

INTRODUCTION

The Kibby Expansion Wind Power Project (the “Kibby Expansion Project” or “Project”) is a 45 megawatt (“MW”) grid-scale wind energy project proposed to be located in Kibby and Chain of Ponds Townships, Franklin County, Maine. The Project is being proposed by TransCanada Maine Wind Development Inc. (“TransCanada”), which is a wholly owned subsidiary of TransCanada Corporation, a leader in the responsible development and reliable operation of North American energy infrastructure, including the adjacent Kibby Wind Power Project (the “Kibby Project”). The Kibby Expansion Project consists of 15 Vestas V90 or similar 3 MW wind turbine generators (“WTGs”) along the Sisk Mountain ridgeline, adjacent and to the west of the current Kibby Project. Associated elements of the Project include: access to the turbines utilizing the existing forestry roadway network to the greatest extent possible, construction of new ridgeline roads, aboveground 34.5 kilovolt (“kV”) electrical interconnections (collector lines) between the turbines and to a common, newly proposed Kibby Expansion Project Substation, and a short 115 kV electric transmission tap line between the new Kibby Expansion Project Substation and the existing Kibby Project 115 kV electric transmission line. The project footprint has been optimized for environmental, engineering and wind resource conditions. The Kibby Expansion facilities are expected to be in-service in October 2011.

The Kibby Expansion Project provides up to 45 MW of generating capacity in addition the 132 MW Kibby Project, 66 MW of which are currently in commercial operation on the “A Ridge” of Kibby Mountain with an additional 66 MW currently under construction on the Kibby Range “B Ridge” and expected to be in-service in October 2010. All of the new turbines are located within the expedited permitting area recently established by PL 2007, Chapter 661. This application is being submitted in accordance with the expedited wind energy development permitting process established by PL 2007, Chapter 661 and the subsequent “*Checklist and Guidance for Land Use Regulation Commission (“LURC”) Wind Energy Development Permit Applications* (the “Checklist”).”

The Kibby Expansion Project will utilize the same Vestas V90 3 MW wind turbines that are being utilized in the Kibby Project. The new turbine locations have been sited to optimize the use of the well-known, significant wind resource in the area, taking into consideration access for operation and maintenance while avoiding or minimizing to the greatest extent practicable potential impacts on the natural resources present on the Sisk Mountain ridge. Access for the project has been designed to utilize existing forestry roads and currently cleared areas to the maximum extent possible, keeping the length of new or improved roadways to the minimum necessary to ensure safe and efficient access. Siting of Project access has considered elevation, ground conditions and environmental issues to ensure that locations for roadways will minimize possible resource impacts. Through consultation with state and federal agencies and building upon the methods which were successfully implemented during the construction of the Kibby

Project, techniques have been identified for road design and construction that will minimize erosion potential and ensure that drainage patterns are maintained. As is the case for the Kibby Project, roads will not be paved. The travel surface of the road used to access the Sisk Mountain ridgeline will be approximately 20 feet. Access between turbines by crawler cranes will require a road travel surface width of 34 feet for construction, after which only 20 feet will be maintained. Detailed site plans are provided in Exhibit B.13.

The Kibby Expansion Project Substation will be located entirely in uplands off of Wahl Road at the base of the Kibby Mountain and Kibby Range ridges, approximately 800 feet from the existing Kibby Project Substation. This location will make use of the existing Gold Brook Road and existing improvements to the Wahl Road for access, and will not require any new 115kV transmission line other than an approximately 325-foot tap line to connect the new substation with the existing Kibby 115kV transmission line. The route for the proposed aboveground 34.5 kV collector line corridor extending from the new turbines on the Sisk Mountain ridge to the new substation has been selected to generally parallel existing or proposed roadways to minimize the amount of new corridor required which, in turn, minimizes visual and natural resource impacts.

Note that additional engineering refinements throughout the construction process are an integral part of the Project's intended implementation. Exhibit B.11 outlines a communication and review process, similar to that used successfully during construction of the Kibby Project that will identify those changes that require formal review and approval as opposed to notice, and the role of the third-party inspector and LURC staff in approving certain changes in the field. As with the Kibby Project, detailed geotechnical information has not been collected for permitting but will be obtained as part of the construction process and determinations of as-built locations for turbines and roads. Due to the Project location, the impacts associated with clearing and access to complete a geotechnical program sufficient for determining final placement of Project elements would be substantially similar to those associated with the clearing and access required for Project construction. As occurred during construction of the Kibby Project, TransCanada intends to conduct the geotechnical program as part of the construction process. As a result, the final design reflected in this application incorporates conservative assumptions that will be refined and reduced, if possible, through geotechnical and other field decisions. The Project as outlined in this application reduces impacts to the greatest extent practicable, and careful Project implementation will ensure that impact reduction continues to be a focus throughout the Project construction effort.

This application follows the organizational format established by the Checklist, and addresses the elements of the Project directly associated with construction and operation of the Project as set forth in the Checklist, including associated temporary work space requirements. Because the Kibby Expansion Project takes maximum advantage of the facilities approved for the original Kibby Project, there are no related infrastructure improvements needed outside of the immediate

Kibby and Sisk Mountain area. All of the new turbines are located within the expedited permitting area. A separate application will be filed with the U.S. Army Corps of Engineers that will address impacts to Waters of the United States (“U.S.”).

Key facts regarding the Kibby Expansion Project are provided in Table I-1. Details regarding each Project element are provided in the application.

Table I-1: Kibby Expansion Project Key Facts

Item	Units
Number of turbines	15
Turbine capacity	
<u>Each</u>	3.0 MW
<u>Total</u>	45.0 MW
Energy output per year	
<u>Each</u>	8 million kWh
<u>Total</u>	120 million kWh
Total new clearing	138.6 acres
Total new permanent clearing	55.0 acres
Total area affected by construction ¹	177.9 acres
New permanent development / maintained area ²	66.4 acres
New access roads ³	1.1 miles
Improved access roads	2.2 miles
Ridgeline Crane Roads	3.6 miles
Collector lines	8.9 miles
Total wetlands affected by construction	4.4 acres
Total wetland fill	0.8 acres
Total wetland permanently cleared ⁴	3.5 acres

¹ Includes areas with existing disturbance within contractor work areas except Gold Brook Road, Mile 2.5 Road and Wahl Road up to the Kibby Project Substation.

² Does not include the existing area of the Mile 5 and Wahl Roads that will be improved.

³ Does not include temporary skidder trail/construction access road.

⁴ Does not include filled wetlands.

Verrill Dana_{LLP}

Attorneys at Law

JULIET T. BROWNE
jbrowne@verrilldana.com
Direct: 207-253-4608

ONE PORTLAND SQUARE
PORTLAND, MAINE 04112-0586
207-774-4000 • FAX 207-774-7499
www.verrilldana.com

December 21, 2009

Hand Delivered

Marcia Spencer Famous
Maine Land Use Regulation Commission
22 State House Station
Augusta, ME 04333

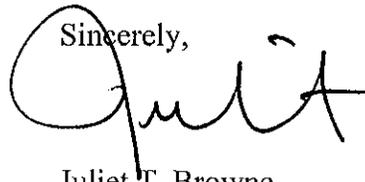
Re: TransCanada Maine Wind Development, Inc./Kibby Expansion Wind Power
Project

Dear Marcia:

On behalf of TransCanada Maine Wind Development, Inc., enclosed please find the final Grid Scale Wind Energy Development Application for the Kibby Expansion Wind Power Project. Also attached is the response to LURC staff comments. These responses have been incorporated into the final application. The application and processing fee have been sent under separate cover.

As always, if you have any questions, please do not hesitate to contact me, Dana Valleau or Christine Cinnamon.

Sincerely,



Juliet T. Browne

Enclosure

cc: Dana Valleau
Christine Cinnamon

1802003_1.DOC

**RESPONSES TO LURC STAFF COMMENTS
KIBBY EXPANSION WIND POWER PROJECT
December 21, 2009**

Volume I

1. Application Form

Whose signature is on the permit application form?

Why is lot size “n/a”?

Any existing structures or features on the parcel?

RESPONSE:

Finn Greflund, Vice President, TransCanada Maine Wind Development Inc., signed the application form.

RE lot size: Lot size was indicated as “N/A” because of the broad areal extent of both the Plum Creek and KWF parcels and the easement agreements between TransCanada and Plum Creek and KWF to construct and operate wind power facilities on this land. Plum Creek owns the entirety of Kibby Township and TransCanada has an easement for a portion of those lands. The KWF parcel is approximately 25,427 acres in size, and TransCanada has an easement for a portion of that parcel. (See Exhibit B.5: RIGHT, TITLE AND INTEREST and Attachment B.5 in the application.)

RE existing structures or features: The application form directs the reader to Exhibit B.8: EXISTING USES AND STRUCTURES because most of the information requested does not apply to this project or is not readily presented in the format provided on the form. The “Yes” box should have been checked in the Existing Structures line. Exhibit B.8 contains the following information:

The predominant use of the Project area is for production and harvesting of forest products and, more recently, for wind power generation. Commercial harvesting activities may continue except in the areas utilized for turbine placement. Additionally, the private roadway network is used not only for logging activities, but also by other forest management companies and land owners (such as Domtar, the Passamaquoddy Nation, State of Maine) and the general public. The Project area, particularly in Kibby Township, is also used for limited recreational purposes such as hiking, hunting, camping, snowmobiling and fishing consistent with the Plum Creek policy of allowing public access to its timberlands.

The Kibby Project is located primarily in Kibby Township with small portions in Skinner and Chain of Ponds Townships. That project consists of 44-3.0 MW Vestas V90 turbines, associated collector lines, access roads, substation, and O&M building. Twenty two turbines are currently operational, and completion of the remaining twenty two turbines will occur next year. The Kibby Project also includes a 27-mile 115 kV transmission line connecting that project to the Bigelow substation in Carrabassett Valley.

There are no structures on the parcels to be developed other than those associated with the Kibby Project and the temporary met tower. The temporary met tower was authorized by LURC Development Permit DP-4830, and was installed by TransCanada in Chain of Ponds Township as part of development of this Project. The Project will utilize existing infrastructure associated with the Kibby Project, including improved access roads, the 27-mile 115 kV transmission line, and the O&M Building located in Chain of Ponds Township near the intersection of Gold Brook Road and State Route 27.

2. *Does the O&M Building expansion discussion explain if the septic system is large enough as it is?*

RESPONSE:

Exhibit B.10: SERVICES contains the following discussion:

The only locations where permanent power, potable water supply or sewage disposal required are at the construction control center and Kibby O&M Building, both located at the intersection of Gold Brook Road and State Route 27. Both of these facilities are existing and the existing electricity, water and sewage disposal systems will be used for construction and operation of the Project.

However, the following additional detail is provided to supplement that information, and is also provided in Exhibit B.10. The septic system at the existing operations and maintenance building was designed to accommodate wastewater flows of 324 gallons per day. The State of Maine Subsurface Wastewater Disposal Rules (Wastewater Rules) require that for places of employment with shower facilities, such as the operations and maintenance facility, wastewater flows must be calculated assuming 20 gallons of wastewater will be generated per day per employee. The 324-gallon per day capacity for the existing septic system assumed 15 employees with an additional 24 gallons per day capacity to accommodate visitors. Twelve or 13 people are currently expected to work at the operations and maintenance building, once construction of the Kibby Project is complete and in full operation, which translates to actual wastewater flows of 240 to 260 gallons per day .

TransCanada expects to add one new employee to the operations and maintenance building once the Kibby Expansion Project is in operation, which, based on the requirements of the Wastewater Rules, will increase the wastewater flows to up to 280 gallons per day, which is well below the design flow of 324 gallons per day. Therefore, the existing septic system will continue to be sufficient for disposing of additional wastewater that may be generated by adding an employee. In addition, as specified in Sections 1702.0 and 1703.0 of the Wastewater Rules, it should be noted that expanding or a replacing a system or disposal field area is not necessary to remain in compliance with the Wastewater Rules, until the wastewater flows are expected to increase by 10 percent over the existing design flow.

3. *Regarding FEMA, will any of the activities occur within an area that is not a mapped FEMA floodplain, but meets the definition of a 100-year flood?*

RESPONSE:

Both the LURC regulations at Chapter 10.02.9 and FEMA regulations at 44 CRF Chapter 1 §59.1 define the base flood as “The flood having a one percent chance of being equaled or exceeded in any given year, commonly called the 100-year flood.” The elevation of the 100-year flood can be determined through statistical analysis of historical stream elevation and flow data, or calculated for a given point in a stream using such factors as watershed area, occurrence of wetlands and topography in the watershed, vegetative cover types, the cross section of the stream channel at the point in question and the amount of rainfall associated with the 100-year, 24-hour storm. These calculations do not take into account the degree of saturation of the soils or the existing water levels and flows in the stream at the time of the 100-year storm, however, and are therefore less reliable than the use of a long historical record of water depths and flows.

Neither FEMA mapping or historical stream elevation and flow data are available for the small streams in the Project area. While calculations could be performed to approximate the elevation that would result in a given stream following a 100-year storm event, the value of these calculations would be limited. As discussed in Exhibit B.3: LURC SUBDISTRICTS AFFECTED, the Kibby Expansion Project is located primarily near the headwaters of minor, mostly first and second order streams with high gradients and few stretches of flat water, which typically do not have significant floodplains associated with them. The largest stream in the Project area is Kibby Stream, which also contains in its watershed the majority of the proposed Project components. Based on a comparison of topographic information developed for the Project and USGS topographic information the shows the location of Kibby Stream, the stream would have to rise over 30 feet to reach any Project component (most likely a pole structure along the collector line). While we do not know what the 100-year flood elevation is for Kibby Stream in this area, it would appear that the likelihood that the water level would rise enough to contact any Project components is remote, especially given the location of most of the Project in the upper portion of the watershed. Exhibit B.3 has been updated with this information.

4. *Form S-2
Water and Air Quality answers to #14 and #15?*

RESPONSE:

RE Surface Water Quality (Chapter 10.25.K): There are no Project components that are located adjacent to waterbodies other than those locations where the access road to the ridge and collector line from the ridge to the substation cross small streams. Nevertheless, there is the potential for the discharge of sediment to streams in the area during construction and, to a lesser degree, from developed areas following construction. Adherence to the temporary erosion and sedimentation control measures during construction and implementation of the permanent stormwater management and site restoration measures will provide effective mitigation for potential waterbody sedimentation. These measures are discussed in Exhibit B.14: SOILS MAPPING, EROSION

CONTROL AND STORMWATER MANAGEMENT, and presented in more detail in Attachment B.14-2: the Erosion and Sedimentation Control Plan, and the Project drawings located in Attachment B.13-1: the Permit Plan Set/Erosion and Sedimentation Control and Stormwater Management Detail Drawings.

Similarly, implementation of the contractor's Spill Prevention, Control and Countermeasure ("SPCC") Plan, based on TransCanada's minimum SPCC Plan requirements found in Attachment B.13-2 to Exhibit B.13: PROJECT DESCRIPTION, will minimize the potential for the discharge of petroleum or other contaminants in use during construction. The operations SPCC Plan for the Kibby Project, currently under development for use during ongoing operations, will be implemented for operation of the Kibby Expansion Project.

All of these documents and pollution prevention measures utilize currently accepted and previously-approved best management practices for the control of the types of pollutants that could be discharged to waterbodies from Project activities. As a result, construction and operation of the Kibby Expansion Project is not expected to directly discharge water pollutants to a surface water body which would cause the surface waterbody to fail to meet its state classification (38 M.R.S.A. §464 et seq.), impart toxicity or cause a surface waterbody to be unsuitable for the existing and designated uses of the waterbody, result in a violation of state or federal water quality laws, or which otherwise would cause an undue adverse impact to surface water quality.

RE Groundwater Quality (Chapter 10.25.N): There will be no intrusion into the groundwater table from the proposed Project other than what may potentially occur from the excavations necessary to install turbine and substation foundations, collector line pole structures, and the rock cuts necessary to construct the access roads along the ridge. These types of activities occur commonly throughout the state (and elsewhere) without resulting in degradation of groundwater quality. The potential for adverse impact to groundwater quality does exist from petroleum and other spills that may occur during Project construction or operation. However, as mentioned above under the surface water discussion, implementation of the contractor's SPCC Plan during construction and the Kibby Project operations SPCC Plan following construction will provide effective mitigation for the threat of groundwater contamination from spills. Lastly, as also discussed above, the existing O&M Building septic system has been designed in accordance with the Maine Wastewater Rules and will continue to have excess design capacity for the expected number of employees utilizing that system once both the Kibby and Kibby Expansion Projects are in full operation.

As a result, it is not expected that the Project will cause the degradation of groundwater quality below its current condition. Further, the development is not expected to pose an unreasonable risk that a discharge of pollutants to a groundwater aquifer will occur.

RE Air Quality (Chapter 10.25.O): There are no regulated sources of air pollutants associated with the Project. Nevertheless, TransCanada will comply with all applicable state and federal air quality laws and standards, if any.

Amount and type of wetland alteration – the form asks for square feet, but it looks like the amounts given are in acres. Please add “acres” to the boxes to clarify

RESPONSE:

A revision to this page of Form S-3 that indicates the wetland alteration amounts in square feet will be provided.

6. *When will an application be filed with the Corps? Will the USFWS review be routed through the Corps permit review? Has USFWS told you if it is expecting to comment on the state permit as well, or only the federal permit, given that their concerns are related to eagle (which is not now ESA) and they are technically part of the Corps permit review process?*

RESPONSE:

We expect to file the Corps application in late January or early February 2010, and the USFWS review will be routed through the Corps permit review.

The USFWS has not indicated if it is expecting to comment on the LURC permit application.

7. *Are all the studies asked for by both IFW and USFWS included? If not, what is missing? Are any surveys proposed to be done after a permit is issued?*
a. Raptor nest survey only deals with state legal status?

RESPONSE:

Results of all studies requested by MDIFW and USFWS are included in the application. These include rare raptor nesting surveys, spring and fall daytime migrant surveys, spring and fall nighttime migrant surveys (radar, bat monitoring with detectors, ceilometer and night vision survey), and breeding bird surveys (with an emphasis on detecting Bicknell's thrush).

The rare raptors that are the subject of these surveys are only state-listed.

8. *Figure 1 in the “Daytime Avian Migration Survey Protocol: Sisk Wind Power Project” report doesn't show up on the first CD you gave me. Maybe this was corrected on the subsequent CD you left at LURC while I was gone?*

RESPONSE:

Yes. The new CD includes this figure. It was also inserted into the hard copy of the application at the LURC Augusta offices.

9. *Underlying deeds for the lease agreements? Are some already in the TC Kibby application?*

RESPONSE:

The underlying deeds for the Plum Creek and KWF easement agreements are included as Attachment B.5-2 in the revised application.

10. *Since TC is now the responsible party to transport the turbines to the site, are all traffic flow materials included in this application for traffic in and near the project area? Number of additional trucks during transport? Details of traffic safety precautions? Site distance issues? Any traffic study done?*

RESPONSE:

As indicated in section B.6.1 of Exhibit B.6: SITE ACCESS of the application, “Delivery of turbine components will be managed by the Project contractor.” The best available traffic flow by major material types in and near the Project area, the number of trucks expected during transport of the turbines and other Project components, and the details of traffic safety precautions are all included in section B.6.1 and Table B.6. In general, the traffic analysis performed for the Kibby Project remains applicable to the proposed Kibby Expansion Project and has been revised to reflect the smaller project. The major difference is that the Kibby Expansion project will have a lower volume of traffic, as there are fewer WTG locations to develop. The entrances into the Project Construction Control Center and Gold Brook Road are identical to those used for Kibby Project construction. Site distance is adequate and no problems related to site distance or Project component/material deliveries have occurred during the construction of the first phase of the Kibby Project. As a result, none are expected during construction of the Kibby Expansion Project.

11. *Any utility line poles within stream or road setbacks?*

RESPONSE:

As indicated in section B.15.5.5 of Exhibit B.15: ENVIRONMENTAL ASSESSMENT there will be 39 poles within the 100-foot setback from stream banks: 20 from the Mile 5 Road/Gold Brook Road intersection to the proposed substation and 19 from the Mile 5 Road/Gold Brook Road intersection to the turbines. A table with structure number and location (station) along the collector line route will be provided in the revised application as Table B.15-9. Buffers along perennial streams can still be maintained with pole structures set within the setback. When poles are set closer to streams, the conductor height over the stream is typically greater, this increasing the allowable vegetation height and shoreline stabilization.

There will be many poles (in fact most poles) within 75 feet of new or existing roads. TransCanada believes that overall environmental impacts are minimized by keeping the power lines as close to roadways as possible while, at the same time, meeting standard safety, construction feasibility and cost requirements. TransCanada has purposely kept the alignment of the collector system close to the road to minimize new clearing and habitat segmentation.

12. For erosion control, when you say “Maine BMPs”, are you talking about DEP’s standards?

RESPONSE:

We are not aware of any erosion control “standards” promulgated by Maine DEP. Typically Maine DEP erosion and sedimentation control requirements reference meeting the latest edition of the *Maine Erosion and Sediment Control Best Management Practices* (“BMPs”), currently the March 2003 edition. The Erosion and Sedimentation Control Plan proposed for the Kibby Expansion Project (see Attachment B.14-2) is based on the Maine DEP BMPs, and also complies with the LURC standards in Chapter 10.25 and 10.27.

13. Evaluation of special exception criteria for the road in the P-MA non-expedited area? Was this road size reduced or impacts minimized in any way to accommodate the special exception criteria? Other options considered? What about eliminating that part of the project? How many turbines would be lost?

RESPONSE:

Construction of Level C roads within P-MA subdistricts is an allowed use by special exception upon issuance of a permit from the Commission pursuant to 12 M.R.S.A. §685-A(10) and subject to the applicable requirements set forth in Sub-Chapter III, provided that the applicant shows by substantial evidence that (a) there is no alternative site which is both suitable to the proposed use and reasonably available to the applicant; (b) the use can be buffered from those other uses and resources within this subdistrict with which it is incompatible; and (c) such other conditions are met that the Commission may reasonably impose in accordance with the policies of the Comprehensive Land Use Plan. Chapter 10.23.G.3.d. This standard applies to the portion of the ridge road between WTG 12 and WTG 15, which is located in the P-MA subdistrict outside of the expedited permitting area.

Because the turbines are located in areas above 2,700 feet, a portion of the ridgeline roads are necessarily also located above 2,700 feet. Locating the turbines below 2,700 feet is not practicable for the following reason: in order to effectively utilize the wind resource, the WTGs must be located on the ridgeline and, because no portion of the Sisk Mountain ridgeline is located below 2,700 feet, the turbines associated with the Project must also be located above 2,700 feet. The only practicable means for bringing in the turbine components and the large crane required to erect the turbines is to construct a road that allows the transportation of such equipment to the WTG locations, including construction of Level C roads located outside the expedited area, within the P-MA. No alternative site was suitable to the proposed use.

The crane roads located above 2,700 feet have been sited to incorporate site grade requirements while minimizing environmental impacts. These areas have been located and designed to buffer the road from other uses and resources in the P-MA subdistrict. Special emphasis was placed on totally avoiding any disturbance within the Bicknell’s thrush core habitat and bog lemming

habitat and minimizing to the maximum extent practicable impact to the overall Bicknell's thrush and subalpine fir habitats. In addition, TransCanada evaluated possible means of reducing the width of the footprint of the proposed road alignment within the non-expedited area. First, the Project Plan and Profile drawings for the crane road assume a 1.5H:1V slope for rock fill areas. This is expected to be the worst case (i.e., widest footprint) scenario. It may be possible to safely construct and maintain portions of this road with rock fill slopes up to 1H:1V. This is the most effective way to significantly reduce the footprint; however, the amount of that reduction can only be determined once construction is underway. The area of permanently maintained road 20-feet wide within the non-expedited area will be 0.97 acres, which cannot be significantly reduced in width.

If the crane path to WTG #12 through #15 were designed to follow the ridge and stay within the expedited permitting area, there would be potential impacts to bog lemming habitat and additional impacts to Bicknell's thrush and subalpine fir habitats associated with that portion of the road. Impacts to these habitats have been minimized by routing a portion of the Project ridge road through non-expedited area. Attempting to reroute the road further to the east to avoid these habitat areas would encounter precipitous drop offs and would not be constructible.

As a result, there are no practicable alternatives to locating the crane path roads outside the non-expedited P-MA area and no other feasible option could be found that would be constructible (due to steepness of slopes, etc.), drivable and that would minimize impacts to the habitats found along the ridge and environmental resources at lower elevations.

Volume II

14. Erosion Control Plan. I am particularly fond of the nice pictures in Appendix C of machinery driving over streams and workers putting in silt fencing, etc. But, I am curious about your reference to Title 38, stating that DEP administers the Erosion Control Program for the State. Is that because of NPDES? It's never been clear for me whether DEP requires a separate NOI for LURC projects or not, and when I have asked about it, I have gotten different answers. To err on the side of caution, I've always asked LURC permittees to also seek a NOI/NOT from DEP.

RESPONSE:

USEPA has delegated administration of the National Pollutant Discharge Elimination System ("MPDES") stormwater program to Maine through acceptance of the Maine Pollutant Discharge Elimination System ("MPDES") stormwater program. TransCanada believes that the MPDES stormwater program does apply to projects in LURC jurisdiction. As a result and as indicated in Exhibit B.16: OTHER PERMIT REQUIREMENTS, TransCanada intends to submit a Notice of Intent ("NOI") and Notice of Termination ("NOT") to Maine DEP to comply with the Construction General Permit issued under the MPDES program.

APPLICATION FORMS

- Permit Application for Residential and Non-Residential Development
- Supplement S-2: Requirements for Non-Residential Development
- Supplement S-3: Requirements for Wetland Alterations



Permit Application

for residential and non-residential development

1. APPLICANT INFORMATION

Applicant Name(s)	Daytime Phone	FAX	E-mail
TransCanada Maine Wind Development Inc.	(207) 297-2652	---	---
Mailing Address			
3647 The Arnold Trail, Chain of Ponds Township, ME 04936			

2. AGENT AUTHORIZATION AND APPLICANT SIGNATURES

Agent Name	Daytime Phone	FAX	E-mail
Juliet Browne, Verrill Dana, LLP	(207) 253-4608	(207) 774-7499	jbrowne@verrilldana.com
Mailing Address			
One Portland Square, Portland, ME 04112			
All persons listed on the deed, lease or sales contract as owners or lessees of the property must read the statement and sign below.			
<i>I hereby authorize the above-listed individual to act as my legal agent in all matters relating to this permit application. I have personally examined and am familiar with the information submitted in this application, including the accompanying exhibits and supplements, and to the best of my knowledge and belief, this application is true and accurate. I understand that I am ultimately responsible for complying with all applicable regulations and with all conditions and limitations of any permits issued to me by LURC.</i>			
Applicant Signature(s)			Date
	Finn Greflund, Vice President		Dec 17/09
	TransCanada Maine Wind Development Inc.		

3. PROJECT LOCATION AND DESCRIPTION

Describe in detail what you are proposing and the purpose of the work to be accomplished (use additional paper if you need more space).

45 MW Grid-Scale Wind Energy Project
See Exhibits B.2 and B.13

Property Location	Township, Town or Plantation	County	Lessor and Lease Lot Numbers (check your lease)
	Kibby & Chain of Ponds Townships	Franklin	N/A
Property Location	Tax Plan and Lot Numbers (check your tax bill)		Book and Page Numbers (check your deed)
	Kibby Township: FR13, Plan 1, Lot 1.1, Lot 2 COP Township: FR014, Plan 01, Lot 1		Kibby Township: Book 1798/Page 107, Book 1799/Page 170 COP Township: Book 2551/Page 302, Book 2552/Page 40
Lot Size (in acres, or in square feet if less than 1 acre)	Zoning (check a LURC map - list all subdistricts covering your property)		
See Exhibit B.5	See Exhibit B.3		
Road Frontage. Is your property adjacent to any roads, streets or other rights-of-way (including any camp roads)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Frontage. Is there a lake, pond, river, stream, brook, or other water body on or adjacent to your lot? <input type="checkbox"/> Yes <input type="checkbox"/> No		
If yes, write the name and frontage (in feet) for each road:	If yes, write the name and frontage (in feet) for each water body:		
_____	See Exhibit B.15		
_____	_____		
If no, describe how you access your property:	_____		
Private logging road off State Route 27	_____		

4. LAND DIVISION HISTORY See Exhibit B.7

Using your deed as a starting point, trace the ownership history and configuration changes of your property back to 20 years from today. List all changes in ownership and all divisions of those lots from which your property originated (use additional paper if you need more space).

Description of Transaction (including seller's and buyer's names)	Date of sale or lease	Lot size
_____	_____	_____
_____	_____	_____
_____	_____	_____

5. EXISTING USES, STRUCTURES AND FEATURES See Exhibit B.8

Existing Use: What is the current use of your property? Timber Harvesting and Management
 Residential Residential with Home Occupation Commercial or Industrial Public or Institutional Other: _____

Existing Structures: Are there any structures on your property? Yes No
 If yes, fill in a line on the table below for each structure on your lot (use additional paper if necessary): See Exhibit B.8

Type of structure (dwelling, garage, deck, porch, shed, etc.)	Year built	Exterior dimensions (LxWxH)	Number of:		Type of Foundation (full basement, slab, post, etc.)	Distance (in feet) of structure from nearest:					
			Bedrooms	Plumbing or water fixtures		Road	Property line	Lake or pond	River or stream	Wetland	

Other Existing Features: If any of these features exist on your property, check off the feature and answer the appropriate questions.

<input type="checkbox"/> Driveways	Dimensions (LxW): _____ Shared driveway? <input type="checkbox"/> Yes <input type="checkbox"/> No Distance of driveway (in feet) from nearest:				<input type="checkbox"/> Parking areas	Number of parking areas: _____ Dimensions (LxW): _____ Distance of parking areas (in feet) from nearest:																								
	Property line	Lake or pond	River or stream	Wetland		Road	Property line	Lake or pond	River or stream	Wetland																				
<input type="checkbox"/> Water supply	What type of water supply serves your property?				<input type="checkbox"/> Exterior lighting	List the fixtures that have been installed to illuminate your property: <table border="1"> <thead> <tr> <th>Type of bulb</th> <th>Watts</th> <th>Date fixture installed</th> <th>Cutoff fixture?</th> <th>Motion activated?</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </tbody> </table>					Type of bulb	Watts	Date fixture installed	Cutoff fixture?	Motion activated?				<input type="checkbox"/>	<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>
Type of bulb	Watts	Date fixture installed	Cutoff fixture?	Motion activated?																										
			<input type="checkbox"/>	<input type="checkbox"/>																										
			<input type="checkbox"/>	<input type="checkbox"/>																										
			<input type="checkbox"/>	<input type="checkbox"/>																										
<input type="checkbox"/> Signs	Number of signs: _____ Dimensions (LxWxH): _____ Are any signs lighted? <input type="checkbox"/> Yes <input type="checkbox"/> No Distance of signs (in feet) from advertised structure or activity: _____																													

6. CHANGES TO EXISTING STRUCTURES OR FEATURES

Will you be expanding, reconstructing, relocating, or otherwise altering any existing structures on your property? Yes No
 If yes, fill in a line on the table below for each structure proposed to be altered (use additional paper if necessary):

Structure to be altered (dwelling, garage, porch, shed, driveway, sign, etc.)	Proposed alterations (check all that apply)						New exterior dimensions (LxWxH)	New number of:		Distance (in feet) of altered structure from nearest:					
	Expand or add on	Reconstruct or replace *	Permanent foundation	Relocate	Enclose deck or porch	Other **		Bedrooms	Plumbing or water fixtures	Road	Property line	Lake or pond	River or stream	Wetland	
O&M Building	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	70'L x 65'W x 25'H	0	0	>75	>25	>100	>100	>100	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>									
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>									
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>									

* **Reconstruction or installation of a permanent foundation.** If you are reconstructing an existing structure, or if you are installing a permanent foundation beneath an existing structure:

- Has the existing structure been damaged, destroyed or removed from your property? Yes No
 If yes, provide the date the structure was damaged, destroyed or removed: _____
- If the reconstructed structure or permanent foundation will not meet LURC's minimum setback requirements from property lines, roads, water bodies or wetlands, explain what physical limitations (such as lot size, slope, location of septic system, etc.) prevent the structure or foundation from meeting such setbacks:

** **Other.** If you selected "Other" from the table above, describe in detail the type of alteration you are proposing (use additional paper if needed):

7. PROPOSED USES, STRUCTURES AND FEATURES See Exhibit B.13

Proposed Use: What is the proposed use of your property? Wind Energy
 Residential Residential with Home Occupation Commercial or Industrial Public or Institutional Other: Project

New Structures: Will you be constructing or installing any new structures on your property? Yes No
 If yes, fill in a line on the table below for each new structure. See Exhibit B.13

Type of structure (dwelling, garage, porch, shed, etc.)	Exterior dimensions (LxWxH)	Number of:		Type of Foundation (full basement, slab, post, etc.)	Distance(in feet) of structure from nearest:				
		Bedrooms	Plumbing or water fixtures		Road	Property line	Lake or pond	River or stream	Wetland

Other Proposed Features: If you are proposing to add any of these features, check off the feature and answer the appropriate questions:

<input type="checkbox"/> Driveways	Dimensions (LxW): _____ Shared driveway? <input type="checkbox"/> Yes <input type="checkbox"/> No Distance of driveway (in feet) from nearest: _____	<input type="checkbox"/> Parking areas	Number of parking areas: _____ Dimensions (LxW): _____ Distance of parking areas (in feet) from nearest: _____																
	<table border="1"> <thead> <tr> <th>Property line</th> <th>Lake or pond</th> <th>River or stream</th> <th>Wetland</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>		Property line	Lake or pond	River or stream	Wetland					<table border="1"> <thead> <tr> <th>Road</th> <th>Property line</th> <th>Lake or pond</th> <th>River or stream</th> <th>Wetland</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	Road	Property line	Lake or pond	River or stream	Wetland			
Property line	Lake or pond	River or stream	Wetland																
Road	Property line	Lake or pond	River or stream	Wetland															
<input type="checkbox"/> Water supply	What type of water supply will serve the property? _____	<input type="checkbox"/> Signs exceeding LURC standards	Number of signs: _____ Dimensions (LxWxH): _____ Will any signs be lighted? <input type="checkbox"/> Yes <input type="checkbox"/> No Distance of signs (in feet) from advertised structure or activity: _____ What features of the signs exceed LURC standards? _____ _____ Why do the signs need to exceed LURC standards? _____ _____ Will the signs be a hazard to traffic? <input type="checkbox"/> Yes <input type="checkbox"/> No How will the signs' design elements (color, bulk, materials, height, etc.) be compatible with the property and fit harmoniously into the surroundings? _____ _____																
<input type="checkbox"/> Exterior lighting	List the fixtures that will be installed to illuminate your property:																		
	<table border="1"> <thead> <tr> <th>Type of bulb</th> <th>Watts</th> <th>Cutoff fixture?</th> <th>Motion activated?</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td> </td> <td> </td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td> </td> <td> </td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </tbody> </table>	Type of bulb	Watts	Cutoff fixture?	Motion activated?			<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>		
Type of bulb	Watts	Cutoff fixture?	Motion activated?																
		<input type="checkbox"/>	<input type="checkbox"/>																
		<input type="checkbox"/>	<input type="checkbox"/>																
		<input type="checkbox"/>	<input type="checkbox"/>																

8. SEWAGE DISPOSAL FOR NEW AND ALTERED STRUCTURES See Exhibit B.10

Will any proposed new or altered structures include bedrooms, bathrooms or plumbing/water fixtures, or otherwise generate waste water? The existing O&M Building has plumbing which will not be changed. Yes No

9. WETLAND ALTERATIONS See Exhibit B.15

Will your proposal alter any amount of land that is a mapped P-WL subdistrict or any ground below the normal high water mark of a lake, pond, river, stream, or intertidal area? Yes No
 Will your proposal alter an acre or more of any land area, either upland or wetland? Yes No

10. FEMA FLOOD ZONING See Exhibit B.3

Are you proposing first-time development or making substantial improvements to any existing development within a mapped FEMA floodplain? Yes No

11. VEGETATION CLEARING See Exhibit B.13 and Attachment B.13-1

Will your project involve any clearing of vegetation? (If yes, answer the following questions) Yes No

▪ Total area of clearing: See Exhibit B.13 and Attachment B.13-1 _____ sq. ft.

▪ Distance between edge of cleared area and the nearest:

Road	Property line	Lake or pond	River or stream	Wetland

12. BUFFERING IN PROSPECTIVELY ZONED AREAS

Is your property located in a development subdistrict within a prospectively zoned area? Yes No

▪ If yes, how wide are any existing wooded buffers (as measured at the narrowest point) between existing and proposed structures on your property and the nearest:

Road	Side property line	Rear property line	Subdistrict boundary (if in D-ES or D-CI)

▪ Do these buffers or any other features of your property screen the proposed development from view from the road and adjacent properties? Yes No

13. EROSION AND SEDIMENTATION CONTROL See Exhibit B.14 and Attachment B.14-2

▪ Total area of new or expanded soil disturbance: _____ sq. ft.

▪ Distance between the disturbed area and the nearest:

Road	Property line	Lake or pond	River or stream	Wetland

▪ If soil disturbance will occur within 250 feet of a water body or wetland, what is the average slope of the land between the disturbed soil and the normal high water mark or upland edge? Slope: _____ %

▪ Will soil disturbance occur when the ground is frozen or saturated? Yes No

▪ Will soil disturbance occur (a) in water bodies, wetlands, natural drainage systems, or water crossings; (b) on slopes exceeding 15%; or (c) in other sensitive areas? Yes No

If yes, how will you stabilize disturbed areas and minimize the amount and duration of soil exposure?

▪ Will existing catch basins and culverts on or near the property be protected from sediment by the use of hay bale check dams, silt fences or other effective measures? Yes No

▪ Will topsoil be stripped from the property? Yes No

If yes, will the topsoil be stockpiled at least 100 feet from water and wetlands? Yes No

▪ Will all disturbed areas and stockpiled soils be effectively stabilized at the end of each workday? Yes No

▪ Will any fill used be free of hazardous or toxic materials, debris, trash and rubbish? Yes No

▪ What will you do (during site preparation, construction, cleanup, and post-construction) to stabilize disturbed soil and prevent sediment from entering water, wetlands, natural drainage systems, catch basins, culverts or adjacent properties?

▪ What provisions will you make for the continued maintenance of all proposed erosion and sedimentation control measures?

▪ Provide a general timeline of construction activities on your property, including clearing, grading, construction and landscaping:

14. ADDITIONAL INFORMATION See Application Binder

State any facts that further explain your proposal or may help us in our review of your application (Use additional paper if needed).

15. REQUIRED FEES, EXHIBITS AND SUPPLEMENTS Fee to be determined

Submit all necessary fees, exhibits and supplemental information with this application, as described in the instructions.



Supplement S-2

Requirements for Non-Residential Development

Applicant Name(s): TransCanada Maine Wind Development Inc.	Project Location (Township and County): Kibby & Chain of Ponds Townships, Franklin County
---	--

TECHNICAL AND FINANCIAL CAPACITY See Exhibit B.9

<p>1. Will you hire any consultants, contractors or staff to design and construct the proposed development? If yes, summarize the previous experience and training of your staff. If no, summarize your own previous experience and training in construction.</p> <p>2. What is the estimated total cost of the proposed development (including all proposed improvements, structures and facilities)? How will the development be financed (e.g. by the applicant, bank, state government loan, etc.)?</p>	<p> Refer to Section 10.25,C of the Commission's <u>Land Use Districts and Standards</u> for rules relating to technical and financial capacity.</p>
---	--

IMPACT ON SERVICES

<p>3. Will your proposed development involve any sources of potential contamination (such as junkyards, auto repair, gas stations, and bulk storage of petroleum)? If so, will the project site be located at least 300 feet from any existing private and public water supplies?</p> <p>4. If your proposed development will use an existing or new well, where will the well be sited and how will it be constructed to prevent infiltration of surface water and contaminants? See Exhibit B.10</p> <p>5. Will the project site have electric power? If yes, how will the power be generated (on site, by power company, etc.)? How far is the project site from the nearest existing utility pole? See Exhibit B.10</p> <p>6. What state-approved dump will you use for the regular collection and disposal of site-generated solid wastes? Provide the name and location of the dump. How will you dispose of construction debris, stumps, brush, wood wastes, asphalt and pavement products? See Exhibit B.13</p> <p>7. Who will provide fire protection to your project site? Provide the name and distance to the nearest fire station. See Exhibit B.10</p>	<p>No</p>
--	-----------

VEHICULAR CIRCULATION, ACCESS AND PARKING See Exhibits B.6 and B.13

<p>8. How will you provide safe, uncongested vehicular access to and circulation within your project area? Will you limit the number and width of entrances and exits onto a roadway to that necessary for safe entering and exiting? Will access be designed so that vehicles can exit the site without backing onto a roadway or shoulder? Will shared access be implemented? If not, describe why shared access is not possible.</p> <p>9. At what angle will access between the roadway and property intersect the roadway? What curb radius will the access way have? How will sight triangles be designed and maintained on each side of the intersection of the access way and the roadway?</p> <p>10. If you are proposing to use any existing or new parking areas, explain how such parking will meet the needs of the development and how such parking areas will be designed.</p> <p style="margin-left: 20px;">a. Are you proposing to use on-street or off-street (on-site) parking? If using on-street parking, will parking be parallel or diagonal? If using off-street parking, will parking be located to the side or rear of the principal structure? If not, explain why side or rear parking is not possible.</p> <p style="margin-left: 20px;">b. How will parking areas be visually buffered from the roadway? If your project area is adjacent to residential structures or uses, how will parking areas be visually buffered from such development?</p> <p>11. If you are proposing to build or upgrade any roads to be used to access your project site, explain how any existing or proposed roadways will meet the needs of the development and describe how such roadways will be designed. Describe what site-specific best management practices will be used to ensure that the roadways will not cause erosion or safety problems.</p> <p style="margin-left: 20px;">a. Provide the following information about each road you propose to build or upgrade:</p> <table style="margin-left: 40px; border: none;"> <tr> <td>- Length and travel width of roadway</td> <td>- Number of culverts and/or water crossings</td> </tr> <tr> <td>- Right-of-way width</td> <td>- Type and depth of wearing surface</td> </tr> <tr> <td>- Average and maximum sustained grade</td> <td>- Type and depth of base</td> </tr> </table> <p style="margin-left: 20px;">b. How will the roadways be designed to minimize the use of ditching, cuts and fills. How will the roadways be designed to protect any scenic vistas?</p> <p style="margin-left: 20px;">c. Who will be responsible for continued maintenance of any proposed roadways? If any roadway will be dedicated to a town, plantation, county or other government, will its design comply with that government's roadway construction standards?</p> <p style="margin-left: 20px;">d. If any proposed roadways will be co-utilized for forest management purposes, explain how and where turnouts will be installed to accommodate wood haulers and other large vehicles.</p>	- Length and travel width of roadway	- Number of culverts and/or water crossings	- Right-of-way width	- Type and depth of wearing surface	- Average and maximum sustained grade	- Type and depth of base	<p> Refer to Section 10.25,D; Section 10.27,D; and Section 10.27,H of the Commission's <u>Land Use Districts and Standards</u> for LURC's traffic management and road construction requirements.</p>
- Length and travel width of roadway	- Number of culverts and/or water crossings						
- Right-of-way width	- Type and depth of wearing surface						
- Average and maximum sustained grade	- Type and depth of base						

NOISE AND LIGHTING See Exhibits A.4 and B.13

12. Except for day-time construction activities, will any continuous, regular or frequent source of noise be generated by the development? If yes, describe the source and frequency of such noise and explain how you will ensure that such noise will not exceed LURC's maximum permissible sound pressure levels.
13. If your development will use any new or existing lighting, will all non-essential lighting be turned off after business hours? What will be the hours of operation for your development?

 Refer to Section 10.25,F of the Commission's Land Use Districts and Standards for LURC's noise and lighting requirements.

WATER AND AIR QUALITY See Exhibit B.15

14. If your property or development area is adjacent to any water bodies, what measures will you use to ensure that point and nonpoint sources of water pollutants (including sediment) generated by your development do not affect the surface water quality of the water bodies?
15. How will you ensure that your development will not pose an unreasonable risk of polluting a groundwater aquifer?
16. Will your development generate any air emissions other than ordinary fireplace smoke or heating furnace exhaust? If so, describe the type and amount of emissions.

 Refer to Section 10.25,K; Section 10.25,N; and Section 10.25,O of the Commission's Land Use Districts and Standards for LURC's surface water, groundwater and air quality requirements.

SCENIC CHARACTER, NATURAL AND HISTORIC FEATURES See Exhibits A.1 and B.15

17. How will your development be located, designed and landscaped to minimize visual impacts on the scenic character of the surrounding area? Will structures and other features be visible from existing roadways or shorelines? If on a ridge, how will the natural character of the ridgeline be preserved?
18. If any portion of your project site includes S1 or S2 natural communities or plant species, how will you ensure that there will be no undue adverse impact on the community/species and how will you preserve the values that qualify your site for such designation?
19. If any portion of your project site includes archeologically sensitive areas, structures listed in the National Register of Historic Places or is likely to contain a significant archaeological site or structure, how will you ensure that there will be no undue adverse impact on such features and how will you preserve the values that qualify your project site for such designation?

 Refer to Section 10.25,E of the Commission's Land Use Districts and Standards for LURC's scenic character and natural & historic features requirements.

SHORELAND CRITERIA N/A

20. If your proposed development is adjacent to any lakes or ponds, explain in detail how your proposal is consistent with each of the following shoreland criteria:
 - a. The proposal will not adversely affect any significant or outstanding natural and cultural resource values, as identified in the Commission's Wildland Lakes Assessment;
 - b. The proposal will not have an undue adverse impact on water quality, alone or in conjunction with other development;
 - c. The proposal will not have an undue adverse impact on traditional uses, including non-intensive public recreation, sporting camp operations, timber harvesting, and agriculture;
 - d. The proposal will not substantially alter the diversity of lake-related uses available in the area;
 - e. Adequate provision has been made to maintain the natural character of shoreland;
 - f. The proposal is consistent with the management intent of the affected lakes classification; and
 - g. Where future development on a lake may be limited for water quality or other reasons, proposed development on each land ownership does not exceed its proportionate share of total allowable development.

 Refer to Section 10.25,A of the Commission's Land Use Districts and Standards, as well as the "Review Criteria for Shoreland Permits" in the Commission's Comprehensive Land Use Plan (Appendix C, p 4-5) for LURC's standards for shoreland development.

BUILDING LAYOUT IN PROSPECTIVELY ZONED AREAS N/A

21. If your proposed development is located in a D-GN, D-GN2, D-GN3, D-RS or D-RS2 subdistrict within a prospectively zoned area, answer the following questions.
 - a. Will your development be substantially similar in building height, bulk, and roof lines to neighboring development? Describe the features that makes your development is substantially similar.
 - b. What will you do to facilitate pedestrian access between adjacent sites and nearby residential neighborhoods? What will you do to facilitate automobile access?
 - c. Do you propose any windowless walls facing a public road?
 - d. If you are proposing new development adjacent to development in a "Main Street" setting (see instructions), will your buildings be configured so that at least 80% of the road frontage to be developed remains devoted to buildings?

 Refer to Section 10.25,B of the Commission's Land Use Districts and Standards for LURC's additional rules for prospectively zoned areas.

Required Exhibits

Supplement S-2: Requirements for Non-Residential Development

All proposals for non-residential development must include Exhibits S-2A, S-2B, and S-2C.

Depending on the nature of your proposal, you may also need to submit some or all of the additional exhibits described below.



If you are unsure about what to submit with your application, contact the LURC office that serves your area for assistance.

S2-A. FINANCIAL CAPACITY. See Exhibit B.9, Attachments B.9-1, B.9-2

To demonstrate that you have adequate financial resources to undertake the proposed development, submit at least one of the following:

- Submit a letter from a financial institution, government agency or other funding source indicating a commitment to provide a specified amount of funds and the uses for which those funds may be utilized. In cases where there can be no commitment of money until approvals have been received, submit a letter of Intent to Fund from the funding institution indicating the amount of funds and their specified uses.
- Submit the most recent corporate annual report indicating availability of sufficient funds to finance the development, along with explanatory materials to interpret the report.
- If you will personally finance the development, submit copies of bank statements or other similar evidence indicating availability of funds necessary to complete the development., including all proposed improvements, structures and facilities.

S2-B. SOLID WASTE DISPOSAL AUTHORIZATION. See Exhibit B.13

To confirm that the solid waste facility you propose for use by your development is available and can accommodate the additional wastes anticipated to be generated by your development, submit a letter of authorization from the owner of the solid waste facility which states both availability and acceptability of the facility to accept wastes from your development. If you have a contract with an individual or firm for the collection and/or transfer of solid wastes from the project area to the approved solid waste facility, provide a signed copy of such contract.

See Exhibit B.14

S2-C. SOIL SUITABILITY AND MAPPING. & Attachment B.14-1

Submit an on-site soil survey, conducted by a Maine licensed soil scientist according to the "Guidelines for Maine Certified Soil Scientists for Soil Identification and Mapping" (Maine Association of Professional Soil Scientists, 2003). Use a Class A high intensity soil survey to identify soils within all disturbed areas on your project site. Disturbed areas include areas that are stripped, graded, grubbed or otherwise result in soil exposure at any time during the site preparation for, or construction of, a project. Use a Class B soil survey to identify soils elsewhere within the project area.



In certain cases, LURC may reduce the soil survey class requirements, or waive certain provisions of a Class A or B high intensity soil survey (for instance, the contour mapping requirement). Before you conduct your soil survey, contact the LURC office that serves your area for guidance on how to proceed.

With the results of your soil survey, identify the development potential rating for each soil type within your project area using the Natural Resources Conservation Service's soils potential ratings for low density development. If any soils within your project area have a low or very low development potential rating, explain what measures will be used to overcome the limitations that resulted in such a rating.

S2-D. CORPORATE GOOD STANDING. See Exhibit B.1, Attachment B.1

If the owner of the proposed development is a corporation, submit a certification of good standing from the Maine Secretary of State.

S2-E. WATER SUPPLY. N/A

If you plan to install a well, submit at least one of the following:

- A letter from a geologist, hydrogeologist or well driller knowledgeable with the area, describing the project area and stating that a sufficient and healthful water supply is likely to be available.
- A test well dug or drilled on site and a report prepared which indicates the volume and potability of water obtained from the well.

Additionally, if you plan to install a central water supply, submit detailed plans for the water supply system in conformance with the Maine Drinking Water Regulations. Such plans must be designed by a Maine Registered Professional Engineer and must show all water supply locations, wells, support facilities and structures, and pipelines. You must also describe proposed methods for continued maintenance of the system.

S2-F. ROADWAY DESIGN AND MAINTENANCE. See Exhibits B.6, B.13 and Attachment B.13-1

If you are proposing to construct or upgrade any roadways, submit a plan (drawn to scale) which shows the location of all proposed roadways, as well as turnarounds, water crossings and turnouts and drainage control measures (such as ditches, water bars, etc.). Identify each roadway by name and include width of roadways, rights of way and travel surfaces. Also submit three drawings, each to scale, illustrating the following:

- A typical overhead view of the proposed roadways showing widths of the travel way, shoulders, and rights of way, and the roadway center line.
- A typical cross section showing the roadway travel surface, location and materials of original ground surface, depth and type of fill to be used, slopes, drainage ditches and other water control devices, and boundaries of the travel surface, shoulders and rights of way.
- A typical profile showing elevations of the roadway and the original ground surface, and the percent slope of the final roadway from the center line of the entire length of the roadway.

If you will dedicate any roadways to a town or plantation, you must also submit a maintenance plan that specifies the proposed roadway construction and design standards that will be used.

S2-G. PARKING LANDSCAPING PLAN. N/A

If your proposed development has a parking area that is more than one acre in size, you must submit a landscaping plan that indicates planting locations, type and maintenance. The plan must include provisions that all parking areas will have landscaped strips along the perimeter, as well as landscaped islands within the parking area. The plan also must include provisions that expanses of parking areas will be broken up with landscaped islands that include shaded trees and shrubs. Contact the LURC office that serves your area for additional details about the requirements for a landscaping plan.

S2-H. TRAFFIC IMPACT STUDY. See Exhibit B.6

If your proposed development has the potential to generate significant amounts of traffic or if safety or capacity concerns exist in the area, you may be required to conduct a traffic impact study of roadways and intersections in the vicinity of your project site. If such information is needed, LURC will contact you during the review of your proposal.

S2-I. ARCHAEOLOGICAL SURVEY. See Exhibit B.15

If any portion of your development site includes an archeologically sensitive area or a structure listed in the National Register of Historic Places, or is considered by the Maine Historic Preservation Commission or other pertinent authority as likely to contain a significant archaeological site or structure, you must conduct archaeological surveys or submit information on the structure. If such information is needed, LURC will contact you during the review of your proposal.

S2-J. PHOSPHORUS CONTROL. See Exhibit B.14

If your development creates a disturbed area of one acre or more within the direct watershed of a lake or pond, you must submit a phosphorus impact analysis and control plan using the methods and procedures set forth in the booklet "Phosphorus Control in Lake Watersheds: A Technical Guide to Evaluating New Development" (DEP, 1992). The booklet is available from the Department of Environmental Protection by calling (207) 287-3901. This exhibit must include plans for long term maintenance of any proposed phosphorus control measures, including vegetative buffers, infiltration systems and wet ponds.



Supplement S-3

Requirements for Wetland Alterations

Applicant Name(s): TransCanada Maine Wind Development Inc.	Project Location (Township and County): Kibby & Chain of Ponds Townships, Franklin County
--	---

NATURE OF WETLAND ALTERATION

1. Describe in detail the purpose and need for the proposed wetland alteration and the type of activity involved (use additional paper if needed).
See Exhibit B.15

2. Will your proposal alter any amount of land that is a mapped P-WL subdistrict or any ground below the normal high water mark of a lake, pond, river, stream, or intertidal area? Yes No

3. Will your proposal alter an acre or more of any land area, either upland or wetland? Yes No

3a. If yes, are there wetlands present within the boundaries of your project area (as determined by a qualified wetland professional)? Yes No

WETLAND TYPE AND AMOUNT OF ALTERATION

4. What type of wetland(s) will be altered? (check all that apply) Provide the amount of wetland area (in square feet) that is proposed to be altered within each category that is checked off, then calculate the total area of wetland alteration.

<input checked="" type="checkbox"/> P-WL1: Wetland of special significance	<u>43,583</u> sq. ft.	} TOTAL AREA OF WETLAND ALTERATION: 189,512 sq. ft.
<input checked="" type="checkbox"/> P-WL2: Scrub shrub wetland	<u>121,171</u> sq. ft.	
<input checked="" type="checkbox"/> P-WL3: Forested wetland	<u>24,758</u> sq. ft.	

5. Provide the amount of wetland area (in square feet) that is proposed to be altered within each of the following categories:

<input type="checkbox"/> Coastal wetland	<u>N/A</u> sq. ft.	<input checked="" type="checkbox"/> River, stream or brook bottom	<u>957</u> sq. ft.
<input checked="" type="checkbox"/> Freshwater wetland	<u>188,555</u> sq. ft.	<input type="checkbox"/> Lake or pond bottom	<u>0</u> sq. ft.

6. Do the wetlands to be altered contain any critically imperiled (S1) or imperiled (S2) natural communities? Yes No

PREVIOUS ALTERATION, AVOIDANCE, EROSION/SEDIMENTATION CONTROL

7. Has any wetland area been previously altered on the property? Yes No

7a. If yes, provide the date, purpose, and amount of previous alteration, and whether permits were obtained.
See Exhibit B.15

8. Is there a reasonable way for you to conduct your project that avoids alteration of wetland areas? Yes No

8a. If no, explain why not and describe how do you propose to minimize the amount of wetland to be altered.
See Exhibit B.15

9. How will you keep disturbed soils from eroding into nearby lakes, ponds, rivers, streams, intertidal areas, or other wetlands?
See Exhibits B.14, B.15 and Attachment B.14-2

LEVEL OF WETLAND REVIEW, REQUIRED EXHIBITS

Determine the level of wetland review required for your project (check only one option!) and submit all necessary exhibits with this supplement (see instructions for details).	Level of Review	Required Exhibits
<input checked="" type="checkbox"/> Altering a P-WL1 of any size.	Tier 3	S-3A, S-3B, S-3C, S-3D
<input type="checkbox"/> Altering 15,000 – 43,559 sq. ft. of a P-WL2 or P-WL3 containing S1 or S2 communities.		
<input checked="" type="checkbox"/> Altering 43,560 sq. ft. or more or a P-WL2 or P-WL3.	Tier 2	S-3A, S-3B, S-3C, S-3D
<input type="checkbox"/> Altering 20,000 – 43,560 sq. ft. of a P-WL2 or P-WL3 not containing S1 or S2 communities.		
<input type="checkbox"/> Altering 15,000 – 19,999 sq. ft. of a P-WL2 or P-WL3 not containing S1 or S2 communities.	Tier 2	S-3A, S-3B
<input type="checkbox"/> Altering 4,300 – 14,999 sq. ft. of a P-WL2 or P-WL3.	Tier 1	S-3A
<input type="checkbox"/> Altering less than 4,300 sq. ft. of a P-WL2 or P-WL3.	None	S-3A

Required Exhibits

Supplement S-3: Requirements for Wetland Alterations

S3-A. WETLAND MAP OR DELINEATION. See Exhibit B.15

Submit a sketch drawing or a map that identifies the location and type of wetlands within the project area, as follows:

- For projects that will alter less than 4,300 sq. ft. of a P-WL2 or P-WL3, show the location of the wetland in relation to your project area. You may include this information on your LURC permit application site plan (Exhibit D) instead.
- For projects that will impact only a water body (such as a lake, pond, stream, river, or intertidal area), submit a map, drawn to scale, that shows the normal high and low water marks of the water body and the proposed wetland impact area. If you are submitting a LURC permit application, you may include this information on your site plan (Exhibit D) instead.
- For projects requiring Tier 1 wetland review, submit a map, drawn to scale, that indicates the types and locations of wetlands within the project area; the proposed wetland impact area; locations of streams and other natural features; and distances of lakes, ponds, streams, rivers, intertidal areas, and wetlands from the nearest proposed structure or disturbed area.
- For projects requiring Tier 2 or 3 wetland review, submit a wetland delineation, conducted by a qualified wetlands professional, along with a report describing the physical characteristics of the wetland. The wetland delineation must be conducted using the methods described in the U.S. Army Corps of Engineers Wetland Delineation Manual (1987). For a Tier 2 review, a map must show the wetland boundaries, but the associated field sheets (sample plot logs) do not need to be submitted with this supplement (LURC may request field sheets to be submitted on some projects, depending upon the type of resources to be impacted, the amount of proposed impact, or the nature of the proposal). For a Tier 3 review, a map and field sheets (sample plot logs) must be submitted with this supplement.

S3-B. ALTERNATIVES ANALYSIS. See Exhibit B.15

The alternatives analysis is a narrative that explains how your project has been designed to have the least amount of impact on the wetland. In addition to explaining how your project will alter the least amount of wetland possible, you must also explain why other alternatives to the project are not feasible, including the “no action” alternative (that is, not doing the project at all). As you plan your project, remember to lay it out and use construction techniques that will have the least amount of effect on the wetland. Don't fill or disturb any area of wetland if there is a way to do your project that will avoid it. For example, do not plan to place a structure in a wetland if it can be placed on upland, or plan to drive heavy machinery on the wetland if it can be avoided.



Under LURC's standards for wetland alterations, projects requiring certain types of wetland review must either avoid alteration of wetland areas to the extent feasible, considering natural features, cost, existing technology and logistics based on the overall purpose of the project (Tier 1); or must not cause a loss in wetland area, functions and values if there is a practicable alternative to the project that would be less damaging to the environment (Tier 2 or 3). Contact the LURC office that serves your area for additional guidance or to obtain a copy of LURC's standards for wetland alterations.

S3-C. FUNCTIONAL ASSESSMENT. See Exhibit B.15

A functional assessment is an evaluation of the functions and values of a wetland that is prepared by a qualified wetlands professional. The preferred method for preparing a functional assessment is the Highway Methodology, although best professional judgment is also accepted under certain circumstances. Contact the LURC office that serves your area for more information.



Certain projects are exempt from the functional assessment and compensation plan requirements. Contact the main LURC office in Augusta for guidance on which projects are exempt from these requirements.

S3-D. COMPENSATION PLAN. See Exhibit B.15

Compensation is required for certain projects where the functional assessment has shown that there will be a loss of wetland functions and values. Because the compensation plan is tied to the results of the functional assessment, the need for a compensation plan is determined either during a pre-application meeting with LURC, or in consultation with LURC once the functional assessment has been submitted. If compensation is required, the compensation plan must meet the standards found in the Commission's Wetland Compensation Guidelines. Contact the LURC office that serves your area to obtain a copy of this document.

Kibby Expansion Wind Power Project

Land Use Regulation Commission Grid Scale Wind Energy Development Application

Submitted by:



**TransCanada Maine Wind Development Inc.
3647 The Arnold Trail
Chain of Ponds Township, ME 04936**

Prepared by:



**14 Gabriel Drive
Augusta, ME 04330**

December 2009 Revision



Table of Contents

APPLICATION FORMS.....X

INTRODUCTION A.1-1

EXHIBIT A.1 SCENIC CHARACTER EVALUATION A.1-1

EXHIBIT A.2 SHADOW FLICKER EVALUATION..... A.2-1

A.2.1 SHADOW FLICKER FROM WIND TURBINES..... A.2-1

A.2.2 MODELING A.2-2

A.2.3 CONCLUSION..... A.2-3

EXHIBIT A.3 AVIAN AND BAT MONITORING..... A.3-1

A.3.1 PRECONSTRUCTION MONITORING PLAN..... A.3-1

A.3.2 RARE RAPTOR NESTING SURVEYS..... A.3-1

A.3.3 DAYTIME MIGRANT SURVEYS..... A.3-2

A.3.3.1 RTE Species A.3-3

A.3.3.2 Conclusion A.3-4

A.3.4 RADAR SURVEYS..... A.3-4

A.3.4.1 Spring A.3-4

A.3.4.2 Fall A.3-6

A.3.5 BAT DETECTOR SURVEYS..... A.3-7

A.3.6 BREEDING BIRD SURVEYS A.3-8

A.3.7 POST-CONSTRUCTION MONITORING PLAN..... A.3-8

EXHIBIT A.4 NOISE EVALUATION A.4-1

A.4.1 GENERAL INFORMATION ON NOISE A.4-1

A.4.2 APPLICABLE NOISE STANDARDS A.4-1

A.4.3 CONSTRUCTION NOISE A.4-2

A.4.4 OPERATIONAL NOISE A.4-2

A.4.4.1 Wind Turbine Noise Sources A.4-2

EXHIBIT A.5 PUBLIC SAFETY AND RELATED TURBINE SETBACKS..... A.5-1

A.5.1 TURBINE DESIGN CERTIFICATION/OVERSPEED CONTROL..... A.5-1

A.5.2 PUBLIC SAFETY SETBACKS A.5-1

EXHIBIT A.6 TANGIBLE BENEFITS..... A.6-1

A.6.1 ENVIRONMENTAL BENEFITS A.6-1

A.6.2 ENERGY BENEFITS..... A.6-1

A.6.3 ECONOMIC BENEFITS A.6-1

A.6.3.1 Direct and Indirect Employment-Construction..... A.6-1

A.6.3.2 Direct and Indirect Employment-Operations A.6-3

A.6.3.3 Other Economic Benefits A.6-4

A.6.3.4	Real Property Taxation and Local Benefits	A.6-4
A.6.4	SUMMARY OF STATE AND LOCAL BENEFITS	A.6-5
EXHIBIT A.7	DECOMMISSIONING.....	A.7-1
EXHIBIT B.1	APPLICANT INFORMATION.....	B.1-1
EXHIBIT B.2	PROJECT LOCATION	B.2-1
EXHIBIT B.3	LURC SUBDISTRICTS AFFECTED.....	B.3-1
B.3.1	FLOODZONES	B.3-1
B.3.1.1	Project Elevations	B.3-4
EXHIBIT B.4	PUBLIC NOTICE OF FILING	B.4-1
B.4.1	PUBLIC OUTREACH.....	B.4-1
EXHIBIT B.5	TITLE, RIGHT AND INTEREST.....	B.5-1
B.5.1	KENNEBEC WEST FOREST, LLC (“KWF”).....	B.5-1
B.5.2	PLUM CREEK MAINE TIMBERLANDS, LLC (“PLUM CREEK”).....	B.5-1
EXHIBIT B.6	SITE ACCESS.....	B.6-1
B.6.1	EXISTING PUBLIC ROADS	B.6-1
B.6.2	EXISTING PRIVATE ROADS.....	B.6-3
B.6.2.1	Improvements to Existing Private Roads	B.6-4
B.6.3	NEW ROAD CONSTRUCTION.....	B.6-5
B.6.3.1	Mile 5 Road to the Ridgeline.....	B.6-5
B.6.3.2	Crane Roads.....	B.6-5
B.6.3.3	Temporary Skid Trail/Construction Access.....	B.6-6
B.6.3.4	Temporary Collector System Spur Roads.....	B.6-7
B.6.4	POST-CONSTRUCTION STABILIZATION AND REVEGETATION.....	B.6-7
B.6.5	PUBLIC ACCESS, VEHICULAR CIRCULATION AND PARKING.....	B.6-7
EXHIBIT B.7	LAND DIVISION HISTORY.....	B.7-1
B.7.1	KWF PARENT PARCEL – CHAIN OF PONDS TOWNSHIP	B.7-1
B.7.2	PLUM CREEK PARENT PARCEL – KIBBY TOWNSHIP.....	B.7-2
EXHIBIT B.8	EXISTING USES AND STRUCTURES.....	B.8-1
EXHIBIT B.9	FINANCIAL AND TECHNICAL CAPACITY.....	B.9-1
B.9.1	FINANCIAL CAPACITY	B.9-1
B.9.2	TECHNICAL CAPACITY	B.9-1
B.9.2.1	The Applicant.....	B.9-1
B.9.2.2	The Permitting Team	B.9-3
EXHIBIT B.10	SERVICES.....	B.10-1
EXHIBIT B.11	CONSTRUCTION SCHEDULE AND WORK PLAN.....	B.11-1
B.11.1	CONSTRUCTION SCHEDULE AND SEQUENCE	B.11-1

B.11.2	CONSTRUCTION WORK PLAN	B.11-3
B.11.3	IN-STREAM CONSTRUCTION WINDOW.....	B.11-6
B.11.4	WINTER CONSTRUCTION MEASURES	B.11-7
B.11.5	CONSTRUCTION AND POST-CONSTRUCTION MONITORING AND REPORTING.....	B.11-9
B.11.5.1	Engineering Refinement and Change Process	B.11-9
B.11.5.2	Project Changes Not Requiring LURC Review or Approval	B.11-9
B.11.5.3	Reporting and Change Documentation	B.11-11
B.11.5.4	Environmental Inspection.....	B.11-12
B.11.6	THIRD PARTY INSPECTION.....	B.11-14
B.11.6.1	Inspector Selection.....	B.11-14
B.11.6.2	Inspector Qualifications	B.11-15
B.11.6.3	Terminating the Inspector’s Services	B.11-15
B.11.6.4	The Inspector’s Duties and Responsibilities.....	B.11-15
B.11.6.5	Inspection Reports.....	B.11-16
EXHIBIT B.12	ESTIMATED DEVELOPMENT COSTS.....	B.12-1
EXHIBIT B.13	PROJECT DESCRIPTION.....	B.13-1
B.13.1	SUMMARY OF PROJECT CHARACTERISTICS	B.13-1
B.13.2	WIND TURBINES.....	B.13-1
B.13.2.1	Turbine Foundations.....	B.13-4
B.13.2.2	Wind Turbine Tower.....	B.13-5
B.13.2.3	Turbine Nacelle.....	B.13-5
B.13.2.4	Turbine Rotor and Blades.....	B.13-6
B.13.2.5	Safety Lighting.....	B.13-6
B.13.3	TURBINE PADS	B.13-6
B.13.4	ROADS	B.13-7
B.13.4.1	Ridgeline Crane Roads.....	B.13-9
B.13.4.2	Access Road to the Ridgeline	B.13-10
B.13.4.3	Wahl Road Improvements	B.13-11
B.13.5	34.5 kV ELECTRICAL COLLECTOR SYSTEM.....	B.13-12
B.13.6	SUBSTATION AND 115 kV TAP LINE.....	B.13-13
B.13.7	KIBBY PROJECT O&M BUILDING EXPANSION.....	B.13-13
B.13.8	METEOROLOGICAL TOWER(S).....	B.13-14
B.13.9	TEMPORARY CONSTRUCTION-ONLY FACILITIES.....	B.13-14
B.13.9.1	Temporary Skidder Trail/Construction Access Road	B.13-14
B.13.9.2	Temporary Laydown Areas.....	B.13-15
B.13.9.3	Temporary Access Spur Roads for Collector Construction	B.13-17
B.13.9.4	Kibby Project Construction Control Center/Parking Area Expansion.....	B.13-17
B.13.9.5	Rock Crushing Plant and Temporary Material Handling/Storage Areas.....	B.13-18
B.13.10	CONTROL OF FUGITIVE EMISSIONS	B.13-18
B.13.11	LAND AREA AFFECTED.....	B.13-18

B.13.12 SIGNSB.13-18

B.13.13 SETBACKS AND DIMENSIONAL REQUIREMENTSB.13-20

B.13.13.1 Chapter 10.26.D Setback RequirementsB.13-20

B.13.14 INTERNATIONAL BOUNDARY COMMISSIONB.13-22

B.13.15 EARTHEN SPOILS AND STUMP DISPOSALB.13-23

B.13.16 DISPOSAL OF SOLID WASTE OTHER THAN STUMPSB.13-23

B.13.17 SPILL PREVENTION CONTROL AND COUNTERMEASURE (“SPCC”) PLANB.13-23

B.13.18 GEOTECHNICAL EVALUATIONB.13-23

B.13.19 BLASTING PLANB.13-24

B.13.20 CUT AND FILL ESTIMATESB.13-25

B.13.21 CLEARINGB.13-25

EXHIBIT B.14 SOILS MAPPING, EROSION CONTROL AND STORMWATER MANAGEMENTB.14-1

B.14.1 SOILS MAPPINGB.14-1

B.14.2 EROSION CONTROLB.14-1

B.14.3 STORMWATER MANAGEMENTB.14-1

B.14.1.1 Existing Site ConditionsB.14-2

B.14.1.2 Proposed DevelopmentB.14-2

B.14.1.3 Stormwater Management ApproachB.14-3

B.14.1.4 Roadway CulvertsB.14-4

B.14.1.5 Conveyance SwalesB.14-5

B.14.1.6 Phosphorus Control PlanB.14-5

B.14.1.7 Stormwater MaintenanceB.14-7

B.14.1.8 SummaryB.14-7

EXHIBIT B.15 ENVIRONMENTAL ASSESSMENTB.15-1

B.15.1. AVIAN AND BAT MONITORINGB.15-1

B.15.2. EXISTING CONDITIONS - WILDLIFE AND HABITATB.15-1

15.2.1 Vegetation and HabitatB.15-1

15.2.2 Wildlife ResourcesB.15-7

B.15.3. POTENTIAL IMPACTSB.15-10

B.15.3.1 Vegetative CommunitiesB.15-10

B.15.3.2 Impacts to WildlifeB.15-17

B.15.4. RARE, THREATENED AND ENDANGERED SPECIES AND NATURAL PLANT COMMUNITIESB.15-20

B.15.4.1 Existing Conditions - Vascular Plants and Natural CommunitiesB.15-20

B.15.4.2 Rare, Threatened, and Endangered Wildlife SpeciesB.15-22

B.15.4.3 Potential Impacts – Rare Vascular Plants and Natural CommunitiesB.15-29

B.15.4.4 Potential Impacts to Rare, Threatened and Endangered WildlifeB.15-30

B.15.5. WETLAND ALTERATIONSB.15-33

B.15.5.1 Study AreaB.15-33

B.15.5.2	Methodology.....	B.15-33
B.15.5.3	Results.....	B.15-37
B.15.5.4	Functional Assessment	B.15-37
B.15.5.5	Unavoidable Impacts to Wetlands and Streams	B.15-43
B.15.6.	VERNAL POOLS.....	B.15-62
B.15.6.1	Delineation and Functional Assessment	B.15-62
EXHIBIT B.16	OTHER PERMIT REQUIREMENTS.....	B.16-1

List of Figures

Figure B.2-1: Project Location MapB.2-2

Figure B.2-2: Kibby and Kibby Expansion FootprintB.2-3

Figure B.3-1: LURC Zones with Project FootprintB.3-2

Figure B.3-2: Expedited Wind Energy Project Permitting AreaB.3-3

Figure B.11: Kibby Expansion Project Construction ScheduleB.11-2

Figure B.13-1: Vestas 3 MW V90 Turbines at Kibby MountainB.13-3

Figure B.13-2: Skidder AccessB.13-16

Figure B.15-1: Project MapB.15-2

Figure B.15-2: Fir-heart-leaved Birch Subalpine Forest CommunityB.15-6

Figure B.15-3: Potential Bog Lemming HabitatB.15-26

Figure B.15-4: Project Survey AreaB.15-35

Figure B.15-5: Wetland and Stream MapsB.15-38

Figure B.15-6: Pool Habitat Overview MapB.15-64

List of Tables

Table I-1: Kibby Expansion Project Key Facts I-3

Table A.6: Economic Impacts of Kibby Wind Power Project Construction.....A.6-3

Table A.7: Decommissioning Cost EstimateA.7-2

Table B.2-2: Previously Undeveloped Land Area AffectedB.2-2

Table B.6: Vehicle Transportation Requirements During ConstructionB.6-2

Table B.11: Construction Work PlanB.11-3

Table B.12: Project Cost EstimateB.12-1

Table B.13-1: Vestas V90 Wind Turbine SpecificationsB.13-2

Table B.13-2: Technical Specifications for Crane and Access RoadsB.13-8

Table B.13-3: Land Area (acres) Affected by the Kibby Expansion ProjectB.13-19

Table B.13-4: Turbine Property Line SetbackB.13-21

Table B.13-5: Cut and Fill EstimatesB.13-25

Table B.15-1: Summary of Wetland Impacts Associated with the Kibby Expansion Project B.15-44

Table B.15-2: Kibby Expansion Project Unavoidable Wetland Impacts Associated with Crane Path and Turbine Construction B.15-47

Table B.15-3: Kibby Expansion Project Unavoidable Wetland Impacts Associated with Ridge Access, Gold Brook Road to Ridge B.15-49

Table B.15-4: Kibby Expansion Project Unavoidable Stream Impacts Associate with Access Road Crossings B.15-52

Table B.15-5: Kibby Expansion Project Unavoidable Wetland Clearing Impacts Associated with Collector Line, Gold Brook Road to Ridge B.15-54

Table B.15-6: Kibby Expansion Project Unavoidable Wetland Clearing Impacts Associated with Collector Line, 5 Mile Road to Substation B.15-56

Table B.15-7: Kibby Expansion Project Unavoidable Stream Crossing Impacts, Collector Line Adjacent to Access from Gold Brook Road to Ridge B.15-58

Table B.15-8: Kibby Expansion Project Unavoidable Stream Impacts, Collector Line Crossings from 5 Mile Road to Substation B.15-59

Table B.15-9: Kibby Expansion Project Poles within 100 ft. of Streams B.15-60

Table B.15-10: Description of Pools B.15-65

List of Attachments

ATTACHMENT A.1:	Aesthetic Impact Assessment
ATTACHMENT A.2:	Wind Turbine Generator Shadow Flicker Analysis
ATTACHMENT A.3-1:	Rare Raptor Nesting Protocol Rare Raptor Nesting Survey Memorandum
ATTACHMENT A.3-2:	Daytime Raptor Migration Survey Protocol Daytime Raptor Migration Survey Report
ATTACHMENT A.3-3:	Spring 2009 Nocturnal Migration Survey Report Fall 2009 Nocturnal Migration Survey Report
ATTACHMENT A.3-4:	Breeding Bird Survey Protocol
ATTACHMENT A.4:	Noise Study
ATTACHMENT A.5-1:	Vestas V90 Design Safety Certification
ATTACHMENT A.5-2:	Vestas V90 Overspeed Central and Related Safety Mechanisms
ATTACHMENT A.7:	TransCanada Corporation Example Parental Guarantee
ATTACHMENT B.1:	Maine Certificate of Corporate Good Standing
ATTACHMENT B.4:	Public Notice of Intent to File List of Public Notice Recipients
ATTACHMENT B.5-1:	Right, Title and Interest Documentation
ATTACHMENT B.5-2:	KWF and Plum Creek Underlying Deeds
ATTACHMENT B.9-1:	TransCanada 2008 Annual Report
ATTACHMENT B.9-2:	TransCanada Corporation Letter Re Financial Capacity
ATTACHMENT B.10:	Service Letters
ATTACHMENT B.13-1:	Site Plans/Erosion and Sedimentation Control and Stormwater Management Detail Drawings (Bound Separately)
ATTACHMENT B.13-2:	Blasting Plan
ATTACHMENT B.13-3:	SPCC Plan
ATTACHMENT B.13-4:	Preliminary Geologic Investigation
ATTACHMENT B.13-5:	Acid Rock Testing and Mitigation Plan
ATTACHMENT B.14-1:	Class L Soil Survey
ATTACHMENT B.14-2:	Erosion and Sedimentation Control Plan
ATTACHMENT B.14-3:	Stormwater Calculation Package
ATTACHMENT B.15-1:	Botanical Resources Report
ATTACHMENT B.15-2:	Roaring Brook mayfly survey protocol
ATTACHMENT B.15-3:	Historic Structures Report

ATTACHMENT B.15-4: Archaeological Resources Memorandum

ATTACHMENT B.15-5: Agency Consultation