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September 12, 2016

Honorable Norman Bay, Chairman and Members of the Commission  
Federal Energy Regulatory Commission  
888 First Street NE, Room IA  
Washington, D.C. 20426

Submitted via <eFiling> at [www.ferc.gov/Documents](http://www.ferc.gov/Documents)

**Re: FERC Docket No. CP15-558-000**  
**Proposed PennEast Pipeline Project**

Dear Chairman Bay:

New Jersey Conservation Foundation is an intervenor in Docket CP15-558-000 regarding the proposed PennEast Pipeline. We offer the following comments regarding the assessment of the environmental impacts of the proposed pipeline on Land Use, including Forest Lands, Farmlands, Preserved Open Space Lands, Recreation and Visual (Scenic) Resources.

Thank you for your consideration of these comments.

Sincerely,

Wilma E. Frey  
Senior Policy Manager  
New Jersey Conservation Foundation

**Comments of New Jersey Conservation Foundation  
on the  
PennEast Pipeline Draft Environmental Impact Statement  
FERC Docket No CP15-558-000  
September 12, 2016**

## **Comments on Land Use, including Forests, Farmland, Preserved Open Space, Recreation and Visual Resources**

According to the DEIS, construction of the pipeline would directly involve 1,613 acres, of which 431 acres are in New Jersey, based on a 100-foot wide construction right-of-way plus additional temporary work spaces (ATWS). The DEIS states that the primary land use types affected by the construction would be forest /woodland 632.8 acres (38 percent) in PA/NJ, agricultural land 578.7 acres (37 percent) in PA/NJ, while other "Open Land" impacted would total 122.2 acres (7 percent) in PA/NJ. Pp. 4-119, 4-120 and Table 4.7.1-1

### **A. Impacts on Forested Lands**

The DEIS states that "following construction, about 784 acres of new land would be permanently maintained by operation of the Project in PA/NJ...The total acreage for impacts on forest/woodland includes the clearing of the entire 50-foot wide permanent right-of-way; however, only the 30-foot-wide maintained operation right-of-way in upland forests and 10-foot-wide maintained operational right-of-way in wetlands would require the permanent removal of trees in these forested areas...Following construction, forest/woodland cleared outside of the permanent ROW would be allowed to regenerate to preconstruction conditions..." P.4-124.

The DEIS distinguishes permanent use of the pipeline and temporary use during construction. ***However, there is no such thing as a temporary impact if impacts cannot be repaired and lands and resources restored to their original, pre-pipeline condition.*** PennEast has provided no data to indicate that it can repair its construction and operational impacts and restore forests, agricultural lands, wetlands, waterbodies, habitat, plant and animal species, historic, cultural and scenic resources, to their original pre-pipeline conditions.

The most serious impacts of the pipeline will be to forested lands. It is obvious, and the DEIS admits, that the 30' maintained operational ROW in upland forests and 10' maintained operational ROW in wetlands, as well as access roads, will have been clearcut and will be permanently impacted. However, the DEIS claims that workspaces, ATWS, ware yards and other "temporarily" clearcut areas will eventually "regenerate to preconstruction conditions" are not supported by science and experience. Given the deer density in both PA and NJ, as well alteration of the soil structure from the construction impacts, "regeneration" of forests is highly unlikely to occur. And in the case of New Jersey's "Historic Forests," restoration to the original pre-pipeline condition is impossible.

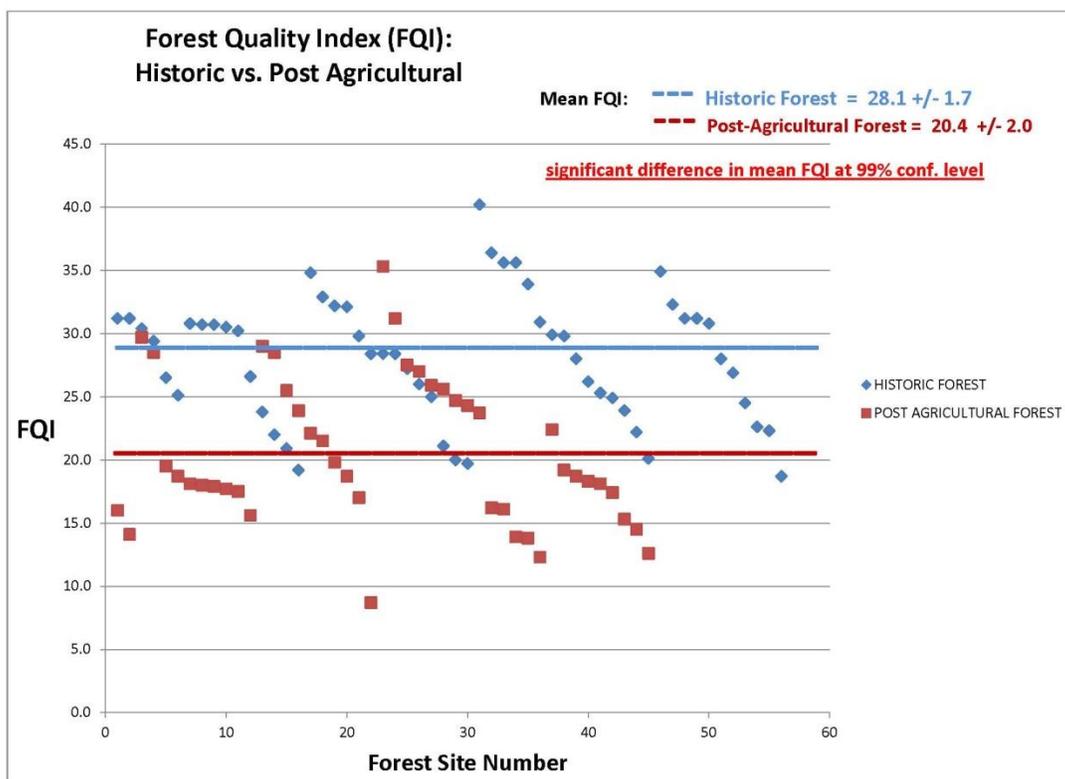
*The statement below was prepared by Dr. Emile DeVito, Senior Manager of Science and Stewardship, and submitted to FERC in New Jersey Conservation Foundation's Comments for Scoping the EIS in February-March 2015. These comments were not addressed in any manner in the Draft EIS. Therefore, the DEIS should be revised and reissued. See also accession number [20160902-5248](#), "Comments on Proposed Mitigation Measures for PennEast Pipeline Review of Tennessee Gas Pipeline Mitigation Failures."*

***The EIS must recognize and acknowledge that pipeline construction on New Jersey's Historic Forest land will cause permanent irreversible damage which cannot be repaired and these lands will not be restored to pre-pipeline conditions. Historic Forest is a rare and limited resource. Construction impacts will cause a net loss of Historic Forest, as it is a resource that simply cannot be replaced. Thus, the loss of Historic Forest acreage cannot be mitigated.***

In New Jersey, there remain patches of historically forested lands which have never been exposed to the agricultural practices of plowing or heavy pasturing. These historically forested lands usually have been utilized repeatedly for the harvest of wood products, but the forest was never converted to non-forest. These "Historic Forests" still retain intact, native soil structure with undisturbed soil horizons, native soil invertebrate communities, native understory herbaceous and woody shrub communities with vigorous root structure in the upper soil horizons, and high native plant and animal biological diversity.

In contrast, there are an abundance of post-agricultural forests, where 19<sup>th</sup> century agricultural lands have reverted to middle-aged successional forests on post-agricultural soils. These forests are often heavily invaded by non-native alien species, and are no longer dominated by native herbaceous woody and herbaceous understory plant species.

Critical differences exist between these two types of forest. A recent study by New Jersey Conservation Foundation shows that historically forested lands are significantly higher in native species richness, dominance, and Floristic Quality Index (FQI) - see <http://universalfqa.org/> than post-agricultural forest. See Figure 1, below.



**Figure 1**- Summer 2014 field research by New Jersey Conservation Foundation, showing that historic forest lands have significantly higher Floristic Quality Index FQI than post-agricultural forest lands.

The mechanism by which “Historic Forests” retained their native floristic quality, in comparison to successional forests that have recolonized former agricultural lands, is simply that the upper soil horizons have never been severely disturbed by plows or other mechanized equipment, and they never experienced severe grazing pressure, erosion, or compaction by long-periods of intense exposure to domestic animals.

Maintenance of native soil integrity allows a natural community to maintain historic ecological functions and provide valuable ecological services, such as:

- Resistance to alien species invasion and loss of native species;
- Maintenance of carbon sequestered in an organic litter and root layer;
- Nutrient transfer by soil invertebrates, especially native ant communities;
- Maintenance of diverse and abundant soil invertebrate populations, which are at the base of the food chain, giving rise to an ecological web that supports all forest vertebrate populations, from salamanders to understory birds, reptiles, small mammals, and even large mammalian and avian predators.
- Resistance to alien earthworm invasion and their eventual dominance, which results in the loss of the soil organic layer and sequestered carbon, erosion due to the loss of

native deep-rooted perennials and replacement by alien, weedy, shallow-rooted annual plants such as Japanese Stiltgrass;

- Maintenance of aquifer recharge and flood prevention attributes, through maintained health of the sponge-like organic soil horizon with intact, deep-rooted perennials. Disturbance to this thin but essential organic soil horizon results in soil compaction, increased surface runoff during storms, harmful sedimentation in streams, scouring of stream channels, and other cascading degradations that not only ruin downstream ecological quality, but also result in expensive siltation, flooding, and water supply problems that are either expensive or impossible to cure.

Fortunately, the State of New Jersey maintains a wealth of historic documents (maps and aerial photographs) that reveal with high accuracy whether or not current forested lands may be Historic Forest patches. The late 1800s survey by CC Vermeule indicates where patches of forest were still present on the landscape at the height of agricultural clearing during the 19<sup>th</sup> century. When used in combination with the 1930 aerial photographs of NJ, it is possible to predict quite accurately where field reconnaissance will reveal Historic Forest patches with intact soil.

***There are many acres of Historic Forest patches with intact soil along the proposed Penn-East pipeline routes.*** These patches are especially common in the dozens of steep slope areas where numerous Delaware River tributaries cut through the fractured rocky soils of New Jersey's Highlands and Piedmont physiographic provinces, and also on the gently sloping rock outcrops that were never suitable for agriculture. These long, forested ridges, including Baldpate Mountain, are likely to house not only numerous rare species but also intact plant communities of high aesthetic value. These steep, rocky slopes and gently sloping rocky ridges containing Historic Forest patches have thin native soils, but nonetheless support diverse, relatively intact native plant and animal communities from within the soil horizons, through the herbaceous and shrub layers and into the tree canopies.

***It is not possible to conduct pipeline construction activities in these Historic Forest habitats without causing permanent, irreversible damage to public trust natural resources and the quality of the ecological services that intact soil and native plant and animal communities provide.*** Restoration attempts, no matter how well-intended, always result in failed attempts to compensate for the destruction of intact ecological communities where soil disturbance is conducted for the first time.

The reason that ecological restoration attempts cannot succeed after construction-related soil disturbances occur on steep slopes or in thin rocky soils is because the artificial practices utilized to quickly establish vegetation in order to prevent massive erosion are mutually exclusive to re-creating the natural conditions that would allow for native plant and animal communities to re-establish.

Once construction is finished, soils that were sequestered during construction are redistributed, seeded or planted and fertilized, in order to establish vegetative cover. Even if native plants are used, the result of the construction activity and the artificial replacement of soil is no longer representative of a natural system. Natural soil horizons no longer exist, and the soil pH and nutrient content will have been elevated. Once this has happened, it is

impossible for native herbaceous plants and woody shrubs to compete with the current onslaught of alien weeds that are adapted to colonizing the construction sites from nearby areas. Despite any efforts to re-establish a native plant community, eventually the site becomes dominated by alien weeds that are pre-adapted to thrive in areas where human disturbance has occurred.

Without the long-term persistence of native plants, a natural ecological web can never re-develop, and the construction site can never regain the biological diversity nor perform the ecological services that existed before the construction occurred. It is impossible to repair such ecological damage, since the patches of Historic Forest cannot be restored or re-created.

A century or more of ecological succession has taken place in patches of post-agricultural forest where soil was disturbed before and until World War I. One hundred years ago, the landscape was not filled with the dozens of aggressive alien weeds and over-abundant deer that now make it nearly impossible for native species to successfully dominate after disturbances. Conditions 100 years ago were more suited to successful re-establishment of native plant communities. From a distance, these maturing post-agricultural forests appear “natural.” Yet, no patch of post-agricultural forest, not even patches embedded within in a matrix of Historic Forest (and therefore surrounded by forests with plant and animal and seed sources that aid in natural restoration), has ever re-grown to display a Floristic Quality Index or ecological integrity as high as neighboring, undisturbed Historic Forest lands. Today, given the stressors of over-abundant deer and super-abundant, aggressive alien weeds, it is impossible for an ecological restoration effort to re-establish Historic Forest conditions.

It is incumbent upon the applicant to utilize New Jersey’s historic mapping resources to determine all potential Historic Forest sites that may be impacted by construction, and conduct field surveys at each site in order to determine Floristic Quality Index (FQI reference). Only with this information can the applicant and the public evaluate the potential for irreversible and un-mitigatable ecological damage to Historic Forest patches in the path of the proposed pipeline, and the resultant net loss of the Historic Forest resource in New Jersey.

New Jersey Conservation Foundation and many other individuals and groups have posted numerous comments to the PennEast docket, both pre- and post-application, raising issues of forest damage. The DEIS claims that the proposed pipeline will have minimal permanent impacts to forested lands that are allowed to regrow. The DEIS must be withdrawn and re-written to acknowledge the severe, irreversible and permanent impacts that the pipeline will have on all of New Jersey’s forested areas affected by the proposed construction, and the un-mitigatable impacts of any construction on priceless Historic Forest lands.

## **B. Pipeline Co-location and Crossing of Existing Utility Lines**

***Pipeline Co-location Plans were neither fully described nor finalized in the DEIS, and claims of positive benefits appear to be exaggerated. We request that the DEIS be revised and reissued with definitive plans.***

The DEIS constantly minimizes impacts of the pipeline by saying it will be “co-located.” No specific definition regarding what “co-location” means is provided. Based upon our scrutiny of the alignment drawings, many of these “co-located” stretches will in fact lie outside of the existing cleared ROWs, and instead be near or adjacent to them, and forested lands therefore will still be extensively clearcut along the pipeline route. A new ROW that is merely adjacent to – rather than contained within -- an existing cleared ROW is not truly co-located and does little to minimize environmental impacts. It is impossible to evaluate the impacts of this pipeline without more precise and detailed information regarding new clearing that will take place during the purported “co-location.”

In addition, although the DEIS claims co-location with 11 separate gas or electric companies for about 39% of the route (about 17.5 miles in New Jersey), the DEIS reports that “PennEast has negotiated placement of the pipeline within the existing JP&L easement but is still working” with the other 10 utilities to finalize co-location. The DEIS is incomplete without updated data regarding co-location and should be withdrawn. (Vol I. pg. 4-124)

The proposed pipeline will also cross pre-existing pipelines, as well as other utilities. Near the Alexauken Creek in Delaware and West Amwell Township, PennEast proposes to cross five pre-existing pipelines and high tension electric lines. Also in West Amwell, the pipeline proposes to cross the City of Lambertville’s water supply line the runs from its dam and reservoir down to its water treatment plant and to the City. This dam has been deemed by the State to be a “high hazard” dam, whose breach would likely result in the loss of life and property. Yet the DEIS does not mention any of this vulnerable pre-existing infrastructure, nor provide drawings or plans to document how this pre-existing infrastructure can be crossed safely.

### **C. Traffic Impacts**

FERC requested that PennEast provide a final traffic management plan prior to construction. This should have been provided as part of the DEIS. Counties and municipalities that will be intensely impacted by traffic issues deserve an opportunity to comment in advance on such plans. The pipeline should not be approved without their involvement in such planning, since they will bear the impacts of traffic issues. (pg. 4-125)

### **D. Impacts on Agriculture**

According to the DEIS, the Project will require 100 acres of agricultural land in New Jersey for new permanent right-of-way. However, construction of the pipeline, including construction rights-of-way and additional temporary work space, will impact 240 acres. Table 4.7.1-1 Half of the proposed route will trench through prime agricultural soils, one of New Jersey’s most valuable resources.

The DEIS claims that “effects of construction on agricultural land would be minor and short term,” and that agricultural activities will not be impacted after the pipeline is complete. However, the DEIS offers no evidence to contradict the numerous farmers who have posted contrary evidence to the docket. Many farmers have provided actual data in their comments, showing that crop yields are negatively impacted by pipelines located under agricultural

fields, and stating how construction activities will disrupt the operation of their farms, and thus their livelihoods.

The DEIS states that PennEast will work with farmers to address their concerns, but past practice by PennEast offers evidence that this is unlikely. The agricultural community of Hunterdon and Mercer counties has provided many comments on the FERC docket regarding these issues, and the DEIS neglects to address them. The Agricultural Mitigation Plan provided by PennEast provides no answers.

The DEIS promises (page 4-126) that native seed mixes will be used to return lands to pre-construction conditions. Yet elsewhere in the DEIS, the list of seeds used in these mixes shows that they are not comprised of native plants.

### **Impacts on Organic Farming**

The DEIS claims that “no certified organic farms” would be crossed or are adjacent to the Project. However, there are in fact many lands adjacent to or in the ROW that either are going through the certification process, or are enrolled in USDA programs that oblige the farmer to adopt certain organic practices. In Delaware Township alone, the route passes through an organic beef operation, an organic orchard and a small scale organic egg and sheep farm.

Additionally, ground and surface waters that will be affected by the pipeline construction and operation flow to neighborhood farms that are either organic or pursuing certification, and provide water to their livestock, even if the farm is not in the direct path of the ROW. Farms’ efforts to create organic operations could easily be compromised by contaminants or arsenic in these waters, due to pipeline construction.

## **E. Impacts on Landowners and Homeowners**

The DEIS states that PennEast will provide compensation for loss of productivity and negative impacts to landowners in easement negotiations. However, it is not possible to quantify the value of such impacts without a complete DEIS containing detailed information including construction drawings. Landowners are being asked to negotiate blindly, without any knowledge of what they are agreeing to or knowing the actual construction and maintenance impacts and areas of disturbance to their lands. These unclear and nonspecific agreements give PennEast the opportunity to move the route or its attendant areas of disturbance if there are construction problems or other options become more “convenient.” Vague, imprecise language coupled with the lack of detailed construction plans leaves the numerous agricultural operations in the path of the pipeline incredibly vulnerable. ***We request that the DEIS provide parcel-specific individualized site construction plans so that farmers and other landowners can fully understand the impacts to their properties.***

Many residences will be negatively impacted by the location of the pipeline. On p. 4-128 the DEIS includes many promises to homeowners, but none of these promises are included in any of the easement agreements PennEast is encouraging homeowners to sign. Many homeowners have spent hours posting comments on the docket that contain substantive information about the resources these landowners are most concerned about. This information includes descriptions of the location of wells, septic fields, outbuildings, etc., which should have been considered in the design of the pipeline route. But this information

has not been included in the DEIS, nor have these homeowners comments ever been addressed. Pg. 4-127. On page 4-129, FERC requests that PennEast provide before construction a description of how they will work with landowners, and to develop a complaint procedure for homeowners. How can landowners sign easements without knowing the complaint procedure in advance? The DEIS remains incomplete and premature without this information.

## **F. Impacts on “Special Interest Areas” – Public Preserved Lands**

### **1. General Concerns**

The DEIS categorizes as “Special Interest Areas” parks, recreational or scenic areas that the pipeline will impact. It claims that impacts will be temporary and limited, other than to forested lands. DEIS Vol. 1, Section 4.7.5. The DEIS repeatedly misstates impacts and overstates its “minimization and mitigation measures on State lands.” The mitigation measures on page 4-144 are completely inadequate.

#### ***Table G-14 is seriously flawed.***

This section and the accompanying Table G-14 (DEIS Volume III) are seriously flawed, with errors and omissions. Review of the parcel locations found errors in the milepost indicators, and related mapping errors. Table G-14 (DEIS Volume III) indicates a number of state, county, municipal and non-governmental preserved lands and other public conservation areas that would be crossed by the pipeline in New Jersey. The DEIS contains substantial inaccuracies regarding the ownership and/or management of these lands in New Jersey.

The DEIS does not recognize that many of these areas are of special interest because of their environmental, historic or scenic resources, which the pipeline will permanently impact. The critical concern is not that a trail or a park is closed temporarily for pipeline construction, but that the special values or attributes that made the lands appropriate for a park or a trail will be permanently compromised. Construction and maintenance of the pipeline will compact soils, change hydrology, alter habitat, potentially kill or destroy the habitat of threatened and endangered species, threaten biodiversity and compromise scenic beauty.

***The DEIS provides faulty information on county, municipal and nongovernmental conservation lands.*** The DEIS does not seem to understand that properties are preserved through a vast number of programs, using a variety of techniques, often with multiple partners. Many of these partners have specific goals or objectives when they fund a preservation project. These partners often require specific language in deeds, conservation restrictions, project agreements, assignments agreements and management plans to assure that their conservation objectives will be met. These documents are part of the public record, recorded at the county courthouse. It is impossible to assess the impacts to preserved lands in the proposed right of way without addressing the objectives and restrictions in these recorded documents.

The DEIS is incomplete without a full accounting of these impacts, and correct and complete documentation of the owners and restrictions of the preserved properties affected. These

properties must be analyzed in the greater context of regional and statewide preservation priorities.

Funding a preservation project is a competitive process. Until now, there have been more landowners who have wanted to preserve their lands than there was funding available. There are strict criteria and program standards that must be met. The properties that qualify are those with the most outstanding resources. They became priority preservation projects precisely because of the multiple resources present on the site, and the pipeline would negatively impact those resources. These resources cannot be mitigated or replaced – hence the huge public investment in their preservation.

Federal, state, county, local and non-governmental agencies have priorities and criteria which they use when they designate or preserve a “special interest area.” Many of these partners have specific goals or objectives when they fund a preservation project. These partners often require specific language in deeds, conservation restrictions, project agreements, assignments, and management plans to assure that their conservation objectives will be met. These documents are part of the public record, recorded at the relevant county courthouse. ***It is impossible to assess the impacts of specific concern to preserved lands in the proposed right-of-way without addressing the objectives and restrictions in these recorded documents.*** The DEIS is incomplete without a full accounting of these impacts, and correct and complete documentation of the owners and restrictions on the preserved properties affected. These properties must also be analyzed in the greater context of regional and statewide preservation priorities.

## **2. Impacts on the Delaware River Bluffs (Holland Township downstream to Washington Crossing)**

The Delaware River bluffs are a spectacular scenic and recreational, as well as ecological, resource. Numerous planning documents and State, county and municipal policies have recommended that significant portions of the bluffs, from Holland Township in Hunterdon County south to Washington Crossing in Mercer County, be preserved so that the larger ecosystem, as well as the outstanding visual and recreational resources of the Delaware River, are permanently protected. National Wild and Scenic River grants, Scenic Byway grants, Green Acres monies, municipal and other funding sources have been expended on preservation of these bluffs. Yet the DEIS claims that the PennEast pipeline will have no permanent impacts to “Special Interest Areas.” The DEIS needs to research and reference the diverse planning documents that address preservation of the bluffs, as well as the significant amounts of public money, including federal dollars, that have already been invested towards this goal and the preservation of these resources. The impacts of the proposed pipeline will then be understood as massive and unsupportable.

## **3. Impacts on New Jersey Natural Land Trust Properties: Gravel Hill Preserve and Thomas F. Breden Preserve at Milford Bluffs (Holland Township).**

The New Jersey Natural Lands Trust (NJNLT), an independent New Jersey state agency, owns the Gravel Hill Preserve and the Breden Preserve at Milford Bluffs in Holland Township. They are the northernmost of the important project areas in an ongoing partnership between federal, state, county, municipal and non-profit entities to preserve the Delaware River Bluffs. The

Milford Bluffs were preserved with federal Wild and Scenic River funding through the National Park Service.

The NJNLT has written numerous comments requesting that PennEast avoid this project area. The NJDEP has asked PennEast to consider NJNLT lands the most important state lands to avoid, as the NJNLT was specifically created by the NJ Legislature to preserve lands that protect the state's natural diversity such as endangered species habitat, rare natural features, and significant ecosystems and to ensure the protection of such lands from condemnation. NJNLT has also proposed an alternative, which FERC and NJDEP asked PennEast to fully analyze. However, none of this information was provided in the DEIS. In fact, although the DEIS claims that the proposed route spares the Milford Bluffs, according to the latest PennEast maps it appears that the route still touches corners of the Preserve. On August 12, the NJNLT wrote to FERC, pointing out that "FERC has an obligation to ensure that reasonable and feasible alternatives are fully reviewed so that approved projects do not result in unnecessary environmental impacts. To date, FERC has not fulfilled this obligation."

#### **4. Impacts on the Muddy Run Preserve (Kingwood Township)**

After the Muddy Run Preserve is used as an HDD staging site, the water & habitat resources it was intended to protect will be seriously compromised. This property was preserved with funding from the New Jersey Water Supply Authority (NJWSA) because it has water resources critical to the drinking water supply of the D&R Canal. The DEIS does not address the fact that this property has a special water resource easement in favor of the NJWSA, and how this easement will be addressed. The DEIS also does not accurately describe the flora and fauna of this property, as it does not mention the fact the Bobolinks, Monarch Butterflies, Hickory Hairstreaks and Missouri Gooseberry – species that are rare in NJ – are found there. The DEIS is incomplete without this data.

#### **5. Impacts on "The Farm," Horseshoe Bend Park (Kingwood Township)**

"The Farm," which is part of Horseshoe Bend Park in Kingwood, is part of a thousand-acre contiguous area that has been preserved on the bluffs of the Delaware River outside of Frenchtown. The trail on "The Farm" is currently a 200 year old farm lane of worn argillite boulders. PennEast proposes to use it as an access road. If this is permitted, hydrologically and aesthetically it will never be the same. The ROW would cross this lane and Copper Creek. Precisely where the ROW would cross the creek, state-threatened Long-Tailed Salamanders have been documented in Heritage reports. The species is extremely vulnerable to the sedimentation that this construction will cause. The "Farm" property was preserved in part to protect these threatened salamanders. The DEIS alleges that there will be no permanent impacts from PennEast construction; to the contrary, the DEIS must give a full and honest account of the negative impacts that objectively can be anticipated.

#### **6. Impacts on the Wickechoke Creek Greenway (in Kingwood and Delaware Townships)**

The Wickechoke Creek watershed is a land preservation project of the New Jersey Conservation Foundation. The DEIS admits that the PennEast Pipeline will impact the Wickechoke Creek Greenway. Ownership is incorrectly characterized in the DEIS, which attributes it as preserved in partnership with the State's Natural Lands Trust.

The acquisition of properties in the preserve has been made possible by USDA, SADC, CADB, Green Acres, New Jersey Water Supply Authority, Hunterdon County, Delaware Township, Kingwood Township, the 1770 Foundation and other private foundations and individual donors. These partners have placed a myriad of restrictions in easements, deeds of conservation restriction, water resource restrictions, assignments, project agreements and management agreements. All of this information is part of the public record and should have been acknowledged in the DEIS.

The Wickecheoke Creek Preserve was established 30 years ago, with the goal of connecting three nationally designated historic districts through a greenway of open space with trails. NJ Conservation Foundation has been preserving the undisturbed and historic wooded and rural landscape as the context for the historic structures. The preserve contains over 500 acres of forest, 200 acres of shrubland and meadow habitat and 400 acres of farmland. Another 3,000 acres have been preserved with various partners in the project area.

The Preserve links three nationally registered historic sites, and three nationally designated historic districts. From the Prallsville Mills on the Delaware River in Stockton, a broad swath of many preserved properties accompanies the Wickecheoke Creek upstream and north to New Jersey's only remaining covered bridge, the Green Sergeants Covered Bridge, continuing to the Locktown Stone church.

According to the Wickecheoke Creek Preserve Management Plan, "The Wickecheoke Creek Preserve represents excellent examples of the natural and agricultural heritage contained within the Wickecheoke Creek Project area, which harbors a unique, rural portion of the Northern Piedmont." (*Wickecheoke Creek Preserve Management Plan, May 2011, Prepared by Michael Van Clef, Ph.D., Ecological Solutions, LLC., Page 1*) The Wickecheoke Creek Watershed contains 14 miles of waterways within three sub-watersheds ( HUC 14's) that total 26.6 square miles or 17,024 acres. (*Please note: A disk containing the complete Wickecheoke Creek Management Plan was provided to FERC at the February 25, 2015 public hearing held in West Trenton.*)

The Wickecheoke Creek preserve was created as a sanctuary. It is critical habitat for the threatened Long Tailed Salamander, which depends on this undisturbed wooded creek corridor and its abundant cold water. The proposed pipeline would not only cut through the main stem of the Wickecheoke, at a point where Long Tailed Salamanders and Indiana bats have been sighted, but numerous tributaries and intermittent streams and springs.

The Wickecheoke is a source of drinking water for over 1 million people. It flows into the D & R canal system and the Delaware River at the Prallsville Mills. It provides substantial flow to the canal, and also substantial sediment. It costs the New Jersey Water Supply Authority 3 million dollars a year to remove this sediment to make the canal system work and provide drinking water. Numerous studies with a wealth of scientific data have been done over the years on the Wickecheoke as a water source by NJWSA and various planning groups. These were submitted as scoping comments, but have not been addressed in the DEIS.

New Jersey Conservation has worked on all fronts to preserve this unique area as a landscape wide resource. There are not many places in our state where one can walk or

travel between historic hamlets, past antique patterns of agricultural fields and woods dating back to the 17<sup>th</sup> century, pass through New Jersey's last remaining covered bridge, and then continue through a breathtakingly beautiful valley where all but one of the farms are preserved, and the entire landscape has been designated a historic district, including the buildings, barns, stone walls and hedgerows.

*The DEIS must address numerous socio-economic, environmental, and cultural impacts and their cumulative effects on New Jersey Conservation's Wickecheoke Creek Preserve and its surrounding community. It is not possible to mitigate for the destruction of a community's values, rural quality of life, and sense of place. The proposed PennEast pipeline would be a 21<sup>st</sup> century industrial intrusion on a unique area which preserves 18<sup>th</sup> and 19<sup>th</sup> century rural cultural patterns.*

### **7. Impacts on Goat Hill Overlook (located in West Amwell Township)**

Goat Hill Overlook is another special interest preserve on the Delaware Bluffs. It is of both historic and natural resource interest, which is why it was a high priority preservation project for the state, which spent over 10 years working to preserve it.

It was from the Goat Hill overlook that George Washington watched troop movements on the Delaware River. Washington had many supporters in Lambertville, and they helped him move his troops from New Hope to Lambertville and then up what is now Route 179 to encampments in Mount Airy and along the Alexauken Creek. (Both the Alexauken and Rt. 179, the sites of these encampments, will be traversed and impacted by the PennEast pipeline.) Hunterdon and Mercer counties pride themselves as being "the Crossroads of the Revolution," and this commitment to preserving historic integrity motivates local land preservation activities.

The overlook is of renewed interest since Lambertville and New Hope began Friday night fireworks in the summer. Families come and picnic on the bluffs and enjoy the spectacular fireworks show, which has given local restaurants and other tourism services a welcome boost.

Goat Hill is also the center of the area that is New Jersey's southernmost copperhead snake habitat. The unusual boulder strewn terrain, punctuated by vernal pools and spring seeps, is perfect copperhead habitat. See details in Dr. Emile DeVito's submission.

Although PennEast and its consultants have had unfettered access to the Goat Hill Overlook, the DEIS does not note or take account of any of these special resources or the potential impacts on them. The DEIS cultural resource, wildlife species and water resource surveys do not mention the special interest resources of Goat Hill. Further, the socioeconomic section of the DEIS provides no data, description or analysis of how construction and maintenance of the pipeline will impact the vibrant and growing tourist economy of the Delaware River Valley.

**8. Impacts on the Ted Stiles Preserve at Baldpate Mountain (Hopewell Township)**  
*Construction of the PennEast pipeline will create unacceptable and permanent impacts to Mercer County's Ted F. Stiles Preserve at Baldpate Mountain.*

Mercer County's Stiles Baldpate Mountain Preserve is located near the southern end of the proposed pipeline route in Hopewell Township. The pipeline will cause unacceptable impacts to the Preserve, which is an outstanding natural area, and an Important Bird Area (IBA) recognized by the National Audubon Society.

The DEIS claims that the pipeline will be "co-located" in the Preserve, but neglects to point out that this "co-location" will be outside of the pre-existing cleared right of way, and that, as a result, forest habitat for important species of birds will be cleared.

Tables G-14 and G-15 (DEIS Volume III) indicate that, within the Stiles Baldpate Mountain Preserve, between Mileposts 106.1 and 108.5, a combination of horizontal directional drilling (**HDD**), open cut and access roads will slash through the park for 2.4 miles (12,611 feet). *Construction will impact 36 acres; of which 14.5 acres will be permanently changed by the pipeline. An additional 10.2 acres in the same area of the Stiles Preserve (Mileposts 106.2 to 108.4) will be utilized for extra workspace, for **a total of over 46 acres under construction.***

The reasons provided for needing the additional acreage include for "sloped construction, rugged topography, and stream crossing" (each noted 8 times), "wetland crossing" (noted 7 times), "side bend construction" (5 times), "utility/ power line or road crossings" (each 4 times), "topsoil segregation" (3 times), and for an "access road" (once). ***It is abundantly clear that this steep, hilly, environmentally sensitive -- and publicly preserved -- tract of land is no place to locate a gas pipeline.*** (DEIS Volume III, Table G-14, Federal, State, County, Municipal Lands, and Public Conservation Areas That Would be Crossed by the Project Facilities, and G-15, Additional Temporary Work Space (**ATWS**) and Extra Work/Staging Areas for the Project)

Other specific resources that will be impacted by the pipeline in the Preserve are shown in Tables G-6 and G-12. Table G-12, "Wetlands Crossed by the Project in New Jersey," indicates that at MP 107.4, 33 feet of a palustrine emergent wetland (PEM) is crossed, with a temporary construction impact of 0.011 acres (479 square feet), while at MP 108.2, a palustrine forested wetland (PFO), is crossed for a distance of 243 feet, with a temporary impact for construction of 0.436 acres (18,992 square feet), and permanent conversion of 0.269 acres (11,718 sq. ft.) to herbaceous wetland for operation of the pipeline. Analysis indicates that the intended width of the converted portion is 48 feet, and that the temporary impacts will be 78 feet wide. Table G-6, Waterbodies Crossed by the Project, indicates that Fiddler's Creek is crossed three times by the proposed pipeline.

### **9. Impacts on the Entire Current and Planned Network of Preserved Lands**

The DEIS also does not recognize that, in fact, this special interest landscape is an evolving tapestry of preserved lands running the entire length of the pipeline. A contiguous network of special interest places in Hunterdon and Mercer counties is an intentional design of the larger landscape. These places are special because they retain important natural and historic resources and habitats that are critical in this region of New Jersey, the Western Piedmont and the Delaware River Watershed.

### **10. Impacts on Recreational Values**

In the last decade, recreational interest in these special interest areas has blossomed. Ecotourism and agri-tourism have attracted growing numbers of people to this region. For example, numerous bike clubs organize bike rides through the Rosemont Valley of the Wickecheoke. The DEIS makes no mention of the dependence of the eco- and agritourism industries on these special places of interest. Who will want to bike through the Rosemont Valley when its visual and historic resources have been compromised by the PennEast Pipeline? Who will visit Muddy Run or Horseshoe Bend parks when their habitats no longer support interesting and unusual species? Will Baldpate Mountain still be a premiere destination for birders once its forests, with their forest bird habitats, are diminished? The DEIS does not begin to address the full range of impacts to special interest areas of the Delaware River Valley.

### **11. Impacts to USDA Farmland Conservation Easements**

There is conflicting information in the DEIS about the number of federally preserved farms that will be impacted. The DEIS provides no discussion farmland preserved by groups other than the USDA. The State Agricultural Development Committee, the County Agricultural Development Board, Municipalities and non-profits hold a variety of easements on properties that will be traversed by the route. The easements contain a great variety of language that restricts activities and uses of these lands to support agriculture, agricultural soils and agricultural viability. 2,662 acres of farmland on 38 different lots will be impacted. The DEIS supplies no data or analysis on the impacts to preserved farmland and agricultural viability, and is thus incomplete.

### **12. Policies and Rules that Apply to Publicly Preserved Lands in New Jersey**

The proposed pipeline would cross 2,357 acres of preserved open space, on thirty (30) different parcels. FERC notes that PennEast could take New Jersey public lands by eminent domain if owners do not cooperate. Pg. 4-143. Elsewhere, the DEIS suggests that PennEast wants to work with the community. Lands preserved with NJ DEP Green Acres can, through a lengthy process, be diverted for the public benefit. However, this process requires that PennEast provide an alternatives analysis to NJ DEP. This analysis should have been included in the DEIS. Species of special concern also have special additional protections on lands that state Green Acres funding has helped to preserve. PennEast had survey access to many of the public lands that would be affected by construction of the pipeline, and yet PennEast has not provided data on species and historic resources in the DEIS. PennEast appears to lack survey data on properties to which they had access, which raises substantial questions about the seriousness with which this DEIS has been prepared.

## **G. Detailed Erosion and Sediment Pollution Control Plans are missing from the document**

The DEIS, Volume II, includes Appendix E, a “DRAFT Erosion and Sedimentation Control Plan, Final, Sept. 2015,” prepared by Michael Wilcox, P.E. with Hatch Mott MacDonald. It is a general description of policies and practices, whose stated purpose is “for use... as a guidance manual for minimizing erosion of disturbed soils and transportation of sediments off the right-of-way and into sensitive resources (wetlands, streams and residential areas)

during natural gas pipeline construction.” The document describes procedures developed that “are designed to accommodate varying field conditions.” However, **Appendix E2, Erosion and Sediment Pollution Control Plans**, which would consist of site-specific designs and drawings, is **“Not Included,”** leaving the Draft EIS incomplete, with the public and state agencies unable to review the specific measures proposed for specific sites. Therefore, ***the DEIS should be withdrawn and completed with full information so that it is in an appropriate condition for public review.***

## **H. Impacts on Visual (Scenic) Resources**

The DEIS discussion and presentation of impacts on visual (scenic) resources is not only completely inadequate but totally inaccurate as well. It appears to have been prepared without any direct observation of the landscape and its visual attributes, putting forth only generalities that could be written without any actual observation of the area the proposed pipeline would traverse.

The DEIS calls the area “a highly fragmented landscape” (pg. 4-148), an ecological term and a perception not only uninformed by what actually may constitute scenic beauty – that is, a mix of forested and agricultural landscapes, combined with small-scale historic human settlements – but also a term that casts aspersions on that beauty, and that devalues the region’s scenic resources.

The DEIS claims that most of the proposed route situated on Green Acres lands is co-located along existing utilities and thus “...the visual resources along this portion of the Project have been previously affected by other forms of infrastructure.”

The DEIS does not acknowledge that much of this “existing infrastructure” is comprised of early electric lines dating to the 1920s & 30s that are now part of the community’s visual tapestry. In other areas, the route will necessitate clearing of up to an additional 100’ corridor adjacent to pre-existing corridors, which will have huge, un-mitigatable visual impacts.

In addition, the DEIS does not even acknowledge well-known and formally identified scenic features, such as the federally designated Lower Delaware National Scenic and Recreational River, New Jersey’s Scenic Byway Route 29, or the state-protected Milford Bluffs along the Delaware.

Holland and Alexandria Townships in New Jersey, which the pipeline proposes to traverse, are part of the New Jersey Highlands Region, delineated, recognized, and given protections by New Jersey’s Highlands Water Protection and Planning Act. The Highlands Act is very clear about its intent to protect scenic resources, as is the Regional Master Plan.

In implementing the New Jersey Highlands Act, the Highlands Regional Master Plan (RMP) states: “The Highlands is endowed with abundant natural, cultural, historic, scenic, and recreational resources. These resources are important for preserving the Region’s heritage, for the beauty they provide, for their contribution to the character of the region, and for the benefits they bring for recreation and tourism. These valuable resources should be identified and comprehensive steps should be taken to protect them and promote recreation

and tourism in the Region. The extensive and varied recreational, cultural, historical and scenic resources contained within the Highlands represent a substantial foundation for a regional tourism economy. Recognizing the natural link between historic, cultural, scenic and recreational resources and the tourism advocated by the Highlands Act, an approach for a tourism economy with the Highlands has been developed to focus on the wise use of these abundant resources within a tourism context.” RMP, Historic, Cultural, Scenic, Recreation, and Tourism Technical Report, 2008, p.1.

The Highlands RMP requires that “the impact of proposed human development on the historic and cultural resources of the Highlands Region be addressed during local development review and Highlands Project review and approval.” Policy 4A4, The proposed PennEast Pipeline will be reviewed by the Highlands Council under its Highlands Project review authority. Goal 4B, the Protection and Enhancement of the Scenic Resources within the Highlands Region, is further defined in Policy 4B5, which requires that **“the impact of proposed human development on the scenic resources of the Highlands Region be addressed during local development review and Highlands Project Review and approval.”** **“All development applications shall include identification of any scenic resources in the Highlands Region that are listed on the Highlands Scenic Resources Inventory and may be affected by the proposed development.”** RMP Objective 4B5a. All development which affects identified scenic resources shall comply with minimum standards for the preservation of the affected resources.” RMP Objective 4B5b.

The Highlands RMP specifically addresses review of the Lower Delaware National Scenic and Recreational River: **“any proposed action that requires federal permits, involves federal grants, or involves other federal actions that may impact the resource values of the Musconetcong National Scenic and Recreational River and the Lower Delaware National Scenic and Recreational River, pursuant to section 10(a) of the National Wild and Scenic Rivers Act, shall require review by the National Park Service, National Wild and Scenic Rivers Program.”** RMP, Objective 4B5c. pp. 182-83.

In 2008, the Highlands Council adopted the “Procedure for Nomination, Evaluation and Inventory of Highlands Regionally Significant Scenic Resources.” Its introduction stated: “The goal associated with protecting regionally significant scenic resources is to maintain the visual integrity and scenic beauty of noteworthy viewsheds and natural and cultural features of regional significance in the Highlands Region. The scenic beauty of the Highlands is a resource whose quality is valued by both residents and visitors. The Highlands were recognized as a “landscape of national significance” in the 1992 New York-New Jersey Highlands Regional Study by the United States Forest Service. The beauty of the Region and its sense of place contribute to residents’ quality of life and draw many to the Region. The growing eco-tourism, agri-tourism and heritage tourism industries rely on the scenic values to support them. ...scenic resources may be natural, historic, cultural, archaeological, etc., but all must have a strong visual component that is regionally significant.”

The Highlands Council RMP includes a baseline Scenic Resource Inventory, which the Highlands Council assembled from which to build upon. The Council identified an initial Scenic Resource Inventory of 131 scenic resource areas, including publicly-owned parks, forests, and recreation areas... “This baseline inventory is comprised of federal, State, and

county open space and recreation lands that may encompass elements of high scenic quality worthy of protection (Appendix 5)....Discussions should also consider whether additional sites or landscapes should be included in the inventory because they possess scenic qualities that should be protected as part of the Highlands resource protection policies.”

***The Highlands Scenic Resource Inventory and the Highlands Recreation Lands Inventory both include: in Holland Township, Hunterdon County, the Holland Church Access and Milford Bluffs, and in Alexandria Township, Hunterdon County, Delaware and Raritan Canal State Park and Sweet Hollow Preserve.*** Historic, Cultural, Scenic, Recreation, and Tourism Technical Report, Appendix 5 and 6, Highlands Water Protection and Planning Council, August 2008.

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