



March 30, 2020

Kimberly D. Bose
Federal Energy Regulatory Commission
Office of the Secretary
888 1st Street NE
Washington, DC 20428

**Re: PennEast Pipeline Company, LLC, Docket No. CP20-47-000
National Environmental Policy Act Scoping Comment**

Dear Ms. Bose,

The Delaware Riverkeeper Network (“DRN”), Clean Air Council, and PennFuture provide the following comments to be considered by the Federal Energy Regulatory Commission (“FERC” or “Commission”) to assist FERC in its preparation of an Environmental Impact Statement (“EIS”) pursuant to its obligations under the National Environmental Policy Act (“NEPA”), 42 U.S.C. § 4321, *et seq.*

The PennEast Pipeline Company, LLC (“PennEast”) proposes to amend its pipeline project, FERC Docket No. CP15-558, which was certificated January 19, 2018 (the “Original PennEast Project”).¹ The “New PennEast Project”, what is being characterized as an amendment, is a significantly and substantively different project and cannot be legally characterized as a simple amendment – it is in fact an entirely new project in need of its own docket, NEPA review and Natural Gas Act (NGA) Certification. The New PennEast Project involves constructing the originally proposed PennEast project in two phases; includes a new interconnection facility in Bethlehem, Pennsylvania (“Church Road Facility”); charges new recourse rates; and includes the interdependent Adelpia Gateway, LLC Project (“Adelpia Project” or “Adelpia Pipeline”) in order to fulfill the asserted project need and to provide the projected level of service. PennEast inappropriately requests that the Commission process its application using the shortened procedures set forth in Rules 801 and 802 of the Commission’s Rules of Practice and Procedure.²

¹ Order Issuing Certificates, Docket No. CP15-558-000, 162 FERC ¶ 61.053 (Jan. 19, 2018).

² 18 C.F.R. §§ 385.801, 385.802 (2019).

In April 2017, FERC prepared an EIS for the Original PennEast Project, FERC Docket No. CP15-558.³ In January 2019, FERC prepared an Environmental Assessment (“EA”) for the Adelphia Project, FERC Docket No. CP18-46.⁴ In September 2019, FERC prepared an EA for the Original PennEast Project’s amended route.⁵ Now, in March 2020, FERC intends to prepare an EA for the Church Road Facility alone.⁶ This piecemeal review of the New PennEast Project defeats the goals and purpose of NEPA, and obscures from the public the true impact of the project proposed to be built. FERC must recognize that the PennEast Pipeline company is in fact proposing a significantly different and new project that must be considered and reviewed, in its entirety, as a single new project in need of its own docket number, a full NEPA EIS analysis that includes all project elements, and requires its own certification in order to proceed. The New PennEast Project includes both the Pennsylvania and New Jersey portions of the pipeline (with the amended route), as well as the Adelphia Project and the Church Road Facility.

In order to fulfill its obligations pursuant to NEPA and to provide legally supported NGA Certification, FERC must prepare a comprehensive EIS that includes an analysis of the environmental impacts of all aspects of the New PennEast Project including, but not limited to:

- the impact of the Adelphia Project⁷, which would interconnect with the New PennEast Project pipeline at the Church Road Facility and is a significant underpinning of the claim that the project is needed;
- the fracking and fracking infrastructure induced by the increased capacity of both phases of the New PennEast Project;
- the social cost of carbon emissions⁸ resulting from the construction and operation of both phases the New PennEast Project, including the upstream wells; and
- the environmental impacts of construction and maintenance of the entire pipeline route and the indirect fracking infrastructure in shale regions that would occur if the pipeline were built.

³ OFFICE OF ENERGY PROJECTS, FEDERAL ENERGY REGULATORY COMMISSION, FERC\EIS: 0271F, PENNEAST PIPELINE PROJECT FINAL ENVIRONMENTAL IMPACT STATEMENT (April 2017).

⁴ OFFICE OF ENERGY PROJECTS, FEDERAL ENERGY REGULATORY COMMISSION, Docket Nos. CP18-46-000 & CP18-46-001, ADELPHIA GATEWAY PROJECT ENVIRONMENTAL ASSESSMENT (January 2019).

⁵ OFFICE OF ENERGY PROJECTS, FEDERAL ENERGY REGULATORY COMMISSION, Docket No. CP19-78-000, PennEast PIPELINE PROJECT AMENDMENT ENVIRONMENTAL ASSESSMENT (September 2019).

⁶ *Notice of Schedule for Environmental Review of the PennEast 2020 Amendment Project*, Docket No. CP20-47-000 (Mar. 18, 2020).

⁷ FERC Docket Nos. CP18-46-000 and CP18-46-001.

⁸ INTERAGENCY WORKING GROUP ON SOCIAL COST OF GREENHOUSE GASES, UNITED STATES GOVERNMENT, TECHNICAL SUPPORT DOCUMENT: TECHNICAL UPDATE OF THE SOCIAL COST OF CARBON FOR REGULATORY IMPACT ANALYSIS UNDER EXECUTIVE ORDER 12866 (August 2016).

A failure to include all of these interrelated and interconnected elements that comprise the New PennEast Pipeline would amount to an unlawful segmentation of a new and expanded pipeline project.

Given that the New PennEast Project is a major federal action significantly affecting the quality of the human environment, FERC must issue an EIS pursuant to NEPA. Because the New PennEast Project has a different use and purpose than the Original PennEast Project, neither the Final Environmental Impact Statement prepared by FERC and issued April 2017 (“2017 FEIS”)⁹ nor the January 19, 2018 FERC Certificate Order for the Original PennEast Project can be mechanically applied to the New PennEast Project. FERC must begin its environmental review as if the New PennEast Project is PennEast’s first and only application, using whatever relevant data is currently available to it and requesting additional information from PennEast as needed. This new project should be given its own docket number and include a full, comprehensive and robust NEPA analysis and associated public process. In addition to this written comment opportunity, FERC must hold community hearings along the length of the proposed route to ensure full and fair access for impacted landowners and community members.

I. The Effect of the Coronavirus Pandemic on FERC’s Processes

As an initial matter, FERC must take into account the effects of the coronavirus pandemic on its ability to fully and fairly involve the public in its NEPA and decision-making processes. On March 20, 2020, DRN sent a letter to FERC, among other federal and state entities, requesting that FERC’s approval process be altered to reflect the impact that the coronavirus pandemic has had on the public. That letter is expressly incorporated herein, and attached to this comment.

Specifically, DRN requests that FERC extend the public scoping process to at least May 1, 2020—the date by which FERC has allowed regulated entities to comply with non-statutory deadlines.¹⁰ On March 23, 2020, DRN reached out to FERC’s Pandemic Liaison via email and asked whether the extension of non-statutory deadlines also applied to public comment on environmental review. FERC’s Pandemic Liaison replied that the extension does not apply to comment periods established in notices for environmental review documents. FERC’s Pandemic Liaison added that “Commission staff continues to fully evaluate any comment received after the close of the comment period to the extent practicable, making any formal extension of comment periods unnecessary.” This policy is not reassuring, as it does not guarantee that comments submitted after the deadline will be considered by FERC or considered part of the official record. In addition, there is no apparent plan to allow for in-person public hearings, an essential part of FERC scoping for all newly proposed projects, which this is.

Members of the public have been subject to many hardships due to the pandemic, likely greater than the hardships suffered by energy companies. These hardships to everyday lives of

⁹ See OFFICE OF ENERGY PROJECTS, FEDERAL ENERGY REGULATORY COMMISSION, FERC\EIS:0271F, PENNEAST PIPELINE PROJECT FINAL ENVIRONMENTAL IMPACT STATEMENT (April 2017).

¹⁰ *Extension of Non-Statutory Deadlines*, Docket No. AD20-11-000 (Mar. 19, 2020).

residents affect access to time and resources that had been previously freely available. The Governor of Pennsylvania has issued and was one of the first Governors in the nation to implement increasingly restrictive precautionary steps over the past few weeks to flatten the curve of the pandemic (COVID-19) - this is the state where this pipeline project would be built. Stay-at-home orders now encompass 22 of the counties in Pennsylvania with outbreaks of COVID-19, including three of the four New PennEast Project counties. Thus, the public comment period should clearly be extended until at least May 1, 2020, so that the public is on at least the same footing as regulated entities, and be extended to the degree necessary to safely accommodate in-person hearings. In addition, FERC should also extend the planned schedule for the completion of its environmental review, which it set in its March 18, 2020 notice, in order to accommodate the public comment extension hereby requested.¹¹ The New PennEast Project must not be rushed through FERC's certificate process without adequate input from the public, which can only be provided if accommodations are made during this unprecedented global pandemic that is affecting Pennsylvanians directly with mandatory shutdowns in the exact counties in the Eastern portion of the state where this pipeline is proposed to be built.

II. The "Phase 1" Project Scheme by PennEast

PennEast claims the New PennEast Project is merely a phasing of the Original PennEast Project, or, alternatively, a stand-alone project involving the construction of "the facilities proposed to be located in Pennsylvania through approximate milepost ("MP") 68, including two (2) of the compressor units at the Kidder Compressor Station, as well as new interconnection facilities . . . in Pennsylvania[.]"¹² PennEast's goal is to put "Phase 1" into service by November 1, 2021.¹³ "Phase 1" has a total capacity of 650,000 dekatherms per day ("Dth/d").¹⁴ As of the date of PennEast's application, it has "executed precedent agreements with four shippers for approximately 340,000 [Dth/d] of capacity for long-term firm transportation service" from the "Phase 1" receipt points to the new delivery points at the Church Road Interconnects[.]" namely, the Columbia Gas Transmission, LLC ("Columbia Gas") Pipeline and the recently-certificated Adelpia Project.¹⁵ PennEast claims that the "Phase 1 facilities would provide new incremental capacity to meet market demand[.]"¹⁶

FERC should not accept PennEast's contradictory claims that the New PennEast Project is simply an amendment to the method of constructing the Original PennEast Project,¹⁷ but that

¹¹ *Notice of Schedule for Environmental Review of the PennEast 2020 Amendment Project*, Docket No. CP20-47-000 (Mar. 18, 2020).

¹² Abbreviated Application for Amendment to Certificate of Public Convenience and Necessity of PennEast Pipeline Company, LLC at 1, FERC Docket No. CP20-47-000 (Jan. 30, 2020) (hereinafter, "*Phase 1 Application*").

¹³ *Id.* at 8.

¹⁴ *Id.* at 1.

¹⁵ *Id.* at 9-10.

¹⁶ *Id.* at 13.

¹⁷ *Phase 1 Application* at 1 (PennEast "hereby filed this application requesting that the Commission issue an order amending PennEast's certificate of public convenience and necessity . . . for the PennEast Pipeline Project . . . to authorize PennEast to construct, own and operate the Project in two (2) phases[.]").

“Phase 1” is also a stand-alone project.¹⁸ Tellingly, PennEast believes that it will be able to construct “Phase 2” without any further input from FERC.¹⁹ PennEast is apparently trying to confuse FERC and the public, and avoid a legal challenge by alternately mischaracterizing the proposed amendment as a mere change in construction method (when seeking to minimize the fact that the New PennEast Project has a different purpose than the Original PennEast Project and an expanded impact and footprint), or as a stand-alone project (in an attempt to avoid the argument that it is proposing a segmented NEPA analysis).

Notwithstanding PennEast’s characterizations, the appropriate scope of FERC’s EIS should include the environmental impacts of the entirety of the proposed pipeline and related facilities, both in Pennsylvania and New Jersey, as well as the Adelphia Project which is irreplaceably essential to the newly proposed project. It is alarming, to say the least, that in FERC’s recent notice, it describes the project that is subject to environmental review as “a single metering and regulating station with two separate interconnections, measurement facilities, and a pig launcher and receiver,” that is “all located within a 2.1-acre site[.]”²⁰ This signals to the public that FERC intends to continue its piecemeal method of reviewing the project, which constitutes illegal segmentation and violates federal law. While FERC must indeed consider the new Church Road Facility, that facility is only a part of the entire New PennEast Project.

III. FERC Must Prepare an Environmental Impact Statement that Does Not Impermissibly Segment the New PennEast Project.

NEPA is our “basic national charter for protection of the environment.”²¹ As such, it makes environmental protection a part of the mandate of every federal agency.²² NEPA requires that federal agencies take environmental considerations into account in their decision-making “to the fullest extent possible.”²³ Federal agencies must consider environmental harms and the means of preventing them in a “detailed statement” before approving any “major federal action significantly affecting the quality of the human environment.”²⁴ When preparing an Environmental Impact Statement (EIS), an agency must take a detailed, “hard look” at the environmental impact of and alternatives to the proposed action.²⁵ This required analysis serves to ensure that “the agency will not act on incomplete information, only to regret its decision after it is too late to correct.”²⁶

¹⁸ *Id.* at 8 (“[T]he construction and operation of these Phase 1 facilities are in no way contingent on or otherwise impacted by the . . . ultimate construction of the Phase 2 facilities.”).

¹⁹ *Id.* at 3 (“Subsequently, upon receipt of the New Jersey Authorizations, PennEast will construct and operate Phase 2.”).

²⁰ *Notice of Schedule for Environmental Review of the PennEast 2020 Amendment Project*, Docket No. CP20-47-000 (Mar. 18, 2020).

²¹ 40 C.F.R. § 1500.1(a) (2019).

²² See 42 U.S.C. § 4332(1).

²³ *Id.* at § 4332.

²⁴ *Id.* at § 4332(2)(C).

²⁵ *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 350 (1989).

²⁶ *Marsh v. Oregon Natural Res. Council*, 490 U.S. 360, 371 (1979).

NEPA also “guarantees that the relevant information [concerning environmental impacts] will be made available to the larger audience,” including the public, “that may also play a role in the decision-making process and the implementation of the decision.”²⁷ As NEPA’s implementing regulations explicitly provide, “public scrutiny [is] essential to implementing NEPA.”²⁸ The opportunity for public participation guaranteed by NEPA ensures that agencies will not take final action until after their analysis of the environmental impacts of their proposed actions have been subject to public scrutiny.²⁹

An EIS must fully assess and disclose the complete range of environmental consequences of the proposed action, including “ecological (such as the effects on natural resources and on the components, structures, and functioning of affected ecosystems), aesthetic, historic, [and] cultural” impacts, “whether direct, indirect, or cumulative.”³⁰ Direct effects are “caused by the action and occur at the same time and place.”³¹ Indirect effects are those impacts that are caused by the action, but occur “later in time or farther removed in distance, but are still reasonably foreseeable,” and may include “growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems.”³² Cumulative impacts are “impact[s] on the environment which result[] from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions.”³³ As the regulations make clear, “[c]umulative impacts can result from individually minor but collectively significant actions taking place over a period of time.”³⁴ In addition, NEPA requires FERC to take a hard look at the ways to avoid or mitigate the Projects’ impacts.

NEPA is an “environmental full disclosure law.”³⁵ It requires that an agency obtain and consider detailed information concerning environmental impacts, and it “ensures that an agency will not act on incomplete information, at least in part, by ensuring that the public will be able to analyze and comment on an action’s environmental implications.”³⁶ The information provided to the public “must be of high quality” because “[a]ccurate scientific analysis, expert agency comments, and public scrutiny are essential to implementing NEPA.”³⁷ The potential adverse

²⁷ *Robertson*, 490 U.S. at 349.

²⁸ 40 C.F.R. § 1500.1(b) (2019).

²⁹ See *N. Plains Res. Council v. Surface Transp. Bd.*, 668 F.3d 1067, 1085 (9th Cir. 2011) (noting that where “data is not available during the EIS process and is not available to the public for comment,” the process “cannot serve its larger informational role, and the public is deprived of their opportunity to play a role in the decision-making process”) (quoting *Robertson*, 490 U.S. at 349)).

³⁰ 40 C.F.R. §§ 1502.16(a), (b); § 1508.8 (2019).

³¹ *Id.* § 1508.8(a).

³² *Id.* § 1508.8.

³³ *Id.* § 1508.7 (emphasis added).

³⁴ *Id.*

³⁵ *Monroe Cnty. Conservation Council, Inc. v. Volpe*, 472 F.2d 693, 697 (2d Cir. 1972).

³⁶ *Ohio Valley Env'tl. Coal. v. U.S. Army Corps of Eng'rs*, 674 F. Supp. 2d 783, 792 (S.D. W. Va. 2009) (internal quotation marks and citations omitted).

³⁷ 40 C.F.R. § 1500.1(b) (2019).

effects of PennEast’s proposed actions cannot be adequately analyzed without complete data on all affected resources.

On February 28, 2020, FERC issued a Notice of Intent to Prepare an Environmental Assessment for the Proposed PennEast 2020 Amendment Project. In that Notice, FERC stated that it “will prepare an environmental assessment (EA) that will discuss the environmental impacts of the PennEast 2020 Amendment Project involving the construction and operation of facilities by [PennEast]. The EA will discuss facilities to be built in Northampton County, Pennsylvania.”³⁸ FERC apparently fails to realize that the New PennEast Project is not simply an addition or amendment to the Original PennEast Project certificated in January 2018, but is rather a proposal to construct an entirely new project. FERC’s NEPA regulations state that “an environmental impact statement will normally be prepared first for . . . [m]ajor pipeline construction projects under section 7 of the Natural Gas Act using rights-of-way in which there is no existing natural gas pipeline[.]”³⁹ The New PennEast Project is such a major pipeline construction project. The presumption under the law is that the New PennEast Project will be subject to an EIS, as is required by NEPA.

A. The Purpose of the New PennEast Project is Different Than the Purpose of the Original PennEast Project, Thus, the Baseline for FERC’s NEPA Analysis Has Changed.

One of the most significant components of an EIS is the statement of purpose and need.⁴⁰ The purpose and need of a project “define[] the goals of the project to allow for the review of an appropriate range of alternatives.”⁴¹ The New PennEast Project, and Phase 1 of the New PennEast Project, have an entirely different purpose and need than the Original PennEast Project, thus, the baseline of FERC’s entire NEPA analysis has changed. FERC “bears the responsibility for defining at the outset the objectives of an action.”⁴² When doing so, FERC “should take into account the needs and goals of the parties involved in the application” and “should always consider the views of Congress, expressed, to the extent that the agency can determine them, in the agency’s statutory authorization to act, as well as in other congressional directives.”⁴³

In the Natural Gas Act, Congress has authorized FERC to issue certificates of public convenience and necessity.⁴⁴ In this context, an appropriate statement of purpose and need will include information such as “where the gas must come from, where it will go, [and] how much it will deliver[.]”⁴⁵ The New PennEast Project will result in different destinations for, and quantities

³⁸ Notice of Intent to Prepare an Environmental Assessment for the Proposed PennEast 2020 Amendment Project and Request for Comments on Environmental Issues at 1, FERC Docket No. CP20-47-000 (Feb. 28, 2020).

³⁹ 18 C.F.R. § 380.6(a)(3) (2019).

⁴⁰ 40 C.F.R. § 1502.13 (2019).

⁴¹ *Stop the Pipeline v. White*, 233 F. Supp. 2d 957, 971 (S.D. Ohio 2002) (citing *Citizens Against Burlington v. Busey*, 938 F.2d 190, 195-96 (D.C. Cir. 1991)).

⁴² *Busey*, 938 F.2d at 195-96.

⁴³ *Id.* at 196.

⁴⁴ See 15 U.S.C. § 717f(c).

⁴⁵ *Sierra Club, Inc. v. U.S. Forest Serv.*, 897 F.3d 582, 599 (4th Cir. 2018).

of, natural gas. Thus, a new statement of purpose and need as well as a new alternatives analysis is necessary.⁴⁶

In its application, PennEast states that Phase 1 of the New PennEast Project has a capacity of 650,000 Dth/d, approximately 340,000 of which is currently subscribed.⁴⁷ Phase 1 of the New PennEast Project terminates at an interconnection with the Adelpia Pipeline and Columbia Gas Transmission Pipeline. Both “where [the gas] will go, [and] how much it will deliver” have substantively changed from the Original PennEast Project.⁴⁸ Furthermore, PennEast does not make clear in its application whether the completed New PennEast Project (both Phases 1 and 2) will have the same shippers with precedent agreements for the same volume as the Original PennEast Project. The Original PennEast Project had twelve shippers (notably, the majority of which were associated with the PennEast Pipeline Company, demonstrating a firm case of self-dealing that should not have been allowed as the basis of a needs analysis), with precedent agreements for a total volume of 90% of the Original PennEast Project’s total capacity of 1,107,000 Dth/d. While PennEast states that many (but not all) of the shippers who have precedent agreements for Phase 1 of the New PennEast Project also have precedent agreements for the Original PennEast Project, that means that less than 4 of 12 shippers will receive natural gas from the completed New PennEast Project.

PennEast should clarify whether all the same precedent agreements remain in place for the completed New PennEast Project as existed at the time of PennEast’s application for the Original PennEast Project in 2015. It should also disclose if, as was the case previously, the claimed shipper/customers are simply just various arms of PennEast itself.⁴⁹ As expressed by FERC Commissioner Glick in his dissent to Certification of FERC Docket No. CP15-558, “the existence of precedent agreements that are in significant part between the pipeline developer and its affiliates is insufficient to carry the developer’s burden to show that the pipeline is needed.” As we have documented on the record for each project previously, it is clear that the Original PennEast Project and the Adelpia Project were not genuinely needed, and the shipper agreements were the result of self-dealing and efforts to export gas abroad.⁵⁰

⁴⁶ See Section VII, *infra*, discussing PennEast’s asserted “public need” pursuant to the Natural Gas Act.

⁴⁷ *Phase 1 Application* at 1, 12.

⁴⁸ See *Sierra Club, Inc.*, 897 F.3d at 599.

⁴⁹ See *e.g.* Lorne Stockman, et al., Oil Change International, *Art of the Self-Deal: How Regulatory Failure Lets Gas Pipeline Companies Fabricate Need and Fleece Ratepayers* (2017), http://priceofoil.org/content/uploads/2017/09/Gas_Pipeline_Ratepayer_Report.pdf.

⁵⁰ As an example, The Kimberly-Clark facility in Chester, Pennsylvania, asserted in an August 9, 2018 letter to FERC that the Adelpia Project was essential to its plans to switch from a waste-coal generator to natural gas. FERC Docket No. CP18-46-000, Accession No. 20180810-5045 (Aug. 10, 2018). However, in a recent application seeking renewal of its Title V Operating Permit from Pennsylvania Department of Environmental Protection, Kimberly-Clark stated that its coal-fired equipment was out of service. See *Intent to Issue Title V Operating Permits under the Air Pollution Control Act* (35 P.S. §§ 4001—4015) and 25 Pa. Code Chapter 127, Subchapter G, 50 Pa. Bull. 1575 (March 14, 2020). This application was made prior to the Adelpia Pipeline coming into service. Thus, the Adelpia Pipeline was not actually needed by the Kimberly-Clark facility in order to switch from its waste-coal generator. .

Accordingly, even as a stand-alone project, Phase 1 of the New PennEast Project requires a new EIS because it has a new purpose. However, through its January 30, 2020 application, PennEast is actually proposing two new projects: (1) Phase 1 of the New PennEast Project; and (2) the entire New PennEast Project in Pennsylvania and New Jersey—both projects including the interconnection with the Adelpia and Columbia Gas pipelines, now essential and integrated sections of the New PennEast Project necessary to defend the claimed purpose and need. If FERC approves Phase 1 of the New PennEast Project, then the Original PennEast Project certificated by FERC will never come into being. FERC must prepare an EIS that addresses both new projects—to do otherwise would amount to segmentation which is unlawful.

B. An EIS or EA Addressing Only Phase 1 of the New PennEast Project Will Impermissibly Segment FERC's NEPA Analysis by Failing to Consider the New PennEast Project as a Whole, as Well as the Connected Adelpia Project.

The D.C. Circuit in *Delaware Riverkeeper v. FERC*, identified two tests for evaluating whether an agency has improperly segmented its review of a project.⁵¹ First, the Court stated that for the purpose of segmentation review, an agency's consideration of the proper scope of its NEPA analysis should be guided by the "governing regulations," which are 40 C.F.R. § 1508.25(a).⁵² The same analysis is required in the instant matter. Second, the Court in *Delaware Riverkeeper* also stated that even if the segmentation analysis was guided instead by the test articulated in *Taxpayers Watchdog v. Stanley*,⁵³ FERC still unlawfully segmented its review of the projects.⁵⁴ In drafting its EIS for Phase 1 of the New PennEast Project and the New PennEast Project, FERC must avoid these pitfalls and unlawful gross errors and practices which benefit the pipeline operators over the public interest.

An agency should prepare a single programmatic EIS for actions that are "connected," "cumulative," or "similar," such that their environmental effects are best considered in a single impact statement.⁵⁵ "Actions are 'connected' or 'closely related' if they: '(i) Automatically trigger other actions which may require environmental impact statements; (ii) Cannot or will not proceed unless other actions are taken previously or simultaneously; [or] (iii) Are interdependent parts of a larger action and depend on the larger action for their justification.'"⁵⁶ Similar actions have similarities that provide a basis for evaluating their environmental consequences together, such as common timing or geography.⁵⁷ NEPA requires "agencies to consider the cumulative impacts of proposed actions."⁵⁸ An agency must analyze the impact of a proposed project in light

⁵¹ *Delaware Riverkeeper Network, et al. v. Federal Energy Regulatory Commission*, 753 F.3d 1304, 1314-15 (D.C. Cir. 2014).

⁵² *Id.*

⁵³ 819 F.2d 294 (D.C. Cir. 1987).

⁵⁴ *Delaware Riverkeeper Network*, 753 F.3d at 1314-15.

⁵⁵ *Am. Bird Conservancy, Inc. v. FCC*, 516 F.3d 1027, 1032 (D.C. Cir. 2008); 40 C.F.R. § 1508.25(a).

⁵⁶ *Hammond v. Norton*, 370 F. Supp. 2d 226, 247 (D.D.C. 2005) (quoting 40 C.F.R. § 1508.25(a)(1)).

⁵⁷ *Id.* at 246; 40 C.F.R. § 1508.25(a)(3) (2019).

⁵⁸ *NRDC v. Hodel*, 865 F.2d 288, 297 (D.C. Cir. 1988) ("Hodel"). See also *TOMAC v. Norton*, 433 F.3d 852, 864 (D.C. Cir. 2006).

of that project's interaction with the effects of "past, current, and reasonably foreseeable future actions."⁵⁹

"Piecemealing" or "segmentation" is the unlawful practice whereby a project proponent avoids the NEPA requirement that an EIS be prepared for all major federal actions with significant environmental impacts by dividing an overall plan into component parts, each involving action with less significant environmental effects.⁶⁰ Federal agencies may not evade their responsibilities under NEPA by "artificially dividing a major federal action into smaller components, each without a 'significant' impact."⁶¹ The general rule is that segmentation should be "avoided in order to insure that interrelated projects, the overall effect of which is environmentally significant, not be fractionalized into smaller, less significant actions."⁶² Without this rule, developers and agencies could "unreasonably restrict the scope of environmental review."⁶³

This piecemealing and segmentation has occurred here, where FERC has considered the Original PennEast Project, the Adelphia Project, the Amended Route, and, as currently proposed, the Church Road Facilities, each in a separate environmental review process.

In accordance with the three-factor test articulated in *Taxpayers*, to determine whether a project has been unlawfully segmented, "courts have considered such factors as whether the proposed segment (1) has logical termini; (2) has substantial independent utility; (3) does not foreclose the opportunity to consider alternatives[.]"⁶⁴ In *Delaware Riverkeeper*, the court held that even if it were to expand its analysis from Section 1508.25(a) to the factors articulated in *Taxpayers*, FERC's defense of its action was still deficient.⁶⁵ Relevant to Phase 1 of the New PennEast Project, a project lacks "independent utility" if it could not function or would not have been constructed in the absence of another project.⁶⁶

Both the Adelphia Project and Phase 2 of the New PennEast Project are connected actions that must be included in a single programmatic EIS along with Phase 1 of the New PennEast Project. The Adelphia Pipeline would carry natural gas delivered from Phase 1 to the identified market and shippers, and is to be brought into service contemporaneous with Phase 1, thus, both Phase 1 and the Adelphia Project are "interdependent parts of a larger action and depend on the

⁵⁹ 40 C.F.R. § 1508.7 (2019).

⁶⁰ *Taxpayers*, 819 F.2d 294, 298 (D.C. Cir. 1987).

⁶¹ *Coal. on Sensible Transp. v. Dole*, 826 F. 2d 60, 68 (D.C. Cir. 1987). *See also* 40 C.F.R. § 1508.27(b)(7).

⁶² *Town of Huntington v. Marsh*, 859 F.2d 1134, 1142 (2d Cir. 1988).

⁶³ *Fund for Animals v. Clark*, 27 F. Supp. 2d 9, 16 (D.D.C. 1998) ("*Fund*").

⁶⁴ *Taxpayers*, 819 F.2d at 298.

⁶⁵ *Delaware Riverkeeper*, 753 F.3d at 1314-16 (The court held that the projects did not have "(1) has logical termini; [or] (2). . . substantial independent utility." The court's examination did not reach the remaining factor.).

⁶⁶ *Wetlands Action Network v. U.S. Army Corps of Engineers*, 222 F.3d 1105, 1118 (9th Cir. 2000). *See also West North Carolina Alliance v. North Carolina Dept. of Transp.*, 312 F. Supp. 2d 765, 774-775 (E.D.N.C. 2003) (project widening highway section lacked independent utility because it would leave a "bottleneck" of narrow highway to north, such that traffic congestion between the termini of the project would be worsened until construction of later project widening bottleneck section).

larger action for their justification.”⁶⁷ The effects of Phase 1’s connection with the Adelpia Project have not yet been explored by FERC. Phase 1 serves as the northern portion of the Adelpia Pipeline, and would result in the seamless delivery of natural gas from the Marcellus Shale to Marcus Hook, PA.

In FERC’s Environmental Assessment (“EA”) of the Adelpia Project, it stated that the Original PennEast Project was “entirely outside of the geographic scope of the [Adelpia Project] (including for air quality), with the exception of the Martins Creek Station, which is within the corresponding HUC-12 watersheds, but is already in operation and would be considered the environmental baseline. Due to a large number of public comments about this project, it’s included here for comparison purposes only.”⁶⁸ PennEast’s new proposal changes that asserted fact—the pipelines would be directly connected at the Church Road Facility. Given that the Adelpia Pipeline is one of only two delivery points for Phase 1 of the New PennEast Project, it is clear that the Phase 1 Project “[c]annot or will not proceed unless other actions [Adelpia Project] are taken previously or simultaneously.” If FERC fails to consider both projects in a single EIS, then its analysis will be impermissibly segmented.

In its Answer to comments and protests filed in opposition to its application (“Answer to Comments”),⁶⁹ PennEast argues that the Adelpia Project need not be assessed together with Phase 1 of the New PennEast Project because the Adelpia Project has “substantial independent utility” and would proceed without Phase 1 of the New PennEast Project. Even if this were true, it does not change the fact that Phase 1 of the New PennEast Project is dependent on the Adelpia Project to deliver its gas to shippers. The fact that the Adelpia Project was authorized one month prior to PennEast’s application does not sever the temporal connectedness of the projects. In *Delaware Riverkeeper Network*, the D.C. Circuit found connectedness among projects that were “either under construction or were also pending before the Commission,” and held that “[g]iven the self-evident interrelatedness of the projects as well as their temporal overlap, the Commission was obliged to consider” the projects together in a single EIS.⁷⁰

Phase 2 of the New PennEast Project must also be evaluated in the same EIS. Phase 2 would be built upon PennEast’s receipt of state permits, thus, FERC’s approval of Phase 1 would “automatically trigger” Phase 2, a major federal action that would require an EIS under normal circumstances.⁷¹ NEPA clearly requires FERC to consider these connected projects, which are obviously being contemplated and planned for in the same time frame by the same owner for delivery of the same gas. There exists a physical, functional, and temporal nexus that cannot be overlooked. The New PennEast Project has not been examined before, and will *never* be

⁶⁷ See 40 C.F.R. § 1508.25(a).

⁶⁸ OFFICE OF ENERGY PRODUCTS, FEDERAL ENERGY REGULATORY COMMISSION, Docket Nos. CP18-46-000 & CP18-46-001, ADELPHIA GATEWAY PROJECT ENVIRONMENTAL ASSESSMENT 157 (Jan. 2019).

⁶⁹ Motion for Leave to Answer and Answer of PennEast Pipeline Company (“Answer to Comments”), LLC, FERC Docket No. CP20-47-000 (Mar. 25, 2020).

⁷⁰ *Delaware Riverkeeper*, 753 F.3d at 1308 (emphasis added).

⁷¹ See 40 C.F.R. § 1508.25(a).

examined if FERC fails to complete a comprehensive EIS by illegally allowing PennEast to segment the New PennEast Project.

In its Answer to Comments, PennEast states that “[i]n order to properly allege that the Commission is illegally segmenting projects, there must be at least two (2) proposals pending before the agency that meet the NEPA tests for connected actions.”⁷² Although they may not be styled as such, Phase 1 and Phase 2 (resulting in the completed New PennEast Project) are two separate proposals to the extent that PennEast is asking FERC to approve Phase 1 as a stand-alone project, as well as approving the New PennEast Project. Additionally, to the extent that PennEast asserts that the instant application is simply an amendment to the Original PennEast Project (which FERC should not accept), both the Adelpia Project and the route amendments in FERC Docket No. CP19-78-000 were also both pending before FERC at the same time. The proper scope of FERC’s environmental review should include Phase 1, Phase 2, the Adelpia Project, and the Church Road Facility, as these projects are all connected and constitute the New PennEast Project.

C. The EIS Must Also Address the Environmental Impacts of Existing and Proposed Pipelines in the Vicinity of the Proposed Projects.

FERC must also consider the environmental effects of pipeline projects within temporal and spatial proximity of the New PennEast Project. “[F]ederal law requires that an EIS must analyze ‘the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions.’”⁷³ “A necessary component of NEPA’s ‘hard look’ is ‘a sufficiently detailed catalogue of past, present, and future projects, and [] adequate analysis about how these projects, and differences between the projects, are thought to have impacted the environment.’”⁷⁴

These projects include, but are certainly not limited to, the Adelpia Project,⁷⁵ Regional Energy Access Project (Phases I and II), UGI Bethlehem Liquefied Natural Gas Peak Delivery Facility, DTE Midstream Birdsboro Pipeline Project, Transco Atlantic Sunrise Project, Millennium Eastern System Upgrade Project, Transco Orion Project, Transco Susquehanna West, Transco Triad Expansion, Tennessee Gas Pipeline Company Northeast Upgrade Project, Tennessee Gas Pipeline Company 300 Upgrade Project, Transco Leidy Southeast Expansion, Constitution Pipeline (to the degree that it may be revived by project owners and to the degree that construction has already taken place that has harmed communities and the environment), Sunoco Mariner East 2 and 2X Projects, Paulsboro Natural Gas Delaware River Pipeline Relocation Project, Sunoco Logistics Delaware River Pipeline Relocation Project, the Delaware River Partners LLC./New Fortress Energy Gibbstown Liquefied Natural Gas Export Facility, and the Sunoco Marcus Hook Industrial Facility.

⁷² Answer to Comments at 15.

⁷³ *Oregon Nat. Res. Coun. Fund v. Goodman*, 505 F.3d 884, 892 (9th Cir. 2007) (quoting 40 C.F.R. § 1508.7).

⁷⁴ *Id.* (quoting *Lands Council v. Powell*, 395 F.3d 1019, 1027-28 (9th Cir. 2005)).

⁷⁵ To the extent that the Adelpia Project or portions thereof is not considered as a connected action.

IV. FERC Must Analyze the Impacts of PennEast’s Projects, Including Upstream Production and Downstream Consumption.

FERC is required by the NGA and NEPA to consider the climate impacts of approving the New PennEast Project. Section 7 of the NGA requires that FERC must find that a proposed project’s benefits outweigh its harms.⁷⁶ NEPA, in turn, demands that FERC take a “hard look” at all environmental impacts of its decisions, including the decision to approve a project.⁷⁷ In determining the climate impacts of PennEast’s projects, both upstream production and downstream consumption are within the required scope of FERC’s NEPA analysis. The scope of an EIS includes the impacts of an action, which may be direct, indirect, or cumulative.⁷⁸ Effects subject to a NEPA analysis include ecological, economic, and social impacts.⁷⁹ The significance of the New PennEast Project’s climate impacts can be measured by the Social Cost of Carbon, a comprehensive estimate of the economic cost of harm associated with the emission of carbon.

In FERC’s EIS for the Original PennEast Project, it erroneously concluded that “upstream production is not causally connected to the Project, and as such [FERC does] not evaluate the impacts of such activity.”⁸⁰ With regard to downstream uses of gas transmitted by the Original PennEast project, FERC determined that “the scope and effects of the potential GHG emissions from natural gas production attributable to this Project are not reasonably foreseeable, as there is not enough information available to permit a meaningful analysis.”⁸¹ Ultimately, FERC concluded that “[b]ecause we cannot determine the projects’ incremental physical impacts on the environment caused by climate change, we cannot determine whether the projects’ contribution to cumulative impacts on climate change would be significant.”⁸²

Contrary to FERC’s conclusion, “[b]ecause FERC could deny a pipeline certificate on the ground that the pipeline would be too harmful to the environment, the agency is a ‘legally relevant cause’ of the direct and indirect environmental effects of pipelines it approves.”⁸³ Accordingly, FERC’s approval is a legally relevant cause of upstream gas production. In this respect, the construction of a pipeline is similar to the construction of a logging road in *Thomas v. Peterson*,⁸⁴ a case that discussed the appropriate scope of a NEPA analysis. In that case, the Ninth Circuit reasoned:

⁷⁶ 15 U.S.C. § 717f.

⁷⁷ See 42 U.S.C. § 4332(2)(C)(iii); *Baltimore Gas & Elec. Co. v. Nat. Res. Def. Coun., Inc.*, 462 U.S. 87, 97 (1983).

⁷⁸ 40 C.F.R. § 1508.25 (2019).

⁷⁹ *Id.* § 1508.8(b).

⁸⁰ OFFICE OF ENERGY PROJECTS, FEDERAL ENERGY REGULATORY COMMISSION, PENNEAST PIPELINE PROJECT FINAL ENVIRONMENTAL IMPACT STATEMENT at 4-258, FERC\EIS: 0271F (Apr. 2017).

⁸¹ *Id.* at 4-334.

⁸² *Id.* at 4-335.

⁸³ *Sierra Club v. Fed. Energy Regulatory Comm’n*, 867 F.3d 1357, 1373 (D.C. Cir. 2017).

⁸⁴ 753 F.2d 754 (9th Cir. 1985).

The location, the timing, or other aspects of the timber sales, or even the decision whether to sell any timber at all affects the location, routing, construction techniques, and other aspects of the road, or even the need for construction.

...

The Forest Service argues that the sales are too uncertain and too far in the future for their impacts to be analyzed along with that of the road. This comes close to saying that building the road now is itself irrational. We decline to accept that conclusion. Rather, we believe that if the sales are sufficiently certain to justify construction of the road, then they are sufficiently certain for their environmental impacts to be analyzed along with those of the road.⁸⁵

In sum, if the production and consumption of natural gas is sufficiently certain to justify construction of Phase 1 and the New PennEast Project, then they are sufficiently certain for their environmental impacts to be analyzed along with the construction of the pipeline. PennEast's new application gives FERC the obligation to assess the full extent of the climate impacts of Phase 1 and the New PennEast Project, as required by NEPA.

Cumulative impacts caused by "reasonably foreseeable" future actions are recognizable under NEPA and must be considered throughout the NEPA process. Additionally, FERC must consider the cumulative effects of actions similar to the proposed action, whether existing or reasonably foreseeable. Cumulative impacts include "impact[s] on the environment which result from the incremental impact of the action *when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions.*"⁸⁶ "Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time."⁸⁷ Cumulative impacts include "coincident effects (adverse or beneficial) on specific resources, ecosystems, and human communities of all related activities, not just the proposed project or alternatives that initiate the assessment process."⁸⁸ A cumulative effects analysis focuses on resource sustainability, and has expanded geographic and time boundaries.

Upstream natural gas production, and its subsequent impacts, are among the effects that NEPA requires FERC to consider, in determining whether its action will have a significant impact. NEPA's implementing regulations define, as "[i]ndirect effects," those "which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable."⁸⁹ That the Phase 1 Project's and the New PennEast Project's takeaway capacity will

⁸⁵ *Id.* at 760.

⁸⁶ 40 C.F.R. § 1508.7 (2019) (emphasis added).

⁸⁷ 40 C.F.R. § 1508.7 (2019).

⁸⁸ COUNCIL ON ENVIRONMENTAL QUALITY, EXECUTIVE OFFICE OF THE PRESIDENT, CONSIDERING CUMULATIVE EFFECTS UNDER THE NATIONAL ENVIRONMENTAL POLICY ACT at v (Jan. 1997).

⁸⁹ 40 C.F.R. § 1508.8(b) (2019).

necessarily lead to additional demand for natural gas, with consequences for its price, production, and use, is eminently foreseeable. The D.C. Circuit has recently held that such “generally applicable economic principles,” as the relationship between the price of a good and its production and consumption, are “sufficiently ‘self-evident’” to “require ‘no evidence outside the administrative record.’”⁹⁰ The results of generally applicable economics are all the more foreseeable here because the administrative record does contain evidence specifically foreseeing them.

The Council on Environmental Quality’s (“CEQ’s”) regulations implementing NEPA provide illustrations of indirect effects that are closely analogous to those at issue here: “growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate[.]”⁹¹ Like impacts on gas production and use, growth-inducing effects and induced changes in the pattern of land use reflect responses—generally market-based—to changes in the supply of, and demand for, various resources. Further reflecting the need to consider such impacts, the regulations include economic as well as environmental impacts among those that an agency must consider.⁹²

For that reason, courts have consistently required that agencies extend the ambit of their analysis to include effects akin to upstream production and downstream consumption. The Eighth Circuit has addressed circumstances that closely parallel those here, holding that when an agency approves a rail-line extension that would result in “an increase in availability and a decrease in price” of coal, NEPA demands that the agency examine the environmental “effects that may occur as a result of the reasonably foreseeable increase in coal consumption.”⁹³ In *Mid-States*, the agency’s decision enabled an increase in the supply of coal to the domestic market; here, as described below, FERC has enabled an increase in demand for natural gas. In *Mid-States*, that decision had foreseeable effects on the price of coal, its production, and its use.

FERC’s decision has foreseeable impacts on natural gas’s price, production, and use. In *Mid-States*, the Eighth Circuit held that the agency could not responsibly or lawfully ignore those effects under NEPA.⁹⁴ Likewise, neither could FERC do so here. Other Circuits have reached similar results. When authorizing a runway that would expand capacity and “spur demand,” the Ninth Circuit has held that the Department of Transportation must examine the increased usage that will result from that demand.⁹⁵ The First Circuit has refused to let an agency construct a causeway and port without examining the “industrial development” that would be enabled by

⁹⁰ *Airlines for Am. v. Transp. Sec. Admin.*, 780 F.3d 409, 410-11 (D.C. Cir. 2015) (finding standing based on “basic proposition that ‘increasing the price of an activity . . . will decrease the quantity of that activity demanded in the market’” (alteration in original) (quoting *Branton v. FCC*, 993 F.2d 906 (D.C. Cir. 1993))).

⁹¹ 40 C.F.R. § 1508.8(b) (2019).

⁹² *Id.*

⁹³ *Mid-States Coal. for Progress v. Surface Transp. Bd.*, 345 F.3d 520, 549-50 (8th Cir. 2003) (requiring that agency address air pollution resulting from increased coal use).

⁹⁴ *Id.*

⁹⁵ *Barnes v. U.S. Dep’t of Transp.*, 655 F.3d 1124, 1138-9 (9th Cir. 2011).

that construction.⁹⁶ Those cases establish that when an agency approves infrastructure that will increase demand for a resource, it cannot ignore the effects of that increased demand.

NEPA does not allow agencies to consider only those effects whose specifics are known and certain. As the Eighth Circuit held, “when the *nature* of the effect is reasonably foreseeable but its *extent* is not ... [an] agency may not simply ignore the effect.”⁹⁷ Indeed, where an action’s effects are not precisely known, the Council on Environmental Quality’s regulations suggest that the action is more - not less - likely to warrant an environmental impact statement.⁹⁸

NEPA’s implementing regulations provide detailed instructions as to how such uncertainty is to be addressed in an environmental impact statement.⁹⁹ That the precise location of natural gas production is unknown, therefore, does not render such production unforeseeable, or allow FERC to dismiss its effects as insignificant. “It is well recognized that a lack of certainty concerning prospective environmental impacts cannot relieve an agency of responsibility for considering reasonably foreseeable contingencies.”¹⁰⁰ Rather, “[a]t the threshold stage of the NEPA inquiry ... an agency must determine, to the extent feasible, whether the sum of all reasonably foreseeable effects, discounted by the probability of their occurrence, represent a ‘significant’ effect on the environment.”¹⁰¹ If so, the “agency must issue an EIS analyzing the probabilistic facets of the prospective environmental impact.”¹⁰² Here, record evidence shows that not only will additional unconventional shale gas drilling be necessary to support the Project over the lifespan of its contracts, but furthermore, it is shown where the new wells are likely to be located, and how many wells and related gathering lines and infrastructure will be needed to support the Project.

A. FERC’s Impacts Assessment Must Consider Reasonably Foreseeable Shale Gas Production.

FERC’s NEPA analysis must include existing and reasonably foreseeable shale development/production that would be advanced, induced and supported if Phase 1 and the

⁹⁶ *Sierra Club v. Marsh*, 769 F.2d 868, 877-79 (1st Cir. 1985). See also *Friends of the Earth v. U.S. Army Corps of Eng’rs*, 109 F. Supp. 2d 30, 39-40 (D.D.C. 2000) (invalidating agency decision approving casino, without considering economic development that would result).

⁹⁷ *Mid-States Coal. for Progress*, 345 F.3d at 549-50 (when agency permits rail extension that will increase “availability of coal,” it may not ignore “the construction of additional [coal-fired] power plants” that may result merely because agency does not “know where those plants will be built, and how much coal these new unnamed power plants would use”).

⁹⁸ See 40 C.F.R. § 1508.27(b)(5) (intensity depends upon “[t]he degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks”); see also *Found. on Econ. Trends*, 756 F.2d at 154-55 (It is not “sufficient for the agency merely to state that the environmental effects are currently unknown,” because uncertainty is “one of the specific criteria for deciding whether an [environmental impact statement] is necessary”).

⁹⁹ 40 C.F.R. § 1502.22(b) (specifying how the agency should proceed when “the information relevant to reasonably foreseeable significant adverse impacts cannot be obtained because the overall costs of obtaining it are exorbitant or the means to obtain it are not known”).

¹⁰⁰ *Potomac Alliance v. U.S. Nuclear Reg. Comm’n*, 682 F.2d 1030, 1036-37 (D.C. Cir. 1982).

¹⁰¹ *Id.*

¹⁰² *Id.*

New PennEast Project were to be approved by FERC and built. The reasonably foreseeable actions—the environmental and community impacts of which must be considered—include the construction, operation and maintenance of the shale gas wells that will be the source of the gas carried by the pipelines, which would be carrying that gas in interstate commerce—both the new wells that would be constructed and the production that would be induced at pre-existing wells by the proposed projects. The analysis of impact for these gas wells, which will be producing gas for the purposes of delivering it through the pipelines in interstate commerce, must include the associated access roads, gathering lines, compressor stations, water pipelines, water consumption and water disposal, truck traffic, and other supporting infrastructure which is necessary for the construction, development, and operation of these wells.

Given that shale gas production activities for delivery of gas into interstate commerce through the New PennEast Pipeline are “sufficiently likely to occur that a person of ordinary prudence would take it into account in reaching a decision,”¹⁰³ and given that FERC’s approval of this project is a legally relevant cause resulting in the induced new, expanded, extended, and ongoing production of shale gas through construction of new gas wells and well pads and inducing new production at pre-existing wells, FERC is obligated to consider their impacts in its NEPA analysis of the project.

Analysts, experts, and modelers use the location of interstate transmission gas lines as a predictor of where gas production will take place. The reality of the industry is that gas is produced for transmission through interstate commerce, and that there is a direct relationship between the siting and construction of well pads and the location of existing or proposed interstate pipelines. “Greater gas take-away capacity allows more natural gas to be produced, and an increase in supply will lead to a decline in price in those regions that receive additional gas. The improved access to higher priced markets via additional pipeline infrastructure will raise the price of natural gas in the producing region, which also will increase production.”¹⁰⁴ The New PennEast Project, in conjunction with the Adelpia Project, would create an economic incentive to drill additional wells in the region.¹⁰⁵

Based on the distribution of unconventional natural gas wells in Pennsylvania, including wells that have been permitted but not yet drilled, it is reasonably foreseeable that any new wells drilled as a result of the New PennEast Project’s and the Adelpia Project’s increased capacity will be located in the northeast regions of the state.¹⁰⁶ The number of wells that are induced by a given pipeline depends on the lifetime production of the well, typically measured in billion cubic feet per well.¹⁰⁷ Based on the average lifetime of wells in Bradford, Susquehanna, Greene,

¹⁰³ *City of Shoreacres v. Waterworth*, 420 F.3d 440, 453 (5th Cir. 2005) (quoting *Sierra Club v. Marsh*, 976 F.2d 763, 767 (1st Cir. 1992))

¹⁰⁴ RACHEL WILSON, ET AL., SYNAPSE ENERGY ECONOMICS, INC., IMPACTS OF THE PENNEAST AND ADELPHIA GATEWAY PIPELINES ON GAS DRILLING IN PENNSYLVANIA: AN ESTIMATE OF INDUCED NEW GAS WELLS AND ASSOCIATED GREENHOUSE GAS EMISSIONS 1 (2020).

¹⁰⁵ *Id.* at 5.

¹⁰⁶ *Id.* at 6.

¹⁰⁷ *Id.* at 8.

Washington, Lycoming, and Tioga Counties,¹⁰⁸ and the takeaway capacity of the New PennEast Project and Adelphia Project, the estimated number of new wells that will be drilled is as follows:

Table 4. Estimated number of future wells and drilling-related emissions (metric tons CO₂e), as a result of PennEast and Adelphia Gateway pipeline construction¹⁰⁹

Pipeline Project	Low Estimate of New Wells	High Estimate of New Wells	Low Estimate of Drilling-Related Emissions (mt CO ₂ e)	High Estimate of Drilling-Related Emissions (mt CO ₂ e)
PennEast Phase 1	917	1,466	1,254,641	2,007,425
PennEast Phase 2	644	1,031	882,109	1,411,374
Adelphia Zone South	353	564	482,554	772,086
PennEast Phase 1 + Adelphia Zone South	1,269	2,030	1,737,195	2,779,511
PennEast Phases 1 and 2 + Adelphia Zone South	1,913	3,061	2,619,303	4,190,885

Unconventional natural gas development includes environmental impacts such as drilling, land disturbance, water withdrawal, material handling and waste management, operation of equipment, and GHG emissions.¹¹⁰ The impacts to water, wetlands, habitat, forest, floodplain, water quality, drinking water supplies, health, and safety have been measured, analyzed, and are readily available to FERC, including through the expert reports attached to this comment.

The wells induced by the New PennEast Project and Adelphia would have devastating impacts on land cover in Pennsylvania. According to an analysis done by CNA Analysis & Solutions: “Development of natural gas infrastructure including well pads, and rights-of-way for access roads and natural gas gathering lines, results in 17-23 acres of land cover disturbance per

¹⁰⁸ These counties are those in which future drilling is most likely based on the number of wells proposed but never materialized, or operator reported but not drilled. *See id.* at 7, Table 3.

¹⁰⁹ *Id.* at 8.

¹¹⁰ LARS HANSON, ET AL., CNA ANALYSIS & SOLUTIONS, POTENTIAL ENVIRONMENTAL IMPACTS OF FULL-DEVELOPMENT OF THE MARCELLUS SHALE IN PENNSYLVANIA iii (2016).

well pad.”¹¹¹ Fracking is a highly water-intensive process, requiring between an average of 11.4 million gallons of water per well in the Marcellus region.¹¹² According to the United States Environmental Protection Agency, 70 to 90 percent of water used in fracking is permanently removed from the water cycle.¹¹³

The impacts of fracking are wide reaching and well documented. By way of example, another report by CNA Analysis & Solutions¹¹⁴ found that:

- Discharge of **wastewater effluent** from fracking could raise in-stream concentrations of some key contaminants (notably barium and strontium) up to 500 percent above reference values during maximum development periods at low-flow conditions, if all wastewater were treated to Pennsylvania effluent standards.
- Land cover conversions could increase **erosion rates** up to 150 percent during the initial development phase and up to 15 percent in a post-development state, despite affecting less than 3 percent of land cover in affected watersheds we studied.

As these reports and others, attached to this comment, make clear, assessment of the impacts that fracking imposes on the environment, including quantitative assessments on water and land cover impacts per well and qualitative assessments on other known harms, are doable and done by experts all the time, and need to be done by FERC for the fracking development that the New PennEast Project will induce.

FERC cannot arbitrarily limit the scope of its review by failing to require the disclosure of the readily available, and reasonable and attainable, analyses, projections and assumptions that would inform the agency of the scope and extent of the foreseeable induced natural gas production upon which it can base its cumulative impact analysis across the broad range of environmental and community harms (e.g. air, water, wetlands, habitat, forest, floodplain, water quality, drinking water supplies, health, safety, climate change). FERC’s self-inflicted ignorance of the extent of induced shale gas production does not alleviate the agency of its obligation to undertake these assessments of significant impacts that will, reasonably and foreseeably, and predictably result.

B. FERC’s Impacts Assessment Must Consider Reasonably Foreseeable Greenhouse Gas Emissions, and Use the Social Cost of Carbon to Measure the Impact of Emissions.

In addition to the environmental impacts associated with the siting of wells, FERC must consider the climate change effects of their construction and operation. FERC must consider the

¹¹¹ STEVEN HABICHT, ET AL., CNA ANALYSIS & SOLUTIONS, THE POTENTIAL ENVIRONMENTAL IMPACT FROM FRACKING IN THE DELAWARE RIVER BASIN iv (2015).

¹¹² FRACTRACKER ALLIANCE. (2018). POTENTIAL IMPACTS OF UNCONVENTIONAL OIL AND GAS ON THE DELAWARE RIVER BASIN. March 20.

¹¹³ U.S. ENVTL. PROT. AGENCY, EPA-600-R-16-236FA, HYDRAULIC FRACTURING FOR OIL AND GAS: IMPACTS FROM THE HYDRAULIC FRACTURING WATER CYCLE ON DRINKING WATER RESOURCES IN THE UNITED STATES (Dec. 2016).

¹¹⁴ HABICHT, ET AL., *supra* note 111.

harm caused by the New PennEast Project's greenhouse gas ("GHG") emissions and "evaluate the 'incremental impact' that these emissions will have on climate change or the environment more generally."¹¹⁵ Not only must FERC quantify the GHG emissions from upstream and downstream sources, but it must also "include a discussion of the 'significance' of" the direct and indirect effects of the Project, including its GHG emissions.¹¹⁶

The climate impacts of these new natural gas wells can be measured by their GHG emissions, which can then be translated into the social cost of carbon. The same analysis can be used for consumption of natural gas downstream of Phase 1 and the New PennEast Project. The social cost of carbon is a comprehensive estimate of the economic cost of harm associated with the emission of greenhouse gases. These estimates are important for regulation because they help agencies more accurately weigh the costs and benefits of a proposed action.¹¹⁷

Although agencies are not *required* to perform cost-benefit analyses in an EIS,¹¹⁸ failure to do so when the economic benefits of an agency action are quantified may be arbitrary and capricious.¹¹⁹ Here, there is sufficient information in the record about the claimed economic benefits of the Phase 1 Project and New PennEast Project to allow FERC to quantify them and perform a cost-benefit analysis using the social cost of carbon. Furthermore, FERC is already required by the Natural Gas Act to balance the benefits of PennEast's proposed projects with the harms they would cause. Thus, it would be arbitrary and capricious for FERC to ignore the social cost of carbon in the EIS.

"Climate damages associated with increasing [GHG] emissions can include, but are not limited to, property damage from floods, changes in agricultural productivity, extinction of endangered species, and loss of unique environments."¹²⁰ These damages are measured at \$50/ton of carbon dioxide if measuring worldwide impacts according to calculations made by the Obama Administration, and \$7/ton if measuring domestic impacts according to calculations made by the Trump Administration.¹²¹ With regard to upstream drilling impacts, the social cost of carbon is estimated as follows:

¹¹⁵ *Ctr. For Biological Diversity v. Nat'l Hwy. Traffic Safety Admin.*, 538 F.3d 1172, 1216 (9th Cir. 2008); *see also WildEarth Guardians v. Zinke*, 368 F. Supp. 3d 41, 51 (D.D.C. 2019) (requiring the federal action agency to "provide the information necessary" in its NEPA analysis to express the "impacts of climate change in the state, the region, and across the country").

¹¹⁶ *Sierra Club v. Federal Energy Regulatory Comm'n ("Sabal Trail")*, 867 F.3d 1357, 1374 (D.C. Cir. 2017).

¹¹⁷ *See Zero Zone, Inc. v. U.S. Dep't of Energy*, 832 F.3d 654, 677-78 (7th Cir. 2016).

¹¹⁸ 40 C.F.R. § 1502.23 (2019).

¹¹⁹ *See High Country Conservation Advocates v. U.S. Forest Serv.*, 52 F. Supp. 3d 1174, 1191 (D. Colo. 2014).

¹²⁰ WILSON, ET AL., *supra* note 104, at 9.

¹²¹ *Id.*

Table 5. Social cost of emissions of CO₂e associated with the drilling of new wells as a result of the pipeline projects¹²²

Pipeline Project	Total Costs (2019\$, Obama SCC)		Total Costs (2019\$, Trump SCC)	
	Low Wells	High Wells	Low Wells	High Wells
PennEast Phase 1	\$46,012,770	\$73,620,432	\$6,300,293	\$10,080,470
PennEast Phase 2	\$32,350,517	\$51,760,827	\$4,429,591	\$7,087,346
Adelphia Zone South	\$17,697,219	\$28,315,551	\$2,423,190	\$3,877,104
PennEast Phase 1 + Adelphia Zone South	\$63,709,989	\$101,935,982	\$8,723,483	\$13,957,573
PennEast Phases 1 and 2 + Adelphia Zone South	\$96,060,506	\$153,696,809	\$13,153,074	\$21,044,919

Based on the number of wells estimated to be drilled, total climate damages using the domestic figures range between \$13 million and \$21 million, while global damages range from \$96 million to \$153 million. When looking at operational and downstream GHG emissions from the New PennEast Project and Adelphia Project, the social cost of carbon is as follows:

¹²² *Id.* at 10.

Table 6. Social cost of maximum potential carbon emissions associated with PennEast pipeline project¹²³

		PennEast Phase 1	PennEast Phase 2	Adelphia	Total
Total Costs (million 2019\$)	Obama Administration SCC	\$20,473	\$14,582	\$7,960	\$43,016
	Trump Administration SCC	\$2,803	\$1,997	\$1,090	\$5,890

Based on pipeline capacity for a projected lifetime of 40 years, the fully-constructed New PennEast Project will cost \$5,890,000,000 in domestic damages and \$43,016,000,000 in global damages.

By any measure, these damages show that the GHGs emissions from upstream wells and both operational and downstream emissions constitute a significant effect on the human environment. Accordingly, after determining that the New PennEast Project’s climate impacts are “significant,” FERC must also determine whether there are “possible mitigation measures” to address these adverse climate impacts.¹²⁴ This evaluation ensures that FERC has taken a “hard look” at the environmental consequences of the New PennEast Project. If FERC identifies mitigation measures and decides to issue PennEast a certificate of public convenience and necessity, that certificate should be conditioned on the implementation of such mitigation measures.

C. FERC’s Impacts Assessment Must Consider the Reasonably Foreseeable Outcome of Natural Gas Exports.

The direct, cumulative, and foreseeable impacts resulting from the exportation of the transported gas must also be considered. The facts are clear—the Phase 1 Project and the New PennEast Project would be part of a pipeline system that could transport its shale gas to the recently-approved Cove Point LNG export facility, as well as the Marcus Hook Industrial Complex. The Adelphia Pipeline would connect with the Marcus Hook Industrial Complex, which Adelphia advertised in its open season materials as a “state-of-the-art terminalling and natural gas liquids storage facility.” Given that natural gas can sell at a significantly higher price overseas as compared to domestically, it is reasonably foreseeable that Phase 1/Adelphia transported gas would be transported to Marcus Hook for export.

In addition, the New PennEast Project would connect with Transco’s mainline, which

¹²³ *Id.* at 10.

¹²⁴ See *Robertson v. Methow Valley Citizens Coun.*, 490 U.S 332, 351, 352 (1989); see also 40 C.F.R §§ 1508.20 (defining “mitigation”), 1508.25 (including in the scope of an environmental impact statement mitigation measures).

feeds into the Pleasant Valley interconnect in Fairfax County Virginia, which in turn could deliver gas to Dominion's Cove Point Pipeline. Given that natural gas can sell at a significantly higher price overseas as compared to domestically, it is reasonably foreseeable that PennEast transported gas will be transported to Cove Point for export. Furthermore, it is likely that natural gas that is displaced by the PennEast line would likely be exported as well.

V. FERC must ensure that PennEast fully and accurately assesses the air quality impacts of the Church Road Facility.

The Church Road Facility is set to be built in an area where residents are already burdened by elevated levels of pollution. Northampton County is in marginal nonattainment under the 8-hour ozone NAAQS.¹²⁵ The construction and operation of the Church Road Facility would contribute additional emissions to this area. To fully understand the impacts, it is critical that PennEast provide complete and accurate calculations of emissions associated with the site as part of FERC's NEPA analysis.

It is not entirely clear from PennEast's application what equipment will be at the Church Road Facility. There is some description in Section 1.2.2 of Exhibit F-1, and it refers to a site plan in Appendix A, but at least the public version of Appendix A contains no site plan. Therefore the public is prevented from fully characterizing the emissions of the onsite equipment. However, from the description, there will be at least: (1) a pig¹²⁶ launcher/receiver; (2) gas meters; (3) flow control valves; (4) heaters; and (5) a gas control/remote terminal unit. PennEast should provide more details about this equipment in the EIS, which can easily be done without compromising security. Equipment specifications are regularly made available to the public in air permit applications and will allow FERC and the public to verify emissions calculations and to better understand the impacts the Church Road Facility will have.

The first four types of equipment listed above produce emissions. PennEast characterizes emissions from these sources on an annual/chronic but not an acute basis.¹²⁷ But chronic and acute risks can both be serious and deserve consideration. Of these types of equipment, the pigging operations and valve equipment carry both chronic and acute risks.

Starting with the pigging operations, pigging refers to the use of cylindrical cleaning and inspection devices inside the pipeline. A pig launcher is where the pig is inserted into the pipe, and a pig receiver is where it is removed. In both instances, the inside of the pipe is opened up. During this process, the product inside the pipe is released. This can result in a large amount of emissions all at once. PennEast has not said how it plans to manage that process, but that can make a big difference to the neighbors at the site--and the Church Road Interconnects site is located in a residential area. The federal Agency for Toxic Substances & Disease Registry has

¹²⁵ See EPA, NONATTAINMENT AREAS FOR CRITERIA POLLUTANTS (GREEN BOOK), available at <https://www.epa.gov/green-book> (last visited March 2, 2020).

¹²⁶ PennEast uses the term "Pipe Inspection Gauge" and capitalizes "PIG," but the term is actually just from the animal, and the device is not a gauge. See <https://en.wikipedia.org/wiki/Pigging>.

¹²⁷ See Exhibit F-1 at Section 9.0; Appendix G.

taken an interest in studying pigging facilities over concerns of their “potential immediate short-term exposures” to neighbors, just the types of impacts that PennEast ignores here.¹²⁸ In an instance in Western Pennsylvania, as reported in the *Pittsburgh Post-Gazette*, the difference between one method of pigging and another could have grave implications for neighbors:¹²⁹

The model indicated that if gas from the pig launcher had been vented directly from a high-pressure tank during stable nighttime weather conditions, residents could have been exposed to methane at concentrations that could cause “potential irreversible health effects” when they were downwind.

After the equipment was modified to route gas to a low-pressure pipeline in July 2015, the model found that no meteorological conditions would have put either house in that threat zone.

Sites with valves such as the interconnect site are sometimes subject to onsite venting and sometimes flaring. Earlier this year, for example, a Sunoco valve site in Pennsylvania was the site of both venting and flaring.¹³⁰ Depending on the nature of the venting or flaring, it could involve large quantities of product, such as with a blowdown,¹³¹ or produce heavy and continuous smoke from a portable flare. Either way, it is harmful to neighbors and the environment, and should be examined in the EA as part of the impacts from the emissions at the site.

The EIS must also fully and accurately address chronic air pollution risks. PennEast provided some discussion and documentation of these risks in the form of construction and operation emissions calculations. These emissions calculations have errors that need to be fixed in the EIS. PennEast writes that “The emission factors for off-road construction equipment and on-road vehicles were developed using the EPA MOVES2014 model for Northampton County and construction in 2019.” That is not entirely accurate. The construction emissions calculations are estimated using a mix of up-to-date and outdated guidance.¹³² On the one hand, PennEast correctly uses the MOVES2014 model for some of its estimation. On the other hand, PennEast uses calculations based on superseded EPA documents EPA-420-R-10-018 and EPA420-P-04-005. The first was superseded in July 2018 by EPA-420-R-18-009. This calls into question PennEast’s SO₂ and CO₂ calculations.¹³³ The second was superseded in July 2010 by EPA-420-R-10-016. This calls into question PennEast’s calculations of air toxics emissions.¹³⁴ Its air toxics calculations also

¹²⁸ See Laura Legere, “No venting at night? Agency finds tweaks to pipeline maintenance tools could reduce risks to residents,” *Pittsburgh Post-Gazette*, Sept. 19, 2017, available at <https://www.post-gazette.com/business/powersource/2017/09/19/Pig-launcher-health-study-DEP-Mount-Pleasant-Pennsylvania-Agency-for-Toxic-Substances-natural-gas-emissions/stories/201709150053>

¹²⁹ *Id.*

¹³⁰ See February 25, 2020 letter from Township of Middletown, Delaware County, Pennsylvania to its residents, available at https://middletowndelcopa.gov/vertical/sites/%7BE08CD8FE-6BF2-4104-AF8F-C16770381A63%7D/uploads/02.25.2020_Sunoco_Update_-_overnight_venting_of_12in_pipeline.pdf.

¹³¹ Federal regulations require that “[e]ach blowdown discharge must be located so the gas can be blown to the atmosphere without hazard.” 49 C.F.R. § 192.179. It is unclear if PennEast has done any such analysis.

¹³² See Appendix G-1.

¹³³ See Table G-1.2.

¹³⁴ See Table G-1.3.

fail to use the July 2018 EPA-420-R-18-011 for emissions factors, instead using emissions factors from EPA's AP-42 Sections 3.3 and 3.4, both dating to 1996.¹³⁵ AP-42 is explicitly for *stationary* sources. MOVES is the model designed for *mobile* sources. In the EIS, FERC should ensure that PennEast's emissions calculations are based on the most up-to-date guidance.

A. *FERC must ensure that PennEast fully assesses the geology at the Church Road Facility.*

Pennsylvania's unique and varied geology presents a known challenge for the construction and operation of gas infrastructure. Over the past few years, Pennsylvanians have become sadly familiar with the dire consequences of pipeline companies failing to account for geologic risks in their construction plans. Energy Transfer's (ET) construction of its Mariner East pipelines has opened massive sinkholes that have destroyed resident's yards and exposed operating pipelines.¹³⁶ ET's refusal to fully investigate and plan for geologic conditions has also resulted in contamination of drinking water supplies.¹³⁷ In western Pennsylvania, a pipeline exploded just days after it started operating because the ground around it collapsed.¹³⁸ Now PennEast is poised to construct the Church Road Facility in an area prone to subsidence. To protect both the public and the environment, FERC must ensure the geology of that site is fully investigated and that the results of the investigation are subject to public and agency review through the EIS process.

To date, PennEast has conducted only one geotechnical test bore in the vicinity of the Church Road Facility.¹³⁹ A single geotechnical bore provides information about the geology for only a pinpoint location, inches across.¹⁴⁰ Geophysical surveying methods can be used in

¹³⁵ *See id.*

¹³⁶ *See* Jon Hurdle, "Mariner East pipelines: New sinkhole opens at Chester County site; Sunoco shuts line," *WHYY*, Jan. 21, 2019, available at <https://whyy.org/articles/mariner-east-pipelines-new-sinkhole-opens-at-chester-county-site-sunoco-shuts-line/>. *See also* Joe Holden, "Sinkhole Exposes Highly Controversial Pipeline in West Whiteland Township," *CBS Philly*, Jan. 21, 2019, available at <https://philadelphia.cbslocal.com/2019/01/21/heavy-weekend-rains-cause-large-sinkhole-in-chester-county-officials-say/>.

¹³⁷ *See* Nina Lakhani, "'We can't live like this': residents say a corrupt pipeline project is making them sick," *The Guardian*, Jan. 27, 2020, available at <https://www.theguardian.com/us-news/2020/jan/27/pennsylvania-residents-mariner-east-pipelines-drinking-water-contamination>.

See also Anya Litvak & Laura Legere, "The lessons of Mariner East 2," *Pittsburgh Post-Gazette*, n.d., available at <https://newsinteractive.post-gazette.com/mariner-east-2-pipeline-horizontal-directional-drilling/>.

¹³⁸ *See* Reid Frazier, "Federal Prosecutors investigating pipeline company in connection with Beaver County blast," *StateImpact Pennsylvania*, Feb. 26, 2020, available at <https://stateimpact.npr.org/pennsylvania/2020/02/26/federal-prosecutors-investigating-pipeline-company-in-connection-with-beaver-county-blast/>.

See also Anya Litvak, "Energy Transfer given \$30M penalty for Beaver County pipeline explosion," *Pittsburgh Post-Gazette*, Jan. 3, 2020, available at <https://www.post-gazette.com/business/powersource/2020/01/03/Energy-Transfer-30M-penalty-pipeline-explosion-permit-ban-Revolution-Mariner-East/stories/202001030137>.

¹³⁹ PennEast Pipeline Company, LLC, "PennEast Pipeline Project Certificate Amendment Application Exhibit F-I: Environmental Report" at 30, Jan. 30, 2020 (20200130-5196 FERC PDF (Unofficial) at 141, (Jan. 30, 2020)).

¹⁴⁰ *See generally* "Understanding and interpreting soils and soil boring reports for infiltration BMPs," *Minnesota Pollution Control Agency*, Aug. 29, 2018, available at

conjunction with geotechnical boring to create comprehensive images of subsurface conditions.¹⁴¹ At the Church Roads Interconnects site, PennEast completed only limited geophysical surveying; the survey was restricted to the pipeline alignment itself and did not consider the majority of the site. This is problematic because carbonite rock, which is prone to sinkholes and has contributed to recent pipeline disasters in Pennsylvania, has been identified at the site.¹⁴² A sinkhole was identified close to the site and two surface depressions were found within the site footprint.¹⁴³ This type of geology presents a risk to the integrity of the equipment and facilities PennEast intends to operate at the site. As part of the EIS, FERC should require PennEast to perform geophysical surveying for the entire Church Road Facility site to locate underground voids that could contribute to subsidence. PennEast should also perform additional geotechnical boring to corroborate the geotechnical survey results.

B. FERC must ensure that PennEast fully assesses the groundwater impacts at the Church Facility site.

Despite the change of plans that the construction of the Church Road Facility represents, PennEast appears to have already dismissed the possibility of this additional construction impacting surface water or groundwater. In the EIS, FERC must ensure that PennEast fully assesses water impacts at the site, including impacts to nearby water wells. There are also a number of specific deficiencies with respect to PennEast's analysis of water impacts at the Church Road Facility that must be addressed in the EIS.

First, PennEast's assessment of the Church Road Facility seems to be limited to a 400-foot survey corridor that does not capture the entire footprint. The entire footprint must be thoroughly evaluated, along with any of the surrounding area that could be hydrogeologically connected. Both field and desktop analysis of the footprint and surrounding area are needed. This limited survey corridor also appears to have been used for evaluation of endangered species habitat at the site and should be expanded for those purposes as well.

Second, this in-depth site evaluation must be completed now, as part of the EIS, not just prior to construction and after the opportunity for agency and public review has passed.

https://stormwater.pca.state.mn.us/index.php/Understanding_and_interpreting_soils_and_soil_boring_reports_for_infiltration_BMPs (identifying and interpreting components of typical boring logs).

See also Madeh Izat Hamakareem, "Boring Methods for Soil Sampling for Soil Investigation," *The Constructor*, n.d., available at <https://theconstructor.org/geotechnical/boring-methods-soil-sampling/31869/> (explaining different methods of boring).

¹⁴¹ See Neil Anderson, Neil Croxton, Rick Hoover, & Phil Sirls, Geophysical Methods Commonly Employed for Geotechnical Site Characterization, Transportation Research Board of the National Academies, *Transportation Research Circular Number E-C130* at 4 (Oct. 2008). Retrieved from <http://onlinepubs.trb.org/onlinepubs/circulars/ec130.pdf>.

¹⁴² See United States Geological Survey Water Science School, "Sinkholes," *U.S. Department of the Interior*, n.d., available at https://www.usgs.gov/special-topic/water-science-school/science/sinkholes?qt-science_center_objects=0#qt-science_center_objects.

¹⁴³ PennEast Pipeline Project, "Geotechnical Recommendations Report Church Road Interconnects" at 4, Jan. 24, 2020 (20200130-5196 FERC PDF, *supra* at 250).

PennEast’s proposal to evaluate potential groundwater affects “as engineering design progresses”¹⁴⁴ and to refine its list of nearby wells and springs “prior to Project construction”¹⁴⁵ would allow PennEast to skirt accountability, posing an unacceptable danger to the public. As regards to well identification, in a karst zone, such as underlies the proposed Church Road Facility, it is understood in Pennsylvania that the high degree of hydrogeologic connectivity can lead to contaminants traveling well beyond 500 feet.¹⁴⁶ In order to be appropriately protective, the EIS should identify water wells and springs out to 1000 feet from the Church Road Facility.

Third, PennEast must fully evaluate the stormwater and aquifer recharge impacts of its plans for the Church Road Facility. While PennEast has not shared specifics of its site plans, it is likely they will include additional paving which will affect drainage and recharge at the site. PennEast has not discussed this. Moreover, PennEast has admitted that, “[a]s of January 2020, infiltration testing for stormwater management design had not been completed.” This testing must be completed as part of the EIS.

VI. FERC Must Ensure Its Environmental Impact Statement for the New PennEast Project Analyzes Information Missing from the Original PennEast Pipeline Project’s Environmental Impact Statement.

In conducting its environmental review of the New PennEast Project, FERC must address outstanding informational gaps from its environmental review of the Original PennEast Project, to the extent the two projects overlap. DRN has commented extensively on the harmful impacts of the Original PennEast Project and Adelphia Project. To assist FERC in its analysis of the environmental impacts of the New PennEast Project and to the degree there is overlap or redundancy with the New PennEast Project, DRN hereby expressly incorporates by reference: all comments submitted on FERC Docket Numbers CP15-558-000 and CP19-78-000; all comments submitted to the Pennsylvania Department of Environmental Protection (“PADEP”) regarding the PennEast Project; all comments submitted to the New Jersey Department of Environmental Protection (“NJDEP”), all comments submitted to the Army Corps of Engineers (“Corps”) regarding the PennEast Project; all comments submitted to the Delaware River Basin Commission (“DRBC”) regarding the PennEast Project; and all comments submitted to FERC, PADEP, and DRBC regarding the Adelphia Project. Copies of the aforementioned comments are attached hereto for FERC’s convenience.

¹⁴⁴ PennEast Pipeline Company, LLC, “PennEast Pipeline Project Certificate Amendment Application Exhibit F-I: Environmental Report,” *supra* at 9 (20200130-5196 FERC PDF, *supra* at 120).

¹⁴⁵ *Id.* at 11 (*Id.* at 122).

¹⁴⁶ See, FracTracker Alliance, “Mariner East 2: More Spills & Sinkholes Too?”, available at: <https://www.fractracker.org/2018/03/me2-spills-sinkholes/>. The embedded map, “Mariner East Karst and Inadvertent Returns” shows GPS locations of drilling fluid spills relative to horizontal directional drill alignments. The map can also be accessed directly at <https://ft.maps.arcgis.com/apps/MapTools/index.html?appid=d667432022554ffa9f56aea41eec396a>. Using the map’s measurement tool, several examples of drilling fluid that erupted from the ground over 500 feet, over 1000 feet, and even over 1500 feet away from the drilling alignment are readily apparent.

DRN has also identified errors, inaccuracies, data gaps, as well the tremendous volumes of misinformation, missing information and demonstrably false information prevalent throughout FERC's EIS of the Original PennEast Project. Among the environmental impacts that are inaccurately reported or are otherwise incomplete, DRN identifies the following deficiencies in order to assist FERC in its environmental review of the New PennEast Project (including Phase 1 and Phase 2):

- It is impossible, from the materials included in the EIS, to directly determine how many stream crossings of Exceptional Value and High Quality streams in Pennsylvania will involve open cuts in areas that are currently forested conditions, on public lands, on steep slopes or erosive soils, or any combination thereof – but all of these conditions can significantly impact water quality.
- The EIS fails to consider important site-specific conditions in determining pipeline location and suitability of construction methods to minimize impacts or protect water quality. For example, approximately 103 dry crossings of streams are in areas of severely erodible soils, approximately 34 of the stream dry crossings are in rugged terrain with slopes greater than 30°, and other, often multiple and site-specific constraints that increase the likelihood and potential for adverse water quality impacts are not individually or collectively considered in terms of water quality impacts in project documents.
- The EIS fails to comprehensively evaluate each stream crossing with regards to conditions such as existing water quality, erosive soils, existing land use and forested areas, existing slopes, riparian buffers, and the potential need for in-stream blasting.
- The EIS fails to provide adequate location and construction recommendations to protect water quality, as well as construction techniques specific to conditions at each crossing.
- In fact, almost universally, the EIS fails to consider the unique, site-specific conditions at each individual proposed stream and wetland crossing, and the corresponding potential adverse water quality impacts and waterway health impacts associated with stream crossings, including open-cut crossings.
- The synergistic implications of climate change and the PennEast pipeline on stream flows, quality, temperatures, health, and aquatic life were not assessed in the EIS.
- The denial of any consideration of the combined effects of PennEast for recharge, groundwater and baseflow, coupled with the heightened anticipation of drought due to climate change, is a significant information gap.
- Streams recently categorized as “exceptional value” in Pennsylvania need to be updated in the EIS.
- The EIS documents at least 131 Wild Trout Waters in Pennsylvania to be cut across by the pipeline. Recent updates to the Fish and Boat Commission Class A and Wild Trout lists could alter this figure. EV Wetlands for wild trout waters are likely also altered. The EIS failed to update this list and ensure all designations are accurate with existing use protections.

- 75% of the stream crossings would be undertaken using open-cut methods. Only 26% of the 189 road crossings would be open-cut. Horizontal Directional Drilling is proposed on 74% of the roadways crossed in order to avoid impacts. Of the seventeen stream crossing locations to be accomplished by Horizontal Directional Drilling, only four are not associated with a road crossing. This clearly demonstrates that FERC places a higher priority on avoiding disturbance of roadways than it places on protecting streams, including streams of the highest quality in Pennsylvania and New Jersey. FERC has yet to explain why it is appropriate to place a higher priority on protecting roads as compared to protecting streams, wetlands, and vernal pools.
- The EIS presented only generic plans for its Horizontal Directional Drilling activities rather than in-situ evaluations. Transco recently encountered significant issues using Horizontal Directional Drilling for its pipeline in Princeton, which has similar geology to Hopewell Township which is proposed to be crossed by PennEast. Energy Transfer also created myriad problems with its poorly planned and sloppily executed Horizontal Directional Drilling for the installation of the Mariner East Pipelines. This was due substantially to Energy Transfer's failure to investigate and account for site-specific geology. Given that the method used for crossing waterways and wetlands can have such detrimental effects, knowing exactly what crossing methods are being proposed and where is critical to FERC's decision making. In the absence of specific plans and proposals for each waterbody, the EIS is markedly incomplete.
- The impacts of maintaining the cleared right of way planned for in the EIS, including enduring compacted soils, dramatically altered vegetative composition, increased stormwater runoff volume, altered timing of stormwater runoff, and reduced groundwater recharge have been largely overlooked.
- The vast majority of stream crossings, 87%, will be dry crossings with the greatest potential for adverse water-quality impacts and long-term impact and alteration of the channel substrate and protective riparian buffers that protect water quality. Approximately 55% of the dry stream crossings are in areas of Potential Blasting. The EIS should, but does not, evaluate the potential need for blasting and excavation at all proposed stream and wetland crossings, and this information should inform decisions related to stream crossing locations and construction methods, including decisions for dry crossing methods or Horizontal Directional Drilling.
- The EIS fails to offer primary consideration and discussion of a Horizontal Directional Drilling construction alternative for each and every wetland and waterway crossing. Given the potential for this type of drilling to protect streams from the ravages of open cut, this is a serious deficiency in EIS materials and analyses.
- The discussion of blasting provided in EIS concerns worker safety, not environmental impacts. There are significant environmental ramifications of blasting, among them that blasting deposits nitrogen which can run off with stormflow and enter streams as nitrate or ammonia. The environmental ramifications of any and all proposed or potential blasting is obviously absent.

- Deviation P-1820 is designed to avoid surface impacts to a wetland and C-1 stream, and to facilitate the trenchless crossing of Rt. 519 in Holland Township, NJ, but requires an access road to the Horizontal Directional Drilling pad which would negatively impact the C-1 stream it is designed to avoid. Discussion of this impact and the ways to avoid it are notably absent from the EIS.
- Deviation P-1710 would cause crossing of two residential roads, impacting C-1 streams and wetlands, as well as eight homes. Discussion of these waterway impacts are notably absent from the EIS.
- Many of the same sub-watersheds subject to development as a result of PennEast were recently, or could be in the future, impacted by construction activity from other pipelines. The cumulative impacts of these cuts is not considered or anticipated in the EIS.
- Consideration of the multiple cuts proposed by PennEast itself in sub-watersheds is lacking needed study and consideration. For example, the proposed right-of-way would cross the Harihokake and its tributaries at 7 different locations in New Jersey – mileposts 85.4, 85.6, 85.8, 85.9, 86, 86.3, 86.7. These cuts pose a threat to water quality and waterway health both individually and cumulatively. The cumulative impact of these multiple cuts is not duly considered in the EIS.
- The PennEast pipeline will induce the drilling of new wells in Northeast Pennsylvania – specifically in the counties of Bradford, Susquehanna, Lycoming, and Tioga. The implications for climate change affects, waste discharges within the Delaware River watershed, and additional new pipeline construction is notably absent from any consideration of foreseeable impacts due to construction of a PennEast pipeline in the EIS.
- Horizontal Directional Drilling long borings should be, but are not, considered and analyzed for feasibility for each and every waterbody crossing and or wetland complex along the route to reduce impacts to sensitive habitats.
- Ground-truthing identified at least 12 vernal pool complexes or groundwater seeps on a half mile section of the route in Blue Mountain State Gameland 168 in Pennsylvania where EIS tables documented the presence of only 2 vernal pool habitats and no groundwater seeps. There has been a clear misrepresentation of water resources that would be impacted in this area.
- The proposed pipeline would run adjacent to the existing right of way cutting through new habitat in the Ted Stiles Preserve on Baldpate Mountain in NJ, instead of being built within the current right-of-way footprint which means more habitat disturbed, trees cut, increased runoff and erosion, and an extension of forest fragmentation further into the woods. The Ted Stiles Preserve has some of the last remaining forest in the region. The EIS does not justify the failure to use the existing right of way versus expanding it.
- The EIS provided multiple new alternative route segments. Full and detailed information on the waterway and water quality impacts of each of these alternatives has not been provided.

- The EIS acknowledges that perennial and intermittent waters in Pennsylvania Exceptional Value and High Quality ("Special Protection") watersheds have 150-foot wide riparian buffers regulated in accordance with 25 Pa. Code Chapter 102.8. Yet PennEast project drawings within the EIS do not identify any existing or proposed riparian buffers around any Exceptional Value or High Quality waters.
- The EIS claims that it was not possible to protect, convert, or establish a riparian buffer or riparian forest buffer to satisfy the anti-degradation requirements for the proposed earth disturbances because PennEast does not own the land on which the pipeline will be constructed and because the existing landowners would not accept deed restrictions, conservation easements, or other mechanisms to protect the buffers into the future. No support for these claims is provided, and they appear to be gross generalizations that are unlikely to apply to every landowner along the 79.5-mile route in Pennsylvania.
- The EIS asserts that PennEast will maintain flow rates adequate for downstream uses including aquatic life, water body designated use or withdrawals. However, documents on the record do not indicate any standard for determining the adequate amount of water to accomplish these critical protections. Therefore there is no way for FERC or the public to determine whether PennEast will in fact ensure protective flows.
- EIS Table 4.3.2-7 lists discharge locations simply as coordinates without listing the receiving stream. This is insufficient disclosure because it is not an analysis of the effects of the discharge on the receiving stream, including limits on the potential flow rate which is important, particularly if the stream is small and the discharge of hundreds of thousands of gallons of water would cause erosion or upset ongoing biologic processes.
- Erosion control measures along the right-of-way usually require lime and fertilizer to be applied so that seed mixes grow rapidly. The addition of lime and fertilizer are like poison to what were once forest soils of low pH and low nutrients. Native herbaceous plants and shrubs almost never outcompete non-native weeds in these altered, nutrient-enriched, high pH soils, and stormwater runoff would pollute local waterways with these added nutrients. Disruption of living soil microbes and topsoil integrity are not fully considered. These implications and impacts are not discussed or addressed in the EIS, nor are alternatives considered for avoiding these impacts altogether.
- The EIS fails to assess or address comments and experience that shows that the use of standard construction practices would result in environmental violations and degradation such as erosion issues and sediment pollution.
- The evaluation of soil compaction impacts based primarily on a soil's drainage classification that has been provided in the EIS is incorrect.
- The EIS greatly underestimates the potential for the alteration of soils traversed by the pipeline and the subsequent short- and long-term consequences of soil compaction such as decreased water absorption and disruption of soil microbes. Carbon sequestration of soils is also not addressed.

- The stated plan for dealing with spill prevention and control is limited to five (5) simple bullet points, none of which provide any direction on the actions that must be taken in the event of a spill, which would negatively impact waterways.
- A Mercer County Public Park in New Jersey has over 12 miles of marked trails for hiking, horseback riding, mountain biking, and trail running. According to the PennEast alignment sheets within the EIS, this area had been surveyed, but no flagging was observed during ground-truthing for the pipeline center line, or any of the wetlands or streams along the proposed pipeline route encountered as late as July 30, 2016. FERC needs substantiation that areas PennEast says were surveyed for purposes of capturing data and information for its project proposal and assessment were in fact surveyed. Verbal assertions from PennEast are not enough.
- Field-truthing of the pipeline route has documented that an intermittent stream in the Ted Stiles Reserve at Baldpate Mountain, NJ was not delineated on the PennEast alignment sheets within the EIS, nor was there flagging present to note this water feature despite the fact that the stream is delineated on state freshwater mapping layers available to the public.
- Despite open cuts making up the majority of the waterbody crossings and despite the exceptions of allowing Additional Temporary Work Spaces within 50 feet of sensitive wetlands at least in 211 instances, it has been asserted there is adequate justification for Additional Temporary Work Spaces and that there will be minimal harm. In fact, avoidance of these sensitive areas was not fully and adequately investigated and the assertion of minimal harm has not been demonstrated.
- Most of the wetlands data within the EIS is unreliable because it is largely “based on available remote sensing mapping, and not on field-based investigations.”
- Expert ground-truthing has identified multiple instances where wetlands shown on project drawings appear to be significantly under-mapped.
- 72% of the proposed pipeline alignment in New Jersey and 23% in Pennsylvania has not yet been field-investigated for wetlands and other water resources.
- Additional wetlands exist within approximately 19.4 miles of right-of-way, 24% of the proposed pipeline Study Area, that have not been investigated because access was not (initially) granted. Impacts to all those wetlands have not been acknowledged, calculated, or mitigated for.
- The EIS has failed to assess how the functions and values of each wetland cut, crossed and/or otherwise impacted, would be changed by pipeline construction, operation and/or maintenance.
- There are even internal discrepancies in the reported acreage of many delineated wetlands in the EIS documents.
- Most wetlands within and along the proposed pipeline right of way are not visibly flagged in the field, making field verification and ground-truthing difficult, and calling into

question whether PennEast ever visited these sites in person. Verification of whether or not PennEast physically visited and assessed each and every wetland along the proposed route is needed as it speaks to the veracity of the assertions in the EIS about all of the project data and impacts how the public and FERC may view the data itself.

- The wetlands tables within the EIS do not indicate the quality of the wetland impacted pursuant to the state classification of the wetland – this is important information that is notably missing.
- Many of the wetlands in the Project area are not appropriately classified pursuant to the Pennsylvania Code and the requirements therein.
- Some wetlands which should be classified as "exceptional value" pursuant to Pennsylvania law were incorrectly identified in the EIS as "other."
- No "existing use" analysis of affected streams has been done, leading to a likely undercount of the number and extent of Exceptional Value Wetlands.
- Bog turtle searches did not encompass the entire area requested by US Fish and Wildlife Service and certain areas of suitable bog turtle habitat were not acknowledged within the EIS. These omissions could negatively impact bog turtles due to the water quality impacts of the pipeline.
- Because the impacts to the functions and values of each wetland proposed to be impacted have not been determined or evaluated there is no appropriate mitigation plan for impacted wetlands.
- The EIS asserts that emergent vegetation regenerates quickly in wetlands, typically within one to three years. The EIS asserts that PennEast would maintain a 10-foot-wide corridor centered over the pipeline in an herbaceous state. And the EIS asserts that PennEast would selectively cut trees within a 30-foot-wide corridor centered over the pipeline. The remainder of forested and scrub-shrub vegetation, the EIS states, would be allowed to return to pre-construction conditions and would not be affected during operation. No permanent fill or loss of wetland area would result from construction and operation of the Project, the EIS asserts. But continued and irreversible impacts to wetlands from pipeline crossings is well documented, especially in the context of forested wetlands where tree regrowth can take decades to recover. The EIS has not addressed these demonstrated ongoing impacts that are documented in the PennEast record.
- The EIS proposes open-cut trenching for 130 of the wetlands proposed to be crossed. Other wetlands not cut by open cut are noted on the record as "not applicable" for crossing type – it is unclear what is meant by "not applicable" – there is no description of that condition in the notes of the table.
- The EIS asserts that approximately 0.13 acres of vernal pool habitats would be impacted by construction of the PennEast pipeline, with 0.11 acres permanently impacted during operation. Based on the sensitive areas along the 115-mile proposed route, this asserted acreage is low. Spot field checks in short sections of already surveyed areas of the route

make clear that significant numbers of vernal pools and wetlands have been missed and not accurately depicted by field surveys or on the record.

- Field-truthing for vernal pools in an area that the EIS states PennEast had surveyed revealed there were only a few pink flags marked by the PennEast surveyors for a short section of the route and no wetland flagging at all was present at vernal pools located along the proposed route.
- The EIS does not consider the full forest impacts and forest upland habitats at least 1,000 feet from vernal pools that will be cut down and lost and that amphibians rely on for times of the year other than breeding.
- Failure by the EIS to consider upland habitat impacts 1000 feet surrounding vernal pools and wetland habitats exemplifies the incomplete assessments that have been provided for wetland and vernal pool features even when they are located in areas as sensitive and accessible as PA State Gamelands.
- The EIS does not include the thermal and likely hydrological impacts that will change vernal pools, compromising water temperature and flow for breeding amphibians.
- The EIS does not include the temperature changes, dry compacted soil conditions and changes to vegetation of a right of way that would make it near impossible for migrating amphibians to return to their breeding pool post-pipeline construction.
- The EIS does not include the repetitive pipeline maintenance impacts like herbicide applications to the proposed right of way and routine cutting and unauthorized ATV use that would impact amphibians long term.
- The EIS does not include a thorough mapping of all vernal pools and wetlands that would be impacted.
- The EIS does not consider the climate change impacts that would result to vernal pool species, stream species, and wetland species.
- Prior to construction, PennEast is supposed to file a complete wetland delineation report for the entire project that includes all wetlands delineated in accordance with the US Army Corps of Engineers and the applicable state agency requirements. This is not protective enough nor does it give regulating agencies or the public adequate time to field-verify information and to use the results of that verification for decision-making purposes.
- Private drinking water supplies are to be protected as Exceptional Value wetlands. The EIS recognizes that private water supplies are not yet mapped, which means that wetlands associated with these water supplies are not yet fully analyzed under Pennsylvania requirements for Exceptional Value wetlands.
- In a wetlands filing where PennEast was required to submit detailed drawings, such as Erosion and Sedimentation Control Plans, it has failed to in fact include such plans.

- In the area between Mile Post 92.0 and Mile Post 92.25, about 1,320 linear feet, where access was not denied, and which a PennEast drawing referenced in the EIS notes as being, quote, "fully surveyed parcel," the wetland proposed to be crossed was not field-surveyed but is in fact described based on non-regulatory NJDEP mapping.
- Near Mile Post 92.3, there are extensive Natural Resources Conservation Service-mapped hydric soils both within and outside wetlands mapped by NJDEP, but PennEast drawings provided for this area and referenced in the EIS only use what is shown on NJDEP maps. In other places, where National Wetlands Inventory mapped wetlands extend beyond the NJDEP-mapped wetlands, sometimes significantly, only the NJDEP-mapped wetlands, and not the National Wetlands Inventory wetlands, are shown on the project plan maps provided.
- Impacts to Exceptional Resource Value Wetlands in New Jersey have not been minimized, including failure to consider the alternative or routing the pipeline around Exceptional Value Wetlands in order to avoid harm. While rerouting to avoid wetlands is mentioned as a general consideration in pipeline siting and alternatives analyses, specific areas where identified Exceptional Value Wetlands were avoided are nowhere identified or discussed.
- PennEast has planned locating Additional Temporary Work Spaces at or about 50 feet from Exceptional Resource Value Wetlands identified in New Jersey for which there is a 150-foot wide buffer requirement. Failure to meet the state 150-foot standard is not addressed by the EIS in any meaningful way.
- Wetlands were delineated within a 400-foot wide (total) study corridor centered on the proposed centerline of the pipeline, meaning 200 feet in each direction from the proposed pipeline. Additionally, proposed construction areas extend out from that centerline, in some cases encompassing the entire width of the study corridor. To have complied with an applicable US Fish and Wildlife Service directive, wetlands should have been delineated within 300 feet of the edge of any limit of proposed disturbance.
- The EIS assumes that there is no difference between the hydrologic response of forested woodland and the compacted, post-construction pipeline right-of-way. As a result, the calculations and assessments of impacts in the EIS are simply wrong.
- In addition, the EIS fails to consider or even acknowledge stormwater impacts from pipeline construction, as no stormwater management is proposed for the pipeline area.
- The current forested conditions in much of the proposed pipeline corridor generates little surface runoff and facilitates groundwater recharge to support baseflow to streams and wetlands. The proposed pipeline conditions would significantly reduce the land surface's ability to retain rainfall and facilitate infiltration, and would increase runoff frequency, volumes, and flow rates, including increased surface erosion and sediment transport to Special Protection or C1 water bodies. As a result of pipeline construction, there would be permanent long-term water-quality impacts. The EIS fails to address the increase in stormwater runoff, erosion, water quality degradation and habitat impacts that would result from the permanent, long-term changes to land use cover and soil conditions.

- The pipeline route both traverses and is located along steep slopes, requiring significant earth movement for construction. When combined with erodible soils, the ability for construction crews to manage runoff and sediment discharge from the construction site becomes increasingly difficult. Several of these steep slope and erodible soil areas are directly adjacent to wetland or stream crossings, increasing the potential for sediment and runoff discharge to waterbodies. These issues are not well considered or addressed in the EIS.
- The EIS identifies approximately 163 areas along the proposed pipeline, totaling 5.9 miles in length, of slopes greater than 30 percent within 200 feet of waterbody crossings, some of which are located immediately adjacent to waterbodies. The clearing and grading of streambanks would reduce riparian vegetation and expose soil to erosional forces. The use of heavy equipment for construction could cause compaction of near-surface soils, an effect that could result in increased runoff into surface waters in the immediate vicinity of the construction right-of-way. These issues are not addressed in the EIS in the assessments, alternatives analyses, or plans.
- The EIS fails to address the fact that the proposed pipeline construction practices and long-term maintenance of the right-of-way in a non-forested condition will alter the land surface conditions and result in greater stormwater and thermal impacts.
- The increased scour, sedimentation and turbidity levels within streams after construction due to sediment transport from uplands into surface waters due to construction and post-construction activities, is not meaningfully considered, addressed or minimized in the EIS in the alternative analyses or construction and maintenance plans.
- Blasting and excavation in streams and wetlands for pipeline construction has the potential for short-and long-term impacts to water quality due to erosion and disturbance during construction, permanent alterations and increased instability in the channel substrate, and long-term alterations and instability in the channel configuration and riparian buffer conditions. These impacts are not meaningfully considered, addressed or minimized in the EIS in the alternative analyses or construction and maintenance plans.
- Impacts to stream baseflow due to land use alterations that would alter the surface hydrological response, increasing runoff and decreasing infiltration are not addressed in the EIS either for the proposed route or alternative routes.
- The construction practices for pipeline installation include the use of heavy equipment with no topsoil segregation and no soil restoration unless parcels are residential or agricultural. This results in a soil profile that is highly compacted, lacking organic material, lacking macropores, and extremely reduced in its ability to retain and slow rainfall. The increased stormwater runoff, erosion, and pollutants, and the decrease in recharge to baseflow that will result is not addressed in the EIS. Soil life, microbes, and carbon sequestration of soils is not considered in the EIS.
- The EIS relies upon PennEast's Horizontal Directional Drilling Inadvertent Returns and Contingency Plan for addressing potential impact to groundwater attributable to drilling wastes, asserting the plan provides sufficient protection. The reference provides only a

single bullet point that states a site specific plan will be implemented. This is a significant deficiency in the EIS and assessments of waterway and water quality impacts.

- The EIS does not address potential groundwater contamination events associated with the operation and maintenance of the pipeline, including the long-term application of herbicides to control the growth of vegetation or the management of invasive plants within and adjacent to the pipeline right-of-way.
- The EIS has failed to recognize potential arsenic contamination, and given that much of Hopewell Township, NJ, for example, is a sole-source aquifer, this is of significant concern, and cannot be mitigated.
- The pipeline trench would need to be 7.3 feet deep and because most of the soil in Hunterdon County, NJ is less than 32 to 64 inches, the bedrock will have to be excavated. This means that the trench construction, which will in some cases require blasting, would fracture, shatter, excavate, and re-bury arsenic-rich shale exposing it to aerobic conditions and potentially polluting groundwater and other water sources. This reality is not addressed by the EIS.
- The EIS fails to provide a detailed plan for achieving the requirements of New Jersey's no-net loss of forest program, as loss of forest would increase runoff volume and sediment pollution.
- Ground-truthing from about Mile Post 51.1 to Mile Post 51.6 in the Blue Mountain, PA area demonstrates the area is dominated by steep slopes, glacial thin soils and abundant outcroppings and boulder fields indicative of ideal timber rattlesnake habitat. Due to the geology, blasting would likely be required, and there would be a very high likelihood of erosion and increased stormwater runoff from tree removal. These issues are not addressed by the EIS.
- Pipeline construction lowers the water table temporarily by dewatering the trench. It lowers the water table permanently by changing the aquifer properties within the trench. These impacts have not been considered in the EIS in any meaningful way if at all.
- Pipeline construction can change surface drainage patterns which could change the locations of both runoff and recharge. These impacts have not been considered in the EIS in any meaningful way if at all.
- An existing 50- to 100-foot-wide treeless swath through a forest could be doubled as the result of the preference to follow existing right-of-ways within a forest area. Such a width doubling could have foreseeable effects especially in valuable forest regions such as in Hickory Run State Park and wetlands where areas exposed to solar insolation could significantly increase, resulting in warming impacted waters and increasing evapotranspiration. The EIS does not consider such factors in its comparison of alternatives.
- Recent reviews and consultation letters from sister agencies (PA Game Commission, March 2020 letter to PennEast) note lack of information and protections pertaining to the

protection of forest interior birds that live in forested public lands and areas where the pipeline would deforest and cut.

- Trench plugs are used to interrupt flow along trenches. The EIS does not analyze how trench plugs would operate or whether they would do as claimed in terms of impacting flows. A plug with lower conductivity than the rest of the trench backfill would interrupt flow through the trench and potentially cause water to discharge to the ground surface. The EIS does not provide for accommodating this surface flow or consider how it changes groundwater flow.
- The EIS does not assess the potential for ancillary damages to water resources, and other features, caused by vehicular access to the pipeline right-of-way after construction, nor does it consider how to avoid or minimize those impacts, for example by reducing vehicular access after construction is complete and implementing enforcement strategies that prevent vehicular access by the public for motorized recreation such as ATVs and snowmobiles.
- The EIS does not describe groundwater recharge, and therefore fails to describe one of the most important factors of the hydrogeology of the area. Because many aspects of the project could affect recharge, failing to describe the process in the project is a serious deficiency.
- The EIS should, but does not, provide a table of bedrock aquifers that includes relevant properties, including specific capacity statistics or well yields, and conductivity where available. If properties for a given bedrock aquifer have not been published, it is reasonable for PennEast to complete the analyses for existing wells.
- The EIS should, but does not, discuss and assess the role of topography in controlling conductivity and how fractures control conductivity and how deep recharge may reach in the bedrock.
- The EIS states that critical soil characteristics were summarized, including poorly or very poorly drained, excessively drained, poor revegetation potential, high compaction, severe erosion potential, prime farmland crossed, and slope by percent of proposed route length affected. But the EIS does not provide the specific location for these soil types. In addition to lacking this specific location information, tables on the record fail to consider characteristics which are collocated and as a result could lead to more critical conditions. Materials on the record are generally insufficient for consideration of the soil conditions on water resources impacted by the proposed preferred route.
- Tables on the record show potential groundwater or soil contamination along the pipeline route. However, they do not show the type of contamination at those sites. There is no discussion provided as to the effect the proposed pipeline could have on contaminated soils or, more accurately, the potential for, and ways in which, the proposed pipeline could release contamination from the contaminated soils thereby affecting the environment and natural resources.

- The EIS should, but does not, present mitigation plans to prevent currently contaminated soils from degrading nearby groundwater due to construction disturbance and the enduring presence of the pipeline.
- The EIS acknowledges that surveys for springs and seeps have not been completed. The inventory as presented is only for springs/seeps within 150 feet of the pipeline. It is not possible for the public or FERC to review the impacts of the proposed preferred route and alternative routes on water resources if the inventory of resources is not complete.
- The EIS should, but does not, include needed data or information regarding the mineral content of the soils to be crossed by the proposed pipeline and the results of leaching tests that should be required.
- The EIS should, but does not, assess the potential for pipeline construction to generate acid generation or leach metals in all areas where it crosses mine spoil.
- The EIS should, but does not, present avoidance and mitigation discussions focused on preventing the leaching and transport of acid and metals from the site.
- The arsenic analysis provided in the EIS is insufficient to indicate that arsenic leaching from pipeline construction in the Newark Basin would not be a problem for shallow groundwater. PennEast needs to legitimately and scientifically analyze this issue and threat in order to properly inform FERC decision making.
- The EIS completely fails to consider how pipeline construction would affect the water balance of wetlands with groundwater inflow.
- Materials on the record completely fail to consider how pipeline construction would affect recharge into bedrock by not considering how compaction would prevent water from accessing fracture zones.
- The EIS must consider the transport of contaminants, including methane and spills, from the trench to and along the preferential flow pathways and assess where they would discharge. This could be into a stream or spring, or into a broader aquifer where it could affect wells.
- The EIS needs to assess details about the pipeline leak detection PennEast asserts it will implement, including what rate of leakage can be detected and what responsive actions would be triggered.
- The EIS should, but does not, analyze the extent that methane could spread from the pipeline through the groundwater due to a leak. This is probably a preferential flow issue in that the methane would disperse along the higher conductivity in the trench until it reaches a receptive fracture intersecting the pipeline or wetland or stream.
- A total of 8 New Jersey state-threatened, endangered or special concern mussel species are completely left out of the record. These species are as follows: triangle floater, brook floater, yellow lampmussel, eastern lampmussel, green floater, tidewater mucket, eastern pondmussel, and creeper.

- Amphibian species are at great risk and they would be put at an even greater risk by the combined impacts of climate change and the construction of the PennEast pipeline. The EIS fails to consider these impacts.
- The conclusion of “absence” as a result of the Phase 2 presence/absence bog turtle surveys does not carry much weight when it is admitted that the project may affect the species and is likely to adversely affect the species because not all areas have been surveyed. The same can be said for the Indiana bat, northern long-eared bat, dwarf wedgemussel, and northeastern bulrush. PennEast’s failure to evaluate the areas where there is likely to be an adverse impact to these species renders materials on the record highly deficient.
- The record notes that 7 wetlands in Pennsylvania are considered suitable bog turtle habitat. However, an independent US Fish and Wildlife Service qualified bog turtle surveyor identified 9 properties containing one or more suitable bog turtle wetlands in the Hunters Creek drainage alone.
- The EIS fails to consider utilizing pre-existing cleared areas in the Blue Mountain Ski area as an alternative. This area is already highly impacted with massive cuts for ski slopes, yet it appears the pipeline proposed near the ski center would add an additional cut rather than utilize one of the current clear-cut paths, contributing to erosion and sediment pollution and negatively affecting water quality.
- Results of all geotechnical investigations, including karst areas, necessary for Horizontal Directional Drilling planning and design are missing from the materials on the record.
- The final planned design of each Horizontal Directional Drilling crossing is missing from the materials on the record.
- A revised/final list, based on final surveys, of water wells and springs within 150 feet of any construction workspace (and 500 feet in areas characterized by karst terrain) are missing from the materials on the record.
- Documentation of the final hydrostatic test water withdrawal sources and locations are missing from the EIS.
- Documentation of all necessary permits and approvals for each hydrostatic test water withdrawal source are missing from the EIS.
- Identification of special construction methods for construction in extremely saturated wetlands are missing from the EIS and PennEast materials on the record.
- Justification for required additional workspace to accommodate special construction methods for extremely saturated wetlands are missing from the EIS and PennEast materials on the record.
- A revised/final table of impacts on vernal pools within or near the proposed workspaces based on completed surveys are missing from the EIS and PennEast materials on the record.

- Horizontal Directional Drilling crossing plans including specific crossing area, specific methods to be used, location of mud pits, pipe assembly areas, all areas to be disturbed and/or cleared for construction, containment plans for spills, contingency plans, etc. are all missing from the EIS and PennEast materials on the record.
- Horizontal Directional Drilling water discharge details including the specific volume of anticipated discharge, discharge method, and impacts on receiving streams are missing from the EIS and PennEast materials on record.
- Standards used to guide Horizontal Directional Drilling water withdrawals without preventing impacts on downstream ecological or human uses and needs are missing from the EIS and PennEast materials on the record.
- The EIS fails to provide a table of bedrock aquifers that includes relevant properties, including specific capacity statistics or well yields, and conductivity where available.
- The EIS fails to include mapping, analysis and evaluation of the recharge, runoff, pollution, vegetation, habitat, soil, and erosion impacts resulting from the combination of soil type, slope, compaction potential and depth to bedrock for each section of pipeline along the proposed preferred route as well as alternatives.
- The EIS should, but does not, include a complete inventory of springs and seeps within a quarter mile of the pipeline to adequately consider the changes which could occur due to pipeline construction.
- The EIS should, but does not, present the result of a final karst study for the area and present plans for mitigating problems caused by constructing through karst or caused by rapid contaminant transport within karst.
- The EIS should, but does not, provide data or information regarding the mineral content of the soils to be crossed by the proposed pipeline and the results of leaching tests that should be required.
- The arsenic analysis provided in the record is insufficient to indicate that arsenic leaching from pipeline construction in the Newark Basin would not be a problem for shallow groundwater and therefore the EIS needs to legitimately and scientifically analyze this issue.
- The EIS should provide the data and references supporting the assertion on the record that “shallow groundwater ... generally have low arsenic concentrations and that high arsenic concentrations ... are the result of more mature groundwater interacting with geochemically susceptible and arsenic-enriched water bearing zones, which are often deeper wells.”
- The EIS should provide the data and references supporting the assertion on the record that there is “no indication that common construction activities that involve shallow excavation, such as home construction, has resulted in increased arsenic concentrations in water supply wells.”

- The EIS needs to provide a plume map of groundwater contamination and a map showing soils contamination from the Palmerton Zinc Pile Superfund site and assess the implications of the various proposed pipeline routes for water, groundwater and drinking water contamination.
- The EIS has failed to consider how the project construction would affect recharge rates, which are highly variable with the underlying geology, soil type and thickness, and topography controlling the actual recharge location.
- As part of an analysis of preferential flow, the EIS has failed to analyze the potential for the trench backfill to facilitate the movement of contaminants through the groundwater.
- Materials on the record do not include detailed wetland information necessary for expert review like that of Dr. Schmid to accurately review and determine the quality of the wetlands that are to be impacted.
- The EIS claims that PennEast has negotiated with Suez on Lambertville water supply reservoir. Suez claims no contact. Proof of the negotiation as well as specific items discussed needs to be provided.
- Drought conditions in areas PennEast proposes water withdrawals are not accounted for in the EIS.
- On the record, there is discussion of areas where the route crosses Special Flood Hazard Areas; there are references to two tables, Table 2.3-6 and Table 2.3.6. These tables should, but do not, appear on the record.
- The EIS analysis fails to legitimately examine the potential for landslides resulting from site preparation, construction activities, and post-construction changes to soil properties and vegetative cover.
- Healthy forests are vital for protecting the water resources of the Delaware River watershed. The EIS minimizes or ignores the loss of interior forest. Interior forest impacts are significantly magnified beyond the immediate footprint of the project. There are numerous Interior Forest impacts that are missing from the EIS.
- The EIS fails to provide maps of Interior Forest Impacts wherever PennEast claimed the project was “collocated” in Luzerne and Carbon Counties, Pennsylvania, and Hunterdon and Mercer, New Jersey. The PennEast pipeline appears to encroach 150 feet deep into forested areas in the Poconos. White cross-hatching on maps which denotes Interior Forest Impacts is missing on the following EIS pages and therefore are presumably also misrepresented in all on the record materials:
 - Bear Creek, Luzerne County, Pages 205, 211–218, 224
 - Carbon County, Pages 239, 246-249, 255, 260-263, 270-273, 277-281, 289-293
 - Page 414: milepost 94 at the Calandra Property
 - milepost 94-94.3, no impacts are mapped but PennEast mapped cleared right of way as interior forest

- milepost 105.7 - 108.4 in Baldpate Mountain, impacts are missing for 2.7 miles for Mercer County's largest contiguous forest. In fact PennEast failed to map any impacts at Baldpate except along one access road.
- The EIS fails to consider the potential for encouraging shale gas extraction activities within the boundaries of the Delaware River watershed if the moratorium against drilling were lifted.
- The EIS fails to consider combined adverse environmental impacts of climate change and the PennEast pipeline and the potential implications for the watershed and water resources.
- The PennEast pipeline would inflict between 13.3 and 56.6 billion dollars of economic impact including lost jobs, lost wages, lost taxes, reduced property values, lost ecosystem services and more. The PennEast pipeline would cause an initial loss of \$7.3 million in ecosystem services during a one-year construction period. For each year the pipeline is in operation, the pipeline would induce an additional loss of \$2.4 million in ecosystem services due to conversion of land in the right of way. Ecosystem services include water quality protection, flood protection, erosion prevention, and more. These costs are entirely overlooked by the EIS.
- The EIS fails to consider the adverse impacts to recreation and ecotourism due to loss of healthy and attractive water resources in the watershed.
- The EIS fails to consider the implications for future investment in open space preservation that is beneficial for water resource protection.
- The costs to the community to respond to emergencies, to the increased stormwater runoff, pollution inputs, and other adverse impacts that could result from this project and would be foisted upon the shoulders of local towns and residents, are given short shrift if they are not assessed by the EIS.
- The EIS fails to identify where any of the end-users of the natural gas are located and the associated implications for water quality in the Delaware River watershed.
- FERC rejected co-locating the PennEast line along Transcontinental's Leidy Line gas transportation system for stated reasons that were not sufficiently explained. This alternative is important given that it might have significant implications for water quality in the watershed.
- According to the EIS, PennEast would cross the Appalachian Trail nearby a scenic overlook and cliff outcropping – it is hard to imagine a more damaging location for harming this important recreational and cultural resource that is such an iconic part of our watershed.
- The area in the Appalachian Trail to be crossed by PennEast is prime rattlesnake habitat; a threat to an important watershed species that the EIS glosses over lightly.
- Deviation P-1710 would negatively impact bobcat habitat, which New Jersey has said should be avoided.

- Deviations proposed to avoid Important Bird Areas would inflict significant impacts on water resources and watershed landscapes. The impacts have not been put forth by EIS for public or agency consideration.
- FERC and PennEast have failed to provide the public with GIS-referenced routes and images so they could be plotted in interactive maps for review for full and informed ground-truthing, consideration and comment.
- Alignment sheets fail to include mile posts. The absence of this critically important information renders the information incomplete and unusable for purposes of public, agency or expert review or comment as it impedes the ability to ground-truth and review the information, claims and data.
- The original alignment aerial views and backgrounds on the plots are muted out, making it difficult for the landowners and public monitors to ground-truth the information asserted. On other pipeline projects, maps are much more detailed and legible.
- PennEast uses desktop information for design purposes rather than completed “in-situ” evaluations. As such, the EIS is not relying upon the best, publicly-available information.
- The EIS has not demonstrated how impacts to tile drains serving existing farm fields will be mitigated if encountered. Given the implications for water, this is a concerning oversight.
- There would be an influx of invasive plant and animal species that would have cascading impacts on the forest ecosystem, which would spread along the right of way and back into the core of the adjacent forest. These impacts are not addressed by the EIS.
- An Invasive Plant Species Management Plan for use during construction and operation is not provided by the EIS. New invasions by the emerald ash borer and the spotted lanternfly must also be addressed.
- A Migratory Bird Conservation Plan is missing from the EIS and project materials.
- Identification of appropriate seed mixes to be used during revegetation efforts is not provided by the EIS.
- Completed surveys identifying all potential suitable habitats for special status species in the project area is not provided by the EIS.
- Remaining site-specific construction plans for all residences within 25 feet of the construction ROW and additional temporary workspaces (ATWS) including landowner approval and the potential implications for water resources are not provided by the EIS.
- Updates on the status of the site-specific crossing plans for each of the recreational and special interest areas in the Delaware River watershed listed as being crossed or otherwise affected by the pipeline are not provided by the EIS.
- Identification of National Park Service concerns with regards to effects to trails and cultural resources is not provided in the EIS.

- A vibration monitoring plan and modification of blasting plan that include a review of potential effects to environmental resources is not provided in the EIS.
- Evaluation of liquefaction hazards along the pipeline route and at the compressor station site are not provided in the EIS.
- Final landslide hazard inventory is not provided in the EIS.
- Necessary mitigation measures and post-construction monitoring plan for liquefaction hazards and landslide hazards are not provided in the EIS.
- Evaluations to support routine/mitigation measures through geologically hazardous areas are not provided in the EIS.
- Final landslide inventory is not provided in the EIS.
- Landslide mitigation measures with locations are not provided in the EIS.
- Post-construction landslide monitoring plan is not provided in the EIS.
- Final karst mitigation plan is not provided in the EIS.
- Identification of the management and field environmental professionals responsible for notification for contaminated sites is not provided in the EIS.

This partial listing of the many failings of the various PennEast filings provided to FERC makes clear that FERC failed to take the requisite “hard look” at the Original PennEast Project. In preparing an EIS for the New PennEast Project, FERC must address the above discrepancies and now the additional discrepancies and gaps that are apparent in PennEast’s new “phased” project, which is an attempt to undermine New Jersey’s decision to protect its residents and environment from harm.

In addition, because FERC has since approved PennEast’s requested modifications to the pipeline route,¹⁴⁷ FERC’s EIS for the New PennEast Project must analyze the entire route with modifications. It is vital that FERC view the New PennEast Project as a whole in order to accurately evaluate its impact on the environment. So far, FERC has independently evaluated the Original PennEast Project (which will now no longer be built as analyzed), the Adelpia Project, the route modifications in isolation, and now FERC proposes to review only the Church Road Facility. This piecemeal review of the New PennEast Project distorts the purpose of NEPA, which is “to insure a fully informed and well-considered decision.”¹⁴⁸

¹⁴⁷ Order Amending Certificate, PennEast Pipeline Company, LLC, Docket No. CP19-78-000, 170 FERC ¶ 61,198 (Mar. 19, 2020).

¹⁴⁸ *Vermont Yankee Nuclear Power Corp. v. Nat. Res. Defense Coun.*, 435 U.S. 519, 558 (1978).

VII. PennEast Has Failed to Establish Public Need for its Phase 1 Project and Thus FERC Must Deny PennEast’s January 30, 2020 Request for Amendment

Prior to constructing any natural gas facility, a company such as PennEast must obtain a certificate of public convenience and necessity issued by FERC.¹⁴⁹ According to FERC’s own Certificate Policy Statement,¹⁵⁰ in deciding whether to issue such a certificate:

[T]he Commission will consider all relevant factors reflecting on the need for the project. These might include, but would not be limited to, precedent agreements, demand projections, potential cost savings to consumers, or a comparison of projected demand with the amount of capacity currently serving the market. The objective would be for the applicant to make a sufficient showing of the public benefits of its proposed project to outweigh any residual adverse effects discussed below.¹⁵¹

Those adverse effects include those against “the interests of landowners and surrounding communities.”¹⁵² “Traditionally, the interests of the landowners and the surrounding community have been considered synonymous with the environmental impacts of a project.”¹⁵³ After completing a thorough EIS with public scrutiny and comment on the New PennEast Project, FERC will have a comprehensive understanding of the environmental impacts of these projects. The cumulative adverse effects associated with the New PennEast Project are enormous, as the pipeline would cut through sensitive water bodies causing short-term and long-term harm to water quality, habitat, steep slopes, and recreation areas, would induce additional fracking activity in the Marcellus Shale region, and result in the emission of GHGs such as carbon dioxide and methane. The science and expert reports put on record and referenced in this comment outline some of these irreversible harms.

In balancing these adverse effects against the so-called public benefits of Phase 1, FERC should conclude that any benefit in transmitting 340,000 Dth/d of natural gas to existing pipelines simply cannot outweigh the harm that would be caused by Phase 1 of the New PennEast Project. In its application, PennEast asserts that FERC should “evaluate the public benefits of the stand-alone Phase 1 facilities against any potential adverse consequences of PennEast’s proposal to phase construction of the Project, including the construction of the Church Road Interconnects.”¹⁵⁴ This calculation both assumes that the New PennEast Project will inevitably be built, and puts a thumb on the scale in favor of finding public need.

¹⁴⁹ 15 U.S.C. § 717f(c).

¹⁵⁰ FEDERAL ENERGY REGULATORY COMM’N, Docket No. PL99-3-000, STATEMENT OF POLICY, 88 FERC ¶ 61,227 (Sept. 15, 1999).

¹⁵¹ *Id.* at 23.

¹⁵² *Id.*

¹⁵³ *Id.* at 24.

¹⁵⁴ *Phase 1 Application* at 12.

As an initial matter, PennEast must establish the need for the entire New PennEast Project, which should include, at least, a market study and precedent agreements. That information has not been provided by PennEast. Next, in order to evaluate Phase 1 as a stand-alone project accurately, FERC must consider the adverse effects of all construction and operational activity associated with Phase 1. This includes the siting of the sixty-eight-mile pipeline itself, the induced fracking, the new Church Road Facility, and the GHG emissions during construction and operation. This massive conglomeration of adverse effects simply does not outweigh the benefit of “provid[ing] new incremental capacity to meet market demand, as reflected by PennEast’s agreements with the Phase 1 shippers.”¹⁵⁵

PennEast also cites consumer access to stable, low-cost supplies, the creation of pipeline diversity, an increase in reliability of the natural gas transmission grid by providing a pipeline alternative, and reduction of system constraints and an increase in operational flexibility. These “benefits” could be used to describe every proposed new pipeline, and are not sufficient to overcome the permanent environmental harms that would be caused by the Phase 1 Project. Notably, the only Market Data included in PennEast’s Application is PennEast’s precedent agreements with its Phase 1 shippers,¹⁵⁶ despite the fact that FERC’s Certificate Policy Statement says that “the evidence necessary to establish the need for the project will usually include a market study.”¹⁵⁷ The need PennEast attempts to demonstrate with its shipper agreements is particularly weak because PennEast apparently has not found a single shipper to sign a precedent agreement for its Phase 1 Project besides the component companies of PennEast itself.¹⁵⁸

Accordingly, both Phase 1 and the New PennEast Project fail to meet the standard for public need because the public benefits of the project do not outweigh its adverse effects. FERC should not issue a certificate of public convenience and necessity to PennEast for Phase 1 or the New PennEast Project.

VIII. Both the Phase 1 Project and the New PennEast Project are Subject to Delaware River Basin Commission Jurisdiction and Approval.

Even if FERC is inclined to issue a certificate of public convenience and necessity to PennEast for the Phase 1 Project and the New PennEast Project, which would be in error and against the law, it must not do so until PennEast receives the approval of the Delaware River Basin Commission (“DRBC”). In its Phase 1 Application, PennEast states that it “will source water for hydrostatic testing and dust suppression from approved sources (e.g. commercial and municipal suppliers), and no chemicals will be added to hydrostatic test waters. Hydrostatic test water will not be discharged or used for dust suppression; all used hydrostatic test water will be removed from the site and disposed of at approved water treatment facilities.”¹⁵⁹ On the same

¹⁵⁵ *Id.* at 13.

¹⁵⁶ *Id.* at 22, Exhibit I.

¹⁵⁷ Statement of Policy at 25.

¹⁵⁸ See Answer of PennEast Pipeline Company, LLC, FERC Docket No. CP20-47-000 (Feb. 26, 2020).

¹⁵⁹ *Phase 1 Application*, Exhibit F-I at 14.

date that PennEast submitted its Application to FERC, it also wrote a letter to the DRBC withdrawing its Water Withdrawal and Discharge (“W&D”) Application due to the new “alternatives for water withdrawals and discharge.”¹⁶⁰

FERC must not issue a certificate without DRBC’s approval of the entire New PennEast Project. As previously discussed, PennEast is attempting to unlawfully segment the New PennEast Project by seeking approval for the construction of the Phase 1 Project from FERC.¹⁶¹ By attempting to withdraw its W&D Application from DRBC, PennEast hopes to evade review of a major pipeline project that would ultimately cross dozens of streams and wetlands in Pennsylvania and New Jersey, and the Delaware River itself. Even if FERC allows PennEast to take its desired piecemeal approach, the Phase 1 Project in Pennsylvania alone is subject to DRBC jurisdiction as a “project having a substantial effect on the water resources of the basin.”¹⁶²

Section 3.8 of the Delaware River Basin Compact provides:

No project having a substantial effect on the water resources of the basin shall hereafter be undertaken by any person, corporation or governmental authority unless it shall have been first submitted to and approved by the commission, subject to the provisions of Sections 3.3 and 3.5. The commission shall approve a project whenever it finds and determines that such project would not substantially impair or conflict with the comprehensive plan and may modify and approve as modified, or may disapprove any such project whenever it finds and determines that the project would substantially impair or conflict with such plan. The commission shall provide by regulation for the procedure of submission, review and consideration of projects, and for its determinations pursuant to this section.¹⁶³

The DRBC Rules of Practice and Procedure (“RPP”) classifies projects for review under Section 3.8 of the Compact into two categories: those deemed not to have a substantial effect on the water resources of the Basin and therefore not required to be submitted for DRBC review, and those deemed to have substantial effects on water resources of the Basin and therefore required to be submitted for Commission review.¹⁶⁴

With respect to natural gas pipeline projects, the RPP categorizes them as projects that *presumptively* do not have a substantial effect on the water resources of the Watershed and that therefore do not *automatically* require DRBC review. But then Section 2.3.5(A) says that:

¹⁶⁰ Letter from Jeffrey D. England, Project Manager, PennEast Pipeline Company, LLC to Steven J. Tambini, Executive Director, Delaware River Basin Commission (Jan. 30, 2020).

¹⁶¹ See Section II, *supra*.

¹⁶² DELAWARE RIVER BASIN COMPACT, § 3.8 (1961)

¹⁶³ *Id.*

¹⁶⁴ See DELAWARE RIVER BASIN COMMISSION, RULES OF PRACTICE AND PROCEDURE, Article 3, § 2.3.5 (July 1, 2019).

Except as the Executive Director may specifically direct by notice to the project owner or sponsor, or as a state or federal agency may refer under paragraph C., ... a project in any of the following classifications will be deemed not to have a substantial effect on the water resources of the Basin and is not required to be submitted under Section 3.8 of the Compact:

....

12. Electric transmission or bulk power system lines and appurtenances; major trunk communication lines and appurtenances; **natural and manufactured gas transmission lines and appurtenances**; major water transmission lines and appurtenances; unless they would pass in, on, under or across an existing or proposed reservoir or recreation project area as designated in the Comprehensive Plan; **unless such lines would involve significant disturbance of ground cover affecting water resources[.]**¹⁶⁵

A clear and straightforward reading of the DRBC Compact and Rules of Practice and Procedure clearly contain four exceptions to the exemption that, if the stated conditions are met, trigger DRBC review for natural gas transmission lines and appurtenances:

- 1) if the Executive Director of the Commission specifically directs;
- 2) if any state or federal agency refers a project under paragraph C.;
- 3) if the project in question crosses an existing or proposed reservoir or recreation area that has been incorporated into the Comprehensive Plan; or
- 4) if the project involves a significant disturbance of ground cover affecting water resources.

The New PennEast Project, including the Phase 1 Project in Pennsylvania standing alone, would involve significant disturbance of ground cover affecting water resources of the basin and clearly requires a docket from the DRBC before it can be allowed to proceed with any level of construction, including tree felling. The Phase 1 Project in Pennsylvania includes over sixty-eight (68) miles of pipeline right of way, the vast majority of which would be located within the Delaware River watershed basin. Dozens of waterways would be cut in Luzerne, Carbon, and Northampton Counties and these waterways would suffer temporary and permanent harm. There would be temporary and permanent impacts to wetlands, floodways, and upland habitats that would inflict direct, indirect, irreparable and enduring harm on the water resources of the

¹⁶⁵ *Id.* at § 2.3.5(A)(12).

basin. In addition, the project is still proposed to pass through Comprehensive Plan areas such as Beltzville State Park, Beltzville Reservoir, F.E. Walter Reservoir, Hickory Run State Park and Weiser State Forest which clearly triggers DRBC review.

Because of this significant disturbance of ground cover and the crossing of multiple reservoirs and recreation areas within DRBC's Comprehensive Plan, FERC cannot issue a certificate for the Phase 1 Project or New PennEast Project without the approval of DRBC. Furthermore, important Chapter 102 and 105 permits from the Pennsylvania Department of Environmental Protection as well as Army Corps permits have still not been issued for this pipeline, thus the issuance of the certificate without these approvals is inappropriate and premature. Should FERC erroneously issue a conditional certificate to PennEast for any project or amendment, it must not approve any construction or tree-felling to begin unless and until all relevant permits are issued.¹⁶⁶

IX. Conclusion

In processing PennEast's Application, FERC must recognize the wolf in sheep's clothing—PennEast is proposing an entirely different, multi-phase pipeline project that will have a much greater environmental impact on the region than the Original PennEast Project. Analysis of the Church Road Facility alone, as FERC currently proposes, would be a glaringly obvious segmentation of a much larger project. In analyzing the entirety of PennEast's proposed project, FERC must focus on the climate impacts of its approval, including the induced fracking it would cause as well as the emissions of GHGs associated with consumption of natural gas, and the social costs associated with those emissions. In analyzing the air pollution emissions associated with the projects, FERC must not narrowly focus on the Church Road Facility but look at the project as a whole. FERC should also determine acute emissions impacts, and require that PennEast use the latest science to document the projects' air impacts. FERC should also not undermine states' authority under the DRBC compact to regulate this harm.

¹⁶⁶ See Letter from Maya K. van Rossum, the Delaware Riverkeeper to Kimberly D. Bose, Secretary, Federal Energy Regulatory Commission (Nov. 14, 2018).

FERC must also scrutinize PennEast's assertion of public benefit when analyzing whether the Phase 1 Project and New PennEast Project are deserving of a certificate of public convenience and necessity, ultimately concluding that the asserted public benefits are in fact hollow and that the environmental effects are staggering. Thus, PennEast has not shown that it deserves a certificate of public convenience and necessity and this scheme by PennEast should be rejected by FERC. Should FERC issue a certificate, however, that certificate cannot be issued prior to the approval of the DRBC, as the proposed projects will have a substantial effect on the water resources of the Delaware River Basin.

Maya K. van Rossum

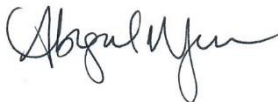


the Delaware Riverkeeper
Delaware Riverkeeper Network



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