

**Testimony of Edward Lloyd**

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on behalf of the  
New Jersey Conservation Foundation and  
the Stony Brook-Millstone Watershed Association

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## **Summary**

Section 7 of the Natural Gas Act requires that a natural gas company seek approval from FERC in the form of a “certificate of public convenience and necessity” before constructing or extending facilities for transporting or selling natural gas. 15 U.S.C. § 717f (2012). FERC’s current approval process, however, has failed to adequately assess whether additional pipelines are required by public necessity. Despite the recent proliferation in pipeline proposals, FERC continues to evaluate these pipelines individually rather than examine them systematically or regionally to determine whether and how much new infrastructure is needed. Instead, FERC should embark on a regional or programmatic examination of the need and advisability of all of these proposals. A programmatic environmental impact statement (PEIS) is one method that FERC should consider to examine these proposals on a more systematic basis.

H.R. 3021, the AIR Survey Act of 2015, only encourages further deficient review by facilitating the approval of these pipelines without proper assessment of the environmental costs. The certificate application process requires the completion of a detailed environmental report that must include analysis of the project’s impact on, among other resources, plant and animal species and wetlands. Yet of the 1001 special concern, threatened and endangered plant and animal species found in New Jersey, only 8, or 0.8%, can even be identified through the use of aerial surveys. Similarly, aerial surveys are insufficient in identifying wetlands along proposed pipelines. The bill, therefore, allows for certification on the basis of a survey technique that is unable to catalog much of the data required for an effective review. This can have significant concerns for the property rights of affected homeowners. If FERC does not require verification of aerial data, then private companies will be able to exercise eminent domain indiscriminately.

The ability to expropriate rights-of-way should come only after proper analysis merits project construction.

## **I. Introduction**

New Jersey Conservation Foundation is a statewide land conservation organization founded in 1960 that has preserved over 130,000 acres of land throughout the state. Stony Brook-Millstone Watershed Association, founded in 1949, is a non-profit organization that works to protect New Jersey's water and environment through conservation, advocacy, science, and education.

The increase in hydraulic fracturing and other technologies has led, over the past few years, to a proliferation of applications at FERC to build new pipelines. In 2014 it was reported that since 2006 FERC had approved 451 out of 803 applications for pipelines and related infrastructure projects. However, this is not to say that FERC had rejected nearly half of all applications. Instead, of the 258 projects that had been denied or withdrawn, FERC could not provide further details regarding the number of projects that had been denied; one report found no denials of pipeline applications and only one denial of an application for a natural gas storage site. Peter Moskowitz, *With the Boom in Oil and Gas, Pipelines Proliferate in the U.S.*, YALE: ENV'T 360 (Oct. 6, 2014), [http://e360.yale.edu/feature/with\\_the\\_boom\\_in\\_oil\\_and\\_gas\\_pipelines\\_proliferate\\_in\\_the\\_us/2811/](http://e360.yale.edu/feature/with_the_boom_in_oil_and_gas_pipelines_proliferate_in_the_us/2811/); *Pipeline Routing and Siting Issues*, PIPELINE SAFETY TRUST, [http://pstrust.org/docs/PST\\_Briefing\\_Paper\\_09\\_1.pdf](http://pstrust.org/docs/PST_Briefing_Paper_09_1.pdf). Despite the increase in applications, there is no indication that FERC's decision-making process has become overly burdened or delayed; recent congressional debates on this issue revealed that 92% of natural gas pipeline applications are decided within twelve months. Pete Kasperowicz, *House Votes 252-165 to Speed up Natural Gas Pipeline Approvals*, HILL (Nov. 21, 2013),

<http://thehill.com/policy/energy-environment/191065-house-votes-to-speed-up-natural-gas-pipeline-approvals>. Furthermore, as of December 29, 2015, more than 80 applications for major pipeline projects were pending with FERC. See *Major Pipeline Projects Pending (Onshore)*, FERC (Dec. 29, 2015), <http://www.ferc.gov/industries/gas/indus-act/pipelines/pending-projects.asp>. If these pipeline applications are approved, they will have a significant impact on the environmental resources of the region, on landowners whose property will be impacted by project review and construction, and may result in wasted expenditures on redundant and unnecessary pipelines.

The AIR Survey Act of 2015 only exacerbates this problem by facilitating the approval of these pipelines without adequate review of the environmental impacts. Section 7 of the Natural Gas Act requires that natural gas companies obtain from FERC a “certificate of public convenience and necessity” prior to starting the construction or extension of any natural gas transportation project. 15 U.S.C. § 717f (2012). The application process for this certificate requires the completion of a detailed environmental report that includes thirteen resource reports assessing the proposed project’s impacts. 18 C.F.R. § 380.12 (2016). Resource Report 2, for example, requires detailed identification of wetlands, as well as proposed mitigation measures to reduce adverse effects on surface water, wetlands, and groundwater quality. *Id.* Resource Report 3 requires a description of fish, wildlife, and vegetation in the vicinity of the proposed project, as well as the expected impacts on these resources and potential impacts on biodiversity. *Id.* Both of these reports, by virtue of the information that needs to be collected, require extensive ground survey data from the proposed route of a project. The proposed bill, however, would allow for data collected by aerial survey to “be accepted in lieu of, and given equal weight to, ground survey data for the purposes of” completing either a pre-filing process or formal application for a

certificate of public convenience and necessity. H.R. 3021, 114th Cong. (2015). The bill, therefore, allows for the approval of projects with significant environmental impact with a survey technique that is unable to catalog much of the required data for an effective review. This has a significant impact on both the privacy and property rights of affected homeowners. The collection of the aerial survey data requires extensive low-flying aircraft operations, which can startle livestock in rural farming communities and prevent homeowners from peaceably enjoying their land. The collected aerial data, which again is insufficient in properly identifying resource impacts, enables pipeline companies to exercise eminent domain after a certificate is granted. The ability to expropriate rights-of-way should come only after proper analysis merits project construction.

## **II. Current FERC Protocols: Public Necessity and Convenience**

FERC has failed to properly assess these pipeline proposals under its current mandate; therefore, the AIR Survey Act is entirely inappropriate, as it would only further weaken FERC's analysis of these projects.

Section 7 of the Natural Gas Act requires that a natural gas company seek approval from FERC in the form of a "certificate of public convenience and necessity" before constructing or extending facilities for transporting or selling natural gas. 15 U.S.C. § 717f (2012). Under this section, FERC shall approve applications if it is found that the applicant is willing and able to conform with FERC regulations and that the action "is or will be required by the present or future public convenience and necessity." *Id.*

## **A. Public Necessity and Convenience**

FERC's current approval process has failed to adequately assess whether pipeline proposals are in fact motivated by public necessity. The Northeast is already a net exporter of natural gas and the United States is estimated to be a net exporter of natural gas by 2017. Stephanie Ritenbaugh, *Marcellus to Become a Net Exporter of Natural Gas This Year*, PITTSBURGH POST-GAZETTE: POWERSOURCE (Sept. 1, 2015), <http://powersource.post-gazette.com/powersource/companies/2015/09/01/Marcellus-Shale-to-become-a-net-exporter-of-natural-gas-this-year/stories/201509010013>. When a particular region is a net exporter of natural gas, it undermines FERC's determination that additional pipelines for importing gas into the region are required by "public necessity." Some municipal governments have expressed this concern to FERC, noting the concerns that municipalities bearing all the costs of new pipeline projects, in the form of environmental degradation, will not receive any local benefits in return. *See, e.g., County of Mercer, New Jersey, Resolution No. 2014-591* (Nov. 13, 2014), Appendix 1 ("[T]he County Executive and the Mercer County Board of Chosen Freeholders are concerned that [the PennEast] pipeline will be used to export natural gas from terminals in South Jersey, Delaware, Maryland and Virginia overseas for profit that does not have any benefit to the residents of Mercer County.").

Instead, FERC merely reviews whether a proposed pipeline has "contracts" for the purchase of gas when these "contracts" in some instances involve self-dealing with the corporate entities that are building the pipelines. In other instances, these "contracts" may replace gas purchases in other gas lines and leave those sunk costs unrecovered.

## **B. Programmatic Environmental Impact Statement**

Despite the proliferation of pipeline proposals, FERC continues to evaluate these pipelines individually rather than examine them systematically or regionally to determine whether and how much new infrastructure is needed. Instead of reviewing these proposals individually, FERC should embark on a regional or programmatic examination of the need and advisability of all of these proposals. A programmatic environmental impact statement (PEIS) is one method that FERC should consider to examine these proposals on a more systematic basis.

Examining the impacts of a number of pipelines in one region is more efficient, would preserve governmental resources, and avoids duplicative work. Council of Environmental Quality regulations governing an EIS provide that:

Whenever a broad environmental impact statement has been prepared (such as a program or policy statement) and a subsequent statement or environmental assessment is then prepared on an action included within the entire program or policy (such as a site specific action) the subsequent statement or environmental assessment need only summarize the issues discussed in the broader statement and . . . shall concentrate on the issues specific to the subsequent action.

40 C.F.R. § 1502.20 (2016).

Members of Congress, state legislators, municipalities, and NGOs have all requested that FERC undertake a PEIS or regional analyses of multiple pipelines. For example, on September 18, 2015, Representative Leonard Lance (Dist. 7 NJ) wrote a letter requesting that FERC conduct a PEIS to consider the existing pipelines and other pipeline proposals within the same region in order to “accurately and comprehensively establish the need for and impacts of the [PennEast] proposal.” *Letter from Leonard Lance to FERC* (Sept. 18, 2015), Appendix 2. On June 19, 2015, Representative Bonnie Watson Coleman (Dist. 12 NJ) wrote to FERC expressing her opposition to the PennEast pipeline. She cited concern for the valuable resources that the

pipeline would affect, noting that the piecemeal consideration of proposals may result in pipelines that are “duplicative, poorly sited, or built with excessive or inadequate capacity.” *Letter from Bonnie Watson Coleman to FERC* (June 19, 2015), Appendix 3. On August 24, 2015, Senator Tim Kaine of Virginia wrote to FERC with concerns regarding the Atlantic Coast Pipeline (ACP), such as environmental impacts, lack of local community benefit, and cumulative impacts. *Letter from Tim Kaine to FERC* (Aug. 24, 2015), Appendix 4.

N.J. State Senator Christopher Bateman, N.J. Assemblyman Jack Ciattarelli, and N.J. Assemblywoman Donna Simon also wrote to FERC requesting that it conduct a PEIS. *Letter from Christopher Bateman to FERC* (Oct. 6, 2015), Appendix 5. The letter emphasizes the historically significant and pristine nature of the agricultural area that the PennEast pipeline would intersect. *Id.* Holland Township, Hunterdon County, New Jersey called for a “thorough analysis of all proposed plans for the additional pipelines crossing Eastern Pennsylvania and New Jersey . . . and . . . a complete analysis of development of a mechanism to consolidate pipelines into utility corridors so as to minimize the number of separate, [discrete] pipelines.” *Township of Holland, Resolution* (Oct. 27, 2014), Appendix 6. Kingwood Township, Hunterdon County, New Jersey calls for consideration of PennEast “and other pipelines proposed or being constructed in the Delaware Basin as part of one network requiring a full environmental impact statement, and not in a segmented fashion.” *Township of Kingwood, Resolution No. 2014-98* (Oct. 29, 2014), Appendix 7. Mercer County, New Jersey, urged FERC “to give due and careful consideration to the overall cumulative impact of building a completely new pipeline through the County’s significant environmental resources.” Mercer County also cited a concern that the gas transported through this pipeline would be exported overseas, thereby depriving Mercer County



of any benefits from the profits. *County of Mercer, New Jersey, Resolution 2014-591 (Nov. 13, 2014)*, Appendix 1.

Natural Resources Defense Council (“NRDC”) recommends that FERC adopt a regional PEIS for natural gas pipelines, because “[n]atural gas transmission covers broad geographic areas, crosses political boundaries, impacts numerous ecosystems, and locks in projects for generations.” *NRDC, Comment Letter on Atlantic Coast Pipeline Scoping (Apr. 28, 2015)*, Appendix 8.

These legislators, public officials, and others recognize the importance of looking at the region for cumulative impacts. This is a concern that the PEIS is well suited to address. The CEQ proposal on Effective Use of Programmatic NEPA Reviews is particularly suited in situations wherein “several energy development programs proposed in a region of the country are similar actions if they have similar proposed methods of implementation and best practice mitigation measures that can be analyzed in the same document.” 79 Fed. Reg. 50,578, 50,583 (Aug. 25, 2014). As the Northeast is a net exporter of natural gas, multiple proposals for new infrastructure calls for a programmatic review, at the very least, of the cumulative impacts.

### **III. AIR Survey Act of 2015**

H.R. 3021, the AIR Survey Act of 2015, would amend section 7 of the Natural Gas Act by adding a new subsection that would require FERC to accept data collected by aerial survey instead of, and give such data equal weight to, ground survey data. FERC would be required to accept this data during the pre-filing process and as part of an application for a Federal authorization or for a certificate of public convenience and necessity. As will be demonstrated below, aerial surveys are an inadequate substitute for ground survey data.

## **A. Aerial Survey Data Is Not an Adequate Substitute for Ground Survey Data**

Data from aerial surveying is inadequate to fulfill the reporting requirements of the FERC process. The FERC process requires submission of an environmental report for certain natural gas projects, including the construction of facilities for transportation of natural gas and major pipeline construction projects using rights-of-way in which there is no existing natural gas pipeline. 18 C.F.R. § 380.12 (2016). The environmental reports include thirteen resource reports that require detailed information regarding the proposed project's impacts. *Id.* However, aerial surveying is inadequate to identify many of the natural and cultural features of an area that must be included in these reports.

For example, one of the thirteen resource reports focuses on the project's impacts on fish, wildlife, and vegetation. This report must include, among other things, descriptions of habitats, vegetation, and species that may be affected by the proposed action. It must also identify all state and federally listed or proposed special concern, threatened or endangered species and critical habitat that potentially occur in the vicinity of the project. 18 C.F.R. § 380.12(e). However, aerial surveys are inadequate to detect the overwhelming majority of endangered and threatened species and critical habitats that may be impacted by the proposed pipelines. In fact, out of the 15 federally listed species that are present in New Jersey, only 1 can be identified via aerial surveys. Table 1; *Federally Listed Species in New Jersey*, Annotated by Dr. Emile DeVito, Appendix 9. These numbers are even more staggering when reviewing state listed species. For example, of the 814 species of plants listed as endangered or of concern in New Jersey, only one may be detected by aerial survey and only under optimal conditions. Table 1; *List of Endangered Plant Species and Plant Species of Concern in New Jersey*, Annotated by Dr. Emile DeVito, Appendix

10 (noting that the Dwarf Mistletoe is the only plant that can be reliably detected via aerial survey because it lives as a parasite high in tree branches).

Additionally, unless there are no wetlands within an area in which a construction project will take place, applicants are required to prepare a report that identifies and describes wetlands that will be crossed. 18 C.F.R. § 380.12(d)(1) (2016). The report must also include a detailed discussion of mitigation measures to reduce adverse effects on wetlands from the proposed construction project. *Id.* § 380.12(d)(8)(2016). Identifying an area as a wetland requires an analysis of the area's soil to determine if it is hydric. Since a soil analysis requires studying soil-composition to determine if it is hydric, aerial surveys are inadequate for this task. Consequently, aerial surveys are insufficient to determine whether or not wetlands are present in the areas that will be impacted by pipeline projects.

#### 1. Difficulties of Detecting Endangered and Threatened Species

Scientists at the New Jersey Conservation Foundation have found that the vast majority of vulnerable species are difficult to detect by observers on the ground, because of one or more of the following factors:

- They are cryptic via camouflage (hidden in plain sight), hidden out of sight (beneath or within soil, vegetation, water, or other substrates), or their nocturnal habits, limited seasonal or daily activity cycles, lack of vocalization, or small size make them very difficult to observe.
- They are impossible to distinguish from common species without detailed observation, magnification (especially plants and insects), recording and analysis of calls, and even molecular studies.

- Their population density is low even when populations are healthy, so that the frequency of encounter is incredibly low and their habitats need to be sampled from within the confines of the habitat with recording devices, cameras, drift fences and other traps of infinite variety, or sufficient person hours on the ground at the appropriate time of day or year, and with the appropriate weather to make detection possible.
- They are dependent upon critical microhabitats that cannot be detected unless ground-based surveys are conducted. Such microhabitats include hibernation sites, caves, rock faces, tree cavities, riffles and pools, vernal ponds for breeding, unique soil types, unique microclimates, and other attributes which can be totally hidden from aerial view by tree cover, shadows, snow, etc.
- They (mostly insects) occur only in association with a particular plant species, which itself is difficult to observe and/or identify.

**Table 1: Summary of Aerial Survey Utility for New Jersey's Rare Species**

<b>Species Group</b>	<b># of Species for which AERIAL SURVEYS might be HELPFUL</b>	<b># of Species for which AERIAL SURVEYS provide NO INFORMATION</b>
Federally Threatened and Endangered Plant and Animal Species in New Jersey	1 of 15: 7%	14 of 15: 94%
State of NJ Threatened/Endangered Animal Species	2 of 67: 3%	65 of 67: 97%
State of NJ Special Concern Animal Species (RARE)	4 of 105: 4%	101 of 105: 96%
State of NJ Special Concern/Endangered Plant Species	1 of 814: 0.1%	813 of 814: 99.9%
<b>Total number of rare species in NJ = 1001</b>	<b>8 of 1001: 0.8%</b>	<b>993 of 1001: 99.2%</b>

Note: Table prepared by Dr. Emile DeVito, New Jersey Conservation Foundation.

Given the difficulty of confirming habitat suitability and detecting the presence of rare species, even through the use of many person-hours of ground survey work aided by sophisticated equipment, the concept of accomplishing these tasks via aerial survey, in order to rule out both the existence of potential habitat and the presence of rare species in those habitats has absolutely no scientific merit. A review of two examples of current species detection survey protocols demonstrates these deficiencies.

### *Bog Turtle*

The U.S. Fish and Wildlife Service Guidelines for Bog Turtle Surveys clearly demonstrate the shortfalls of relying on aerial survey data to assess a project's potential impacts on endangered or threatened species. The bog turtle is a species of turtle that is listed at the federal level as threatened and in several states as endangered, primarily due to threats from habitat loss. *See Bog Turtle Fact Sheet*, N.Y. DEP'T OF ENVTL. PROTECTION, <http://www.dec.ny.gov/animals/7164.html> (last visited Jan. 31, 2016); NEW JERSEY BOG TURTLE PROJECT, N.J. DIVISION OF FISH AND WILDLIFE, <http://www.nj.gov/dep/fgw/bogturt.htm> (last visited Jan. 31, 2016). The survey guidelines were designed to “maximize the potential for detection of bog turtles at previously undocumented sites at a minimum acceptable level of effort.” *Guidelines for Bog Turtle Surveys*, Annotated by Dr. Emile DeVito, Appendix 11. The guidelines proceed in two phases of analysis in order to first identify potential habitats and then to detect presence of the bog turtle. Phase 1 detection of “potential” turtle habitat requires an assessment of soil type, hydrology, and vegetation, factors that cannot be distinguished from the air. *Id.* If aerial survey data was used at phase 1, it would be the same as “skipping” phase 1 and proceeding to the costly phase 2 analysis in every site, since no conclusions regarding potential

habitat are possible based on aerial data and therefore no potential sites could be excluded from the phase 2 analysis. *Id.* Phase 2 surveys, which attempt to detect the presence of bog turtles, are so intensive and ground specific that no comparison can be made regarding the usefulness of aerial survey data. *Id.*

### *Swamp Pink*

The swamp pink is a federally listed threatened plant species. *Guidelines for Swamp Pink Surveys*, Annotated by Dr. Emile DeVito, Appendix 12. The U.S. Fish and Wildlife Service published a request for a comprehensive search for swamp pink throughout New Jersey, which contains the majority of the remaining swamp pink populations. *Id.* The request included a detailed protocol for the detection of this plant. The swamp pink is generally characterized by its bright pink flower cluster, however only ten to fifteen percent of the plants in a flower population flower each season. *Id.* Excessive deer browse over the last thirty years and a general reduction in population size means that many populations of swamp pink have so few plants that one cannot expect to see flowers in every year. *Id.* Without the signature flowers, observers can only identify the swamp pink based on its “smooth, evergreen, lance-shaped leaves . . . , which lie almost flat on the ground.” *Id.* This has made detection of the species difficult for ground-based observers; so difficult, in fact, that the survey protocol requires ground-observers to survey the entire project impact area rather than a random transect. “An aerial survey is nothing more than a random transect that is far inferior to a random ground transect in its ability to detect swamp pink. . . . Thus, aerial survey cannot possibly be considered adequate to meet the [U.S. Fish and Wildlife Service] protocol for swamp pink.” *Id.*

## 2. Wetland Delineation and Hydric Soil Analysis

Hydric Soil is defined as a soil that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part. *See* U.S. DEP'T OF AGRICULTURE, FIELD INDICATORS OF HYDRIC SOILS IN THE UNITED STATES (2010), [http://www.nrcs.usda.gov/Internet/FSE\\_DOCUMENTS/nrcs142p2\\_050723.pdf](http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_050723.pdf). The field indicators, which were devised by scientists at the National Research Conservation Center (NRCC), are formed by the accumulation or loss of iron, manganese, sulfur and carbon compounds in saturated and anaerobic environments. Studying soil composition to identify whether or not the indicators are present in soil is helpful in determining whether or not soil is hydric in delineating wetland boundaries. *Id.*

While aerial surveys might be useful in documenting a site to determine how different landscape features contribute to the saturation of an environment, they are inadequate to determine if field indicators are present within soil to determine if it is hydric. The procedures recommended by NRCC for identifying field indicators require digging beneath the surface of the soil and assessing its coloration, composition, and texture to determine if it is hydric. *Id.* Aerial surveys are no substitute for this identification process. While the field indicators recommended by NRCC are not the only method for determining a soil's hydric status, on-site sampling of the soil is required to make a classification. Without determining if the soil in a given area is hydric, wetland boundaries cannot be properly delineated.

Since aerial survey data is insufficient to even determine whether an area may be a wetland or a potential habitat for an endangered species, reliance on this data to approve a permit will only result in duplicative surveying when the ground surveys are ultimately conducted to

gather the data that is actually needed to determine whether these important environmental resources may be impacted.

### **B. Aerial Surveys Infringe Upon the Privacy and Property Rights of Homeowners.**

In addition to its scientific inadequacies, aerial surveying also raises significant privacy and property rights concerns for homeowners along proposed pipeline routes. Aerial surveys—whether conducted with airplanes, helicopters, or drones—impose serious burdens on farming communities along proposed pipeline routes. The proposed PennEast Pipeline, for example, is expected to go through several rural counties in Pennsylvania and New Jersey. And despite the fact that aerial surveys carry no weight under current law in certificate application approval, the PennEast Pipeline Company has conducted significant aerial survey operations along the proposed pipeline route. In response, affected municipalities and private landowners have already raised concerns about the impact of repeated, low-flying aircraft. In a letter to the PennEast Pipeline Company, Delaware Township in Hunterdon County, N.J. asked that the company provide advance notice of such overhead flights: “This is a rural, farming community. Overhead planes and helicopters alarm residents. They terrify livestock, especially horses.” *Letter from Delaware Township Committee to PennEast Pipeline Company* (Nov. 28, 2015), Appendix 13. Local conservation groups have made similar points: “The intensity of a horse’s reaction when spooked makes the animal unpredictable and places it, and any humans around it, in grave danger. Horses and farm animals are ubiquitous in Hunterdon County and along the proposed route of the pipeline. Landowners have expressed . . . that they feel they cannot leave their farms and animals because of the anticipated danger.” *Letter from Citizens Against the Pipeline to Hunterdon County Freeholders* (Nov. 23, 2015), Appendix 14. Frequent low-flying



survey operations have already affected homeowners' peaceful enjoyment of their properties. One homeowner reported a helicopter hovering over her home that upset her children. The Federal Aviation Administration confirmed that the helicopter was operating "on behalf of the PennEast Pipeline Project for the purpose of aerial survey along the proposed pipeline route." *Letter from FAA to Jacqueline Evans* (Jan. 14, 2016), Appendix 15. Although, a PennEast representative denied this when called by the homeowner. *Phone Conversation between Jacqueline Evans and Jeff England* (Jan. 4, 2016), Appendix 16. Such harassment and loss of privacy would only proliferate with the passage of the AIR Survey Act of 2015.

### **C. Eminent Domain Concerns**

Section 7 of the Natural Gas Act confers upon the holder of a certificate of public convenience and necessity the right to exercise eminent domain where it cannot acquire through agreement necessary rights-of-way for pipeline construction. 15 U.S.C. § 717f(h) (2012). Given that FERC has failed to exercise appropriate discretion when approving applications for certificates of public convenience and necessity for pipelines, the proposed bill raises significant property rights concerns. Pipeline companies could—upon receiving the certificate—expropriate private property and rights-of-way on the basis of intrusive, yet incredibly insufficient, aerial surveys.

While the proposed bill does include a provision allowing for verification of aerial survey data through ground survey data, this provision fails to protect homeowners' property rights. The provision provides that "[a]n agency accepting aerial survey data . . . may require, as a condition of approval of an application . . . that such aerial survey data be verified through the use of ground survey data before the construction or extension of a facility that is the subject of such

application." H.R. 3021, 114th Cong. (2015). Practically speaking, the proposed bill, even with this provision, will have one of two unsatisfactory results. If FERC does not require such verification, then private companies will be able to exercise eminent domain indiscriminately. If FERC does require verification, then ultimately meaningless aerial surveys will force the commission to waste resources reviewing such data, while unnecessarily invading the peace and privacy of homeowners and harming our rural farming communities. Further, if the verification demonstrates that the approved route is inappropriate, then multiple properties will have already been burdened with permanent easements. The bill does not address this situation where verification proves that the use of eminent domain was unwarranted.

In conclusion I thank the staff and experts of the New Jersey Conservation Foundation and the Stony Brook Millstone Watershed Association for their contributions to the preparation of this testimony. Credit goes to Dr. Emile DeVito, Dr. Mark Gallagher, Sharon Wander, Wade Wander, Tom Gilbert, Alix Bacon, Alison Mitchell, and Michael Pisauro, Esq.. I also thank Aaron Kleinbaum, Esq. and Jennifer Danis, Esq. of the Eastern Environmental Law Center, and the legal interns at the Columbia Environmental Law Clinic Isa Julson, Archan Jay Hazra, and Christian Benante for their contributions to the testimony. I nonetheless take full responsibility for the contents of this testimony.