the project during the original EIA, were contacted with respect to this expansion. Most contacted provided no additional comments, with the exception of Southeast New Brunswick Snowmobile Association (SENBSA) regarding mapping and a request for four-way stop signage at trail intersections for the former and new road trail crossing areas. A summary of stakeholder groups and NGOs contacted, comments received, and reference to the appropriate section of this EIA where they are addressed is provided in Table 3.3. Additionally, a comprehensive Stakeholder Consultation Report including stakeholder consultation activity log is included in Appendix B.

Table 3.3 Summary of Issues Raised by NGOs and Stakeholders During Consultation for Kent Hills 3 Wind Project

Stakeholder/NGO	Comments	EIA Reference
Local Sugar Bush Operator	Concern that increased traffic along an existing access road has led to erosion along the banks of Prosser Brook Road. TransAlta has indicated that the Project is not expected to affect this road. However, if any work is conducted in this area as part of the Project and areas of erosion are observed TransAlta will assess the need to install permanent erosion control measures.	Sections 5.1.4 and 5.2.2
SENBSA	SENBSA raised concerns regarding original proposed turbine placement near snowmobile route 34, and their concern was discussed during May 2017 meeting. The potential alternate location was dropped. TransAlta indicated that there would be further consultation with SENBSA prior to finalization of the Project design. No trails will be impacted or hindered by the development.	Section 2.3
	SENBSA suggested that stop signage at four-way trail and road intersections could be improved. TransAlta has committed to installing clear and visible signage at both existing and new four-way stop intersections.	Sections 5.1.3 and 5.2.1.3
	SENBSA requested that steep ditches be avoided in road design where they intersect trail access points. TransAlta indicated that this request would be incorporated into the road design for the Project.	Sections 5.1.3 and 5.2.1.3
Dobson Trail Association (NB) and Fundy Hiking Trail Association	The Dobson Trail Association and Fundy Hiking Association indicated that the proposed turbine location at Hayward Pinnacle (T2) is close to Dobson Trail and may affect the area viewscapes from this vantage point. Both the groups were supportive of the Project and indicated that the existing wind farm has had a positive effect on hiking in the area, attracting more hikers. No concerns were raised about current operation. TransAlta has maintained T1 and T2 (near Hayward Pinnacle) as alternative sites.	Section 5.2.1.3 and 5.2.1.5

3.2.5 Regulatory Consultation

Regulatory consultation occurred during the original EIA process and, where appropriate, updated during planning for the Phase 2 Expansion (e.g., Environment Canada, NBENV, NBDERD). A summary of agencies contacted for Kent Hills 3 Wind Project and information received and reference to the appropriate section of this EIA where they are addressed is provided in Table 3.4.

Table 3.4 Summary of Issues Raised by Regulatory Agencies for Kent Hills 3 Wind Project

Agency	Comments	EA Reference
Fisheries and Oceans Canada	• No concerns with Project identified for Kent Hills 1 or 2. Not directly contacted for Kent Hills 3.	Not required
Transport Canada	• No comments received regarding aeronautical safety for original EIA. • Project has received Aeronautical Obstruction Clearance.	Not required
Environment Canada	• Updated bird migration and breeding bird surveys requested.	Sections 4.3.3. and 5.2
Nav Canada	• Project has been submitted for review under the Nav Canada Land Use Submission process.	Not required
New Brunswick Aboriginal Affairs Secretariat	• A First Nations Engagement approach is being developed with assistance from the Aboriginal Affairs Secretariat Consultation Office.	Section 3.2.6
NBDELG	• Bat study requested, following the provincial guidelines.	Sections 4.3.3 and 5.2
NBDERD – Crown Lands	• Follow relevant guidance/policies. • License of Occupation for Exploration and Option received in principle; application has been submitted for Option/Land Lease for Access and Distribution Corridors and Turbines.	Section 4.6.2
New Brunswick Department of Tourism, Heritage and Culture – Archaeological Services Branch (ASB)	• Conducted an archaeological assessment for the Project • If significant heritage and/or archaeological remains are discovered during construction,	Sections 4.6.3 and 5.1.1

Table 3.4 Summary of Issues Raised by Regulatory Agencies for Kent Hills 3 Wind Project

Agency	Comments	EA Reference
	mitigate by either avoidance or excavation.	
New Brunswick Department of Tourism, Heritage and Culture – Heritage Branch	• No known issues of concern identified for the Project, no additional requirements necessary beyond AIA permits.	Not required
Southeast New Brunswick	• No concerns with the Project. Same application formats for subdivision, development and building permits as with former phases. No change in process and no issues regarding compliance with Land use protocols.	Not required
City of Moncton	• Requested that appropriate signage and transportation impacts over bridge decks be considered in transportation planning.	Section 5.1.4

In addition to guidance documents and past study methodologies for previous Project phases, comments by the NB DELG Technical Review Committee (TRC) (Canadian Wildlife Service (CWS) and New Brunswick Department of Energy and Resource Development (NBDERD)) were received in advance of conducting bird and bat studies in 2017 and have been incorporated into the applicable field programs. Although there are several years of pre-construction bird surveys and four years of post-construction monitoring for birds and bats following construction of the first two phases of the project, CWS requested updating field work for migrating birds and Species at Risk.

3.2.6 First Nations Engagement

TransAlta has achieved a silver designation in the Progressive Aboriginal Relations (PAR) certification program from the Canadian Council for Aboriginal Business. PAR is a corporate social responsibility certification program that confirms corporate performance in Aboriginal relations in the areas of Aboriginal business development, community engagement, employment and community investment. The performance of PAR companies is externally verified with Aboriginal stakeholders.

The closest First Nation to the Wind Farm Study Area is the Fort Folly First Nation, 30 km east of the Project Study Area near Dorchester. The Buctouche, Elsipogtog, and Indian Island First Nations are located north of the site, approximately 70, 85, and 95 km away, respectively.

Given that the Kent Hills 3 Wind Project is located on Crown Land, a special emphasis will be required for First Nations engagement. A separate First Nations Engagement approach is being developed with assistance from the Aboriginal Affairs Secretariat Consultation Office and NB Crown Lands, and TransAlta's own Indigenous Relations group.

The Aboriginal Affairs Secretariat (AAS) is responsible for ensuring that consultation occurs on behalf of the Crown. This body (AAS) works in conjunction with Environment and Climate Change Canada to determine the potential impact of a project on the local Indigenous groups. According to protocols developed by AAS, the information packages are no longer sent directly to each First Nation but, the Secretariat works through several different organizations that represent the interests of the First Nations. It was determined that the Secretariat would work with MTI (Mi'gmawe'l Tplu'taqnn Inc); this entity represents the First Nations that TransAlta had engaged with during previous phases of the project: Fort Folly, Buctouche, and Elsipogtog.

The consultation process includes:

- Phase 1: Pre-consultation Analysis and Planning
- Phase 2: Consultation engagement
- Phase 3: Accommodation
- Phase 4: Decision and Implementation

If consultation is triggered, the levels of consultation that might be required are:

- Notification
- Normal
- Deep

A representative of TransAlta's Indigenous Relations Team met with members of the AAS on May 17, 2017 to review the newly developed Duty to Consult Policy. The Secretariat also sent Project information packages to MTI. The representative of the Secretariat encouraged TransAlta to engage directly with Fort Folly First Nation to renew the relationship established during their involvement in previous phases of the project. TransAlta's intentions are to continue engaging with MTI and Fort Folly to a level that meets corporate protocols as well as AAS requirements.

TransAlta invited Fort Folly and MTI to an Open House event that was held at the Turtle Creek Community Hall on June 20th, 2017, however MTI and Fort Folly were not available on that date. A private presentation on the project was made to MTI and Fort Folly representatives at Fort Folly offices on June 19, 2017. TransAlta also invited Fort Folly and MTI to a Suppliers Open House held in Moncton in early July 2017, but no representatives from this community were identified among those who attended.

The Crown Lands Branch of NBDERD advised First Nations groups of TransAlta's plan to conduct geotechnical work for the Kent Hills 3 Wind Project by providing a copy of the Site Development Plan on May 12, 2017. The information provided explained that an environmental impact assessment review would be required before the project could proceed. The information was provided with the intent to begin dialogue to discuss the application. First Nations representatives informed were:

- Chief Ann Mary Steele – Buctouche First Nation
- Chief Alvery Paul – Esgenoopetitj First Nation
- Chief William (Bill) Ward, Metepenagiag First Nation
- Chief George Ginnish, Eel Ground First Nation

- Chief Rebecca Knockwood, Fort Folly First Nation
- Chief David Peter-Paul, Pabineau First Nation
- Chief Thomas (Everett) Martin, Eel River Bar First Nation
- Chief Kenneth Barlow, Indian Island First Nation

A request from MTI and Fort Folly to provide summaries of past environmental assessments for the Kent Hills 3 Wind Project were honoured; these documents, including archaeological reports, were provided to each entity by email on August 4, 2017.

TransAlta continues to work with MTI to provide opportunities to review archaeological work conducted to date and to arrange a site visit for the purposes of evaluating the study results.

3.2.7 Literature Review

For this Project, there were two previous EIA registrations for the Kent Hills 1 and 2 wind farms. This information was updated from the following sources:

- NBDERD and Service New Brunswick (SNB) databases and geospatial data
- Atlantic Canada Conservation Data Centre
- NatureCounts
- *Species at Risk Act* registry
- Municipal plans and schedules
- Provincial Water Well database
- Climate data (Environment and Climate Change Canada)
- Reports, books and other materials on the area's natural history and geology
- Information available at credible websites (e.g., Maritimes Breeding Bird Atlas website)

3.2.8 Field Studies

Field studies were conducted for the Kent Hills 3 Wind Project including:

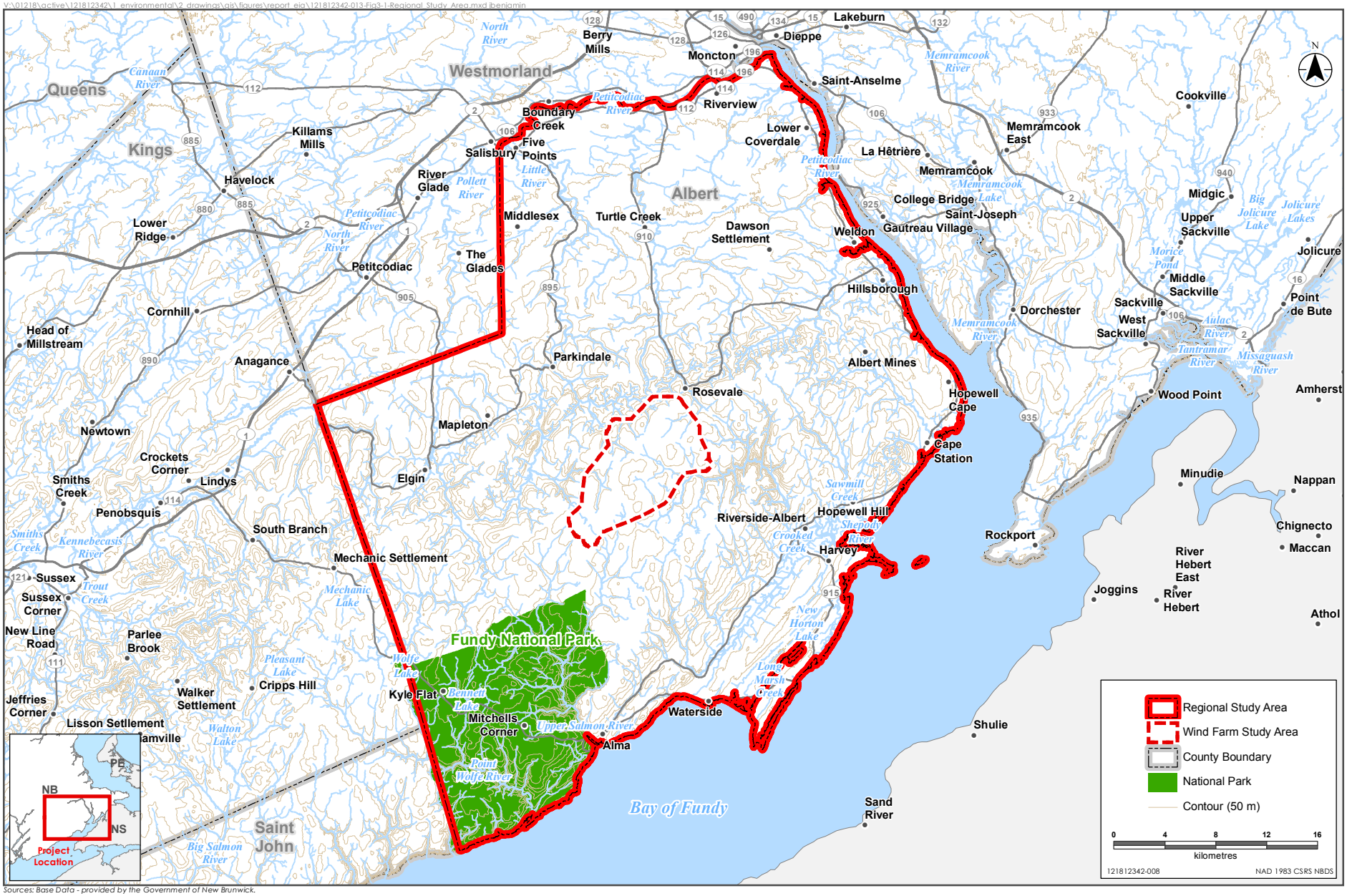
- Spring avian monitoring
- Breeding bird surveys
- Winter bird surveys
- Bat surveys
- Habitat and rare plant surveys
- Wetland surveys
- Archaeological field surveys
- Aquatic surveys (e.g., if watercourses are likely to be crossed by a road)
- Site visits to support the visual impact assessment

Additional field studies are planned in fall 2017 to support this EIA, including fall bird and bat migration bird surveys.

3.3 SPATIAL AND TEMPORAL BOUNDARIES OF THE ASSESSMENT

The assessment of direct environmental effects was undertaken for the area identified as the Project Development Area (PDA), also known as the Project footprint. Unless otherwise stated, the PDA includes the turbines and infrastructure (e.g., roads and collector lines) for both the preferred and alternate turbine sites. Acknowledging the spatial relationship of the Kent Hills 3 Wind Project to the existing Kent Hills Wind Farm, a larger Wind Farm Study Area (WFSA; Figure 1.1) was also developed. The WSFA encompasses the PDA and an area within 500 m of the infrastructure of the Kent Hills Wind farm. For the purpose of data collection of the socio-economic environment, a Regional Study Area (RSA) was also identified, which largely extends to include Albert County (Figure 3.1).

The temporal scope of this assessment covers the construction, operation and decommissioning stages of the Project, which is expected to extend over the next 25 years. See Section 1.4 above for construction schedule.



Regional Study Area

Stantec

121812342 KENT HILLS - PHASE 3 - TRANSALTA CORPORATION

Figure 3.1