



Massachusetts Association of Conservation Commissions

protecting wetlands, open space and biological diversity through education and advocacy

To: Massachusetts Energy Facilities Siting Board
From: Eugene B. Benson, Executive Director, Massachusetts Association of Conservation Commissions (MACC)
Re: Kinder Morgan Tennessee Gas Pipeline Company proposed Northeast Energy Direct Project gas pipeline
Date: August 6, 2015

The Massachusetts Association of Conservation Commissions (MACC) provides these comments to the Massachusetts Energy Facilities Siting Board in Response to the Siting Board's Notice of Public Comment Hearings regarding the natural gas pipeline and associated facilities in Berkshire, Essex, Franklin, Hampden, Hampshire, Middlesex, and Worcester Counties proposed by Tennessee Gas Pipeline Company.

We appreciate the Siting Board's interest and willingness to obtain public comments to inform its participation in the Federal Energy Regulatory Commission (FERC) proceeding for the Kinder Morgan Tennessee Gas Pipeline Company proposed Northeast Energy Direct Project gas pipeline.

MACC is the professional association of Massachusetts conservation commissions. Each of the 351 cities and towns in Massachusetts has a conservation commission. Conservation commissions are the municipal government wetlands, wildlife and open space boards exercising the Police Power, Home Rule power, and public ownership of conservation, park, and natural resource properties as well as public easements, land restrictions, and other rights. Conservation commissions protect conservation lands and other natural resources in their communities under the Massachusetts Conservation Act (G.L. c.40, § 8c) and administer and enforce the Massachusetts Wetlands Protection Act (G.L. c.131, § 40) and local home-rule municipal wetlands laws and regulations. MACC supports conservation commissions through education and advocacy. We were founded in 1961, and incorporated in 1978 as a non-profit organization.

Many conservation commissions and land trusts have contacted us about the Kinder Morgan Tennessee Gas Pipeline Company proposed Northeast Energy Direct Project gas pipeline, expressing the concerns we bring to your attention in this letter. Conservation commissions in the municipalities that will be affected by the project have been closely following the FERC process. Many attended the project open houses earlier this year. We understand many of them have participated in the FERC scoping meetings and may provide comments to the Siting Board as well.

If the pipeline is built, protected wetlands and other water resources would be crossed by the pipeline and there would be a permanent fifty foot wide swath cut through ecologically sensitive lands on which trees could not grow and structures not be built. The pipeline would traverse many open space properties, including a large number of parcels protected as open space conservation lands by Article 97 of the Massachusetts Constitution. Those lands could not be used for a pipeline -- or any other non-conservation purpose -- without a minimum two-thirds vote of each house of the Massachusetts legislature, except the pipeline might be able to circumvent that strong protection by using federal eminent domain authority given to FERC under the Natural Gas Act as interpreted by court decisions.

In addition to the real damage to natural resources that will result from the project, there has been no public process to identify appropriate routes for the pipeline -- if a pipeline of that magnitude is needed. Instead, Kinder Morgan alone has identified potential routes for the pipeline.

With that as background, we provide these suggestions to the Siting Board for consideration in its role at the FERC:

- In many respects, the Massachusetts Wetlands Protection Act (WPA), M.G.L. c.131 § 40, is much more protective of wetlands than is its federal counterpart, § 404 of the federal Clean Water Act (CWA). Massachusetts protects more wetlands and wetland resource areas and relies on the local knowledge of conservation commissions to implement and enforce the WPA. Our state also allows municipalities to adopt more protective local wetland laws to meet their specific needs. The pipeline would be required to comply with the CWA requirement not to discharge dredged or fill materials into waters of the United States, but the extent of its compliance with the WPA might be determined by federal preemption and the certificate the FERC would issue for the pipeline. We think protection of our local wetlands would best be protected by the FERC certificate requiring compliance with the procedural and substantive requirements of the WPA and local wetland bylaws and ordinances, including filing Notices of Intent and operating with Orders of Condition.
- The pipeline construction work must be planned and monitored to limit and mitigate environmental damages that would occur. Ecological restoration after construction will be at least as critical. Restoration must be planned in advance, have local approval, and not be a one-time fix. A baseline must be established and documented before construction, construction must be monitored, and restoration must be monitored for at least five years thereafter to ensure that the restoration took and that non-native invasive species did not use the disturbance of the ecosystem to enter or proliferate in an area. Kinder Morgan should be required to pay into a fund to be administered by an independent third-party that would monitor the restoration for at least five years after construction and that could inform Kinder Morgan of the need to correct any failure of the restoration. There also should be a mechanism, through contract or FERC oversight, that would require Kinder Morgan to correct any failure of the restoration.
- As explained above, Article 97 the Massachusetts Constitution provides significant protection of lands purchased for conservation purposes with government funds. The use of those lands may not be changed without a minimum two-thirds vote of each chamber of the Massachusetts legislature. In addition, state policy is to require equivalent replacement land for any lands removed from Article 97 protections. At public meetings, Kinder Morgan has stated that it would comply with the requirements of Article 97 but also stated that if did not receive the necessary legislative vote it would exercise federal eminent domain authority to take the easements it would need to traverse Article 97 property without the two-thirds vote. We think it would be a wrong outcome and set a bad precedent if private entities, operating under the power of federal eminent domain and preemption authority, can take lands protected by the Massachusetts Constitution without legislative authorization to do so.
- FERC guidelines for noise, important for compressor stations, are much more lax than the Massachusetts Department of Environmental Protection (MA DEP) requirements. At a minimum, the compressor stations should be required to comply with the stricter standard. In

addition, a missing element is the impact of the extremely loud noise to be generated by the compressor station on local flora and fauna within the area of the compressor station. To our knowledge that element is not considered by the FERC or MA DEP standards, which are based on the nearest human receptors of the noise. Local wildlife live, breed, and use the areas where the compressor station may be constructed. Additional noise mitigation may be necessary for those inhabitants.

- The pipeline is proposed for areas where many people rely on private drinking water wells and where much of the community potable water is also from groundwater wells. Towns and conservation commissions have expressed concern that Kinder Morgan has not undertaken any analysis of the pipeline's potential impacts on groundwater flows and on current and future drinking water supplies. At a minimum there should be a hydrological analysis done throughout the proposed route of the pipeline to identify any potential impacts on current and future drinking water supplies. If there are any potential impacts, the alternative routes should have the same analysis completed.
- A robust analysis of environmental impacts and the proposed pipeline route and of alternatives is necessary. We reviewed the first draft of the Resource Reports that Kinder Morgan filed with FERC in November 2014. We have not yet completed our review of the massive revised Resource Reports filed by Kinder Morgan late last month. Our preliminary limited review is that the July 2015 Resource Reports suffer from the same deficiencies as did the November 2014 reports. These comments on the November 2014 draft Resource Reports appear to remain pertinent:
 - The reports fail to discuss or analyze the ecological quality, value, and services of the lands and waters the pipeline would cross. Instead, the reports compare bare numbers of acres, streams, or wetlands the pipeline would cross. For example, Table 10.3-5 in Resource Report 10 simply adds up the total number of wetland complexes, water bodies, or forested acres, etc., crossed without any analysis of the ecological qualities, values, and services provided by each of those resources. Kinder Morgan has resorted to bean counting rather than determining that wetlands, rivers, and streams, and conservation lands have ecological qualities and values that may differ from parcel to parcel and crossing to crossing. For example, instead of any analysis, Kinder Morgan reported at page 10-34 in Resource Report 10 that a reason for rejecting an alternative route included a "greater number of stream and wetland crossings." Kinder Morgan did no analysis whatsoever of the ecological quality, value, and services of those streams and wetlands as compared to other potential routes. It also made the conclusory statement of "significantly more extensive cultural and environmental impacts" without any analytical support for such statement.
 - There are resources available in Massachusetts that should be consulted and referred to in determining and reporting the ecological value of the lands and waters a pipeline would cross. BioMap 2, a project of the Massachusetts Department of Fish and Game and the Nature Conservancy, combines thirty years of rigorously documented rare species and natural community data with special data identifying wildlife species and habitats, and is integrated with an assessment of large, well-connected, and intact ecosystems and landscapes across Massachusetts, incorporating concepts of ecosystem resilience. BioMap 2 identifies 1,242,000 acres of Core Habitat, key areas that are

critical for the long-term persistence of rare species and other species of conservation concern as well as a wide diversity of natural communities and intact ecosystems across Massachusetts. It also identifies 1,783,000 acres of Critical Natural Landscape, large natural landscape blocks that provide habitat for wide-ranging native species, support intact ecological processes, maintain connectivity among habitats, and enhance ecological resilience, as well as buffering land around coastal, wetland, and aquatic Core Habitats to help ensure their long-term integrity. BioMap 2 explains that, “protection and stewardship of BioMap 2 Core Habitat and Critical Natural Landscape is essential to safeguard the diversity of species and their habitats, intact ecosystems, and resilient natural landscapes across Massachusetts.”

- Another resource that should be consulted and referred to in determining and reporting the ecological value of the lands and waters a pipeline would cross is the Conservation Assessment and Priority System (CAPS) developed at the University of Massachusetts. CAPS is an ecosystem-based approach for assessing the ecological integrity of lands and waters and subsequently identifying and prioritizing land for habitat and biodiversity conservation. It defines ecological integrity as the ability of an area to support biodiversity and the ecosystem processes necessary to sustain biodiversity over the long term. CAPS is a computer software program that offers an approach to prioritizing land for conservation, based on the assessment of ecological integrity for various ecological communities (e.g., forest, shrub swamp, headwater stream) within an area. CAPS combines principles of landscape ecology and conservation biology with the capacity of modern computers to compile spatial data and characterize landscape patterns. This process results in establishing an Index of Ecological Integrity for each point in the landscape based on models constructed separately for each ecological community. The approach is landscape-oriented and focused on a comprehensive valuation of the entire landscape. It attempts to combine many complex spatial relationships in the landscape that drive ecological processes, including population persistence and community dynamics. The CAPS approach seeks to evaluate the ecological integrity of the entire landscape mosaic, not just the rare species and community locations. It assumes that by conserving intact, ecologically-defined communities of high integrity, we can conserve most species and the ecological processes that shape and maintain ecosystems over time.
- Massachusetts designates lands as Areas of Critical Environmental Concern (ACEC) for special recognition because of the quality, uniqueness, and significance of their natural and cultural resources; those lands are worthy of a high level of concern and protection. 301 CMR 12.00. Massachusetts also affords special protection to state and municipal conservation land under Article 97 of the Massachusetts Constitution, allowing a change in use or removal of such land from protection only with a two-thirds vote of each house of the state legislature. The Article 97 land disposition policy is that there be no net loss of Article 97 land and that land be removed from Article 97 protection only in extraordinary circumstances. A proposal to place a pipeline, lateral, compressor station, etc., on or through Article 97 land would trigger the Article 97 requirements. Massachusetts also allows conservation and agricultural restrictions to be placed on land to maintain such lands in conservation or agricultural use. Resource Report 10, at 10.3.3.2, acknowledged that such lands have ecological value and stated that Kinder Morgan would look at alternative routes to avoid or minimize traversing ACECs within or

adjacent to Article 97 lands or lands with conservation restrictions. Resource Report 10, however, failed to analyze the ecological qualities and values of the protected lands the pipeline would cross. Also, Kinder Morgan inexplicably made no commitment to avoid or minimize traversing Article 97 lands or lands with conservation or agricultural restrictions without ACEC designation, even though the ACEC designation often is not sought for lands already protected by Article 97 or conservation restrictions.

- The Resource Reports failed to analyze the impact of construction and long-term maintenance of the pipeline and right of way, including laterals and compressor stations, on the areas the pipeline would cross. Such analysis would require analyzing the current ecological qualities, values, and services of the lands and waters the pipeline would cross (as explained above) and the impacts expected on those ecological qualities, values, and services. For example, there is no analysis of the impact of cutting and maintaining a right of way through previously intact ecosystems that are core habitat. As another example, there is no analysis of the impact of the noise that would be generated from compressor stations on preexisting noise-sensitive areas such as schools, hospitals, or residences, or on wildlife. BioMap 2 and CAPS are available resources for completing those analyses.
- Kinder Morgan also failed to assess the impact of constructing and maintaining a pipeline and right of way on greenfield land as compared to on previously disturbed lands. In most circumstances, a pipeline crossing conservation land, wetlands, or rivers in greenfield land would have a greater impact on the ecosystem than would the same crossing in already disturbed lands and waters. Interestingly, Kinder Morgan acknowledged as much in its December 8, 2014, letter to FERC that accompanied revised Resource Report I, where it wrote,

One of primary reasons that led to Tennessee's decision to adopt the New York Powerline Alternative and New Hampshire Powerline Alternative for the Project is that they will enable a very substantial portion of the proposed new pipeline construction to be located adjacent to, and parallel with, existing utility corridors in the states of New York, Massachusetts and New Hampshire. By increasing the percentage of co-location for the proposed pipeline segment, the revised route will reduce the construction of new pipeline facilities in undeveloped portions of the Market Path region, thus reducing environmental impacts and avoiding habitat fragmentation. In addition, the proposed route change will enable Tennessee to avoid (in certain cases) and to minimize (in other cases) the crossing of Article 97 properties and Areas of Critical Environmental Concern in Massachusetts.

- One would thus expect Kinder Morgan to do the same review and analysis of alternatives for the entire pipeline route, including laterals and compressor stations. Yet, it failed to do so in comparing the preferred route to the Massachusetts Turnpike (I-90) alternative, instead defaulting to bean counting the number of stream, wetland, and forest crossings, without any analysis of the ecological impact of putting the pipeline on a major highway right of way as compared to through greenfield lands.

- The University of Massachusetts Amherst Center for Agriculture, Food and the Environment produced a report, A Natural Resources Assessment of the Tennessee Gas Pipeline Company's Proposed Northeast Energy Direct Project's Pipeline Route Within Massachusetts, Volume One: The Mainline (Second Edition, May 2015), in which it conducted an assessment of natural resources within the proposed route of the pipeline. The report did not assess the value of those resources or how they might be affected. It did, however, use a compilation of twenty available inventories of natural resources and environmental resources in Massachusetts, mapped those inventories against the mainline route of the proposed pipeline, and then compared the proportion of affected resources to the availability of the particular resource in each county and statewide. That method resulted in identification of key resources most likely to be disproportionately impacted by the pipeline. We think that would be an important assessment to perform for each of the alternative routes identified for the pipeline. Those routes that have the least disproportional effect on resources should then undergo a detailed review of the value of the resources they would disrupt and the impacts of such disruption.
- Our expertise does not extend to details of the energy market or the potential impact of the proposed pipeline on natural gas prices or electricity prices. We do, however, believe that a detailed analysis of the need for the pipeline, compared to other alternatives, is required. In particular, we have noted that the increased use of LNG for electricity generation this past winter appears to have dampened down the electricity rate increase we saw the winter before. Use of LNG as an alternative to the pipeline should be assessed. In addition, the impact of President Obama's Clean Power Plan, announced earlier this week, should be part of the analysis of the pipeline. Will Massachusetts be able to meet the requirements of the plan if the pipeline is constructed? Would other alternatives be more likely to allow the state to comply? Kinder Morgan has claimed that Massachusetts needs more natural gas. Considering that most of the coal plants in the state have already shut down, it cannot reasonably be claimed that additional natural gas in Massachusetts would lead to the replacement of local coal-fired electric generating facilities. Instead, increased gas transmission may lead to increased fossil fuel combustion and larger emissions of greenhouse gases. Kinder Morgan representatives have said they expect natural gas-fired electric generating facilities would be sited along the pipeline route, which would indeed increase greenhouse gas emissions compared to use of renewable resources such as wind, solar, and hydro. In addition, the impact on the state's ability to meet its own greenhouse gas emissions targets should be analyzed with the various non-pipeline alternatives. We also question whether the price of gas might increase. We understand gas from the pipeline may be liquefied for export overseas. An overseas market might increase demand for the gas in excess of the increased supply and thus result in increased prices.

Thank you for the opportunity to provide these comments.