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Via Electronic Transmission
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Ontario Energy Board
Energy East Consultation Phase 2
c/o Swerhun Facilitation
500B 720 Bathurst Street
Toronto, ON
M5S 2R4

Dear Sir or Madam:

Subject: Ontario Energy Board Energy East Phase 2 Consultation – Written Submission

The Township of McNab/Braeside (the “Township”) is writing to you today to provide you with their direct feedback on the proposed Energy East pipeline project. While the Township is continuing to explore and learn everyday about the impact that this project will have both regionally and locally, we are compelled to provide you with our initial reaction to the project and to ensure that we are on the record with our questions, concerns and issues that we believe the Ontario Energy Board needs to address as it continues it’s due diligence on this project.

It is very important that we express our concerns about the tendency to rush to approve mega-projects where the perception of huge economic and financial benefits overshadow the responsibilities of all levels of government to weigh them fairly against the social and environmental impacts. We want to go on the record to say that we want assurance from the Chairperson and the Minister of Energy that the Ontario Energy Board will undertake a thorough investigation and review of the Energy East application.

While there are several proposed new areas where the pipeline will be realigned throughout Ontario, it is important that we recognize that the impact of new build areas have the potential to be more significant than the concept of converting the existing

pipeline. Our Township will have both aspects of the project within its boundaries and we want to ensure that all issues and concerns have been raised and thoroughly investigated.

We wish to point out to the Ontario Energy Board that TransCanada Pipeline Limited (TCPL) appeared in front of the Municipal Council with a prepared deputation on January 8, 2015. The appearance followed notification by our advisors to the company that there was a new Mayor and Council in place and they had a number of concerns about the project. Earlier information had been provided to the previous Mayor and Council.

We would like to go on the record as saying that the Municipal Council does not consider the deputation by TCPL to be consultation and that it would hardly pass for engagement. We asked the TCPL a number of questions related to spills, operations, constructions, etc. to which we did not receive any reply until February 26, 2015 and March 25, 2015 . In our opinion the letter responses provided were inadequate and to be frank, TCPL seems unprepared for the types of questions that one might expect and to date we have not had a complete response to all of our questions.

We believe that there are standards for engagement that should be required of companies who are proposing projects of this nature. These standards should be universal and should be enforced upon the company. Our citizens have every right to know about and understand the impact that this project is going to have in our municipality. TCPL should be obligated to make sure that we have the resources we need to participate, particularly as it relates to a new build section of the pipeline. Can the Ontario Energy Board obligate the company to meet those requirements?

We also want to go on the record to say that our municipality has not decided our position on this project. We would also like to say that until our due diligence is complete the Township cannot be offering a position in support of or against this project. Should we decide not to support the project we will provide written notice to the company, the Ontario Energy Board and the National Energy Board.

To aid with our presentation we will provide the following key sections in our letter:

- Background
- Physiographic Setting
- Issues and Concerns – that contains a very significant number of sub-sections that will be put forward
- Conclusion

We understand that this letter may not be in the format prescribed by the Consultation guide but it is a format that we believe best conveys the messages that we want to send to the Ontario Energy Board.

BACKGROUND

The Township is an amalgamated entity that was established in 1998 and is the successor municipality to the Township of Braeside that was established in 1921. The Township is principally a rural municipality that consists of a number of hamlets that are spread out within 255 square kilometers of land and has approximately 7500 residents¹ who live in the area because of the “lifestyle” that they are afforded with rural living.

The Township finds its home along the Madawaska and Ottawa Rivers. The Ottawa River was the site of one of the most historic voyages in our history. The voyages of Samuel de Champlain in the 17th century led him along the Ottawa River to the Nipissing/French River watersheds. Future explorers used the route to the center of Ontario through to Lake Huron via inland waterways.

As a result of our location, the Township has developed a thriving economy that is based largely on tourism. The area attracts visitors to participate in hunting, fishing, boating and snowmobiling. Municipal Council is also aware of a new Recreational Vehicle (“RV”) park that is planned downstream from the proposed pipeline crossing along the Madawaska River. It is the natural beauty and the pristine shoreline that make our Township and our Region attractive to developers and tourism operators.

Other key economic sectors include commercial, forestry, agriculture, energy and government. The combination of natural resources and proximity to the National Capital Region as well as neighbouring municipalities lends itself to the type of socio-economic base that developed within the municipality over the past number of years. The Township has a burgeoning micro-business economy that supports tourism, recreation and culture such as artists, galleries, coffee shops, cafes and music venues that are attracting visitors, foreign artists and locals to the businesses.

The Township is also known to be a likely home to large areas of “Karst”² that provides a number of underground streams and waterways that create and support unique and important environmental features and ecological functions that the municipality needs to protect through its future planning processes.

With the most recent municipal election in November 2014 there was a significant and total change in the structure of the Municipal Council. Every position on Municipal Council has transitioned with a new representative in every chair. This has meant that the Municipal Council is now playing catch-up on key issues such as the Energy East Pipeline project.

¹ The official population according to the 2011 census was 7371 residents.

² Karst is a landscape formed from the dissolution of soluble rocks including limestone, dolomite and gypsum. It is characterized by sinkholes, dolines, caves, and underground drainage systems.

Municipal Council has made it very clear that before they make a final decision on the pipeline project they will undertake their own extensive due diligence on the project, they will develop a meaningful process to engage with their citizens, they will engage the necessary resources to assist them with understanding the project. Most of all we will take our time in deciding upon a position that we choose with respect to this project. The Township will not be pressured into making a decision or responding to requests for support until we have the information we believe is necessary to arriving at a final decision.

PHYSIOGRAPHIC SETTING

The final route of the Energy East project, the construction methods to be used, construction timing and environmental risk potential are all directly affected by the physiographic setting and related habitat within the Township (see Schedule A).

The east portion of the Township of McNab/Braeside lies partially within the Ottawa Valley Clay Plains and the remainder lies within the Algonquin Highlands. The valley soils consist of clay plains interrupted by ridges of rock or sand. There are some prominent scarps on the Ontario side of the Ottawa Valley with some of the bedrock appearing above the clay bed with sediments comprised of deep silty clays underlined by limestone in part. There is an area of stratified limestone that rises above the clay northwest of Arnprior (Karst topography).

The highlands portion of the Township is underlain by granite and other hard Precambrian rock, with an elevation of six hundred (600) feet in the eastern portion. Locally, relief is rough, rounded knobs and ridges standing up, usually fifty (50) to two hundred (200) feet, but with occasional ridges up to five hundred (500) feet high. There are frequent outcrops of bare rock and the soils are generally shallow and are stony, sandy and acidic. Many of the valleys are floored with outwash sand and gravel. The vast majority of the soil in this region is forested, being non-agricultural mainly because of the rock outcrop and associated shallow soil, rough topography, stones and swamp.

Areas of known, potential and inferred Karst topography is shown on mapping in the County of Renfrew GIS (see attached). This unique landscape lies along the southern edge of the township and is contiguous with other Karst topography in the north portion of Lanark County.

The current documentation provided by TCPL has not provided any reference to Karst which may in fact become a significant factor to both determining the construction methods to be used and may even influence the final routing.

The Township is also a part of the Western Quebec Seismic Zone where historically an earthquake occurs every five (5) days on average. Several earthquakes have occurred in proximity to the proposed Energy East project routing, some of which have registered between three (3) and four (4) on the Richter scale. The special construction techniques and mitigations that respond to the potential risk presented by seismic activity have not

been presented such that the Township can appreciate their exposure to potential catastrophe.

Surface water is defined as “lakes, ponds, rivers, streams, creeks and wetlands all organized as watersheds”. Surface water and ground water resources are inextricably linked.

The north portion of the Township lies within the Bonnechere River watershed and the southern portion within the Lower Madawaska River watershed, with the eastern Township boundary fronting onto the Ottawa River. All of these water resources ultimately discharge to the St. Lawrence River. The drainage from the Township area is a part of the Great Lakes St. Lawrence Basin.

Portions of the Madawaska River downstream from the Stewartville Hydro Dam in the vicinity of the proposed TCPL Madawaska River crossing have been designated as a fish sanctuary with no fishing allowed from March 1 to the 3rd Saturday in May. Further downstream Lake Madawaska contains an important sport fishery and other coarse/baitfish, such as walleye, smallmouth bass, muskellunge, channel catfish, bluegill, white sucker, brown bullhead, mooneye, rock bass, pumpkinseed, largemouth bass, northern pike, yellow perch and black crappie³.

Any spill resulting from the Energy East project may have catastrophic impacts to both the natural heritage features associated with surface water resources within the Township and the related tourism based economy.

Similarly, a healthy groundwater resource is fundamental to the health of the Township water cycle. Groundwater is defined as “water found underground in porous rock strata and soils.” The Renfrew County – Mississippi – Rideau Groundwater Study⁴ examined the vulnerability of aquifers to contamination. The vulnerability of aquifers in the Township is noted as low to moderate. Potable water supply from wells, that are placed in shallow aquifers, are most at risk. There is concern that the proposed Energy East project poses a risk to the groundwater resource of the Township. A spill in a recharge location along the route has the potential to contaminate the water supply. Special care and attention must be paid to the detailed planning and design of protection and mitigation methods to be employed to avoid impacts to this critically important resource.

With respect to natural heritage, the Ontario Ministry of Natural Resources⁵ did provide the most updated resource mapping of known natural heritage values to the Township for the purposes of updating their Official Plan in 2008, it was not possible for them to identify and map out all significant natural heritage features across Renfrew County and the Township. Therefore, not all significant natural heritage features within the Township are presently known and reflected within the schedules of the Official Plan for the Township.

³ Ministry of Natural Resources and Forestry, [Website](#), 2014.

⁴ County of Renfrew, [Renfrew County – Mississippi – Rideau Groundwater Study](#), 2003.

⁵ Ontario Ministry of Natural Resources, [MNR Resource Information Package: Development of the Official Plan for the Township of McNab/Braeside](#), March, 2006.

The interaction of the proposed pipeline routing and the mapped natural heritage features of the Township is shown on the attached Schedule B. The Township is home to a plethora of natural heritage features (forest, wetland, watercourse, alvar, etc.) which provide habitat for numerous species of plant and animal including many Species At Risk (SAR). The Township is keenly interested in the natural heritage inventory work that has been completed along the proposed route by TCPL to assess the consistency between the new and historic data collected.

McNab/Braeside Township has significant habitat for several species of endangered and threatened status under the ***Endangered Species Act, 2007*** (MNR 2006). These include:

- American ginseng (*Panax quinquefolius*) - END⁶
- butternut (*Juglans cinerea*) - END
- wood turtle (*Glyptemys insculpta*) - END
- loggerhead shrike (*Lanius ludovicianus*) - END
- bald eagle (*Haliaeetus leucocephalus*) - SC⁷
- golden eagle (*Aquila chrysaetos*) - END
- peregrine falcon (*Falco peregrinus*) - SC
- least bittern (*Ixobrychus exilis*) - THR⁸
- eastern spiny softshell turtle (*Apalone spinifera spinifera*) - THR
- stinkpot or common musk turtle (*Sternotherus odoratus*) - SC
- Blanding's turtle (*Emysdoidea blandingii*) - THR

Based on the brief descriptions above, one can appreciate the complexity and sensitivity of the physiography and related range of habitats with the Township. Much more is needed to be known about the methods of construction, protection of natural heritage features, mitigation of impacts, monitoring and emergency preparedness plans to safeguard against catastrophic events resulting from the actual construction and potential spills.

ISSUES AND CONCERNS

One of the first tasks of the Mayor and Councillors was to establish a Committee that would accept responsibility for coordinating the activities locally and ensuring that the Township could respond to requests for information related to the Energy East project. Our representatives attended the January 22, 2015 session in Ottawa and they have coordinated our response to you.

While we have not had a lot of time since taking office in early December to undertake as thorough a review as we may have wanted to, we have nevertheless prepared a list of issues and concerns that, while not completed at this stage, will highlight for the Ontario Energy Board the items we believe should be examined more closely before any

⁶ END = Endangered

⁷ SC = Special Concern

⁸ THR = Threatened

recommendations are made or decisions are reached. In terms of our issues and concerns related to Energy East we can specifically break them down into the following categories:

1. Karst;
2. Right of Way Management and Maintenance; Use of Defoliants
3. Construction Integrity;
4. Archaeology;
5. Spills;
6. Diluted Bitumen;
7. Emergency Planning and Response;
8. Locational Standards;
9. Pipeline Security;
10. Municipal Jurisdiction;
11. Economic Impacts;
12. Supply, Demand and Long-term Pricing; and
13. Approvals

We will over the next several pages provide you with a number of specific concerns related to each of these issues as well as requesting from you, or the proponent, the type of information that will be required to ascertain and examine before any decision can be reached.

Karst

Within this region of Ontario it is widely known that there are large karst deposits and a significant likelihood that karst is present in many parts of the Township. Karst as a material is very porous and it provides significant opportunities for liquids that have leached or been spilled to enter into the groundwater and wells that are within or adjacent to the karst or that have been drilled through the karst.

It is important that we understand the work that has been done by Energy East to investigate those areas of municipality where they will be undertaking a new build and pipeline conversion and to ensure that they have accounted for whether or not they are working in an area of karst. Have they completed the necessary hydro-geologic investigations to determine if there are areas of karst that they should be concerned about and preparing mitigation plans to deal with?

Citizens of the Township have expressed that there are a number of underground streams that run through numerous properties in the Township that would lead one to conclude that there is a moderate to high probability that karst formations exist in the Township. At no point in any of the documents that we have reviewed have we been able to find any reference to karst and how areas of moderate to high probability will be dealt with. Is this just an oversight on the part of Energy East? Will the Ontario Energy Board require Energy East to undertake detailed studies of the formations in the area of their proposed new build in the Township?

Right of Way Maintenance and Management: Use of Defoliant

One of the issues that have been raised is whether or not TCPL has at any point in its past made use of defoliant along any of its pipeline corridors. Many citizens have expressed their concern that the pristine condition of the corridor for the past thirty (30) years has led many to believe that TCPL has used means other than grounds keeping to ensure that their corridors have not been laden with new growth vegetation and in particular with trees whose roots could cause issues with the integrity of the pipeline.

Will the Ontario Energy Board ask for a disclosure from TCPL on the past use of defoliant? If TCPL has used defoliant at any point along their route, and in particular in areas within the Township or in areas adjacent to the Township, will they be ordered to examine the condition of the soils? Will they be required to clean up and mitigate any soils where there are chemical exceedents? Will the risk to human health and safety be examined? What orders will be placed on TCPL to ensure compliance in the future?

The Township wants assurances that there will be no use of defoliant in maintaining any Rights of Way that are controlled by TCPL. Can the Ontario Energy Board make such an order or does this responsibility fall to the municipality?

Construction Integrity

One of the key issues for anyone examining this type of project is the integrity of the construction process and materials that will be used to complete the project. With the Township there are two specific concerns that must be considered:

1. The conversion of the existing pipeline; and
2. The construction of the new section of the pipeline to realign the existing route.

While TCPL has made an extensive filing with tens of thousands of pages of documentation they have not provided any resources to the municipality to examine the quality of the materials that will be used in the construction nor can we find any data or information on the integrity of those materials. For example, where in the documentation have they provided any information on the life expectancy of the valves that they are proposing to use? What is the historical record of these valves? What is their failure rate? What happens in the event of a failure? How are these valves monitored? What happens in the event of an electronic failure? We clearly lack the confidence that TCPL will respond to an equipment malfunction in an effective and timely manner.

We also understand that the Government of Canada hopes to enact legislation that will dramatically improve the integrity of pipeline construction with the additional of numerous measures including double casing, etc. Like most who are observing we would agree with any measures that will increase the integrity of pipeline construction and would minimize construction risk. This is very important and we look forward to seeing this legislation passed.

What evidence exists that shows the impact of crude oil on pre-existing pipelines, in particular those that have been previously used to transport natural gas? Does crude oil affect the life expectancy of the pipeline? Do the additional chemicals required for use in the transport of crude oil accelerate the impact on pipeline life expectancy? We understand that a lot of scientific evidence exists that supports both sides of the argument but that there is no long-term study or evidence of a study that provides scientific proof on either side of the argument. Will the Ontario Energy Board compel TCPL, and other pipeline operators, to enter into or fund the type of scientific studies that would provide evidence of the impact of crude oil on existing natural gas pipelines and on dedicated crude oil pipelines?

There is also the debate over the corrosive characteristics of crude on pipelines. There is evidence on both sides of the issue. Has Ontario formulated a plan to deal with studying the corrosiveness of crude oil transportation through the existing pipeline? Our concern is that with the age of the current pipeline and the lack of scientific agreement on the impact of crude oil transportation on aged pipes that we could be setting ourselves up for an accelerated number of system failures that could have been prevented by studying the problem now rather than waiting for a system failure to react.

What also concerns us is that the new legislation does not address existing pipelines. For the most part we are dealing with pipes that are thirty years old and they could be coming to the end of their useful life. Our concerns are that the older the section of the pipeline the more likelihood of a spill and significant environmental damage occurring. To this end, we want to know if the Ontario Energy Board will insist that the new standards be applied to the existing sections of the pipeline or at the very least that you would compel all pipeline companies to provide double casing all of the existing pipelines within a certain period of time. If pipeline integrity is the main concern then the Ontario Energy Board needs to ensure that there is a plan in place to apply the highest and best standards to existing pipelines in Ontario.

In terms of the project design, Energy East intends to undertake drilling under the Madawaska River and that the form of that drilling will include boring under the river and then putting a sleeve in place prior to inserting the main pipeline. Residents who live near the Madawaska River and who themselves have done directional drilling in the area have discovered that the sub-surface conditions are often difficult to navigate. What information will be provided in relationship to the plan to drill under the Madawaska? Is there a requirement to take up water during the drilling process? Where will the water be discharged? Who is providing the water taking permit? Will we be given the exact Universal Transverse Mercator ("UTM") coordinates for the drilling activities? Who will be monitoring the drilling activities?

In the event that the drilling does not go according to the plans what leeway does TCPL have to change direction or path? If they need to change direction or move their drilling line of sight will they be required to submit a new plan to the municipality and the Ontario Energy Board? As a municipality, we would expect that any deviation from the plan for which an approval has been granted would be subject to further review and due diligence

and that the project would be placed on hold until all of the necessary reviews have been completed. Does the Ontario Energy Board take the same view of change?

Archaeology

One of the most fascinating aspects of the data that we reviewed as the statement by TCPL that they will undertake a Stage One and Stage Two archaeological assessment in areas of new construction. While we appreciate the statement little more is known about the archaeological work that will be undertaken.

TCPL has failed in its filing to provide specifics about the archaeological work to be completed. As many people know, the Madawaska and Ottawa rivers represent some of the most well travelled and historic waterways in the Province of Ontario. While not designated as “Heritage Rivers” under the criteria of the Federal Government, they are nonetheless important and historic travel routes that were used for long periods of time, first by the Algonquin and other First Nations people, in later times by the Metis and early settlers. The Madawaska River was used by the lumber trade, prior to its being controlled for the generation of hydro-electricity.

Many in the Township believe that the importance of these routes will require further archaeological investigation and it will be important to ensure that the Township receives a copy of all the Stage One and Stage Two archaeological reports and that we get the opportunity to have those reports peer reviewed by a professional archaeologist, so that we can provide accurate and relevant feedback. Will the Ontario Energy Board insist that TCPL undertake the proper archaeological review within the Township of McNab/Braeside, and in particular along the Madawaska River, and will then make sure that the company provides the resources necessary for a peer review of the archaeological report on our behalf?

In the event that we have evidence to support that there is the strong possibility of archaeological features being located in the area of the proposed realignment we would expect that this would trigger a Stage Three archaeological assessment under the Ontario Ministry of Culture Tourism and Recreation guidelines. There could also exist the possibility of a Stage Four assessment. The Township would like clarity around who is responsible for imposing further stages of archaeological investigation. We would suggest that we are empowered to make that finding in light of a building permit, however, if the Ontario Energy Board knows of any reason why we cannot make this finding and that we must defer to them then we would like to know under what act, regulation or instrument we would have to defer what we believe is our responsibility.

Spills

One of the concerns raised by Mayor and Council at the January 8 ,2015 meeting was the record of TCPL as it relates to spills. While the project documents have been submitted there is no evidence that deals with the reliability of pipelines in general and TCPL pipelines in particular.

While the Transportation Safety Board (“TSB”) provides reports on major spills there is no empirical evidence that has been provided that demonstrates the integrity of pipelines in general and those operated by TCPL. The last major report of the TSB refers to a spill in Beardmore Ontario that clearly shows that TCPL’s response was not timely and their overall conduct on the monitoring of the failed facility was less than adequate in the circumstance. Is this report a snapshot of how TCPL manages their operations? Will the Ontario Energy Board take the time to review this report with TCPL and will they ask them to provide a response to areas of concern identified in that report and how they have improved their operations as a result of the report.

We would hope that the Ontario Energy Board takes the time to get the empirical evidence they need to make informed decisions and to ensure that those of us who also have to make important decisions can have the same evidence. What is the empirical evidence on the number of spills that have occurred in pipelines in North America in the past 30 years? What caused these spills? What is total volume of product that entered the environment? What was the response time to deal with these spills? What were the short-term environmental impacts? What are the long-term environmental forecasts? Similarly, what is the specific record of TCPL as it relates to spills, clean up, environmental remediation, compensation, planning, etc.? These are very important points of discussion that cannot go unnoticed in an extensive review process.

As you have no doubt learned the spill of crude oil (Exxon Valdez, Niger Delta, Gulf of Mexico) can linger in the environment for decades and will have a catastrophic impact on local ecosystems. We rely on our local waterways for our fish, economic inputs and recreation. Any impact would be devastating and we need to know more and learn more about pipeline safety and impacts of spills before we can be in a position to provide an opinion on this Project.

As part of the on-going work of the Ontario Energy Board one would anticipate that you are examining the significant databases related to pipeline spills to not only understand their cause and their impacts but to look for best practices arising out of the careful examination of these events. There is no doubt that there are many lessons that can be learned from each examination and we would expect that as part of the overall Project due diligence by the Ontario Energy Board that you have collected this information to inform your decisions on construction materials and methods, emergency preparedness, emergency response, spill containment and clean-up. You need to understand and inform yourselves of the risks inherent with pipeline spills and you need to make sure that Ontarian’s understand the risks that they may be signing up for.

Diluted Bitumen

The lack of information about the chemical properties of diluted bitumen and the impact that this chemical has on pipelines and the effects of this chemical when it is released into waterways and the environment is of grave concern to the Township. Research has failed to provide us with any definitive studies that have shown the long-term effects of diluted bitumen on the environment once a spill has occurred. Some of the most recent research

has shown that diluted bitumen does sink when released into water, including lakes and rivers, and this creates some anxiety amongst our citizens when it comes to determining whether or not the diluted bitumen could in fact enter the food chain. The gap in this area of scientific knowledge is concerning and we believe it needs to be addressed before this Project can move forward.

What we do know is that bitumen is “asphalt” and asphalt has characteristics as a toxin that requires special handling and care. Documents from the Centre for Disease Control⁹ and the World Health Organization¹⁰ illustrate just how dangerous bitumen is. What we don’t know from any of the documents provided by TCPL is what additives are being used to dilute the bitumen, what their specific chemical properties are and potential impacts/risks and what happens when these additives interact with the environment. Is there a shroud of secrecy in this industry and will it need to be debunked much like the effects of chemical additives in cigarettes?

Based on the unknown we must ask if the Ontario Energy Board have any concerns about the material handling of diluted bitumen? Are there Occupational Health and Safety guidelines available for workers who could become exposed to this product? Are there extensive training requirements for its use and handling? If not, will these be developed and imposed on the Project?

There is a considerable gap in our immediate knowledge on how to clean up from a crude oil spill. There is very little working knowledge of what to do in the event of a spill and how to contain the diluted bitumen. Does it disperse? At what rate? Can it be contained? How long does it take for the diluted bitumen to sink? What are the impacts of lake bathymetry on the eventual resting place of the diluted bitumen? Is there a higher rate for dispersment in rapids, which are very common in the small rivers along the various watersheds within our municipality? The current pipeline that runs through the municipality runs along and under numerous waterways that include dams, rapids, shallow water rivers and streams that are used for fishing as well as our many spawning grounds.

A spill could be catastrophic to an industry that is at the heart of our local economy. We have seen nothing in the way of literature or information that outlines the spill response time in this area of eastern Ontario and what is planned to deal with spills that will inevitably occur.

Emergency Planning and Response

The Municipality attended a meeting in March 2014 where issues related to emergency planning and responses were discussed. The general feeling from the meeting was that TCPL would provide municipalities with the resources they need to respond in the case of

⁹ Centre for Disease Control and Prevention, Hazard Review: Health Effects of Occupational Exposure to Asphalt, U.S. Department of Health and Human Services, December 2000.

¹⁰ World Health Organization, Concise International Chemical Assessment Document 59: Asphalt, April 2005.

an emergency. We must admit that while there was a common perception that there would be progress with TCPL on these issues.

Our Municipality has identified its requirements for emergency planning and response as follows:

1. Binding Agreement – the Municipality will only provide emergency services on behalf of TCPL only if there is an agreement with TCPL to provide emergency services with a clear indication of the services to be provided, at what per unit costs, including overhead and administrative fees and full indemnification in favour of the municipality. There is no reason why any emergency response service provider would not want to have a comprehensive and detailed agreement with a client and there is even less reason to accept any risk in providing that service. We would expect TCPL would enter into discussions with the Municipality to provide these services and that until such time as an agreement has been reached there is no reason to permit the project to move forward.
2. Access to Water – constraints exist whereby the municipality cannot access the water to enter the Madawaska River without a significant diversion from where the pipeline is located to where the Fire Department could enter the waterway to react to a spill that is impacting the waterway. The Municipality's best hope for an approach to deal with water access is to try and get an agreement with Ontario Power Generation Inc. ("OPG") to make use of a dock that they control and for which there is no public access. That being said, the Municipality, and likely OPG, would want to be indemnified by the company before taking any actions that would see them use the resources of a third party. We are not sure how this will be overcome but it is an issue that will need to be addressed.
3. Training – would be required for all of the Fire Department staff that would be responsible to respond to a spill. The Fire Department staff has been trained on how to deal with a natural gas spill and would now have to be trained on the protocols to deal with a crude oil spill. The Fire Department needs to understand from TCPL the extent of the training that needs to be completed including training courses, number of hours, certifications, budget, etc. We would expect that the required training would be paid for entirely by TCPL. We would also expect that on-going training and support costs would, as new fire department members come on board, be at the expense of TCPL. We see this as a key condition of the binding agreement that is contemplated in Item 1.
4. Communications Protocol – a detailed communications protocol must be signed between TCPL and the Municipality that provides the municipality with updates, information, statistics and key data, telephone numbers and directories and outlines how TCPL will provide notification to the municipality. In the reverse it should also deal with how the Municipality would provide notice to TCPL for matters of concern. The Municipality wants to ensure that it has the most modern and up to date methods for communicating with TCPL and by having a communications protocol that the Parties have agreed to will go a long way towards accomplishing this.
5. Public Signage – would include signage that has been placed in the rights of way on properties owned or leased by TCPL and could also include other signage that the

Parties can agreed should be used to educate the general public. It is our expectation that the issue of public signage, while addressed as a separate item here, could also be included in the Communications Protocol.

6. Equipment Procurement and Storage – would include the equipment (materials and supplies) necessary to provide emergency services on behalf of TCPL and would include quantities sufficient to react to an emergency. The Municipality needs to understand what materials it needs to maintain under its own control, how those response materials and supplies should be stored and what is the life expectancy of these materials and supplies. In addition, the Municipality foresees that it will need to construct a storage facility for equipment and supplies and we believe that this should be at the cost of TCPL.
7. Disposal – if the Municipality responds to a spill or an emergency that requires a clean up procedure to be invoked it is likely that the responders could be dealing with hazardous materials. In the event that responders retrieve hazardous materials that cannot be disposed of in area landfills under Ontario law then there will need to be a protocol put in place that would see hazardous materials stored by the Municipality until such time as they can be transported to a certified hazardous waste facility at the expense of TCPL. Before agreeing to a final agreement on providing emergency services on behalf of TCPL the Municipality wants to have a clear understanding of how it will deal with any hazardous waste that it collects during a TCPL emergency.
8. Coordination – one of the elements that needs to be explored is the role of each of the agencies who have direct responsibility for emergency planning and response. It is important for the Municipality to understand what role is to be played by Emergency Measures Ontario and the County of Renfrew in dealing with a pipeline emergency. Who is the lead agency? If someone other than the Township is the lead agency then what is our role?
9. Emergency Plan Amendments – the Township will require an amendment to their emergency plan once all of the work has been completed. This will require effort and expense on the part of the municipal administration and some of the Municipality’s advisors. It is expected that all of the work related to an emergency plan amendment to deal with a crude oil spill would be solely at the expense of TCPL.

We have identified a number of specific concerns that arise with emergency planning and response. It is important for the Ontario Energy Board to examine these issues to the fullest extent possible and to make sure that TCPL has the most extensive and current [as it relates to best practices] plan to deal with an emergency anywhere in Ontario, and most importantly for us, anywhere along their route within our Township.

Locational Standards

From review of the proposed Energy East Project Description there will be various locational factors that have to be considered. For the most part the Pipeline crossing the Township, TCPL proposes to follow the current alignment in rural and forested areas. In our Township almost all of these lands are privately owned and as a consequence access to

the pipeline for construction work will have to trespass over private properties. This will require open and reasonable dialogue with our citizens, compensation for crossing these lands and the complete restoration of the lands to the satisfaction of our citizens when the work is completed.

According to the Project Documentation prepared by TCPL, the Project work will require a thirty-two (32) meter wide Construction Right of Way ("ROW") along the existing pipeline through rural forested areas and a forty-two (42) meter wide construction ROW in agricultural areas. Wherever line valves are proposed the ROW for construction will likely require more land but this will have to be determined on an individual site basis and the necessary fair and reasonable negotiations undertaken with the landowner. In addition to these lands there will need to be new temporary roadways to access the pipeline route for construction purposes and for the temporary storage of materials. Some of these roadways may be required to service shut off valves along the pipeline for maintenance activities or general line management and maintenance work on a long term basis and this will necessitate separate access agreements being formalized between TCPL, the land owner and the Township. Cost of such agreements must be carried by TCPL.

Conflict with the Township's Official Plan and Established Settlement Areas

Based on the Madawaska River Crossing Topographic Map of the Alignment Route for the Energy East Pipeline prepared by TransCanada Pipelines which was presented at the McNab/Braeside Community Meeting held on Dec. 3, 2014, there are significant potential conflicts between the proposed New Route and existing development and Sensitive Land Use Designations in the Township's Official Plan for the Stewartville Settlement.

The enlarged view shown on this Map indicates that the proposed crossing for the Madawaska River Route Realignment would be relocated to the northwest of the present River crossing, at a location downstream of the Stewartville Dam but fully within the Hamlet of Stewartville.

The present outline of the realigned section of the Pipeline as per the Topographical Map indicates that it would extend from a connection point with the present Pipeline south of Stewartville and follows a new alignment to the north that would run midway between two existing roadways - Mufferaw Place and Watts Line, to reconnect with the existing Pipeline north of the area designated in the Official Plan as the Stewartville Settlement Area.

From the Topographic Mapping it looks like the northerly reconnection could be in close proximity to the area designated in the Official Plan (OP) for Mineral Aggregate and licensed under the Provincial Aggregate Resources Act. This alignment would also cross-lands identified as the Madawaska River Flood Plain.

The new Pipeline alignment crossing the Madawaska River is proposed to be constructed by directional drilling methods with the southerly and northernmost access/connecting points to the existing pipeline undertaken by standard open trenching methods. Firm definition of the Construction ROW required for direction drilling technology and the

connection to the existing pipeline cannot be determined at this time other than to comment that the construction work will be significant and undertaken almost entirely within the Settlement Area. The new alignment will be constructed at a location well below the surface and subject to competent construction and long-term operational management will not adversely affect the surface land uses designated in the approved Official Plan.

Schedule "A" to the Official Plan for the West Half provides a clear definition of the existing TCPL line and by tracking the proposed Route Realignment shown on the Topographic Mapping, it will cross through lands designated in the OP for Environmental Protection (EP), Settlement Areas, Mineral Aggregate Area, and Flood Limits, (following Lines set by OPG) for the Madawaska River.

In addition to these potential land use conflicts there are a number of Hydro Transmission Lines identified on Schedule "A" and it is understood that these lines are connected to Transformer facilities serving the Township and are not planned to be relocated.

The Township Official Plan, including the attached Schedules, has received OMB approval dated August 7, 2009 and new development has proceeded in accordance with the Official Plan. Within the Plan are some 29 Policies that are intended to guide all development within the Township and clearly apply to the Stewartville Community. Of particular concern to the Community are those policies that relate to the designation of the area as an established Settlement Area and focus on maintaining the attractive Environment of this Area – Noise Attenuation, Madawaska River Flood Plain, Hazardous Slopes and Unstable Soils, and the Quality of Environmental and Sensitive Areas including areas identified for Forestry, Spawning Beds and Wildlife and the continuation of Agricultural Land uses.

Conflicts with Existing Settlement Land Uses Formalized in the Township's Official Plan and Reinforced Through the Application of Site Specific Zoning Bylaws

The selection of the Realignment Route for the Madawaska River Crossing and the proposed method of construction will cause concerns in the Stewartville Community. The surrounding existing development is primarily low density residential with playgrounds and access to the River shoreland as a major feature of the area. Direction drilling will require the extensive movement of specialized equipment to carry out the pipe installation. There will be unusual noise, heavy traffic movement and the risk of pipeline failure will be present always. The large scale of the drilling and the extent of the open cut excavations to facilitate the drilling work will thoroughly disrupt the Community.

Two other factors require field clarification. First of all, the Official Plan has designated an area just north of the anticipated reconnection point with the existing pipeline as a Mineral Aggregate Area that is licensed by the Province to operate as a quarry. The extent of the aggregate deposits are a concern as this material can have an adverse impact on direct drilling procedures and could halt operations entirely. Secondly, connection to the existing pipeline will require extensive open cut trench excavation and this may have a serious impact on cultural sites that are believed to exist along the River shoreline.

The above factors question if the Proposed Route Realignment is the best realignment solution and introduces the proposition that the Township should request the Ontario Energy Board to require that TCPL undertake an Environmental Assessment under the Provincial EA Act to determine the preferred realignment route for the new crossing of the Madawaska River.

This Assessment could be required to examine route locations that minimize their potential for aggregate encounters and cultural resource settings and to also avoid locations in close proximity to existing or planned residential areas which are deemed to be highly sensitive areas to heavy construction activities and would otherwise require a specific agreement between TCPL and the Pipeline Contractor on operations to ensure compliance with Provincial Noise Regulations.

Pipeline Security

Across Ontario there are more than 1,900 kilometers of pipeline much of this pipeline is in remote areas of northern Ontario, including through our Township. As the world continues to evolve and the threat of global and domestic terrorism continues to increase there remains a nagging question about what is being done to protect these pipelines. What is the position of the Ontario Energy Board in dealing with pipeline security and what standards are going to be developed and implemented to ensure that security of the pipeline network? Will the Ontario Energy Board impose security requirements and/or standards on the Project?

It is our understanding that TCPL flies over its pipelines every couple of days and that they are committed to pipeline security. Well we have no reason to doubt the integrity of TCPL on this issue what proof is there that TCPL follows its own rules:

- Are there flight records?
- Flight plans that have been filed and monitored?
- Information on the type of surveillance that is being conducted?
- Is it visual inspection or technology-based inspection?
- How are security breaches or anomalies reported?
- How are security breaches or anomalies dealt with?

Will the Ontario Energy Board ask TCPL to provide detailed information on its security practices and where it finds those practices could be deficient will the Ontario Energy Board make binding findings on TCPL to improve their security practices?

Municipal Jurisdiction

One of key areas of concern for the Municipality relates to its ability to regulate and control how construction activities occur within its boundaries; determining how it will be compensated for construction activities and the issuing of permits; ensuring that the municipality has the right resources to provide oversight and monitoring for this type of

project; and what obligations are there for the company to provide any insight into how they will comply with our municipal by-laws including our official plan and zoning?

The Canadian Standards Association (“CSA”) provides information¹¹ for those who have to approve pipeline construction that dates back to 2004 and appears to be the only information that municipalities can rely upon when reviewing these types of projects.

As a municipality we would expect that Energy East would make application to the Municipality for a building permit and that they would provide a detailed assessment of the work to be completed including detailed engineering plans signed by a Professional Engineer, as well a detailed assessment of the capital value for the Project so that it can be permitted and monitored based on its actual construction value.

The Municipality is concerned that it could inherit liability for this Project if it does not have the proper resources to review information before it issues any form of authorization. We believe that it is likely that every municipal jurisdiction would have the same concerns about permitting a project for which they have little control over and even less knowledge of how to provide oversight, monitoring and eventual sign-off. In a small municipality this is very frightening.

According to the CSA¹² the following standards should apply to pipeline operators:

“When new pipelines are planned, the routes are proposed, where possible, based on existing rights-of-way, utility corridors, and open space that is not currently under development or other than used for agricultural purposes. The pipeline operator is responsible for contacting the local authority to determine if there are land use bylaws or development restrictions in place.

In replying to a pipeline company’s proposed route, the local authority should review existing land use, prevailing development trends, and projections in order to identify lands with future development:

- Small pocket parks along right-of-way enhance pathway Park and playground;
- Neighbourhood commercial area;
- Pathway links to community;
- Potential for additional pathway links; and
- Pedestrian and bicycle pedway system potential and assess the timing of the development.

¹¹ Canadian Standards Association, Land use planning for pipelines: A guideline for local authorities, developers, and pipeline operators

¹² Ibid, pp. 18-19.

The local authority should identify sections of the proposed pipeline route that would, depending on the growth scenarios, pose future land use concerns. The local authority should be aware of landowners' planned or future uses of the land. Local authorities may facilitate routing of pipelines in appropriate areas based on land use bylaws that establish utility or transportation corridors or other controlling mechanisms. Local authorities should include provisions in their general land use plan that would provide guidance (e.g., procedures and criteria) on how to deal with pipeline application referrals to the local authority.

Should a local authority decide to suggest a preferred route, the following broad planning considerations should be used:

- Compatibility with general land use plans and land use designations, and the anticipated direction of growth;
- Minimal conflict with development and a suitable distance from existing and planned land uses; and
- The level of land fragmentation.

There may be no alternative to constructing the proposed pipeline through areas subject to development. In such cases, the local authority should work with the pipeline company to minimize potential conflicts. As a first step, the local authority should assess whether the pipeline right-of-way:

- Can be combined with existing or planned utility or transportation corridors, or incorporated with or next to an existing pipeline right-of-way;
- Could form a functional component of an open space system or buffer between incompatible uses; and
- Would limit adjacent land uses, or alternatively complement or enhance adjacent land uses.

Pipeline regulators in Canada generally require the pipeline operator to contact the local authority to determine whether or not the local authority has any objections to a proposed pipeline within a specified distance (e.g., 1.5 km in many provinces) of the local authority boundary. If a local authority objects to a routing of a pipeline, the regulator will generally provide assistance in determining a route that would accommodate local authority concerns. Local authorities are encouraged to have, and to provide pipeline operators with, a position regarding future development in order to prevent land fragmentation and other problems for future growth.”

With all of these requirements that have been identified and have pre-existed for the past decade is the Ontario Energy Board looking at compliance by TCPL to these standards? From our standpoint as a municipality in Ontario that is subject to a realignment of the current pipeline we would suggest that the TCPL has failed in achieving anything that looks like the standard that has been prepared and provided to you in this letter.

It may also be that a small municipality like ours must seek outside expertise as part of our ongoing due diligence as well as project approval, oversight and monitoring. We would expect that these would all be at the cost of TCPL. However since TCPL has failed to provide us with anything more than boilerplate materials and nothing concrete on what will transpire in our Township we will be looking for the Ontario Energy Board to ensure that municipalities that require financial assistance are given that assistance as part of any long-term process.

Economic Impacts

If this project is approved it will have extensive economic impacts that will line the pockets of two major Canadian corporations (TCPL and Irving), as well as numerous other foreign conglomerates who will not doubt see profits rise from the sale of Canadian crude in whatever form it enters the global marketplace. That will be advantageous for these corporations and shareholders but what does it mean for Ontarians? None of the refined oil will end up back in Ontario. So how do we benefit? Is it through sustainable new employment? The answer is no. Is it through construction and temporary work? There is no definitive answer that tells us where the workforce will come from to build the pipeline. Will Ontario companies get preferential treatment to supply goods and services to the project for those sections that will be built in Ontario? The answer to this question is unlikely but perhaps TCPL can provide further clarification.

The National Energy Board has posted on its website a number of criteria that it wants to address through its hearing process and it will consider the following:

- The economic feasibility of the Project.
- The commercial, economic, supply and market impacts of the Project.
- The appropriateness of the tolling methodology, and the method of toll and tariff regulation, including whether Energy East should be regulated as a Group 1 or Group 2 company.
- The commercial, economic, supply and market impacts of the Asset Transfer, including the need, economic feasibility and commercial impacts of the Eastern Mainline Project. This includes the appropriateness of the proposed capacity of the Eastern Mainline of 575 TJ/d.
- Transfer of Assets:
 - The tests to be used to assess the sale and purchase of the assets.
 - The assets to be transferred and any terms to be included.
 - The value which should be assigned to the facilities for the purposes of:
 - removal from the rate base of the TransCanada PipeLines Limited's natural gas mainline; and
 - inclusion in Energy East's toll calculation.

These areas for review focus on the economics of the Project and they are vital to the work of the National Energy Board. Does the Ontario Energy Board think that it needs to

examine any of these topics in detail? It seems to us that project feasibility, accurate costing, tolling, if it can impact the marketplace in general, and the transfer of assets to potentially shelter or reduce tax payments to governments would all be of interest to the Province of Ontario.

As the Project continues to develop we will be looking for information on the specific economic impact of the Project on municipalities and Ontarians. Will the Ontario Energy Board require the Project to prepare an impact-benefits analysis for the Province of Ontario? Will there be a regional sub-set requirement, for example, will they be required to study the impacts and benefits in our region of Ontario? How can a decision be made without a proper impact-benefits analysis? What happens if in a regional analysis the costs outweigh the benefits? What will the Ontario Energy Board do in this instance?

Supply, Demand and Long-term Pricing

For many people who are dependent upon the flow of natural gas to their homes, business and offices our municipality has the same concerns about our offices, garages, and municipal buildings.

We have learned that there will be a significant change in the capacity of TCPL in the North Bay “cut” when the larger of the two pipelines in that area is transformed to carry crude oil to eastern Canada and our service area will be dependent on a single thirty-six inch pipeline to deliver natural gas to more than a million people. While the plan calls for a second access from southern Ontario to Cornwall, Ontario we remain concerned about the ability of TCPL to continue to supply natural gas to this important area of Ontario. Are there any potential supply issues in this area of Ontario that this plan will not or cannot address?

With a single line providing supply to the region what happens in the event of an emergency? If you take away the alternate source, you would have no source in the case of an emergency and that would have a significant impact on our ability to and need to plan for emergencies caused by a breach in the supply to the municipality or our ratepayers. To solve this problem has the Ontario Energy Board considered whether or not it is in the best interest of this area of the Province to insist that Energy East examine the alternative of constructing a third line through the North Bay cut? In our view this is a solution that requires additional consideration, as we believe that operating with a single natural gas line in this area of the Province will be problematic.

If you curb the supply, then the natural assumption is that this will have an impact on demand. There is a general theory in supply-side economics that links lower supply to higher prices. What protection will consumers be afforded by Ontario’s regulator to ensure that prices do not increase from a shift in market dynamics? As a municipality we would have our own operational concerns if prices were to increase ahead of our ability to offset costs. No matter what happens it is individual ratepayers who will be affected by an increase in operational costs that impact the municipality.

The municipality is also concerned about the long-term price of natural gas. What will be the impact on long-term rates of a \$12.6 billion investment? How will these costs be translated into rate changes and/or rate increases? Do regulators examine the investment to price ratio and will they make a determination on how this investment should be transferred to the price to be paid by consumers – including municipalities? Small municipalities like ours suffer disproportionately when our costs of doing business rise faster than our ability to generate revenue. This needs to be addressed through this process and we believe that it is something that the Ontario Energy Board must review and consider in the long-term.

Approvals

The scope and parameter of the approvals process is mind-boggling but is there really a different approval process then we are being told? Does the Federal Cabinet under the *Canadian Environmental Assessment Act 2012* have blanket authority to approve this project?

If one accepts for the moment that the Federal Cabinet can approve, in spite of all of evidence or lack of evidence and in spite of the work that is being done in the numerous jurisdictions that are trying to understand the Project, then what role does the Ontario Energy Board actually play in this project? Can you stop the project? Do you have the authority to prevent this Project from proceeding? Are you playing lip service to the citizens of this Province and our great Municipality by asking for information and feedback? Can you do anything with this information that can effect material change?

We have examined our own processes and what we can do as a municipality but against a company the size of TCPL we believe we would be powerless to effect change. Any measures we might take will be challenged by them and we will be engaged in protracted legal battles, likely Ontario Municipal Board Hearings and other as yet unforeseen actions and proceedings that would no doubt be costly to the Municipality. We will however closely examine what our risks and challenges are before we do anything to render a decision on this Project including the issuing of permits for this Project within our own Municipality.

CONCLUSION

In the end we believe that any sense of decision-making that we have will be overshadowed by the arrogance of TCPL as witnessed at our January 8, 2015 meeting. It will be interesting to see what the Ontario Energy Board concludes and what issues you investigate and what questions you ask. We will go on record as saying that until every one of our issues/questions has been addressed we will not be proceeding with any decisions with respect to the construction of the proposed Energy East conversion and realignment project.

Should you have any questions about this correspondence, please feel free to contact the Township Offices at (613) 623-5756 and leave a message for Councillor Mackenzie.

Sincerely,

Mayor Tom Peckett

cc: Township of McNab/Braeside Municipal Council
Ms. Lindsay Parkes, Chief Administrative Officer, Township of McNab/Braeside
Ms. Rosemarie Leclair, CEO and Chairperson, Ontario Energy Board
Township of McNab/Braeside Advisory Team

Attachments: Schedule A – Land Uses
Renfrew GIS – Karst Areas
Schedule B – Natural Areas & Significant Features