

RESPONSE TO INITIAL REVIEWER COMMENTS
KIBBY WIND POWER PROJECT
July 23, 2007

We understand that comments have been received by the Land Use Regulation Commission (LURC) from the following entities:

- Representative Timothy Carter, letter dated 1/16/07
- Eustis Selectmen, Town of Eustis, letter dated 1/29/07
- John Dill, Chairman, Board of Selectmen, Town of Kingfield, letter dated 2/9/07
- Malcolm R. Fearon, Fire Chief, Eustis Fire Department, letter dated 2/19/07
- Lorna Dee Nichols, Franklin County Chamber of Commerce, letter dated 3/20/07
- Dave Rocque, Maine State Soil Scientist, memorandum dated 4/30/07
- Gary T. McGrane, Frederick Hardy, and Meldon H. Gilmore, Franklin County Commissioners, letter dated 5/9/07
- Raquel Goodrich, Maine Natural Areas Program (MNAP), memorandum dated 5/16/07
- Jay Clement, U.S. Army Corps of Engineers (USACE), e-mail dated 5/21/07
- Earle Shuttleworth, Jr., Maine Historic Preservation Commission (MHPC), letter dated 5/24/07
- Steve Timpano, Maine Department of Inland Fisheries and Wildlife (MDIFW), e-mail dated 6/18/07
- Jeff Dennis, Department of Environmental Protection (DEP), e-mail dated 6/26/07

Each comment received to date is summarized below, with relevant comments in italics and responses following.

Response to Representative Carter

This letter of support raises no comments requiring response.

Response to Eustis Selectmen

This letter of support raises no comments requiring response.

Response to Kingfield Board of Selectmen

This letter of support raises no comments requiring response.

Response to Eustis Fire Chief

This letter of support raises no comments requiring response.

Response to Franklin County Chamber of Commerce

This letter of support raises no comments requiring response.

Responses to Maine State Soil Scientist Comments

Comment 1: Soils Report and Maps – In general, it appears that the applicant has proposed to locate the access roads in soils that are as suitable as reasonably possible on mountainsides and tops. The majority of the road sections proposed to cross soils that are typically associated with wetlands have been so located because of existing road or skid trails going into or through them.

I did note that there was no mention in the soils report of soils with oxyaquic conditions (oxygenated groundwater). These are unique conditions restricted mostly to soils on long sloping sites with dense hardpan and/or shallow depths to bedrock similar to what is found in the mountains. This creates a higher seasonal groundwater table than can be expected from an observation of the soil morphology and is an important consideration when constructing roads up the sides of mountains in order to minimize alteration of the hydrology. Those areas may not be large enough to show up as distinct soil map units but should be discussed as inclusions within soil map units. They should, however, be identified and shown where possible as separate soil map units on the development plan, should the rezoning application be approved by the Commission. That would be important information for the design and construction of the project.

Response: Additional detail will be added to the soil survey, as part of site final design, that would show inclusions of these oxyaquic soils to the extent possible. Investigations for such areas will be focused on proposed road locations that occur on long slopes.

Comment 2: I noted and endorse the applicant's intent to have an on-site expert in soil erosion/sediment control, hydrology and stormwater control at all times during construction. That is the best way possible to identify areas where special techniques are needed (since it will be impossible for all of them to be identified prior to construction) and to supervise their correct installation.

Response: It is TransCanada's standard practice to ensure that appropriate expertise is available during construction, especially for key stages related to engineering design decisions, to identify and implement techniques that meet individual site conditions.

Comment 3: I did not see a discussion of what time of year construction is to take place, which may have been an oversight on my part. I would recommend that construction, at least significant construction, be restricted to that time of year when soils are not frozen or saturated. If the applicant wishes to undertake significant construction when the soil is frozen, specific techniques to overcome those severe limitations should be developed and approved first. I would prefer however, to limit construction to those times of year when the soil is not frozen. No construction should occur when the soils are saturated.

Response: Clearing activities are proposed to occur during winter conditions, if possible based on the project licensing schedule, or following the spring mud season, if necessary. All grading activities, however, are scheduled to occur during the months following the spring mud season in order to most appropriately manage construction at the site.

Comment 4: I noted that each turbine site requires 1 acre of clearing and grubbing but only 0.5% or less of the site needs to be leveled. If only 0.5% of the 1-acre sites need to be leveled, is it necessary to grub the entire area? I would much prefer to see only clearing done so that as much of the area as possible retains tree roots and the organic duff layer (minimize alteration to the greatest extent possible).

Response: A cleared 1 acre area is typically needed for work space at the turbine site, and the ground must be grubbed to allow for vehicle movement throughout the work area. Clearings will be minimized to the extent possible, and will only be large enough to accommodate installation needs.

Comment 5: Deep cuts for a few road sections are proposed (both sides of the road). I understand the need to do this at times to attain the desired road grade without building an excessive amount of road but this will be a big challenge when dealing with stormwater. Such deep cuts should be minimized to the maximum extent possible to avoid difficult to manage stormwater problems or the need for structural measures which require costly and time consuming maintenance.

Response: As discussed in the application, final design (with the benefit of geotechnical information) will continue to eliminate such areas to the extent possible. Stormwater management techniques have been identified for use in areas where this configuration remains, focused on ensuring flow is managed in subwatersheds and avoiding concentrated flows as well as avoiding structures requiring significant maintenance.

Comment 6: The applicant intends to reuse excavated material in the construction of this project. They have indicated that any organic horizon material will be stockpiled and reused for erosion control. Where will the organic matter be stockpiled (sometimes, especially on steep slopes with upslope road cuts, it will not be possible to stockpile the materials on site due to the slopes)? Also, the "Thixotropic" BHs horizon will have to be removed (in areas where it is thick) and can only be used in areas where bearing strength is not a factor, such as at the toe of slope. It can however, be removed with the organic duff material (it is very high in organic matter) and used for creating topsoil to be used at lower elevations.

Response: At the turbine sites, which will be relatively flat, local soil stockpiles will be used for temporarily placing soil for reuse. Small, localized stockpiles will also be used along the roadway excavations, located in less steep portions of the work area. Proper stabilization techniques will be used to ensure stockpile integrity. In general, long term stockpiling would not be anticipated, since each work area will be permanently stabilized as quickly as possible. Any longer-term soil stock piles would be maintained at the Temporary Materials Storage areas identified on Figure 2-5 of the application (Project Construction and Operation Areas).

Comment 7: I noted a discussion in the application where appropriate drainage techniques will be used in all newly constructed roads. Those techniques should also be used when old logging roads and/or skid trails are rebuilt or improved.

Response: Where existing roads or trails are planned to be significantly rebuilt or upgraded, similar drainage techniques will be used as identified for proposed new roadways. TransCanada will work with existing landowners in identifying and making such improvements.

Comment 8: The typical wetland crossing proposes to use a "rock sandwich" material stone that is 2" – 3" in diameter. I would prefer to see 3" – 4" stone used instead. That is because smaller stone may plug up with sediment or debris such as leaves.

Response: It is anticipated that a variable stone mix would best support long-term drainage. TransCanada can plan to utilize stone with diameters ranging from 2" – 4".

Comment 9: I noted where upslope interceptors are to be used to divert runoff from the work site. There will also likely be instances where upslope groundwater interceptors will also be needed in order to work on a site. In those cases, once the work is done, the groundwater should be reconnected via a rock sandwich or similar device.

Response: Maintaining groundwater and other subsurface water flow is the intent of the project design and, therefore, a rock sandwich or similar device will be used in such locations.

Comment 10: I suggest the applicant include a typical cross-section for a road which is built on a steep slope where large rock is used as a base, similar to the road I took the applicant's engineer to see in Elliottsville Twp. This can dramatically decrease the need for a downslope fill extension. The rock may be available from a talus slope or from blasting necessary in cut areas, which are shallow to bedrock.

Response: The attached figure, entitled "Roads Traversing Existing Steep Slopes with Shallow Ground Water (Boulder Embankment)," provides a refinement of information generally included in the proposed work practices in order to respond to the above request.

Met Towers:

Comment 11: Access to met towers is proposed to be by trails that require little or no soil disturbance. If soil disturbance is required and erosion control devices are to be used, I suggest using either hay bales, erosion control mix or something like Gator Guard, which is a geotextile "sock" stuffed with foam. It is light, easy to carry and install and does not require additional disturbance to install. Silt fence requires too much soil and vegetation disturbance for the good it would be with small areas of disturbance. Final erosion control should not be by loam and seed. It should either be by erosion control bark mulch or replacement of the removed organic duff material.

Response: In general, permanent meteorological towers will be accessed by permanent roads. In the unlikely event that soil disturbance is necessary in areas outside the primary construction areas, the above measures will be implemented, using best professional judgment.

Comment 12: When crossing wet areas to access met tower sites, laying down slash is a good technique to provide the necessary bearing strength. It is available at the site and is a natural material so it does not need to be carried out after all work is done. In large wet areas or where deeper wet soils are found, it may be necessary to use other techniques discussed in the application.

Response: The USACE considers the placement of even temporary materials such as slash in wetlands as fill; therefore, this is not a preferred construction technique for the project. The use of wetland mats, although also considered fill, allows for more ready restoration to pre-construction conditions. The use of slash will be considered and used as appropriate in non-wetland areas.

Transmission Line:

Comment 13: I noted where the applicant indicated that about 20% of the proposed transmission line would need to cross through hydric soil map units. They calculate that amount as being about 29,500 linear feet or about 5.5 miles. Approximately half of that amount however, is listed as being CNC and CRB soil map units. CNC is described in the soils legend as being Colonel-Dixfield-Pillsbury and CRB is described as being Colonel-Pillsbury-Skerry soils. None of those soils are hydric. Therefore, it appears as though only about 10% of the total transmission line length will have to cross through hydric soils map units. None-the-less, approximately 2.25 miles of potential poorly and very poorly drained soils is a lot to cross. And, that is not counting the wetland inclusions in the map units not listed as being hydric. I would like to see the applicant only undertake construction on very poorly drained soils in the winter when the soil is frozen. Driving over very poorly drained soils at other times is very difficult and can be quite damaging. As for the poorly drained soils, they should be only worked over when frozen or during the driest months of the year (July, August or September). That is because they typically dry up in the summer and have good bearing strength (and damage to them is minimized). For small wet area crossings during the time of year that groundwater is present in poorly drained soils, I suggest using slash to provide bearing strength and to minimize damage to the wet area.

Response: TransCanada intends to prioritize winter construction on the transmission line to the extent possible. As noted above, the use of slash can result in difficulties in restoring wetlands to pre-construction conditions. Slash can be an appropriate material for use in non-wetland areas where poorly drained soils are a factor. To the extent TransCanada's goal of winter construction on the transmission line can be met, this should not be a significant issue.

Comment 14: The applicant proposes to create sediment traps for dewatering excavations made for poles. I suggest that the sediment traps be made by using staked hay bales, erosion control mix berms or fabric socks.

Response: For significant dewatering, TransCanada will plan to use staked hay bales, erosion control mix berms or fabric socks to minimize potential sedimentation of the surrounding area.

Comment 15: I recommend that the applicant use erosion control mix instead of loam and seed for permanent stabilization of disturbed areas along the transmission line. It is a more natural material, immediately provides stabilization, minimizes the potential for bringing in unwanted plant species and will encourage native species to vegetate the area.

Response: The use of erosion control mix is proposed as the preferred stabilization method, although loam and seed are identified for discretionary use depending upon site conditions.

Comment 16: Is the applicant going to attempt restricting ATV use over those sections of transmission line, which have poorly or very poorly drained soils? If not, are crossings to be constructed for ATV use? ATV's can cause much environmental damage if allowed to travel along the transmission line over poorly or very poorly drained soils. Snowmobile use of the transmission lines should not be a problem as they travel over frozen and snow covered ground.

Response: TransCanada will have easement rights for its transmission line, and does not intend to construct permanent accessways along the corridor. Use of the land would occur consistent with existing landowner policies and agreements. As a part of its operational

inspection protocol, conditions will be assessed along the right-of-way (ROW) on a regular basis and measures implemented as necessary to protect soils.

Response to Franklin County Commissioners

This letter of support raises no comments requiring response.

Response to MNAP

This letter notes that MNAP has no reservations about the project being proposed, and raises no comments requiring response.

Responses to USACE Comments

Comment 1: *It goes without saying that a permit from the Corps of Engineers will also be required for the project. The Corps application must encompass the project in its entirety and include all temporary and permanent impacts to waterways and wetlands from all project components. The applicant may use the LURC/DEP applications or he may fill out our application form, using the LURC/DEP applications as appendices. I suggest the latter. Project plans must be on 8-1/2 x 11 and be clear, reproducible, and legible. Colors are not acceptable. All relevant details must clearly be shown but in particular, temporary and permanent fill areas must be clearly distinguished. For road crossings of streams or wetlands, culvert details must be provided. We require that all culverts be set at or below stream/wetland grade so that flow and faunal movement is not impeded. The application to the Corps must be in hard copy, not electronic.*

Response: TransCanada understands the different requirements associated with the USACE application, and will be preparing those materials for submittal at a later date.

Comment 2: *Table 1-1 identifies 1.6 acres of impact but the Executive Summary says 1.7 acres.*

Response: Although some rounding occurred in translating impact information to the Executive Summary, details are provided with regard to specific impact areas and acreages. Note that, as project information continues to evolve, we expect some further refinement of impact. When the application is filed with USACE it will reflect appropriate level of detail supporting the impact information.

Comment 3: *Section 2.1, Purpose & Need. It is difficult to compare alternatives to this project purpose and need. Might it be more appropriate to identify the project purpose as to develop a mountain top windpower facility in western Maine? (Franklin County?) The applicant might even attempt to capture size by using "moderate sized" or similar language. The basic project purpose is the cornerstone of the alternatives analysis. It is generally kept broad enough so that a wide range of project alternatives can be analyzed.*

Response: The project purpose, in the instance, was fairly specific and the narrative was written to reflect TransCanada's focus on areas with valuable wind resource that can be designed to minimize environmental and community impact. We are not convinced that assessing a wide range of alternatives to the project would be particularly meaningful, but will intend to discuss this, among other issues, with USACE, prior to filing an application with that office.

Comment 4: Section 2.7. It appears that the applicant is prepared to take reasonable steps to ensure that if abandoned or decommissioned, all facility components will be removed in their entirety and in a timely fashion. A letter of credit is mentioned. Alternatives could include a performance bond or an escrow account. I suggest that you work with the AG's office to determine which option is most reasonable yet most restrictive.

Response: TransCanada has provided a meaningful commitment to decommissioning. To the extent necessary, we can engage in discussions with the AG's office for confirmation that the project commitment is appropriately backed by permit requirements and appropriate financial mechanisms.

Comment 5: Section 7.2.2.2. An alternative to controlling undesirable plants is straw mulch versus erosion control mix or hay mulch. It is unclear which would offer the best protection for the conditions of the site while also offering the better growing medium. The applicant's environmental consultant may wish to discuss this.

Response: Erosion control mix has been generally proposed based on numerous discussions with Maine's State Soil Scientist on appropriate stabilization measures. Implementation of procedures, however, is intended to allow for the flexibility to utilize alternate materials where appropriate.

Comment 6: Section 8.5.1.1. There are confusing references to USACE "definitions for significant vernal pools". There is no such definition. We focus on whether the landscape feature functions as a vernal pool and if so, what is its overall value to the species and how will it be impacted by the project. Unlike the DEP, we make no distinction between "natural" and "man made" areas.

Response: Section 8.5.1.1 provided definitions of vernal pools as stated in the USACE Programmatic General Permit and Maine Natural Resources Protection Act (NRPA) Chapter 335. The term "significant vernal pools" should have been more clearly stated to refer only to the Maine NRPA definitions of vernal pools. Because the USACE application will address only USACE standards, this confusion should not apply to that application.

Comment 7: Section 8.5.2.1. The applicant indicates in a number of locations in the application that there will be no direct impact to vernal pools. The applicant should assess potential indirect impacts using the Calhoun & Klemens guidelines as a reference.

Response: The guidance cited is intended to refer to residential and commercial development, which differs from the type of activity proposed for this project. TransCanada will work with USACE, MDIFW and the United States Fish and Wildlife Service (USFWS) to establish appropriate guidelines for the project. We anticipate that our approach, which has minimized work within buffer areas surrounding vernal pools and has avoid direct impact, should be sufficiently protective of this type of resource, especially given our field observations of resource use in the area. Although not directly relevant to the proposed activities, project assessment have considered similar factors as those outlined in the guidelines of Calhoun and Klemens¹ and Calhoun and deMaynadier² (avoiding direct impact, maintaining buffers, a preference for

¹ Calhoun, A. J. K. and M. W. Klemens. 2002. Best development practices: Conserving pool-breeding amphibians in residential and commercial developments in the northeastern United States. MCA Technical Paper No. 5, New York.

² Calhoun, A. J. K., and deMaynadier, P., 2002. Forestry Habitat Management Guidelines for Vernal Pool Wildlife, MCA Technical Paper No. 6, New York.

implementing work in frozen conditions, maintaining a large percentage of surrounding upland). In fact, no impact will occur within 100 feet of vernal pools in association with the wind turbine project itself. The 115 kV transmission line avoids direct impact to vernal pools; some vernal pools will be spanned by electric conductors resulting in the potential for indirect impact associated with conversion of cover type. In these locations, project activities would not affect the ability for Calhoun and deMaynadier's canopy guidelines to be met for the 400-foot radius defined as the amphibian life zone, but it will not be possible to maintain a 75 percent canopy of trees (20 to 30 feet in height) within the ROW. The potential for indirect impact will be limited, however, by focusing on protection of the forest floor, maintaining coarse woody debris as habitat features, and avoiding the use of chemicals within 100 feet of the vernal pool (defined as the vernal pool protection zone), consistent with Calhoun and deMaynadier recommendations.

Comment 8: Section 8.5.2.2. Again, this section references 1.63 acres of impact so it is unclear where the 1.7 acres referenced in the Executive Summary comes from. To confuse matters more, the S-3 section of the application appears to account for the 1.7 acre figure by adding 1.639 and 0.07 but it is unclear if this includes the 0.28 acres for the line. Suffice it to say the total impact of the all of the project's elements is difficult to determine and should be clearly spelled out in one location.

Response: We have attempted to be as precise and clear as possible during this conceptual review process, and – as discussed above – anticipate refinements to continue that will adjust the exact impact information to be presented in the USACE application. We will work with USACE to ensure that information presented in that application with regard to unavoidable impacts is clearly presented.

Comment 9: Table 8-6. This is very useful information but not a substitute for an alternatives analysis. For the Corps, an alternatives analysis should use the Section 404(b)(1) Guidelines as a reference. Alternatives can only be dismissed if they are unavailable, not practicable, or more environmentally damaging. I failed to find any specific section that contained a detailed alternatives analysis. There are a number of references to the extensive siting work that the applicant and his team did to avoid and minimize impacts but virtually no documentation to support this (that I could find). For example, why couldn't roads or service buildings be shifted slightly to avoid wetland impacts entirely? What about reducing fill slide slopes? This is the minutia that is typically found in a minimization discussion assuming the applicant has already demonstrated that pure avoidance isn't possible.

Response: Table 8-6 does address the specific reasons why each proposed wetland impact cannot be avoided, and site/route selection information is provided that addresses consideration of impact avoidance. In preparing for the USACE application, we plan to meet and discuss where a different approach to presenting information will be helpful within the context of federal review.

Comment 10: Table 8-7. It is unclear whether the impacts noted include those associated with temporary mats across streams and wetlands. These are considered "fill" by the Corps and need to be included in the application. Also, does "clearing" represent cutting only or does it include "grubbing" (stump removal). The latter would also constitute "filling".

Response: Neither LURC nor DEP consider the use of temporary mats as fill. Impacts will be characterized using USACE considerations within the USACE application.

Comment 11: Table 8-8. See above comment for Table 8-6. The applicant must discuss avoiding wetland and waterway impacts (for example by bridging) and if avoidance is not practicable, then minimizing impacts. This should be done on an impact by impact basis. This analysis does not appear to be contained in the application. The applicant should also identify the total linear footage of stream affected by the project.

Response: The project has avoided or minimized wetland and waterbody impacts to the extent practicable, and has provided information with regard to how impacts have been minimized consistent with the conceptual review stage of LURC review. When preparing for the USACE permit application, we plan to meet to discuss where a different approach to presenting information will be helpful within the context of federal review.

Comment 12: There is no clear discussion of potential indirect (secondary) or cumulative impacts from the project. Although these are specifically NEPA terms, they should none the less be considered in the review of the project. Indirect effects are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable indirect consequences to the environment. Cumulative impacts are the impacts on the environment which result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such other actions.

Response: This information will be provided, as applicable, in the USACE application.

Comment 13: Vernal Pool Survey. The Corps could not participate in the protocol meeting between the applicant, IF&W, and USFWS. As such, we remain confused by the references to man-made and natural pools and relative significance. As previously noted, natural or man-made is immaterial and we have no definition of significance. For that matter, the term "vernal pool" is not defined by the Corps in any regulation save by reference in our Maine Programmatic General Permit. The survey does appear to be a thorough analysis but we will defer to the Federal and State resource agencies to determine the project's direct and indirect impact to vernal pools or more importantly, to amphibians, and to determine whether compensation is required.

Response: As noted above, Maine NRPA Chapter 335 defines vernal pools as natural. TransCanada has acknowledged in its LURC application that the USACE definition makes no such distinction. The USACE application will address federally defined resources.

Comment 14: I initially questioned whether there was a wetland delineation report contained in the application. It appears that the applicant intends that Volume V, Section 6 fulfills this requirement. I have no objections but question whether there are dataforms or other details that haven't been included.

Response: A detailed wetland delineation has been completed for the project, including the gathering of documentation (photographs and data logs). Given the scope of the LURC conceptual review and the degree to which wetland impact has been avoided, it was determined that providing detailed characteristics of each wetland was not appropriate at this time. Appropriate documentation will be provided to meet USACE review standards, as will be discussed at a pre-application meeting.

Comment 15: I failed to find a wetland functional assessment. We generally recommend a "best professional opinion" approach similar to our Highway Methodology Supplement. I may have simply overlooked it.

Response: Details with regard to functions and value assessment are not typically provided in the LURC application. Consistent with DEP requirements, a wetland functional assessment has been provided to DEP for its review of portion of the 115 kV transmission line. The USACE application, which also requires this detail, will include such an assessment.

Comment 16: It is unclear whether the applicant proposes compensatory mitigation for the project's unavoidable direct or indirect impact to aquatic resources. If so, this should be included in the application package so that it can be fully evaluated. Much like LURC and the DEP, the Corps would favor wetland or stream restoration, enhancement, or creation over preservation. The applicant's agent is aware of our current mitigation guidelines and our current proposal to adopt mitigation ratios.

Response: At this phase of the LURC review process it is premature to make a final determination with regard to the need for compensation. This will be addressed in the USACE application and LURC final permit review.

Comment 17: It appears as if Volume V, Section 2 contains a general discussion of route alternatives for the 115 kV line. This general discussion isn't sufficient to demonstrate that the proposed line is the least environmentally damaging practicable alternative. The Corps recommends that the alternatives be dismissed in accordance with the Section 404(b)(1) Guidelines. Alternatives can only be dismissed if they are not available, practicable, or they are more environmentally damaging. For example, the Lac Megantic alternative was apparently dismissed because obtaining a Presidential Permit and undergoing a NEPA review was more bothersome. This would be an inappropriate means of dismissing this alternative. The applicant should clearly demonstrate that the least environmentally damaging practicable alternative has been selected and then go on to demonstrate on an impact by impact basis why the proposed impacts to wetlands and waterways cannot be avoided entirely or further minimized. Shifts in alignment, changes in pole type to allow for greater spans at crossings, shifting pole locations, even burial have undoubtedly been considered by the applicant and his consultants. However this is not clearly demonstrated in the application.

Response: Avoidance and minimization of impacts to wetlands and waterbodies were primary factors in the routing decision. Further, the final route was refined in several iterations to minimize impacts by such means as shifting the alignment and spacing of the support structures, and sending the transmission line underground in one area. A detailed alternatives analysis will be provided in the USACE permit application in accordance with the Section 404(b)(1) Guidelines.

Response to MHPC

Comment 1: I have concluded that, with the exception of archaeological resources (archaeological surveys are still underway) and the transmission line crossing at the National Register eligible Appalachian Trail (AT), the proposed project will not affect historic properties...Our office will comment regarding archaeological resources when all of the required archaeological survey reports have been submitted.

Response: The MHPC has determined that no additional archaeological surveys are needed in the areas of proposed wind turbines, and have identified only three stream crossing areas along the proposed 115 kV transmission line corridor where archaeological surveys are recommended. Field work has been completed, and documentation is underway for submittal to MHPC and LURC. No cultural resources were identified as a result of the surveys.

Comment 2: Regarding the transmission line crossing of the trail, the underground crossing option is preferable as a means to minimize the project's impact.

While the applicant's efforts to locate the Kibby ROW crossing adjacent to the existing Boralex transmission line and near Route 27 reduce the proposed overhead transmission line's impact, it is our determination that widening of the cleared corridor and the introduction of additional overhead power lines would further degrade the setting of this portion of the AT. The use of tree screening may help to further reduce the effect of the corridor widening and construction, but as is evident from photos of the Boralex line, the new trees will take several years to effectively shield the transmission lines and the cleared area from AT users. Additionally, no amount of screening will obscure views of the overhead lines. In contrast, the underground alternative would require no tree clearing, and obviously no poles or overhead lines over and adjacent to the AT. It is our recommendation that the underground crossing option should be adopted to minimize the project's impact and to preserve the integrity of the AT as much as possible.

Response: The project configuration has been changed as suggested by MHPC. Adjustments to the corridor include locating a narrower corridor (100 feet, as compared to the 125 feet originally proposed) along the north side of the existing Boralex right-of-way. Just to the west of Route 27, the transmission line will be installed underground and will traverse the westerly Route 27 road shoulder until reaching the existing CMP Bigelow Substation access driveway. The underground electrical line will then cross Route 27 to continue along that driveway corridor to reach the existing Bigelow Sbstation.

Response to MDIFW

Wildlife Considerations:

Comment 1: The application reflects TransCanada's and their consultant's frequent contacts with our department for identification of interests and issues, and in planning and undertaking appropriate studies. Through consultation with us and others, avian and bat radar and acoustical studies were undertaken as recommended. Results indicated no substantial surprises, and appear to support conclusions reported in the application.

Response: We have appreciated MDIFW's willingness to work with TransCanada in discussing protocol details prior to implementing field programs, reviewing study results and draft reports,

and providing valuable input and insights in assuring consideration of wildlife impact consideration was thoroughly addressed.

Comment 2: Although we don't believe Mr. Cordes made the statement as purported in the application, we concur with the assertion in Section 7.2.2.3 finding no suitable habitat within the project area for Bicknell's Thrush, and consequently agree the project poses no anticipated threat to the species.

Response: The reference citation was slightly misplaced in the application, but we are glad for confirmation – as we have understood from our ongoing meetings, conversations and e-mails with MDIFW – that our findings with regard to Bicknell's Thrush are consistent with MDIFW review.

Comment 3: Discussion of post-construction avian and bat monitoring is limited. Post-construction monitoring is considered necessary. A detailed monitoring plan will need to be developed and approved as part of the Development Permit. We would (re)state our willingness to work with TransCanada in developing such a plan. We would also like to be clear at this time that we are interested in post-construction monitoring that is consistent with and perhaps at least as rigorous as the pre-construction efforts. Multi-year studies may be appropriate.

Response: As we noted at our meeting with MDIFW just prior to filing the LURC application, the general nature of post-construction avian and bat monitoring discussion in the application simply reflects the acknowledgement that TransCanada intends to work closely with MDIFW – following its review of application materials – to develop appropriate monitoring plans. We anticipate finalizing the scope and extent of post-construction studies as part of the final plan approval, not as part of the preliminary plan approval. In correspondence to LURC dated 6/4/07, TransCanada has clarified that it will include the following minimum elements as part of its final post-construction studies:

- All studies will be paid for by TransCanada.
- Protocols will include standardized searches during periods of peak migratory activity,
- Details of the scope will be determined in consultation with MDIFW and USFWS and will include details related to searcher efficiency, scavenging rates, and carcass identification/storage/removal.
- As in the past, TransCanada will share the protocol and study details with other stakeholders.
- TransCanada will conduct a root cause analysis of significant injuries/fatalities in consultation with MDIFW and LURC and according to the timing outlined in Section 2.6.1.3. of the LURC application.
- Mortality monitoring will occur for a minimum of two years, not necessarily in the first two years post-construction. In addition, if requested by MDIFW, TransCanada will consider a third year of monitoring.
- Multiple year, multiple location surveys are anticipated and will be based on details determined in consultation with MDIFW and USFWS.

We are looking forward to continued work with MDIFW to develop meaningful post-construction monitoring.

Comment 4: Other aspects of the project (roads, clearing, transmission corridors, wetlands avoidance) have also been discussed and responded to in consultation. We are still working with the applicant and consultants on final details to avoid or minimize effects upon Inland Waterfowl and Wading Bird Habitats (IWWH) and the crossing of one Deer Wintering Area (DWA). We anticipate proposed final design and construction methodologies will appropriately respond to our recommendations.

Response: As referenced in the comment, field work continued with MDIFW to better characterize resources in the area and to review measures to ensure impacts will be minimized. A letter from MDIFW is attached that provides an update with regard to this issue; additional correspondence is anticipated in the near future.

Fisheries Considerations:

Comment 5: We are not technically familiar with the proposed "rock mattress" method of stabilizing seep areas. We will defer to the expertise of State Soils Scientist David Rocque on the seep issues, and his recommendation of this as an effective storm water management technique. We would recommend consideration of post-construction monitoring of the rock mattress system to assure effectiveness.

Response: As noted in the comment, TransCanada has been working closely with the Maine State Soil Scientist, and anticipates continued coordination through the project review process. If the project is approved, we would also anticipate ongoing coordination including observations both during construction and post-construction to confirm roadway design effectiveness.

Comment 6: We are concerned that no buffers are proposed for the intermittent streams. Some level of buffering should be addressed, if not already required by LURC standards. They likely don't need to be 100', but we recommend consideration to minimize the potential for warming of the perennial streams that are directly fed by some these temporary streams.

Response: Buffers (100 feet) are proposed for perennial streams. For intermittent streams, it is not anticipated that buffers would be necessary. Clearing proposed in association with intermittent streams is generally relative to the transmission line corridors. In such areas, shrub vegetation will be allowed to regrow within the right-of-way. Given that the intermittent streams are typically narrow in width and flow in them is seasonal, shrub vegetation should provide sufficient shading to avoid significant warming of downstream waters. We are willing to consider, on a case by case basis, whether certain intermittent streams warrant additional buffering protection and look forward to discussions with MDIFW in that regard as part of the final design process.

Comment 7: Phosphorus export to Jim Pond and Flagstaff Lake is an important consideration. Phosphorus export calculations seem very near the allowable limit for both waters. We would stress that phosphorous control is important to protect those lake fisheries, especially in Jim Pond. We will defer to MDEP expertise to closely review and make any necessary recommendations regarding the proposed phosphorus control plan.

Response: TransCanada has met with DEP to review phosphorus calculations and related issues. We look forward to DEP review in that regard, but anticipate that the calculations and commitments reflected in the application are consistent with our pre-filing discussions and sufficiently conservation to be always protective.

Comment 8: We recommend that all culverts should be at least 1.2X the width of the stream crossing. Installations on perennial streams should follow best management practices for fish passage and stabilization measures.

Response: This recommendation will be included in the design of stream crossings, and best management practices for fish passage and stabilization measures will be considered.

Comment 9: We would recommend a July 1 to September 15 in-stream work window. The earlier end-date reflects earlier staging and spawning of brook trout in streams at these elevations.

Response: We would prefer the flexibility to allow in-stream work from June 15 through September 15. At that time of year, work restrictions would be intended to protect downstream fry from the discharge of sediments, before emerging from gravel. The limited in-stream work associated with the project is associated with ridgeline access roadways that are quite distant from spawning streams and best management practices will be employed to minimize sedimentation, therefore, we believe the potential for impact would be quite minimal. We would be pleased to discuss specific stream locations to determine whether additional restriction would be important. Note that, of the streams listed in MDIFW's introduction to fisheries considerations, no project work is proposed in, over or adjacent to Spencer Stream.

Response to DEP

Comment 1: TransCanada is going to super elevate the entire access road which means that, except where there are road cuts or the road is oriented near the fall line, runoff will simply sheet of the downhill side of the road into adjacent buffers. Where there are road cuts or where the road is oriented near the fall line, ditch turnouts and small level spreaders will be used to distribute runoff into buffer areas. Given this and the other info submitted, it is likely that the phosphorus allocation can be met unless the cut areas are considerably larger and more frequent than anticipated. Since the treatment of road runoff relies on the roads being super elevated instead of crowned, LURC will have to consider how best to insure that they are maintained in a super elevated condition and are not accidentally graded with a crown in the future.

Response: TransCanada will continue to consider phosphorus control issues as design details are advanced during LURC final plan review.