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VIA ELECTRONIC FILING

Federal Energy Regulatory Commission
888 First Street, N.E., Room 1A
Washington, DC 20426
Attention: Kimberly D. Bose, Secretary

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

Dear Secretary Bose:

I submit the following comments and data on behalf of New Jersey Conservation Foundation (NJ Conservation). We are an Intervenor in Docket Number CP15-558-000 regarding the proposed PennEast Pipeline. New Jersey Conservation Foundation (NJ Conservation) is writing to document significant deficiencies in the Draft Environmental Impact Statement (DEIS) regarding data concerning, and potential impacts to, federal and state wildlife and plant species of special concern.

Over the period of one year, NJ Conservation undertook biological survey work with a team of respected experts. With a limited budget and small team, we found 39 vernal pools, 24 distinct populations of 11 special concern and endangered plant species, including 13 populations of 3 state endangered plant species, and 52 rare wildlife sightings within the 400-foot study corridor for the proposed PennEast pipeline. These include at least 7 high-quality streams with populations of the state-threatened Long-Tailed Salamander, Northern Copperhead snake (state special concern but deemed by threatened by the NJ Endangered Species Advisory Committee) in a population crossed by over 4 miles of the pipeline, and evidence of the federally-endangered Indian Bat in five locations, among others. A summary of our findings is enclosed, along with several maps showing the general locations where species were sighted.

This is just a representative sample of the species of special concern, given that we did not have the resources to survey the entire proposed route. If proper surveys were conducted along the entire route, many additional rare species and locations would be discovered. The results already reveal that the proposed route would have significant and unavoidable impacts on a host of sensitive and protected species.

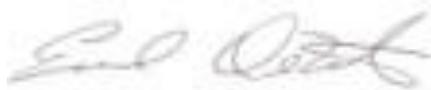
We undertook these surveys because we have little confidence in the ability of PennEast or its agents to accurately document the presence of such species based upon their track record of inaccurate and incomplete data collection and analysis in both the Resource Reports and DEIS.

In contrast, PennEast has failed to document the presence of or potential impacts to numerous species of special concern. The DEIS fails to take the required hard look at impacts required under the National Environmental Policy Act. The DEIS should be withdrawn and resubmitted for public review once it has complete information regarding impacts to plants and wildlife.

It should be noted that Natural Heritage and Rare Species report forms are being submitted regularly to the appropriate New Jersey Department of Environmental Protection (NJDEP) agencies so that the actual locations of these rare species can be added to the state's database.

Thank you for your consideration. Please contact me at 908-432-3419 with any questions or concerns.

Sincerely,

A handwritten signature in black ink, appearing to read "Emile DeVito". The signature is cursive and somewhat stylized.

Emile DeVito, Ph.D., Manager of Science & Stewardship
emile@njconservation.org

Threats to Rare Species Populations

Long Tailed Salamander (*Eurycea longicauda*) STATE-THREATENED

Western Hunterdon County is a stronghold for this State-Threatened species of salamander. In the last year alone, cursory surveys have documented long-tailed salamanders from at least 6 of the streams proposed to be crossed by the PennEast pipeline. Without a doubt, additional searching will find additional extant populations of long-tailed salamander and re-confirm older records on more of the over 40 C1-ranked streams and tributaries proposed to be crossed by the pipeline.

Long-tailed salamander habitat is characterized by healthy, rock-strewn streams with steep gradients, moss-covered banks, deep pools, and surrounding forested slopes that provide shade. The PennEast proposed pipeline route cuts through dozens of these sensitive habitats.

Whether the pipeline is installed by horizontal directional drilling (extremely unlikely to be engineered and accomplished successfully due to incredibly steep slopes and difficult bedrock issues), or by surface open trench methods, impacts to the long-tailed salamander populations will be catastrophic.

The dense bedrock types are characterized by an abundance of fracture lines, and the stream hydrology will be severely impacted by horizontal directional drilling. Blasting and drilling will allow rivulets of water to seep in new directions, altering the current pattern of pools and seeps that provide refuge to the sensitive salamanders during summer droughts. Moss beds will dry out, and breeding pools will be altered. These impacts to critical habitat of a state threatened species cannot be anticipated, predicted, or tolerated, nor can they be avoided, mitigated, or corrected once the blasting and drilling has occurred.

If open trench methods are used, destruction of critical habitat due to erosion and sedimentation will occur, because maintaining the delicate structure of critical salamander habitat using erosion control practices will fail in every instance. During storms, the steep gradients and flashy nature of the watersheds that contribute to stream flow cause massive rising and falling of the stream depth, with intense stream velocities. Breeding pools will be scoured and or filled with sediment, moss beds will be scoured and stripped away, and the rocky crevices that provide the basis of the food chain and structural feeding grounds for not only these salamanders, but also many other aquatic invertebrates (and in some cases native trout populations) will become choked with sediment and be destroyed.

Even if by luck storms do not occur during the actual construction phase, the universal response to preventing erosion and sedimentation is to apply seed mixes of alien, fast-growing, nutrient-loving grasses, which require fertilizer, lime, and an abundance of sunlight. It will be impossible to revegetate streambanks with native species and stabilize the soils on the banks of these steep, shaded, forested streams. Virtually every time, high water velocities end up stripping away seed mixes, and the result is a tangle of hay bales collecting seeds and debris in stream eddies, with clumps of alien weed seeds germinating from the hay bales. The nutrients applied to the seed mixes bind to stream sediments, and the entire stream corridor is turned into a pile of alien weeds growing from disturbed soils with elevated nutrients and pH. Critical rare species habitat is destroyed forever and sensitive populations of salamanders lose significant proportions of individuals or possibly are extirpated.

Long-tailed salamander populations have been confirmed in the last year in 6 major stream corridors either directly in or in close proximity to the proposed pipeline route. These streams are the Copper Creek, Harihohake Creek, Hakihokake Creek, Nishisakawick Creek, Little Nishisakawick Creek, and the Wickecheoke Creek. (See the attached Long-tailed Salamander Map #4). Additionally, Long-tailed Salamander is known from the Lockatong Creek, and will undoubtedly be confirmed with additional searching. Note the direct proximity to the pipeline route of the individuals (and therefore populations) recently found and reported to the NJ Endangered and Non-Game Species Program.

PennEast trivializes the presence of Long-tailed Salamanders in its draft EIS, as if they might occur sporadically along the proposed pipeline route. They clearly have no credible expertise regarding this species. Additional inventory will undoubtedly discover even more populations of long-tailed salamander on many more stream crossings throughout the project area. PennEast asserts they will work “to ensure impacts to this species or its habitat are avoided to the maximum extent feasible.” This stated goal is completely unacceptable. New Jersey Conservation Foundation will not support a goal that places “construction feasibility” ahead of habitat destruction in numerous C1 streams that support a state threatened species. We do not support any diminution of habitat quality or extent for this imperiled species, or any other rare species.

Construction of the proposed PennEast pipeline will cause immediate irreversible and adverse impact to this regional population stronghold, and the long-term spread of alien species from the pipeline crossing both up and downstream will isolate existing subpopulations along the stream corridors due to the creation of a wide uninhabitable zone.

Long-term impacts due to habitat degradation and isolation of sub-populations often take decades to eventually play out. No regulatory mechanisms exist to monitor this threatened species stronghold in order to determine if the construction of the proposed pipeline will be the cause of the eventual extinction of local sub-populations within this regional population. The only conclusion that can be drawn is that if this pipeline is constructed across all these pristine streams, permanent and irreversible severe impacts causing significant decline will occur to many of the long-tailed salamander sub-populations. A long-term implication of this certain, unavoidable, and unmitigatable habitat destruction, across so many C1 tributaries housing sub-populations of long-term salamander, could be the eventual extinction of the regional population.

Wood Turtle (*Clemmys insculpta*) STATE THREATENED

Wood Turtles, an NJ threatened species, are also known from the proposed route. Additional extensive surveys for wood turtles are warranted along all forested stream corridors in the project area. Nearly all of the suitable long-tailed salamander habitat discussed above, except perhaps small stretches of streamside forest with extremely steep cliffs, is also excellent wood turtle habitat. Wood turtles are far more difficult to detect than long-tailed salamanders, but extensive searching at the peak of the egg-laying season along the stream corridors must be undertaken by PennEast, before the potential for impact to this state-threatened species can be determined. PennEast proposes timing restrictions for in-stream work and construction monitors in areas listed by the NJ Landscape project as habitat. This is inadequate. Any wood turtle populations could be decimated if critical nesting habitat along the stream edges is permanently

degraded as described above for long tailed salamander. The risk of an in-stream pipeline crossing in any wood turtle habitat is too great to be permitted, and is likely to result in loss of critical habitat.

Indiana Bat (*Myotis sodalis*) FEDERALLY ENDANGERED

New Jersey Conservation Foundation has conducted acoustic surveys and has detected the possible presence of Federally-endangered Indiana Bat at 5 locations along the proposed PennEast pipeline route. 3 of the sites are directly where the proposed pipeline crosses high-quality rocky streams surrounded by mature forest (Alexauken Creek, Wickecheoke Creek, and Hakiwokake Creek), one site is a large pond near the Alexauken Creek, and another is an open wetland along a Wickecheoke Creek headwater tributary. (See the large red stars on rare species maps 1 through 3 that are attached to this submission).

A *Summer Bat Acoustic Survey* expert report (submitted earlier today), authored by Bat Conservation and Management of Carlisle, PA, indicates that in order to fully understand and evaluate the potential habitat use by Indiana bat at these 5 locations, additional work is required, including both additional acoustic and capture efforts.

Furthermore, the report also indicates the advantages of utilizing acoustic surveys to maximize survey efforts to detect species' presence over large areas and in many locations, the advantages of being able to survey a large area with one microphone without the negative impacts that limit a bat's presence or decrease its habitat use due to human presence or noise at capture nets, and the ability to detect the call of only one individual of a rare species without having to surmount the low odds of physically capturing a rare animal.

Thus, based on our expert report, New Jersey Conservation Foundation concludes that the practice of conducting only mist-net capture surveys (actually skipping the acoustic survey step) greatly decreases the chance of detecting the presence of small numbers of individuals of rare Indiana bats (and any other rare bat species) at specific locations along the pipeline route.

From the acoustic detections found in our expert survey, PennEast must be required to conduct additional acoustic and mist-net capture surveys within suitable habitat and during the correct seasonal period for Indiana bat not only along the 5 sites that NJCF has detected their possible presence, but along the plentiful forested sites along the entire proposed pipeline route where suitable habitat is present.

Should Indiana bats be captured, radio-transmitters must be used to determine where the critical roosting and nursery trees are located, to ensure that the proposed pipeline route has no impact on critical Indiana bat habitat.

PennEast cannot possibly conclude that potential impacts of their proposed pipeline route can be mitigated, because until they determine the extent of potential impacts to Indiana bat, they cannot be certain that the route is permissible under the federal protections afforded to Indiana bat.

Additionally, little brown bat (*Myotis lucifugus*), which has declined by approximately 99% in New Jersey due to white-nose syndrome, is present at a minimum of five stream crossings along the proposed PennEast pipeline route. Although the species has yet to be listed in NJ due to logistic constraints, there is no doubt that it will be listed as endangered upon the next review of NJ mammal species status by the NJ Endangered and non-Game species Program.

Northern Copperhead (snake) (*Agkistrodon contortrix mokasin*) STATE SPECIAL CONCERN *

*- Northern Copperhead is now listed as State-Threatened by the Endangered and Non-Game Species Advisory Committee, official status change is in process).

The Northern Copperhead has declined precipitously in recent decades due to suburban sprawl. However, along a rural stretch of the Hunterdon/Mercer County border, recent events and discoveries have revealed that a Northern Copperhead population still persists from Goat Hill Overlook south of Lambertville, across Goat Hill Road, through private forested land with scattered agriculture toward Pleasant Valley, and into the Ted Stiles Preserve at Baldpate Mountain. This Northern Copperhead population is outlined on rare species map 3. Adult and neonate snakes, as well as a gestation (birthing) site have been confirmed from 8 years ago up to the present. This population of Northern Copperhead is almost certainly the most southerly population remaining in New Jersey, disjunct from other populations to the north. It is critical that the proposed pipeline result in no harm to any critical habitat components.

In order to determine the potential habitat impacts along the pipeline route, a significant number of drift fences must be erected in the spring to capture snakes as they emerge from winter hibernacula. A significant number of individuals of both sexes must be radio-tracked for the entire season, to determine critical habitat for feeding, gestation, birthing sites (copperheads give birth to live young), and winter hibernacula for neonates (newly-hatched snakes) which may utilize difference winter den sites from the adult snakes.

The Northern Copperhead is currently listed as Special Concern, and soon its classification will be officially changed to State Threatened. In order to comply with FERC's request to document all potential impacts to New Jersey's rare species (which includes Special Concern species), these studies must be undertaken by PennEast. If the proposed pipeline was to be constructed without such knowledge about the critical habitat of this Northern Copperhead population, irreversible adverse impacts to critical habitat of the Northern Copperhead will likely occur. Also, since much of the population is located on public state and county parkland (Goat Hill and Baldpate Mountain), and the pipeline route will require Green Acres diversions, regulations require that potential impacts to all rare species be considered by the NJ Green Acres Program.

Red-headed Woodpecker (*Melanerpes erythrocephalus*) STATE ENDANGERED

and Red-shouldered Hawk (*Buteo lineatus*) STATE ENDANGERED

A vibrant colony of state endangered Red-headed Woodpeckers has been found actively nesting directly in the path of the proposed pipeline, in a forest that will be completely annihilated by clearing for the pipeline. In addition, Red-Shouldered Hawk is currently nesting successfully in the exact same location. The forest is in an along a floodplain forest area of a small tributary of the Locketong Creek in Kingwood Township. Unusually, the forest houses breeding populations of all 7 species of new Jersey's woodpeckers. The forest

is an irreplaceable resource, and it will be impossible to utilize this section of the proposed pipeline route, without causing the irreplaceable loss of critical breeding habitat for two state endangered species. While it is remotely possible to do some habitat modification to an unoccupied forest site and attract the beginnings of a new colony of red-headed woodpeckers, in this area of Hunterdon County there are no source populations of red-headed woodpeckers to serve a new habitat with potential immigrants. To attract the existing population in the pipeline path to move to a mitigation site would take at least 4 years. And even if this were possible, it is completely impossible to impact habitat selection by the other endangered species, the red shouldered hawk. This breeding site is immutable; utilizing this route for the pipeline would cause irreplaceable loss of critical habitat.

New Jersey Conservation Foundation has provided comments regarding rare plants in other submissions to the FERC docket. However, we wish to present one additional comment here, regarding the potential to minimize or offset impacts to rare plants. The great majority of rare plant species that are being detected within the proposed pipeline route are not cultivated; nothing is known or has even been tried regarding how to transplant or seed these plants into sites where they do not occur naturally. While native plant nurseries do occasionally cultivate rare plant species, the act of learning how to bring a rare plant into cultivation, eventually being able to propagate the plant successfully, and eventually manipulating the plant in order to create an artificial population in a new location is fraught with failure. The only reliable way to avoid impacts to nearly all rare species of plants is to avoid disturbing their habitat.

There are numerous other animal species of special concern from many taxa (birds, reptiles, butterflies, etc.) that New Jersey Conservation Foundation has detected along the proposed pipeline route. Their approximate locations are shown on the rare species maps that are part of this submission, and the actual sightings have been reported to the State of New Jersey NJDEP. All these species are in decline in this region of New Jersey, and the utilization of this proposed route for the PennEast pipeline will push each of these species closer to being listed as threatened by the State of New Jersey. The *Special Concern* status category was created by the NJDEP for both plants and animals, in order to help guide agencies such as FERC and applicants such as PennEast in avoiding impacts to rare and declining species, and especially to help limit the number of species being classified and added to the *Threatened* or *Endangered* status categories. FERC should request that PennEast carefully describe in great detail exactly how they will assist in the stabilization of the populations of each of these special concern species, should this pipeline route be chosen.