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Via Electronic Mail: efiling@ferc.gov

Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, NE, Room 1A
Washington, DC 20426

Re: Comments on Environmental Assessment of the Northeast Upgrade Project,
Docket No. CP11-161-000

Dear Ms. Bose:

On behalf of the intervenors, the New Jersey Highlands Coalition, the New Jersey Chapter of the Sierra Club, and the Delaware Riverkeeper Network, we respectfully submit the following comments on the environmental assessment (“EA”) of the Northeast Upgrade Project (“Project”) proposed by Tennessee Gas Pipeline Company (“TGP”). For the reasons explained below, the EA cannot serve as the basis for an adequate hard look at the Project’s environmental impacts or support a finding of no significant impact (“FONSI”). To the contrary, available evidence demonstrates that the Project will significantly affect the quality of the human environment and that a full environmental impact statement (“EIS”) should be prepared to ensure that the Federal Energy Regulatory Commission (the “Commission” or “FERC”) satisfies its obligations under the National Environmental Policy Act (“NEPA”), 42 U.S.C. §§ 4321 *et seq.*

I. The Northeast Upgrade Project Will Significantly Affect the Quality of the Human Environment.

FERC’s conclusion that the Project will have no significant environmental impacts is unsupported in the face of evidence demonstrating the potential severity of the Project’s impacts. The determination of whether a project will “significantly affect[] the quality of the human environment,” depends on considerations of “both context and intensity.” 40 C.F.R. § 1508.27.¹ As is set forth below, both the context and intensity of the Project’s impacts mandate a finding of significant impacts and the preparation of an EIS. *See* 42 U.S.C. § 4332(2)(C) (an EIS must be prepared for all “major Federal actions significantly affecting the

¹ The Council on Environmental Quality is authorized “to establish regulations setting forth environmental review procedures to be followed by federal agencies.” *Advocates for Transp. Alternatives, Inc. v. U.S. Army Corps of Eng’rs*, 453 S. Supp.2d 289, 299 (D. Mass. 2006) (citing 42 U.S.C. §§ 4342, 4344).

quality of the human environment”).

With regard to context, “the significance of an action must be analyzed in several contexts such as society as a whole (human, national), the affected region, the affected interests, and the locality.” 40 C.F.R. § 1508.27(a). The context of this Project necessarily includes the rapid development of the Marcellus Shale, which has been marked by repeated episodes of environmental destruction and whose cumulative impacts on the human environment have never been examined by any local, state, or federal agency. The context of the Project also includes the fact that the pipeline looping segments will be constructed almost exclusively in high value resource areas and special protection waters designated by local, state, and federal agencies, including habitat for numerous federal and state endangered and threatened species.

Intensity “refers to the severity of impact.” 40 C.F.R. § 1508.27(b). Ten factors “should be considered in evaluating intensity.” 40 C.F.R. § 1508.27. A finding of cumulatively significant impacts (factor 7) alone demands an EIS. *See Kern v. U.S. Bureau of Land Mgmt.*, 284 F.3d 1062, 1076 (9th Cir. 2002) (“[A]n EA may be deficient if it fails to include a cumulative impact analysis or to tier to an EIS that has conducted such an analysis.”); *Friends of the Earth, Inc. v. U.S. Army Corps of Eng’rs*, 109 F. Supp.2d 30, 43 (D.D.C. 2000) (“[T]he significant cumulative impacts of the multiple casino projects . . . warrant the preparation of an EIS. On this . . . criterion alone, it appears that an EIS is required.”) (citations omitted). As few as two of the other factors together can invalidate a FONSI and require an EIS. *See, e.g., Nat’l Parks & Conservation Ass’n v. Babbitt*, 241 F.3d 722, 731–37 (9th Cir. 2001) (“NPCA”), *abrogated on other grounds by Monsanto Co. v. Geertson*, 130 S. Ct. 2743 (2010).

In the case of the Project, at least nine of the ten intensity factors – including cumulative impacts – weigh heavily in favor of a finding of severe and significant impacts necessitating analysis in an environmental impact statement:

- (2) The degree to which the proposed action affects public health or safety.
- (3) Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.
- (4) The degree to which the effects on the quality of the human environment are likely to be highly controversial.
- (5) The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.
- (6) The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.
- (7) Whether the action is related to other actions with individually insignificant but cumulatively significant impacts. Significance exists if it is reasonable to anticipate a cumulatively significant impact on the environment. Significance cannot be avoided by terming an action temporary or by breaking it down into small component parts.
- (8) The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of

Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources.

- (9) The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.
- (10) Whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment.

40 C.F.R. § 1508.27. Consideration of each of these factors indisputably leads to a finding that a FONSI cannot be supported in this case. The Project will have significant impacts and FERC must therefore prepare an EIS.

While NEPA regulations do not contain page limits for EA's, the Council has generally advised agencies to keep the length of EA's to not more than approximately 10-15 pages. Some agencies expressly provide page guidelines (e.g., 10-15 pages in the case of the Army Corps). To avoid undue length, the EA may incorporate by reference background data to support its concise discussion of the proposal and relevant issues. CEQ itself has addressed the appropriateness, or lack thereof, of an EA for a complex project resulting in voluminous documentation:

36b. Under what circumstances is a **lengthy EA** appropriate?

A. Agencies should avoid preparing lengthy EAs except in unusual cases, where a proposal is so complex that a concise document cannot meet the goals of Section 1508.9 and where it is extremely difficult to determine whether the proposal could have significant environmental effects. **In most cases, however, a lengthy EA indicates that an EIS is needed.**^{2*}

Consistent with CEQ's guidance, intervenors' expert John A. Thonet, PE, PF, of Thonet and Associates, Inc., *Environmental Planning & Engineering Design Consultants* concluded:

The Environmental Assessment (EA) provided is voluminous, rather than being a brief and concise document as intended by NEPA. The document consists of about 250 pages of text, tables, maps, and appendices that clearly document that the project will result in environmental impacts to over 800 acres of land over the 40-mile long project area The environmental impacts described in the EA are sufficient to support a finding that the project is likely to have significant environmental impacts, contrary to the EA's "Finding of No Significant Impact" (FONSI).

John A. Thonet, PE, PF, Comments on Environmental Assessment (hereinafter "Thonet Comments") at 17-18 (annexed as Exhibit A hereto).

² <http://ceq.hss.doe.gov/nepa/regs/40/30-40.HTM#36>.

* All online materials are readily available on the internet; intervenors will submit them to FERC upon request.

II. Analysis of the NEPA Intensity Factors.

A. The Project Poses a Significant Threat to Public Health and Safety.

The “degree to which the proposed action affects public health or safety,” 40 C.F.R. § 1508.27(b)(2), favors a finding of significance. TGP’s pipeline safety record, the age of the original pipeline to which the Project will be looped, and the proximity of the Project to numerous hazardous waste sites raise numerous and significant public health and safety concerns that must be assessed in an EIS.

The transmission of highly flammable natural gas creates significant risks of loss of life and major property damage. The U.S. Department of Transportation’s Pipeline and Hazardous Materials Safety Administration reports that, in the past twenty years, significant on-shore gas transmission incidents have caused 43 fatalities, 219 injuries requiring in-patient hospitalization, and over \$1 billion in property damage resulting from significant on-shore gas transmission incidents.³ Within the past year alone, three pipeline segments owned and operated by TGP have exploded, causing large fires, forcing residential evacuations, and threatening public safety.⁴ Two other TGP pipeline segments experienced significant failures during the same time period, resulting in the release of natural gas into the environment.⁵ TGP’s safety record is of particular concern because this Project will add pipeline loops to an existing 24-inch diameter transmission pipeline installed in the *mid-1950s*. Older pipelines have a higher frequency of corrosion incidents because corrosion is a time-dependent process. *See* EA at 2-118. The proposed addition will therefore cause significantly more highly combustible natural gas to flow through nearly 60 year-old transmission infrastructure.⁶ The age of the original pipeline, coupled with TGP’s disturbing history of pipeline accidents, raises significant questions about TGP’s ability to safely construct and operate this Project.

In addition, this Project will traverse parts of Pennsylvania and New Jersey that have numerous existing hazardous waste sites and landfills. The EA identifies no fewer than thirty-five hazardous waste sites within 1,700 feet of the Project. EA at 2-79. Of particular note is the 500 acre Ringwood Mines/Landfill Site in Ringwood, New Jersey, located upgradient and just 500 feet from the project. EA at 2-80. While this site has been the focus of remediation efforts

³ *Stakeholder Communications*, U.S. DEP’T OF TRANSP., PIPELINE AND HAZARDOUS MATERIALS SAFETY ADMIN., http://primis.phmsa.dot.gov/comm/reports/safety/SigPSI.html?nocache=9740#_ngtrans (last visited Dec. 18, 2011).

⁴ *See Pipeline Blast, Blaze Under Investigation*, CLARION LEDGER, (Nov. 22, 2011 11:11 PM), <http://www.clarionledger.com/article/20111123/NEWS/111230334/Pipeline-blast-blaze-under-investigation>; Cheri Russo & Bethany Venable, *Morgan Co. Pipeline Explosion*, WOUB PUBLIC MEDIA, (Nov. 16, 2011 9:04 AM), <http://woub.org/2011/11/16/explosion-reported-northern-athens-county>; *Gas Explosion Rocks Ohio Countryside*, FOX NEWS (Feb. 11, 2011), <http://www.foxnews.com/us/2011/02/11/gas-explosion-rocks-ohio-countryside/>.

⁵ *See* In the Matter of Tennessee Gas Pipeline Company, CPF No. 3-2011-1001S, U.S. Dep’t of Transp. (2011), *available at* http://primis.phmsa.dot.gov/comm/reports/enforce/documents/320111001S/320111001S_Consent%20Agreement_03312011.pdf; In the Matter of Tennessee Gas Pipeline Company, CPF No. 4-2010-1007H, U.S. Dep’t of Transp. (2010), *available at* http://primis.phmsa.dot.gov/comm/reports/enforce/documents/420101007H/420101007H_CAO_12032010.pdf;

⁶ The original transmission pipe was installed before 1971 and therefore does not have modern external protective coating or a cathodic protection system, subjecting it to an increased corrosion rate over modern pipe. *See* EA at 2-119.

almost continually since 1984, additional hazardous material continues to be discovered on site.⁷ Because the proximity of these sites to the Project area raises significant public health and safety concerns, FERC must conduct an EIS to fully assess these risks.

B. The Project Will Affect Numerous Unique Geographic Areas And May Cause Destruction of Significant Scientific, Cultural, and Historical Resources.

The “[u]nique characteristics of the geographic area” strongly favor a finding of significant impacts requiring the preparation of an EIS in this case, as does “[t]he degree to which the action . . . may cause loss or destruction of significant scientific, cultural, or historical resources.” 40 C.F.R. § 1508.27(b)(3), (b)(8). Each of the five pipeline loops will pass through or near one or more of the six categories of unique geographic characteristics identified by CEQ regulations as pertinent to a significance determination, including “historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.” *Id.* Numerous courts have required the preparation of an EIS when a proposed major federal action has the potential to significantly impact sensitive and protected resources such as those in proximity to the Northeast Upgrade Project. *See, e.g., Anglers of the Au Sable v. U.S. Forest Serv.*, 402 F.Supp.2d 826, 832 (E.D. Mich. 2005) (determining that plaintiffs raised a substantial question as to whether an EIS should have been prepared in a proceeding for a preliminary injunction where the proposed action could “cause significant impacts to old-growth and other forest stands and the wildlife they harbor” and was located within the nesting area of an endangered species and close to a state “Natural Area” and a state “Natural River”); *Patterson v. Exxon*, 415 F. Supp. 1276, 1281–82 (D. Neb. 1976) (holding that the agency should have prepared an EIS where the proposed project would entail “considerable grading and tree removal” in area “rich in scenic beauty”); *Concerned Residents of Buck Hill Falls v. Grant*, 388 F. Supp. 394, 398 (M.D. Pa. 1975) (holding that the Soil Conservation Service erred in failing to prepare an EIS because it “did not explore in depth all the adverse impacts to the aquatic life” in a high value trout stream that would be impacted by the proposed Project).

An astounding number of unique resource areas that will be adversely affected by the Project. Each of the five pipeline loops will cross through sensitive and unique vegetative communities. EA at 2-38, 2-39. Loop 317 will cross the Susquehanna River Trail, a Nationwide Rivers Inventory waterbody, and the U.S. Route 6 Grand Army of the Republic Highway Trail. EA at 2-71, 2-72. Loop 323 will cross the Delaware State Forest, High Point State Park, the Appalachian National Scenic Trail, and the Clove Brook Road Corridor Important Bird Area. EA at 2-73, 2-74, 2-45. Loop 323 will also cross the Delaware River, a National Wild and Scenic River. EA at 2-13. Loop 325 is located entirely within the Highlands Region, and will cross the Long Pond Ironworks State Park, the Monksville Reservoir, and Ringwood State Park. EA at 2-75, 2-76, 2-78, 2-79. The pipeline loops will also cross more than seven miles of prime farmland, EA at 2-4, dozens of high quality and exceptional waterbodies that serve as coldwater and warmwater fisheries, EA at 2-19, and almost fifty acres of wetlands, EA at 2-25.

⁷ See *Ringwood Mines/Landfill Site*, U.S. ENVTL. PROT. AGENCY, www.epa.gov/region2/superfund/npl/ringwood/ (last visited Dec. 18, 2011).

The exceptional value of these unique resource areas cannot be disputed. National Wild and Scenic Rivers, like the Delaware River, are so designated because they “possess outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values.” See 16 U.S.C. § 1271. Similarly, river segments on the Nationwide Rivers Inventory, such as the Susquehanna River, “possess one or more ‘outstandingly remarkable’ natural or cultural values judged to be of more than local or regional significance.”⁸ Congress has recognized the Highlands Region for the “importance of [its] water, forest, agricultural, wildlife, recreational, and cultural resources.”⁹ The public lands and resources protected at the state level that will be adversely affected by this Project are no less remarkable. For example, the Clove Brook Road Corridor Important Bird Area consists of “largely intact forests . . . [that] provide valuable breeding habitat for several species of raptors including state-endangered northern goshawks and red-shouldered hawks, state-threatened barred owls, and state-special concern Cooper’s hawks.” EA at 2-45.

The EA clearly demonstrates the Project’s potential to significantly affect these unique and sensitive areas. The areas affected by the Project serve as habitat for four federally listed threatened or endangered species, the Bald Eagle, and sixty-five state endangered, threatened, or special concern species. EA at 2-47, 2-53, 2-54. See also *infra* Part II.G. The Project will permanently convert approximately eighty acres of forested land, potentially leading to increased erosion, fragmentation, and edge habitat, which could “decrease the quality of habitat for forest wildlife species.” EA at 2-36. Construction of the Project will substantially degrade an additional 265.4 acres of forested land, which the EA admits will take “many years to regenerate.” EA at 2-36, 2-80. The Project will also cause “a permanent conversion of previously forested wetland areas to non-forested wetland areas,” which “could result in changes in wetland functions and values by altering the amount of sunlight or other environmental conditions in the wetland, primarily wildlife habitat.” EA at 2-28. Further, “[l]ong-term impacts on fishery resources could occur if the stream contours are permanently modified in the area of the crossing or the adjacent riparian vegetation does not recover.” EA at 2-21. These are only some of the known risks posed by the Project; as discussed *infra* in Part II.D, FERC has failed to collect and analyze a significant amount of data that is highly relevant to assessing the potential impact of the Project on these unique geographic areas.

The EA’s conclusion that these unique and sensitive areas will not be significantly affected by the Project appears to rely largely on baseless conclusions and unsupported expectations. With respect to the potential impact of the Project on wetlands, for example, the EA states that “[i]n general . . . it is expected that the affected wetlands would continue to provide important ecological functions such as sediment/toxicant retention, nutrient removal, flood attenuation, groundwater recharge/discharge, and wildlife habitat.” EA at 2-28. The EA offers similarly unsupported “expectations” in its analysis of forest fragmentation, stating that “[i]t is expected that most wildlife, such as birds and larger mammals, would temporarily relocate to adjacent available habitat as construction activities approach” and then “would be expected to return and colonize post-construction habitats.” EA at 2-43. The agency staff’s unsubstantiated “belie[f] that the overall permanent conversion of wildlife would be minor due to

⁸ See *Nationwide Rivers Inventory*, NAT’L PARK SERV., <http://www.nps.gov/nrcr/programs/rtca/nri/> (last visited Dec. 18, 2011).

⁹ Highlands Conservation Act, Pub. L. No. 108-421, 118 Stat. 2375 (2004).

the aforementioned collocation and the large expanse of forested land available in the Project area” and baseless conclusion that “[i]t is not likely that the addition of 25 feet of permanently cleared right-of-way would impede the movement of most [though not all] forest interior species” does not satisfy FERC’s duty to take a hard look at the impacts of this Project on the many unique and sensitive areas noted above. EA at 2-43 (insert added). The ecological importance of these areas demands further study beyond that contained in the EA.

C. The Environmental Impacts of the Project Are Highly Controversial

Pursuant to NEPA, a major federal action is controversial when “a substantial dispute exists as to the size, nature, or effect of the . . . action.” *See, e.g., LaFlamme v. FERC*, 852 F.2d 389, 400–01 (9th Cir. 1988) (citations and quotations omitted). As the appended statements of independent experts and the comments from NJDEP demonstrate, many of the impacts of the Project and the conclusions reached in the EA are highly disputed. For example, environmental consultant Kevin Heatley took issue with FERC’s conclusion in Section 2.3.2.2 regarding wildlife impacts. Heatley found that “ROW expansion will decrease soil moisture levels in the adjacent forest floor and leaf litter resulting in fundamental changes in soil chemistry and biota. **The ROW expansion, coupled with the associated edge effects, is likely to present a barrier to movement of sensitive species.**” Keven Heatley, Comments on the EA at 7 (annexed as Exhibit B hereto). He also found that “the creation of additional edge habitat, in combination with a linear corridor, is likely to result in chronic, localized infestations of undesirable species” *Id.* at 9. Heatley concluded that the “failure to address these areas of concern will assure undesirable, cascading impacts which will eventually undermine the ecological integrity of forested systems adjacent to the project area.” *Id.* at 13.

Additionally, the EA does not take into account serious impacts of the construction on important natural and cultural resource values that are outside of and beyond the construction site itself. Such impacts include increased forest fragmentation that destroys critical interior forest habitat conditions adjacent to the ROW and degrades habitat conditions for hundreds or thousands of feet perpendicular to the ROW. Construction noise adversely affecting wildlife behavior hundreds of feet or more away from the actual construction is not considered. Scenic and historic resources and viewsheds at some distance from the construction site itself can be permanently degraded.

There are long-term impacts of access route and ROW construction that are permanent and irreversible – soil compaction, the spread of invasive, non-native species of plants, pathogens and animals, and the permanent loss of public trust resources of native flora and fauna that can never recover within the permanently altered habitat.

Agencies cannot assume that restorative measures will succeed, as the record on restorative practices proves that restorative measures fail due to poor design and planning, poor follow-up, insufficient resources, deer browse, off-road vehicle impacts, drought, and weed invasive species capturing the site, ultimately resulting in a complete loss of the sensitive natural resource components that were originally present.

Offsite impacts currently reported include that heavy precipitation on Tennessee Gas

Pipeline's recent construction on the steep slopes of Hamburg Mountain State Wildlife Management Area and Bearfort Mountain in Wawayanda State Park, approved earlier by the State, has caused massive erosion, mudslides, siltation and degradation of public and private properties, including Category One waterways, lakes and ponds. Experience shows that attempts to repair this kind of damage are merely cosmetic. The loss of public trust resources can never be recovered, and the soil loss and disturbance will result in an irreversible compositional shift to weedy, unremarkable species characteristic of degraded ecosystems. *Id.*

As amply demonstrated in these comments and the attached expert reports, the controversial nature of the Project supports the preparation of an EIS.

D. The Possible Effects of the Project on the Quality of the Human Environment Are Highly Uncertain.

The fifth intensity factor directs agencies to evaluate “[t]he degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks” when evaluating the potential significance of a project’s impacts on the environment and the necessity of an EIS. 40 C.F.R. § 1508.2(b)(5). Possible effects are highly uncertain where, as here, an EA reveals significant gaps in data collection. Thus, a FONSI cannot be supported “where uncertainty may be resolved by further collection of data, or where the collection of such data may prevent speculation of potential effects.” *NPCA*, 241 F.3d at 732-33 (finding a FONSI indefensible where the agency proposed a monitoring program to understand the effects of increased ship traffic on the environment in an EA rather than implement the program and analyze the relevant data before issuing a FONSI).

Incomplete data collection compels the preparation of an EIS because “[t]he purpose of an EIS is to obviate the need for speculation by insuring that available data are gathered and analyzed prior to the implementation of the proposed action.” *Sierra Club v. U.S. Forest Serv.*, 843 F.2d 1190, 1195 (9th Cir. 1988) (finding an agency’s decision not to prepare an EIS unreasonable where the agency failed to gather and address relevant data bearing on cumulative impacts and the impact of the project on state water quality standards); *see also Ocean Advocates v. U.S. Army Corps of Eng’rs*, 402 F.3d 846 (9th Cir. 2005) (determining that an agency erred in issuing a FONSI where it failed to gather data to assess increased traffic resulting from the proposed project). An agency’s “lack of knowledge does not excuse the preparation of an EIS; rather it requires the [agency] to do the necessary work to obtain it.” *Id.* at 733. FERC’s failure to collect key information, described below, not only raises questions about the sufficiency of the EA but also affirmatively militates in favor of the preparation of an EIS because it creates significant uncertainty regarding the extent of the Project’s impacts.

The EA reveals a striking failure to gather or assess data vital to understanding the geology of the Project area. For example, while “[t]he majority of the Project areas is located in an area considered to be moderately to highly susceptible to landslides,” TGP has not yet conducted field surveys “to assess the potential risk of slope failure during construction or operation of the pipeline.” EA at 2-2. TGP has similarly failed to identify the location of karst features in the Project area, notwithstanding the fact that “nearly all of Loop 323 and portions of Loop 325 would traverse areas of potential karst terrain.” EA at 2-3. TGP has also failed to

identify which areas of the Project will necessitate the use of blasting during construction, including wetlands, which is of particular concern because “[82 percent] of the proposed pipeline loops would cross shallow bedrock.” EA at 2-3, 2-24.

The EA further indicates that the revegetation potential of much of the Project is unknown. According to the EA, “[a]pproximately 55 percent (22.3 miles) of the proposed loops would be underlain by stony/rocky soils[,] . . . [a]bout 19 percent (7.6 miles) of the proposed pipeline loops would cross droughty soils,” and “[a]n additional 60 percent (24.2 miles) of the soils that would be crossed have an average slope of greater than 8 percent.” EA at 2-6. All of these factors “may make the establishment of vegetation difficult.” *Id.*

The potential for the Project to harm water resources is similarly uncertain. Of particular concern, the EA discloses that TGP has not yet developed a mitigation plan for the construction and operation of Loop 325 through the Highlands Region, “which provides the majority of potable water used in northern and central New Jersey.” EA at 2-11 (“TGP *would* develop a Comprehensive Mitigation Plan during construction and operation of the Project” (emphasis added)). Further, the EA notes that blasting “could potentially impact the water quality and capacity of nearby water supply wells.” EA at 2-12. However, it is clear that the scope of this potential impact has not been assessed because, as noted above, TGP has not yet determined where blasting will occur. Moreover, while the EA acknowledges that dry crossings of the Susquehanna River and the Monksville Reservoir could be necessary if the proposed horizontal directional drilling (HDD) fails, it offers no assessment of what impacts an alternative crossing method would have on these waterbodies, nor does it indicate that information on any potential impacts has even been collected. EA at 2-17.

As described *infra* in Part II.G, TGP has thus far failed to submit numerous required surveys and final reports regarding federal threatened and endangered species, including reports for the federally threatened bog turtle, EA at 2-48, and surveys for the federally endangered dwarf wedgemussel, EA at 2-51, the small whorled pogonia, EA at 2-51, and the bald eagle, EA at 2-53. The EA indicates that TGP has also failed to complete or submit surveys for state-listed rare plants, EA at 2-53, timber rattlesnakes, EA at 2-54, mussels, EA at 2-55, and blue-spotted salamanders, EA at 2-55.

TGP has also failed to complete cultural resource surveys on portions of the Project area in Pennsylvania and New Jersey. EA at 2-90. Likewise, Phase II archaeological surveys for the Project have not been completed. EA at 2-91. Further, the Ramapough Lenape Nation has informed FERC that the Phase IA background information report “miss[ed] some local sources of information, including some known sites” of importance to the tribe, calling into question the adequacy of those reports presently completed. EA at 2-89.

Environmental consultant John Thonet summarizes all of the EIS-type environmental, historic preservation and cultural resource studies that need to be completed to ensure that the natural and human environment is adequately protected. With all of the following survey results still outstanding, the degree of uncertainty is immense:

- An updated Phase 1A survey report for New Jersey;
- Phase 1 cultural resources survey report(s) for any previously unreported areas for Pennsylvania and New Jersey, including the Revised TGP Alternative B route and the Wallkill River Mitigation Site;
- Phase II site evaluation reports, as required, to provide NRHP-eligibility recommendations for sites in Pennsylvania and New Jersey, including additional geomorphological testing;
- Any other reports, plans, or special studies, not yet submitted, including archaeological site avoidance and treatment plans, historic architectural avoidance plans, and unanticipated discovery plans.
- Comments on the cultural resource reports and plans from the PA SHPO, NJ SHPO, and any other consulting parties; and
- The records of continued consultation with the Ramapough Lenape Nation, Delaware Nation, the Delaware Tribe of Indians, the Oneida Indian Nation, the Eastern Shawnee Tribe of Oklahoma, and the Stockbridge Munsee Community of Wisconsin, and any other American Indian tribe that have not yet been filed.

Thonet Comments at 16. In addition to the above studies, Thonet points out that the recommendation is for the action not to commence until all of the following consultations have occurred:

- The Advisory Commission on Historic Preservation (ACHP) is afforded an opportunity to comment if historic properties would be adversely affected
- The FERC staff reviews and the Director of OEP approves the cultural resources reports and plans, and notifies TGP in writing that treatment plans/mitigation measures may be implemented and/or construction may proceed.
- TGP files, for review and written approval of the Director of OEP, a plan detailing the additional noise mitigation measures TGP would use to ensure that the noise levels attributable to the 24-hour HDD activities do not exceed an Ldn of 55 dBA at the Noise Sensitive Areas (NSAs) near the Susquehanna River HDD entry site.
- TGP files noise surveys with the Secretary after placing the authorized units at the Compressor Stations 321 and 323 in service. If the noise attributable to the operation of all the equipment at the identified compressor stations at full load exceeds an Ldn of 55 dBA at the nearby NSAs, then TGP shall install additional noise controls to meet the level
- Within 1 year of each station's in-service date. TGP shall confirm compliance with the above requirement by filing a second set of noise surveys with the Secretary after it installs the additional noise controls.

Id. at 16-17.

Furthermore, intervenors' experts and the NJDEP identify a significant number of failures to adequately study, collect data or assess impacts of the proposed project. These egregious omissions include:

- Examination of the increase in forest edge effects resulting from the expansion of the ROW.
- Analysis of potential impacts to interior forest species.
- Spatial analysis of the landscape level configuration of the forest system.
- Analysis of potential increases in tree mortality associated with increased edge.
- Analysis of the impact of increased edge effect on long term forest successional trajectory and associated biodiversity.
- Evaluation of the effect on species of the loss of structural and functional diversity of tree canopy.
- Analysis of the impact that expansion of the ROW will have on white-tailed deer herbivory.
- Discussion of the threat of invasive species incursions and its threat to forest health.
- Evaluation of the cumulative impact of Marcellus Shale development.
- Identification of abandoned iron mines within the Project area.
- Vegetation inventory and documented rare plant species or ecological communities.
- Direct and indirect emissions estimates for Volatile Organic Compounds and Oxides of Nitrogen for contractor and pipe yards.
- Location of all proposed access roads and culvert crossings.
- Surveys and survey protocols for several threatened and endangered species.

NEPA does not permit agencies to “act first and study later.” *NPCA*, 241 F.3d at 734. The missing information discussed above, in addition to the missing information regarding cumulative impacts identified in Part II.F, “is precisely the information and understanding that is required *before* a decision that may have a significant adverse impact on the environment is made.” *Id.* at 733 (emphasis in original). In order to fully identify the true direct, indirect, and cumulative impacts of the Project, FERC must collect and assess the identified missing information in an EIS.

E. The Project Is Likely to Establish a Precedent for Future Actions With Significant Effects.

“The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration,” 40 C.F.R. § 1508.27(b)(6), further supports a finding that the Project will have significant impacts. The inquiry here is whether “approval of a single action will establish a precedent for other actions which may cumulatively have a negative impact on the environment.” *Anderson v. Evans*, 371 F.3d 475, 493 (9th Cir. 2004) (holding that federal agencies erred in failing to consider the precedential effect of approving an incidental take quota for whale hunting). For instance, in finding this factor to weigh in favor of significance and concluding that an EIS was required before the permitting of three casinos on the Mississippi coast, the District Court for the District of Columbia noted: “With the proliferation of casinos along the Mississippi coast, the [USACE] may feel bound to the conclusions reached in the FONSI’s issued in these cases, thereby allowing the FONSI’s to serve as precedent for future casino projects.” *Friends of the Earth v. U.S. Army Corps of Eng’rs*, 109 F. Supp. 2d 30, 43 (D.D.C. 2000). Here, the rapid pace of pipeline development in the Marcellus Shale region necessarily will entail the construction of numerous federally regulated facilities, including the New Jersey-New York Expansion Project (Docket

No. CP11-56), posing a serious risk that FERC will feel bound to the conclusions presented in the EA when evaluating future project proposals. Because the Project almost exclusively crosses high-valued protected lands and water resources, issuing a FONSI would establish precedent for future actions having significant impacts on similarly exceptional natural resources. The Commission staff should conduct a full EIS because the precedential value of this Project is substantial and the issuance of a FONSI could open the floodgates to detrimental impacts on highly valued natural resources.

F. The Project Will Have Cumulatively Significant Impacts on the Environment.

The EA's treatment of cumulative impacts falls short of what is required by NEPA. The EA fails to consider the full scope of impacts. It also assesses the identified impacts without providing any detailed or quantified data to support the analysis. Finally, the EA impermissibly relies entirely on presumed compliance with permitting requirements and proposed mitigation plans to justify its conclusion that no significant cumulative impacts will result from the Project. Such inadequacies render the cumulative impacts analysis insufficient as a matter of law, and the EA therefore cannot support the FONSI recommended by the Commission staff. Because it is reasonable to anticipate that the Project, together with connected and similar projects, will have a cumulatively significant impact on the environment, significance exists and necessitates the preparation of an EIS. 40 C.F.R. § 1508.27(b)(7).

1. The EA Fails to Consider the Full Scope of Impacts.

Under NEPA and its implementing regulations, 40 C.F.R. §§ 1500–08, federal agencies must consider the direct, indirect, and cumulative impacts of the Project and all connected, cumulative, and similar actions. 40 C.F.R. §§ 1508.8, 1508.25. The CEQ regulations implementing NEPA, which are binding on federal agencies, *Andrus v. Sierra Club*, 442 U.S. 347, 358 (1979), provide that actions are connected 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.
- (iii) Are interdependent parts of a larger action and depend on the larger action for their justification.

Id. § 1508.25(a)(1). “Similar actions” are those that “have similarities that provide a basis for evaluating their environmental consequences together, such as common timing or geography.”

Id. § 1508.25(a)(3). The regulations also provide that agencies should analyze similar actions in a single impact statement “when the best way to assess adequately the combined impacts of similar actions or reasonable alternatives is to treat them in a single impact statement.” *Id.*

Direct impacts “are caused by the action and occur at the same time and place.” 40 C.F.R. § 1508.8. Indirect impacts “are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. . . . Indirect effects 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.” *Id.* 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. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

40 C.F.R. § 1508.7. In preparing an EA adequate to support a FONSI, agencies must adhere to the CEQ standards outlined above. *See Kern v. U.S. Bureau of Land Mgmt.*, 284 F.3d 1062, 1076 (9th Cir. 2002) (discussing CEQ guidance and broad consensus among Circuit courts that EAs must address cumulative impacts).

The EA states that its cumulative impacts analysis considers actions that:

- impact a resource area potentially affected by the Project;
- cause this impact within all, or part of, the Project area; and
- cause this impact within all, or part, of the time span for the potential impact of the Project.

EA at 2-121. FERC staff also represent that they have “considered existing or reasonably foreseeable actions expected to affect similar resources during similar time periods with the Project.” *Id.* In fact, however, the EA fails to consider the full scope of connected and similar actions as well as the cumulative impacts arising from the full scope of actions.

Remarkably, the EA fails to assess the additive effect of the Project together with the effects of existing or reasonably foreseeable gas development activities in the Project area, including the impacts of gas exploration and production and the construction and operation of well pads, access roads, gathering lines, compressor stations, and other infrastructure. Instead, the Commission staff merely acknowledges “general development of the Marcellus Shale” upstream activities, specifically but inadequately addresses existing wells and gathering systems, and ultimately dismisses upstream activities as “outside the scope of [the cumulative impacts] analysis because the exact location, scale, and timing of future facilities are unknown.” EA at 2-125. Additionally, Commission staff argues that “the potential cumulative impacts of Marcellus Shale drilling activities are not sufficiently causally related to the Project to warrant the comprehensive consideration of those impacts in this EA.” *Id.*

As a preliminary matter, Commission staff is misguided when it argues, as it did in the Marc I issuance, that because “the Commonwealth of Pennsylvania regulates the siting, permitting, construction and operation of Marcellus Shale wells in Pennsylvania” and “[t]he Commission plays no role, or retains any control over them,” it is “not required to consider the wells’ correlative environmental impacts.” *Cent. N.Y. Oil and Gas Co.*, 137 FERC ¶ 61,121 (Nov. 14, 2011). Commission staff appears to rely on *U.S. Dep’t of Transp. v. Public Citizen*, 541 U.S. 752 (2004), which held:

where an agency has no ability to prevent a certain effect due to its limited statutory authority over the relevant actions, the agency cannot be considered a legally relevant ‘cause’ of the effect. Hence, under NEPA and the implementing CEQ regulations, the agency need not consider these effects in its EA when determining whether its action is a ‘major Federal action.’

Id. at 770. In determining that there was no causal link, the Supreme Court stressed that “a critical feature” to its decision was that the FMCSA had “*no ability* to countermand the President’s lifting of the moratorium or otherwise categorically to exclude Mexican motor carriers from operating within the United States.” *Id.* at 766 (emphasis added).

Whereas the FMCSA had “no ability” whatsoever to prevent or otherwise affect the entrance of Mexican carriers, and therefore the impact of such carriers was not an “effect” the FMCSA had to consider in its EA, FERC’s exclusive jurisdiction over the interstate pipeline system grants it substantial statutory authority to affect development of Marcellus Shale upstream activities. Because development of upstream activities in the Marcellus region may only proceed if the Commission continues to expand access to market through the interstate pipeline system, the Commission is, in effect, a gatekeeper able to promote, prevent, or otherwise affect such activities. “[W]hen an agency serves effectively as a ‘gatekeeper’ for private action, that agency can no longer be said to have “no ability to prevent a certain effect [under the *Public Citizen* rule].” *Humane Soc. of U.S. v. Johanns*, 520 F. Supp. 2d 8, 25 (D.D.C. 2007). Because the Commission in fact has substantial capability, rather than no ability whatsoever, to prevent upstream development of Marcellus activities, the holding in *Public Citizen* is not controlling here, and the Commission must consider the cumulative impacts of Marcellus development in determining whether the Project is a major Federal action under NEPA.

Nonetheless, Commission staff argues that Marcellus Shale drilling activities are not “sufficiently causally related” to the Project so as to require comprehensive cumulative impact analysis in the EA. EA at 2-121. “NEPA requires ‘a reasonably close causal relationship’ between the environmental effect and the alleged cause,” a requirement the Supreme Court interprets as analogous to reasonable foreseeability in torts. *U.S. Dep’t of Transp. v. Public Citizen*, 541 U.S. at 767. Marcellus Shale development activities in Pennsylvania, particularly those in and around the pipeline’s service area, are reasonably foreseeable consequences of the Project, and their effects must therefore be considered as cumulative impacts in determining whether the Project is a major Federal action under NEPA.

The long duration of Marcellus shale development is not dispositive as to whether it has a reasonably close causal relationship to the Project. Indeed, “[r]easonable forecasting and speculation is . . . implicit in NEPA, and we must reject any attempt by agencies to shirk their responsibilities under NEPA by labeling any and all discussion of future environmental effects as ‘crystal ball inquiry.’” *Kern v. U.S. Bureau of Land Mgmt.*, 284 F.3d 1062, 1072 (9th Cir. 2002) (quoting *Scientists’ Inst. for Pub. Info. v. Atomic Energy Comm’n*, 481 F.2d 1079, 1092 (D.C.Cir.1973)). The cumulative impact analysis, in the EA’s own words, must encompass consideration of actions that cause an effect within “all, or part, of the time span” of the proposed Project’s effects. EA at 121. The EA states, albeit vaguely, that the Project will have effects for “several years,” *id.* at 2-28—or permanently, in the case of new right-of-way—and that

Marcellus Shale development in the area of the Project will be ongoing for twenty to forty years. *Id.* at 2-131. Thus, by the EA's own terms, the effects of Marcellus development will have effects within "all, or part, of the time span" of the Project's effects, and Marcellus development should therefore be included in the cumulative impacts analysis.

Nor is the broad geographic scope of Marcellus shale development dispositive as to whether it has a reasonably close causal relationship to the Project. The EA admits that the geographic scope of the cumulative impacts analysis should encompass consideration of actions that "impact a resource area potentially affected by the proposed project" and "cause this effect within all or part of the proposed project area." EA at 2-121. Publicly available maps of permitted gas wells in Pennsylvania show the locations of wells already drilled in the Pennsylvania counties to be crossed by the Project as well as the locations newly-permitted well sites.¹⁰ By simply stating, in general terms, how many wells will be drilled in the entire state of Pennsylvania, and failing to provide more detail or analysis, particularly where such details are available from publicly available sources, the Commission falls far short of its obligations under NEPA. *See* EA at 2-125. The Commission quite simply cannot argue that the location, scale, and timing of wells impacting the Project area are "unknown" when numerous wells are already permitted and relevant data on them is widely-available on-line.

Moreover, the Commission can ascertain with reasonable certainty and specificity the locations of existing and future wells that the Project itself will directly facilitate. The EA states that the Project is intended to provide Chesapeake Energy Marketing, Inc. and Statoil Natural Gas, LLC with 636,000 dekatherms per day of capacity. EA at 1-1. Maps prepared by the Bradford County Planning Commission, for example, offer a wealth of information the Commission has ignored, including the precise location of Chesapeake-owned permits and active wells along a proposed gathering pipeline that would connect with the TGP pipeline system of which the Project is an expansion.¹¹ Because Chesapeake would have no incentive to drill such wells or propose such a gathering line without the access to market provided by the Project, the cumulative impacts of such wells have a reasonably close causal relationship to the Project. That the Commission made no attempt to consider such specific, publicly available information further indicates the inadequacy of the EA.

Though the Commission need not know the "exact location, scale, and timing" of upstream Marcellus development to include its impacts in the EA, information about the "exact location [and] scale" of existing upstream facilities is available. Nevertheless, nowhere in the EA does the Commission acknowledge such information, let alone analyze it. Moreover, knowledge of future upstream activities is sufficiently certain to compel consideration of their cumulative impacts. The instant case is analogous to *Thomas v. Peterson*, where the Ninth Circuit considered whether an EA prepared by the Forest Service for a forest road had to consider possible timber sales facilitated by the road that might occur in the future. 753 F.2d 754

¹⁰ *See* Pennsylvania Dep't of Env'tl. Prot., Permits Issued & Wells Drilled Maps, *available at* <http://www.dep.state.pa.us/dep/deputate/minres/oilgas/2011PermitDrilledmaps.htm> (last visited Dec. 4, 2011) (providing links to Pennsylvania state maps showing location of wells drilled 2008 - 2011 and wells for which permits have been issued during 2011).

¹¹ Maps of Natural Gas Development in Bradford County, *available at* <http://www.bradfordcountypa.org/Natural-Gas.asp?specifTab=2> (last visited Dec. 4, 2011) (containing links to various maps, including "Overall Gas Activity Map," "Company Gas Map," "Gas Line Map," and "Quarterly Progression").

(9th Cir. 1985). The court held that the cumulative impacts of the road together with any timber sales that might occur in the future had to be considered together. The court rejected a contention that “the sales are too uncertain and too far in the future for their impacts to be analyzed along with the road,” reasoning 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.” *Id.* at 760. Indeed, it is difficult to conceive of a more analogous situation. The Commission staff concedes that further upstream Marcellus development is sufficiently certain—particularly in and around the Project area—to justify construction of the Project. Thus, the impacts of such development are sufficiently certain to be included as cumulative impacts of the Project.

In the face of the foregoing information and analysis, the Commission cannot in good faith conclude either that the effects of past, present, and reasonably foreseeable upstream Marcellus shale development do not have a “reasonably close causal relation” to the Project, or that they are entirely unknown and, thus, outside the scope of analysis. Indeed, the foregoing does not even consider the availability of comprehensive studies—such as the New York State Department of Environmental Conservation’s Revised Draft SGEIS for High-Volume Hydraulic Fracturing,¹² and other scientific and policy literature—which systematically address the impacts of shale gas development, and which the EA entirely ignores. Although “‘foreseeing the unforeseeable’ is not required, an agency must use its best efforts to find out all that it reasonably can.” *City of Davis v. Coleman*, 521 F.2d 661, 676 (9th Cir. 1975). FERC cannot rely on the EA to meet this obligation.

2. The Cumulative Impacts Analysis Is Devoid of Detailed, Reasoned Conclusions and Quantified Information.

Consideration of cumulative effects pursuant to NEPA requires “some quantified or detailed information,” because “[w]ithout such information, neither the courts nor the public, in reviewing the [agency’s] decisions, can be assured that the [agency] provided the hard look that it is required to provide.” *Neighbors of Cuddy Mountain v. U.S. Forest Serv.*, 137 F.3d 1372, 1379 (9th Cir. 1998); *see also Klamath-Siskiyou Wildlands Ctr. v. Bureau of Land Mgmt.*, 387 F.3d 989, 993–94 (9th Cir. 2004) (“A proper consideration of the cumulative impacts of a project requires some quantified or detailed information; general statements about possible effects and some risk do not constitute a hard look absent a justification regarding why more definitive information could not be provided.” (internal quotation marks and citations omitted)); *Lands Council v. Powell*, 395 F.3d 1019, 1028 (9th Cir. 2004) (An agency must provide “a sufficiently detailed catalogue of past, present, and future projects, and provide adequate analysis about how these projects, and differences between these projects, are thought to have impacted the environment.”). This cumulative analysis “must be more than perfunctory; it must provide ‘a useful analysis of the cumulative impacts of past, present, and future projects.’” *Ocean Advocates v. U.S. Army Corps of Eng’rs*, 402 F.3d 846, 868 (9th Cir. 2005) (citations omitted). The cumulative impact analysis in the Northeast Upgrade Project EA is inadequate because it presents only general, perfunctory analyses and fails to provide quantified or detailed information to support its conclusions.

¹² Available at <http://www.dec.ny.gov/energy/75370.html>.

To the extent the Commission staff considers upstream Marcellus activities, it fails to provide any quantified or detailed account of such activities, or consider their cumulative impacts. The EA includes a general acknowledgment that wells exist throughout the region, but fails to provide more specific and relevant information. EA at 2-125. This information is widely available. For example, the Bradford County Planning Commission and the Pennsylvania DEP both provide comprehensive quantitative and geographic data as to the locations of active wells and drilling permits. Given the availability of such and other data, the discussion of this matter in the EA is woefully inadequate when it merely concludes that “it is likely that drilling would continue through the construction of the Project, but the exact extent of such drilling is unknown.” EA at 2-125. Indeed, the Commission staff could use such information to quantify the “increased long-term emissions of criteria pollutants, HAPs, and GHGs within the region,” EA at 2-133, and consider how such emissions might contribute to climate change or impact the public health under 40 C.F.R. § 1508.27(b)(2), instead of disregarding such significant impacts as “outside the scope of our analysis.” EA at 2-133. The EA’s GHG and Climate Change analysis is similarly deficient, as it only considers direct emissions, rather than including the more substantial indirect emissions cumulatively resulting from the Project. *See* NJDEP Comments on the EA, at 14.

Likewise, the EA simply catalogs existing and reasonably foreseeable gathering systems, but without analyzing their cumulative impacts. EA at 2-122. The EA states that such projects will have “similar” impacts as the Project, but perfunctorily concludes that “land requirements for construction would typically be less for gathering systems due to the installation of smaller diameter pipeline.” EA at 2-126. Presumably, the Commission staff reasons that because impacts would be less significant for gathering systems, more comprehensive analysis is unnecessary. But cumulative impact analysis is precisely intended to analyze “individually minor but collectively significant actions,” such as the development of gathering systems in the Project area. 40 C.F.R. § 1508.7. Finally, for the reasons discussed in the preceding section, the EA should also detail and analyze impacts from upstream activities beyond wells and gathering systems, including impacts from other reasonably foreseeable activities such as the construction and operation of access roads, compressor stations, and other infrastructure. Consequently, notwithstanding the completely hollow assertion that the “analysis specifically included the development of natural gas reserves in the Marcellus Shale,” EA at 2-134, the Commission staff’s finding of no significant cumulative impact is unsubstantiated by any detailed or quantified information and is thus inadequate to support a hard look at the full environmental impacts of the Project.

The EA is likewise inadequate in considering the combined environmental impacts of related existing and reasonably foreseeable pipelines within the Commission’s jurisdiction. The EA identifies ten existing or proposed pipelines within fifty miles of the Project area, totaling at least 240 miles of new or improved pipeline construction. EA at 2-123–124. Five of these projects will either connect or be adjacent to the Project. EA at 2-126. However, the EA provides absolutely no detailed information or analysis relating to the additive environmental impacts of these past, present, and proposed actions. Indeed, the discussion of locations, timing, and pipeline lengths concludes, without further explanation, that “all of the above FERC jurisdictional projects would be constructed and maintained in accordance with our approved procedures and other construction, operation, and mitigation measures that may be required by federal, state, or local permitting authorities, further reducing the potential for cumulative

impacts.” EA at 2-127. But nowhere does the EA actually say what those cumulative impacts might be, or provide a useful basis for concluding that mitigation efforts will be sufficient to prevent significant impacts.

In particular, the EA fails to analyze the cumulative impact of the related 300 Line project. As the EA provides, the “Northeast Upgrade Project would fill gaps in 300 Line Project.” EA at 2-123. To the extent these are connected and similar actions, the impacts of both should have been considered in a single EA. Regardless, the cumulative impacts of the 300 Line and this Project must be considered together in making a significance determination for the Project. In considering cumulative effects of an action in conjunction with past actions, CEQ guidance requires “analysis and a concise description of the identifiable present effects of past actions to the extent that they are relevant and useful in analyzing whether the reasonably foreseeable effects of the agency proposal for action and its alternatives may have a continuing, additive and significant relationship to those effects.”¹³ Moreover, an adequate cumulative effects analysis does not merely account for the isolated sum effects of past, present, and reasonably foreseeable actions, since “different actions may produce effects that interact to produce cumulative effects greater than the sum of the effects” in a “synergistic” manner.¹⁴ The Northeast Upgrade Project closes out the remaining gaps left in the TGP 300 Line expansion project, thus completing a new and expanded ROW. In determining whether the Project is a major federal action, the aggregate and synergistic impacts of these combined projects must be considered together. But the EA entirely excludes any specific, detailed, or analytic consideration of the relationship between the 300 Line and Northeast Upgrade Project.

With regard to groundwater resources, the EA first notes that the “Project construction could have a minor, temporary, and localized effect on groundwater and surface water resources.” EA at 2-129. However, “[s]ignificance cannot be avoided by terming an action temporary or by breaking it down into small component parts.” 40 C.F.R. § 1508.27(b)(7). Moreover, the EA makes no attempt to consider the cumulative impact on water resources of the Project together with related pipelines in the Project area. In *Klamath-Siskiyou Wildlands Ctr. v. Bureau of Land Mgmt.*, the court found that a cumulative impact analysis that qualitatively identified the impacts of various projects as “unchanged,” “improved,” or “degraded,” and “major” or “minor,” was inadequate because “[t]he reader is not told what data the conclusion was based on, or why objective data cannot be provided.” 387 F.3d 989, 994 (9th Cir. 2004). Here, the EA fails even to provide a general assessment of water impacts from other jurisdictional pipelines, let alone any objective data, quantified analysis, or reasoned basis for concluding that “the Project and other FERC jurisdictional projects in the area would not have a significant adverse impact on water resources.” EA at 2-130. Analysis of cumulative impacts on water resources from gas wells and upstream Marcellus development more generally is likewise inadequate, as it relies almost entirely on compliance with state permitting requirements and other laws to determine that no significant cumulative impacts will result. The flaws in this approach are discussed in greater detail in Section I.F.3, below.

¹³ Council on Environmental Quality, “Guidance on the Consideration of Past Actions in Cumulative Effects Analysis” (June 2005) available at http://www.nepa.gov/nepa/regs/Guidance_on_CE.pdf.

¹⁴ CEQ, “Considering Cumulative Effects Under the National Environmental Policy Act” (January 1997), available at <http://ceq.hss.doe.gov/nepa/ccenepa/ccenepa.htm>. See also *Kleppe*, 427 U.S. at 410, 96 S.Ct. 2718 (requiring single EIS where multiple actions may have “synergistic” effects).

With respect to vegetation and wildlife, the EA provides that “[r]ight-of-way clearing and grading and other construction activities associated with the Project would result in the removal of vegetation; alteration of wildlife habitat; displacement of wildlife; and other potential secondary effects such as increased population stress, predation, and the establishment of invasive plant species.” EA at 2-131. The EA concedes that “[w]hen projects are constructed in the same general location and time frame, they could have a cumulative impact on local vegetation and wildlife communities,” and notes that further Marcellus development would include “clearing for access roads, well pads, gathering systems, and other facilities.” *Id.* But the EA entirely fails to detail or analyze whether Marcellus activities or other related actions might have a cumulatively significant impact on vegetation and wildlife. For example, the EA does not identify the acreage or location of wetlands and forests impacted by related interstate pipelines, or consider how such impacts might have an additive and synergistic impact on vegetation, wildlife habitat, recreation, and aesthetics. Such a discussion is not even perfunctory: it is simply lacking, and is therefore inherently deficient and cannot support the FONSI for this Project.

The EA further concludes, by means of a self-defeating comparison, that the Project will have *no* significant impact on vegetation because Marcellus development will by contrast have an *enormous* impact: “38,000 to 90,000 acres of forest could be cleared in Pennsylvania by 2030 due to Marcellus Shale development activities.” *Id.* This information demonstrates that the EA is inadequate, and it in fact supports interveners’ contention that the Project will have enormously significant cumulative impacts on the environment, as an integral component in the development of upstream Marcellus Shale activities. Notwithstanding its admissions, the EA does not state any conclusion about the actual significance of the Project’s effects on vegetation and wildlife—much less “specific, reasoned conclusions”—nor does it provide hard data justifying a FONSI as to cumulative impacts on those resources.

The absence of reasoned conclusions and quantified data supporting the conclusion of no significant cumulative impacts also is evident in the EA’s cumulative impact analysis of land use, visual resources, and recreation. The EA concedes that “[o]ther projects that we considered in the area would affect land use and result in temporary and long term visual impacts, and could impact recreational activities and special interest areas if crossed by the projects.” *Id.* at 2-132. It goes on to acknowledge that “[t]he impact of Marcellus Shale development activities on land use, recreation, special interest areas, and visual resources would vary widely depending on the location of specific facilities and access roads.” *Id.* However, as in the previous sections, the EA entirely fails to address with even minimal detail or analysis what these varied impacts will likely be, or how they might contribute cumulatively to the Project’s impacts. Likewise, the EA only describes in general and abstract terms how expansion of the ROW from 50 to 75 feet—permanently eliminating 78 acres of forest—might impact land use, visual resources, and recreation. *Id.* But an appropriately quantified cumulative impact analysis requires an evaluation of actual environmental effects, not mere recitation of land use statistics. While “[a] calculation of the total number of acres to be harvested in the watershed is a necessary component of a cumulative effects analysis, . . . it is not a sufficient description of the actual environmental effects that can be expected from logging those acres.” *Klamath-Siskiyou*, 387 F.3d at 995.

The EA is similarly deficient in assessing the cumulative impact of the Project, together with similar and connected projects, on soils, air quality, noise, socioeconomics, and special interest areas. Because the EA repeatedly fails to analyze the cumulative impacts of the Project together with related actions, and because the information it does provide is not sufficiently quantified or detailed, the EA does not support a FONSI.

3. Instead of Performing an Independent Assessment of Cumulative Impacts, the EA Impermissibly Relies on Compliance with Other Agencies' Permitting Requirements as the Basis for a FONSI.

Throughout the cumulative impacts analysis, FERC staff abdicates its NEPA responsibilities by categorically deferring to standards administered by other agencies, without independently assessing anticipated impacts. *See, e.g., Calvert Cliffs' Coordinating Comm. v. U.S. Atomic Energy Comm'n*, 449 F.2d 1109, 1123 (D.C. Cir. 1971) (holding that lead agency's deferral to standards of other agencies neglected NEPA's "mandated balancing analysis"); *Limerick Ecology Action, Inc. v. U.S. Nuclear Regulatory Comm'n*, 869 F.2d 719, 729 (3d Cir. 1989) (concluding that Nuclear Regulatory Commission's ("NRC's") finding of adequate protection under the Atomic Energy Act ("AEA") does not preclude further consideration of environmental impacts under NEPA). In *Limerick*, a citizens' group challenged the grant of a license to a nuclear power plant based on NRC's violation of NEPA by failing adequately to consider severe accident mitigation design alternatives. *Id.* at 722. NRC rejected consideration of design alternatives because it concluded that a finding of adequate protection of public health and safety under the AEA precluded further analysis under NEPA. *Id.* at 729. The Third Circuit rejected NRC's conclusion:

The language of NEPA indicates that Congress did not intend that it be precluded by the AEA. Section 102 of NEPA requires agencies to comply "to the fullest extent possible." 42 U.S.C. § 4332. Although NEPA imposes responsibilities that are purely procedural, *see [Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council, Inc., 435 U.S. 519, 558 (1978)]*, there is no language in NEPA itself that would permit its procedural requirements to be limited by the AEA. Moreover, there is no language in AEA that would indicate AEA precludes NEPA. The legislative history of the phrase "to the fullest extent possible" indicates that Congress intended that NEPA not be limited by other statutes by implication. The proposed language, which was replaced by "to the fullest extent possible" in the current statute, stated that "nothing in this Act shall increase, decrease or change any responsibility or authority of any Federal official or agency created by any other provision of law." [Conf. Rep. No. 765, 91st Cong., 1st Sess. 9-10, *reprinted in* 1969 U.S.C.C.A.N. 2751, 2767, 2770.] The Conference Report stated that "[t]he purpose of the new language is to make it clear that each agency of the Federal Government shall comply with the directives [of section 102] unless the existing law applicable to such agency's operations expressly prohibits or makes full compliance with one of the directives impossible." *Id.* The Report concluded that "it is the intent of the conferees that the provision 'to the fullest extent possible' shall not be used by any Federal agency as a means of avoiding compliance with the directives set out in section 102." *Id.* Hence, the legislative history unequivocally supports LEA's contention

that the AEA cannot preclude application of NEPA by implication. The Commission in the case *sub judice* does not maintain that the AEA contains express provisions prohibiting compliance with NEPA, nor does it argue that compliance is impossible.

Id. Commenting on the legislative history further, the Court stated that "as suggested by the legislative history, compliance with NEPA is required unless specifically excluded by statute or existing law makes compliance impossible." *Id.* Finally, there are no cases "indicating that exclusion of consideration of an issue under the AEA requires exclusion of the same issue from consideration under NEPA." *Id.*

To the extent that the EA addresses impacts related to gas development, it does not independently assess the impacts from such activities and only points to compliance with other agencies' permitting requirements as a basis for concluding that no significant cumulative impacts exist. *See, e.g.*, EA at 2-129 (noting concerns about potential impacts of natural gas wells on groundwater, then describing in general terms oil and gas well rules adopted by the Pennsylvania Department of Environmental Protection ("PADEP") without further assessment or reasoned conclusion about the cumulative impacts of gas wells and the Project);¹⁵ *id.* at 2-130 (noting that flowback water from fracking operations could threaten water quality but concluding no cumulative impacts exist on the basis that PADEP promulgated regulations addressing the issue and PADEP required operators to implement [best management practices] during construction and operation of upstream facilities); *id.* at 2-133 (conceding that "[o]peration of the Project, Marcellus Shale drilling activities, and other projects would also contribute cumulatively to existing air emissions" but dismissing these impacts on the grounds that the "[t]he Project's associated operating emissions would be mitigated by federal, state, and local permits and approvals).

Such blind acceptance of presumed compliance with standards implemented by another agency as a basis for a FONSI does not suffice as a hard look under NEPA. In *Calvert Cliffs'*, the Atomic Energy Commission ("AEC") promulgated rules governing environmental review in licensing decisions, which similarly would have allowed the AEC to accept a project's compliance with the environmental requirements implemented by other agencies as a showing that the project would have no significant impacts for purposes of NEPA. *See Calvert Cliffs'*, 449 F.2d at 1122. The D.C. Circuit rejected this approach:

¹⁵ Since adoption of the new rules, there have been repeated reports of methane migration into streams and groundwater serving water wells in areas of active gas drilling, including in Bradford and Lycoming Counties. *See, e.g.*, Associated Press, *Pa. Probes Gas in Lycoming Wells* (June 17, 2011) (noting contamination of wells, Little Muncy Creek, and the Susquehanna River), available at <http://www.philly.com/philly/business/124054549.html>. Moreover, a cursory review of violations posted on PADEP's website shows that noncompliance with legal requirements is rife within the industry. *See, e.g.*, PADEP, Oil and Gas Inspections, Violations, Enforcement (Jan.–Apr. 2011), available at <http://www.dep.state.pa.us/dep/deputate/minres/oilgas/OGInspectionsViolations/2011/2011MarcellusViolations.xls>, (revealing, for example, that an operator named "Alpha Shale Res LP" received a notice of violation on February 18, 2011 for "failure to implement Special Protection BMPs for HQ [High Quality] or EV [Exceptional Value] stream.") Plainly, the regulations alone are inadequate to protect underground sources of drinking water.

Certification by another agency that its own environmental standards are satisfied involves an entirely different kind of judgment [than the case-by-case balancing judgment mandated by NEPA]. Such agencies, without overall responsibility for the particular federal action in question, attend only to one aspect of the problem: the magnitude of certain environmental costs. They simply determine whether those costs exceed an allowable amount. Their certification does not mean that they found no environmental damage whatever. In fact, there may be significant environmental damage (*e.g.*, water pollution), but not quite enough to violate applicable (*e.g.*, water quality) standards. . . . The only agency in a position to make [the balancing] judgment is the agency with overall responsibility for the proposed federal action

Id. at 1123. As the court pointed out, permitting requirements “essentially establish a *minimum condition*” for approval of a project, *id.* at 1125 (emphasis in original), and do not necessarily indicate whether a project’s impacts will be significant as understood in the NEPA context. Moreover, AEC’s “abdicat[ion] entirely to other agencies’ certifications, neglected the mandated balancing analysis,” which had the effect of precluding the public from “raising a wide range of environmental issues in order to affect particular Commission decisions,” and thereby “subverted” NEPA’s “special purpose.” *Id.* at 1123. Deferral to the standards of other agencies, without further analysis, is an impermissible delegation of an agency’s NEPA responsibilities.

Here, the EA subverts NEPA’s purpose by repeatedly pointing to oil and gas well permitting standards as reason for concluding that the Project will have no significant cumulative impacts when considered in the context of Marcellus Shale gas development. *See, e.g.*, EA at 2-129 (noting that during construction, pipeline projects would be required to implement best management practices developed by PADEP, including appropriate erosion and sediment control measures; “[i]mplementation of these measures would avoid or minimize cumulative impacts”); *id.* at 2-130 (noting the “potential impact of Marcellus Shale development on surface water resources” and concluding that recent regulations by Susquehanna River Basin Commission (“SRBC”) suffice to “protect surface and groundwater resources from potential impacts associated with the development of the Marcellus Shale”); *id.* at 2-133 (“[I]t is anticipated that Marcellus Shale development activities would result in increased long-term emissions of criteria pollutants, HAPs, and GHGs within the region.” However, the Project’s emissions would be mitigated by federal, state, and local permits and approvals, and thus, it is not “anticipated to contribute to the cumulative impact.”). The EA fails to recognize, however, that gas well development is not even subject to the requirements on which the FERC staff relies for its unfounded conclusions. *See* 25 Pa. Code § 102.5 (exempting oil and gas activities on less than five acres from obtaining an erosion and sedimentation permit); *id.* § 102.14 (exempting oil and gas activities from riparian buffer requirements “so long as any existing riparian buffer is undisturbed to the extent practicable”); 25 Pa. Code § 127.14(a)(8) (exempting most oil and gas exploration and production facilities and operations that include wells and associated equipment and processes from obtaining air permits¹⁶). Additionally, under *Limerick*, the EA’s reliance on other agencies’ regulations does not supplant the requirement for thorough NEPA analysis.

¹⁶ The regulation allows PADEP to exempt “sources and classes of sources determined to be of minor significance by the Department.” 25 Pa. Code § 127.14(a)(8). PADEP published a guidance that lists the sources (including the

Moreover, even if environmental requirements did apply and effectively mitigated impacts from any single project, categorical reliance on compliance with such requirements for a FONSI for the Project would fail to constitute a hard look for the reasons identified by the D.C. Circuit in *Calvert Cliffs*'. The permit requirements of individual agencies establish minimum standards regarding specific resources that typically are applied to specific projects in isolation from each other. Relying on compliance with such requirements, without providing an independent assessment of impacts and quantified information to support a detailed and reasoned conclusion, fails to satisfy NEPA and prevents the public from understanding the full cumulative impacts of the Project.

G. The Project May Adversely Affect Several Endangered and Threatened Species and Their Habitat.

Federal agencies must consider the “degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973” when assessing whether an action is significant. 40 C.F.R. § 1508.27(b)(9). Recognizing that “NEPA cases have generally required agencies to file environmental impact statements when the . . . action would be environmentally ‘significant,’” the Supreme Court has linked adverse effects on endangered species with significance under NEPA, concluding that “the loss of *any* endangered species has been determined by Congress to be environmentally ‘significant.’” *Tennessee Valley Auth. v. Hill*, 437 U.S. 153, 188 (1978) (emphasis added). Therefore, Congress’s prioritizing of conservation suggests that an effect on endangered species can be enough in and of itself to constitute a significant action.

Thorough and complete survey data is especially important when assessing an action’s impact. The Ninth Circuit has held that incomplete survey information mandates an EIS: “*an EIS is mandated* where uncertainty may be resolved by further collection of data or where the collection of such data may prevent ‘speculation on potential . . . effects.’” *NPCA*, 241 F.3d at 734 (emphasis added). Furthermore, surveys should be completed early in the process when possible so that the risk to species may be assessed most effectively. *N. Slope Borough v. Andrus*, 642 F.2d 589, 608 (D.C. Cir. 1980). This is because, “[t]he earlier in the progress of a project a conflict (between a species and the project) is recognized, the easier it is to design an alternative consistent with the requirements of the act, or to abandon the proposed action The relevant statutes-ESA, NEPA . . . all insist on foresight.” *Id.* (internal citations omitted). For the Eastern District of California, the absence of updated species survey data was enough to “render[] the overall conclusions uncertain.” *Klamath-Siskiyou Wildlands Ctr. v. U.S. Forest Serv.*, 373 F. Supp. 2d 1069, 1080-83 (E.D. Cal. 2004). Without “*updated* . . . survey data” there is no way to know the full effects on the species: “effects of the project [are] highly uncertain and involve unknown risks which could be resolved by updated protocol surveys.” *Id.* (emphasis added). The court held that the effect was potentially significant, “particularly in light of the lack of data regarding the current number and dispersal of owls within the project area.” *Id.* Therefore, incomplete survey information on the effects for endangered species cannot be relied upon to support a FONSI; instead, a lack of thorough data strongly supports the need for an EIS.

exemptions for natural gas activities) to be exempt from obtaining air permits under this regulation. BUREAU OF AIR QUALITY, PA. DEP’T OF ENVTL. PROTECTION, AIR QUALITY PERMIT EXEMPTIONS, at 6–7 (2003).

District courts have weighted the ninth CEQ factor heavily. The likelihood that a project may affect an endangered species due to direct disturbance, disruption of breeding, and fragmentation of habitat is “an important factor supporting the need for an EIS.” *Klamath-Siskiyou*, 373 F. Supp. 2d at 1081. Complete extirpation of a species has not been required, and the “project need not jeopardize the continued existence of a threatened or endangered species to have a ‘significant’ effect on the environment.” *Id.* at 1080. (citing *Greater Yellowstone Coalition v. Flowers*, 359 F.3d 1257, 1275–76 (10th Cir.2004)). “Viability is a standard under the ESA and the NFMA, not under NEPA.” *Id.* Furthermore, courts have required careful analysis and not just conclusory statements: “mere perfunctory or conclusory language [in an EA] will not be deemed to constitute an adequate record and cannot serve to support the agency's decision not to prepare an EIS. *Citizen Advocates for Responsible Expansion, Inc. (I-Care) v. Dole*, 770 F.2d 423, 434 (5th Cir. 1985).

Destruction of an endangered or threatened species’ habitat is also important when assessing a project’s impact. The Ninth Circuit has held that parallel habitat conservation projects do not “stand in for the loss of designated critical habitat and found a determination that habitat loss would not adversely modify critical habitat for the Northern Spotted Owl arbitrary and capricious. *Gifford Pinchot Task Force v. U.S. Fish & Wildlife Serv.*, 378 F.3d 1059, 1076 (9th Cir. 2004), *amended by* 387 F.3d 968 (9th Cir. 2004). Destruction of “a significant percentage of the suitable habitat . . . is an important factor supporting the need for an EIS.” *Klamath-Siskiyou*, 373 F. Supp. 2d at 1081. Destruction of large portions of a species’ habitat can “have an impact on that species which is ‘significant’ under any reasonable definition of that term” and “local extirpation can be a significant impact.” *Sierra Club v. Norton*, 207 F. Supp. 2d 1310, 1326-27 (S.D. Ala. 2002). Species do not need to be found directly in the project area to be considered: where an agency failed to analyze impacts to species which were in the “vicinity” of a proposed airport, a finding of no significant impact on species “*strain[ed] credulity.*” *California v. U.S. Dept. of Transp.*, 260 F. Supp. 2d 969, 978 (N.D. Cal. 2003) (emphasis added).

Finally, although mitigation plans have been used in the past to avoid preparing an EIS, courts have a high standard for what constitutes a sufficient mitigation plan. Mitigation measures must be thoroughly “developed” and “more than a ‘mere listing’ of measures.” *NPCA*, 241 F.3d at 734; *see also Ohio Valley Envtl. Coal. v. Hurst*, 604 F. Supp. 2d 860, 889 (S.D.W. Va. 2009); *Klamath-Siskiyou*, 373 F. Supp. 2d at 1085. “Where an agency has not even studied the potential effectiveness of mitigation measures, and there is a ‘paucity of analytic data’ to support its conclusions, it may not rely on those measures in finding no significant impact.” *NPCA*, 241 F.3d at 734. An agency may not “act first and study later.” *Id.* A “decision to issue a FONSI in reliance on mitigation plans that had not even been defined, much less analyzed, [is] arbitrary and capricious.” *W. Land Exch. Project v. U.S. Bureau of Land Mgmt.*, 315 F. Supp. 2d 1068, 1091-92 (D. Nev. 2004). Therefore, mitigation plans must be thoroughly analyzed to be valid.

The FWS identified four federally listed threatened or endangered species and one other federally protected species within the Project area, including the Indiana bat, the bog turtle, and the dwarf wedgemussel. For each of these species, the EA cites to incomplete survey results. For the surveys that do exist, the EA consistently fails to describe survey methodology or to

analyze any data. Furthermore, the EA repeatedly acknowledges habitat destruction but fails to carefully examine its impact, and where mitigation plans are in place, the EA barely discusses them. Instead, it describes the plan briefly, with no analysis of how much mitigation will be achieved. Therefore, the EA fails to take a hard look at the effect of threatened and endangered species, and it cannot support a FONSI.

1. Indiana Bat

The inadequacy of survey results is particularly apparent for the Indiana bat, a federally endangered species which has been found within the Project area. EA at 2-49. Loop 325 is “within foraging range of a known maternity colony of Indiana bat”; moreover, a bat was captured along Loop 321 in Pike County, Pennsylvania. *Id.* Yet despite the likely presence of bats, the surveys completely avoided the area of the proposed route around the Delaware Water Gap National Recreation Area (“DWGNRA”) and portions of Loop 321. EA at 2-49. The omission of key regions of potential bat habitat from the surveys drastically undercuts their reliability. When considered in conjunction with the fact that additional survey reports are still not pending, the amount of uncertainty in regard to this endangered species is astounding (see Part II.G.D, *supra*). The EA does not discuss mitigation in depth, but recommends that TGP file “final mitigation plans for forest resources in the Highlands Preservation Area and on state-owned lands” to specify trees suitable for the Indiana bat roost habitat. EA at 2-50. It also recommends that FERC complete any necessary section 7 consultation once these surveys are filed. *Id.*

The EA provides absolutely no information about survey methodology, and this lack of transparency generates a certain amount of skepticism. Regardless of the methodology, however, the results of the surveys which have been conducted should be viewed with skepticism because of the dire situation of the species. Dr. DeeAnn Reeder, a prominent bat biologist and professor at Bucknell University, has critiqued other bat surveys because bats in the Northeastern US are “under assault” from both wind turbines and a “deadly emerging infectious disease ‘White Nose Syndrome’ (WNS).” Comments of DeeAnn M. Reeder, Ph.D. (hereinafter “Reeder Comments”), included in Earthjustice Comments on Environmental Assessment of MARC I Hub Line Project, Docket No. CP10-480-000 (hereinafter “EJ Comments”) (annexed as Exhibit C hereto). Even if there had been no bats found in the project area, the failure to detect individual members of an endangered species facing the additional stress of White-Nose Syndrome (“WNS”) would not be surprising and would not support a FONSI on this imperiled species. Reeder Comments. There has been a seventy-two percent decline in the Indiana bat population in recent years, attributable in large part to the spread of WNS, and “detection of this already rare species has become even more difficult.” *Id.* Dr. Reeder calls their decline a “wildlife disaster of unprecedented proportions” and affirms that because of the low numbers of the species, “standard survey methods will be completely inadequate.” *Id.*

The FWS guidelines for netting Indiana bats support Dr. Reeder’s position: “Although the capture of bats confirms their presence, failure to catch bats does not confirm their absence. There are many instances in which the netting effort was as extensive as outlined below and Indiana bats were caught only with additional effort.” United States Fish and Wildlife Service, Guidelines for Netting Indiana Bats 1 (1997). The surveying should not be mistaken to

conclusively determine effect on a population: “[a] typical mist net survey provides insufficient data to determine population size or structure. It is an attempt to determine presence or probable absence of the species.” *Id.* The guidelines cite a number of conditions, including inclement weather, kind of equipment, and moonlight conditions that can influence the presence or absence of bats in the mist nets. *Id.* at 2. With no detailed information about the methodology of the survey, it is not possible to assess the validity of the information. However, given the fact that a bat was found, and that even the failure to find a bat would not be indicative of a bat’s absence, the surveys raise considerable questions about the extent of the bat population and how critical this habitat is for the Indiana bat. Thus, the EA’s consideration of the Project’s impact on bats is inadequate and cannot support a FONSI.

In addition to the inadequacy of survey results, the EA’s treatment of habitat destruction and mitigation measures is insufficient. For the eastern 2.5 miles of proposed Loop 325, the FWS recommends “a seasonal restriction on tree clearing”, “minimizing the acreage of tree clearing”, “flagging and preferentially preserving high-quality potential roost trees”, and that TGP provide a plan for minimizing habitat impacts around the known maternity colony.” EA at 2-49. FERC’s “recommendation” to TGP, however, does not account for all of these issues. Though TGP has committed to a seasonal restriction of vegetation clearing “within 2.5 miles of known roosts or capture sites from April 1 to September 30, it has not committed to the additional aspects of the FWS’ recommended mitigation measures.” EA at 2-49. Notably, FERC does not mandate any plan for minimizing habitat impacts around the known maternity colony. Although FERC alludes to a plan of tree planting schedules, which it says will “minimize impacts on forested areas” there is no evaluation of the lasting impact of habitat destruction. EA at 2-50. The inadequacy of survey results, lack of habitat destruction analysis, and the lack of adequate mitigation measures indicate that the finding of no significant impact for bat species is unsupported.

2. Bog Turtle

The bog turtle is a federally threatened turtle that has the potential to occur within the project area. Although TGP completed some bog turtle surveys, the methodology is not included in the EA, which only indicates that visual presence/absence surveys were performed in four of the six wetlands and no bog turtles were found. EA at 2-48. However a Phase I survey of the remaining portion of Loop 323 which was conducted in October 2011 “is pending.” EA at 2-48. FERC admits that “consultation [is not] concluded until the FWS reviews the remaining Phase I and Phase II survey reports Further consultation would be necessary if the remaining survey reports document the presence of bog turtles or bog turtle habitat.” *Id.* Therefore, FERC makes a “recommendation” to TGP that it not begin construction of Loop 323 until 1) TGP files the results of the surveys with the New Jersey field office of the FWS and the Secretary; 2) FERC completes “any necessary section 7 consultation with the FWS” and 3) TGP receives “written notification from the Director of OEP that construction and/or use of mitigation (including implementation of conservation measures) may begin.” *Id.* FERC’s framing here and throughout the EA as “recommendations” what should be necessary preconditions casts doubt on whether measures to mitigate harms to the species in the project area will ever be undertaken. Although the pipeline crosses key potential habitat for the bog turtle, FERC has not demanded or

received complete survey results, nor has it sufficiently addressed habitat destruction or mitigation measures to justify its FONSI.

3. Dwarf Wedgemussel

The dwarf wedgemussel is a federally endangered freshwater mussel which “has been known to inhabit the Delaware River [near the project area and] . . . has *known occurrences* in the location where Loop 317 and Loop 323 cross the Susquehanna River, Wyalusing Creek, and the Delaware River” EA at 2-50 (emphasis added). In New Jersey, the EA cites to “only a few known occurrences including one along a portion of the upper Delaware River and at a location downstream of Big Flat Brook.” *Id.* Despite the EA’s reference to these known occurrences of the dwarf wedgemussel, TGP’s surveys revealed “[n]o live or dead specimens . . . during the survey efforts.” The EA concludes that no additional surveys are needed “as long as the crossing of the Delaware River can be completed using the HDD crossing method.” *Id.* Furthermore, though TGP has thus far failed to complete surveys for a 2.9 mile segment of Loop 323, FERC prematurely concludes that the Project is not likely to adversely affect the dwarf wedgemussel. EA at 2-51.

Without disclosing any methodology for the survey, the EA concludes that there is an absence of dwarf wedgemussel, despite the fact that it refers to known occurrences of the endangered species in the Project area. *See* EA at 2-50-51. Moreover, the reliance on the HDD crossing to justify a lack of additional surveying is premature because “TGP has not developed a contingency crossing method for the Delaware River HDD crossing.” EA at 2-16. Should a problem occur with the HDD crossing, the EA suggests that there could be additional adverse effects on dwarf wedgemussel. Moreover, although the EA acknowledges that a frac-out, the accidental release of drilling mud into the water, could “affect fisheries or other aquatic organisms by settling in and temporarily inundating the[ir] habitats,” it does not discuss any mitigation measures to address and minimize the potential for habitat destruction. EA at 2-18.

The Ninth Circuit has ruled that an EIS is mandated where uncertainty may be resolved by further collection of data. *NPCA*, 241 F.3d at 734. The inadequacy of survey results for the dwarf wedgemussel, as well as the Indiana bat and the bog turtle ignores this circuit court decision. Moreover, courts have encouraged surveys to be completed early in the process. *See N. Slope Borough*, 642 F.2d at 608. The survey deficiencies for each of these endangered species leave a great deal of uncertainty regarding the effect on imperiled species. Therefore, the EA has not sufficiently considered the potential effect of the project on endangered and threatened species.

Not only did the EA fail to provide complete survey data and adequate mitigation plans, but TGP also obscured crucial reports concerning wildlife species of concern. TGP requested privileged and confidential treatment for the following essential wildlife surveys:

- New Jersey Freshwater Mussel Survey
- New Jersey Timber Rattlesnake Survey
- New Jersey Red-Shouldered Hawk and Barred Owl Surveys
- New Jersey Bog Turtle Survey

- New Jersey Red-Headed Woodpecker and Golden-Winged Warbler Survey
- The final Timber Rattlesnake Den Habitat Survey Report for Pennsylvania, dated October 21, 2011
- The final Indiana Bat and Eastern Small-Footed Bat Mist Net Survey, Hibernacula Searches, and Habitat Assessments, dated October 20, 2011, submitted to the U.S. Fish and Wildlife Service - Pennsylvania Field Office
- The final Indiana Bat and Eastern Small-Footed Bat Mist Net Survey, Hibernacula Searches, and Habitat Assessments, dated October 20, 2011, submitted to the Pennsylvania Game Commission
- Wood Turtle Habitat Assessment and Survey for New Jersey

On November 9, 2011, intervenors filed a letter requesting that TGP's applications for privilege be denied because they were legally insufficient under 18 C.F.R. § 388.112. As stated in the November 9, 2011 letter, any claim that information warrants confidential treatment requires a statement requesting such privilege "for *some or all* of the information in a document," and must articulate "the *justification* for *special treatment* of the information." 18 C.F.R. § 388.112(b) (emphasis added). However, TGP did not present an affirmative argument as to why it should be granted the "special treatment", *id.*, of confidentiality, nor did it indicate whether the alleged need for confidentiality extended to the entire document or only to certain sections which can be redacted and subsequently released. As an intervenor in this matter, we should have been entitled to review the updated reports; similar studies have been released to intervenors in other dockets, including but not limited to Docket # CP10-80-000 (the Marc I Pipeline). Therefore, our ability to review and comment on the EA has been limited, and we reserve the right to comment further on the impact to species of concern.

H. It Is Reasonable to Anticipate that the Project Will Threaten a Violation of Federal, State, and Local Law Requirements Imposed for the Protection of the Environment.

Finally, the potential for the Project to "threaten[] a violation of Federal, State, or local law or requirements imposed for the protection of the environment" calls for a finding of significance. 40 C.F.R. § 1508.27(b)(10). This factor requires agencies to consider, among other laws, "state requirements imposed for environmental protection to determine whether the action will have a significant impact on the human environment." *Sierra Club v. U.S. Forest Serv.*, 843 F.2d 1190, 1195 (9th Cir. 1988). In *U.S. Forest Service*, the Forest Service failed to address whether or not timber sales would increase sedimentation and turbidity in a local stream and therefore potentially violate California's water quality standards. *Id.* The Ninth Circuit viewed the EA's failure to address the impact of logging on state water quality standards as a violation of 40 C.F.R § 1508.27(b)(10). *Id.* The court concluded that, "substantial questions [were] raised concerning the potential adverse effects of harvesting these timber sales, [and] an EIS should have been prepared." *Id.* Notably, no actual violation needs to be proven to necessitate an EIS, merely the potential for a violation. *See, e.g., U.S. Forest Serv.*, 843 F.2d at 1195. This threat is "forward-looking," meaning that it deals with prospective violations and does not require proof of past violations. *See Sierra Club v. Van Antwerp*, 661 F.3d 1147 (D.C. Cir. 2011). Therefore, the risk that a law may be broken in the future weighs in favor of an EIS.

When considering the possibility that the Project will threaten a violation of legal requirements, it is relevant that TGP is making the same promises and representations in its EA for the Northeast Upgrade Project that it made, and subsequently failed to implement, in the EA for the 300 Line Project. In the 300 Line EA, for example, TGP indicated that it intended to exclusively use dry cut, rather than open-cut, construction methods for waterbody crossings where there was perceptible flow. One of many such claims which were interspersed throughout the EA was that:

[t]he greatest potential impacts of construction on surface waters would result from an increase in sediment loading and turbidity. The highest levels of sediment would be generated by use of the wet open-cut method. However, as noted above, TGP would not utilize the wet open-cut method to cross any waterbodies with perceptible flow at the time of the crossing.

300 Line EA at 2-19. In the EA for the Northeast Upgrade Project, TGP makes an identical promise:

[t]he greatest potential impacts of construction on surface waters would result from an increase in sediment loading and turbidity. The highest levels of sediment would be generated by use of the wet open-cut method. However, as noted above, TGP would not use the wet open-cut method to cross any waterbodies with perceptible flow at the time of the crossing, unless a dry crossing is impractical due to site-specific conditions.

EA at 2-17. Despite the repeated claim that use of the open-cut method would be minimized in the 300 Line Project, TGP did not follow through with that promise, specifically at the West Branch of the Lackwaxen in Pike County, where a wet open-cut crossing method was utilized, thus adversely impacting the ecosystem in ways that were not addressed in the 300 Line EA. NJDEP warns that “FERC should be aware that TGP’s planned crossing methods are know [sic] to change during the review process increasing the likelihood of additional environmental impacts to threatened and endangered species habitat and increased turbidity for aquatic biota, oval water quality, and water supply.” NJDEP Comments on the EA at 16, para. 5. The fact that TGP has made identical guarantees in the past and has failed to adhere to them weighs heavily against its credibility. TGP’s past conduct is particularly relevant in assessing the risk that the Northeast Upgrade Project will violate the Clean Water Act, the Federal Safe Drinking Water Act, and the Pennsylvania Clean Streams Act, discussed in Parts I.H.6-8 *infra*. It is also relevant to the evaluation of the threat to endangered species, such as the dwarf wedgemussel, which depends on the successful implementation of the HDD crossing method. *See* Part II.G.3 *supra*; EA at 2-50 (concluding that no additional surveys for the species are needed “as long as the crossing of the Delaware River can be completed using the HDD crossing method”). TGP’s past conduct, therefore, can be relevant to the consideration of the risk of violating the following federal, state, and local regulations.

1. Endangered Species Act

At the Federal level, the Endangered Species Act of 1973 (“ESA”) recognizes the “esthetic, ecological, educational, historical, recreational, and scientific value” of species threatened with extinction and declares that it the “policy of Congress that all Federal . . . agencies shall seek to conserve endangered species and threatened species.” 16 U.S.C. § 1531. Conservation is not passive; rather, it is “the use of all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to [the Act] are no longer necessary.” 16 U.S.C. § 1532(3). The ESA further requires that critical habitat not be destroyed or adversely modified. 16 U.S.C. § 1536(a)(2). It is Congress’s express purpose that federal agencies should prioritize conservation of endangered and threatened species. *Id.*

The Supreme Court has recognized an agency’s responsibility to protect wildlife as national policy. Congress’s intent in enacting the ESA was “to halt and reverse the trend towards species extinction, whatever the cost.” *Tennessee Valley Authority v. Hill*, 437 U.S. 153 (1978) (emphasis added). The Act’s legislative history

reveals an explicit congressional decision to require agencies to afford first priority to the declared national policy of saving endangered species. The pointed omission of the type of qualifying language previously included in endangered species legislation reveals a conscious decision by Congress to give endangered species priority over the “primary missions” of federal agencies [T]he plain language of the Act, buttressed by its legislative history, shows clearly that Congress viewed the value of endangered species as “incalculable.”

Id. at 184–86. In *Tennessee Valley*, the Supreme Court stopped a nearly-finished dam project because of a threat to the critical habitat of the snail darter. *Id.* The decision in this case “made abundantly clear that [the] ESA mandates affirmative preservation of endangered life” and “is a potent environmental control.” *N. Slope Borough v. Andrus*, 642 F.2d 589, 607 (D.C. Cir. 1980). Subsequently, district courts have cited the Supreme Court’s language when addressing a defendant’s need “to place the Indiana bat, an endangered species, at the top of its priority list.” *House v. U.S. Forest Serv., U.S. Dept. of Agric.*, 974 F. Supp. 1022, 1027-28 (E.D. Ky. 1997). The ESA is a powerful Federal law that prioritizes the preservation of the environment, and agencies are compelled to consider it thoroughly when assessing an action’s significance.

As mentioned above, a number of federally endangered species including the Indiana bat, the bog turtle, and the dwarf wedgemussel are potentially affected by this project, both directly and indirectly through habitat destruction and fragmentation, not to mention disruption from noise and potential impacts on food supply. Part II.G, *supra*, describes in detail the potential for implicating the ESA. In addition to the federally listed species, the FWS has requested FERC consider the effects on four federally petitioned species so that section 7 consultations can be facilitated if they become listed before Project construction: the Eastern small-footed bat, Northern long-eared bat, golden-winged warbler, and the American eel. The potential that so many endangered species will be affected, coupled with the absence of complete survey results for the majority of those species, creates a strong risk of violating the ESA. However, the EA’s

treatment of federally petitioned species and their habitats is so cursory that it ignores the threat of a future violation of federal law in relation to these species. The inadequacy of the EA is particularly apparent with regard to the Northern long-eared bat, which was found during mist net surveys. EA at 2-52. Bat biologist and professor Dr. Reeder emphasizes that “[a]t our current population levels, every single bat is important to preserving the species.” Reeder Comments. Considering the decline of bat populations in general, it is essential to consider not only the impact of proposed projects on the Indiana bat, but also all bat species:

Given the extreme declines in bat populations in the northeastern Pennsylvania region, the Mammal Technical Committee of the Pennsylvania Biological Survey has petitioned the Pennsylvania Game Commission to list little brown bats, *northern long-eared bats*, and tricolored bats as endangered. . . . Given the threats facing Indiana bats and other imperiled bat species detected in the Project area, *the welfare of every individual bat is vital to the preservation of these species.*

EJ Comments at 19 (emphasis added). However, the EA ignores the importance of the Northern long-eared bat and provides no evaluation of the expected impact on the species’ habitat. Instead, the EA cites to TGP’s plan to clear between September 1 and March 31 in Pennsylvania and August 1 and March 14 in New Jersey “to avoid impacts on Northern long-eared bats that may roost in the Project area.” EA at 2-52. The EA fails to discuss these habitat impacts or how they will be avoided by the clearing schedule, and it fails to acknowledge the relationship between the Northern long-eared bats and the Indiana bat.

The other petitioned species do not fare any better in terms of the depth of analysis they receive in the EA. For example, impacts on the American eel, which is “known to inhabit the Susquehanna and Delaware Rivers” are dismissed as “not anticipated” because of TGP’s plan to use a HDD crossing method. EA at 2-52. However, a frac-out, which occurred as recently as May 2011, is not unlikely. *See Pipeline Accident*, supra note 18. Therefore, the EA’s failure to evaluate the potential for violating the ESA with regard to currently endangered and petitioned species renders the EA inadequate under NEPA and an EIS should be prepared.

2. The Migratory Bird Treaty Act and the Bald and Golden Eagles Protection Act

The Bald and Golden Eagles Protection Act (“BGEPA”) prohibits the taking of “any bald eagle . . . or any golden eagle, alive or dead” as well as any part, nest or egg. 16 U.S.C. § 668. To “take” is defined not only as to “wound, kill, [or] capture” but also to “molest or disturb.” 16 U.S.C. § 668c. The Migratory Bird Treaty Act (“MBTA”) makes it “unlawful at any time, by any means or in any manner, to . . . take, capture, [or] kill . . . any migratory bird, any part, nest, or egg of any such bird” without a permit. 16 U.S.C.A. § 703. Executive Order No. 13,186 requires agencies to identify “where unintentional take is likely to have a measurable negative effect on migratory bird populations and to avoid or minimize adverse impacts on migratory birds . . . and emphasizes species of concern.” EA at 2-44. Violation of the MBTA for taking or killing a migratory bird is a strict-liability offense. *United States v. Apollo Energies, Inc.*, 611 F.3d 679, 684 (10th Cir. 2010). In *Apollo*, oil drilling operators were found in violation of the

act when dead migratory birds were found lodged in a piece of their oil drilling equipment. *Id.* The Tenth Circuit found that birds that died after crawling into the oil equipment to nest could form the basis for a finding that the act had been violated, and that no form of scienter was required. *Id.*

The impact on eagles and other migratory birds has already been demonstrated. As of February 2011, two bald eagle nests have been identified by TGP's field surveys in the project area. EA at 2-53. However, there has been no ultimate evaluation of the impacts on eagle habitat and instead TGP will work with the states "to determine whether potential adverse effects on bald eagle populations and habitat may result from the Project." EA at 2-53. However, NEPA does not permit agencies to "act first and study later." *NPCA*, 241 F.3d at 734. And the Ninth Circuit states unequivocally that the absence of complete survey results is no excuse for incomplete information: "an EIS is mandated where uncertainty may be resolved by further collection of data or where the collection of such data may prevent 'speculation on potential . . . effects.'" *Id.* Therefore, the absence of complete information on the bald eagle suggests at the very least that an EIS is called for.

The EA only indicates that "[t]he greatest potential to impact migratory birds would occur if Project activities . . . take place during the nesting season." EA at 2-44. Citing destruction of nests and mortality of eggs and unfledged young birds, as well as destruction of habitat presenting a "long-term impact for migratory birds that depend on forest" the analysis does not indicate what the impact will be if the work is conducted outside of that timeframe. Although species included in the FWS Birds of Conservation Concern may also occur in the project area, FERC does not address this possibility, merely stating "that the Project is not likely to result in the need to list any migratory birds under the ESA." EA at 2-45. The EA indicates that Pennsylvania and New Jersey Field Offices of the FWS recommended that TGP conduct vegetative clearing "between September 1 and March 31 in Pennsylvania and between August 1 and March 14 in New Jersey." EA at 2-44-45. There is no indication of whether or not these limitations have been included in a FWS permit. The EA's treatment of the laws governing migratory birds is conclusory. Although FERC identifies legal requirements, it indicates only that the greatest impact would occur during nesting season. There is a complete absence of an analysis of the damage to birds and nests outside of nesting season, or the effect on bird habitat and food supply. This failure to thoroughly analyze the law and its requirements, along with the potential impacts of the project on the migratory bird and eagle habitat supports the argument that the EA is inadequate under NEPA.

3. The New Jersey Endangered and Nongame Species Conservation Act, the New Jersey Natural Heritage Program, and the Division of Land Use Regulation

In New Jersey, the Natural Heritage Program (NJNHP) the Endangered and Nongame Species Program, and the Division of Land Use Regulation are responsible for administering state endangered species laws. The Endangered and Nongame Species Conservation Act declares it is New Jersey policy to "insure [the] continued participation in the ecosystem" of all forms of wildlife, that species indigenous to New Jersey should be "accorded special protection" to maintain and enhance their numbers, and that New Jersey should "assist in the protection of

species or subspecies of wildlife which are deemed to be endangered elsewhere.” N.J.S.A. § 23:2A-2.

The Project implicates 46 threatened, endangered, and special concern species in New Jersey. Surveys found timber rattlesnakes and northern copperheads in the Project area. EA at 2-55. Timber rattlesnakes have also been located at the Mahwah Meter Station and are expected to be impacted by the Spectra Pipeline. NJDEP Comments at 8. Therefore, in light of the two projects, the timber rattlesnake population is likely to suffer from cumulative impacts which, as discussed *supra* in Part II.F.1, must be taken into consideration under NEPA. TGP indicates that it will use “route deviations” to avoid impacts on these species. However, the EA provides no analysis of the effects of these deviations, nor is any species-specific data included. The mitigation plans, far from being developed, are mere lists, just as the kind of undeveloped “‘mere listing’ of measures” rejected by the Ninth Circuit. *NPCA*, 241 F.3d at 734. Red-shouldered hawks and barred owls were also observed, with results of the “vernal surveys . . . pending.” Additionally, regarding mussel species of concern, TGP says it will use the HDD crossing method to avoid impacts, but in the event of a frac-out would implement other measures. EA at 2-54. Once again, survey results are incomplete and “TGP stated it would conduct field assessments Results of the habitat assessment are pending.” *Id.* at 2-55. A frac-out from HDD of a pipeline is not an unlikely scenario: in fact, one occurred under a Pennsylvania stream in May 2011.¹⁷ Despite the likelihood of a frac-out or of TGP’s use of a wet open-cut crossing, however, the EA includes neither an impact analysis nor mitigation plans for the potential effect on the mussel species.

In addition to the risk of violating the above regulations, the EA fails to address other requirements as well. During NJDEP’s preliminary screening for threatened and endangered species in the project area, it evaluated areas under the jurisdiction of the Flood Hazard Area control Act and the Freshwater Wetlands Protection Act, which the EA disregards. NJDEP’s screening indicated regulated watercourses with suitable habitat either in the Project area or within 1 mile downstream for wood turtle (*Glyptemys insculpta*), bog turtle (*Glyptemys muhlenbergii*), and brook floater (*Alasmidonta varicose*), which are “critically dependant upon the regulated watercourse” and will require a 150’ riparian zone. The screening also indicated wetland habitats suitable for State or federally listed species which would require an Exceptional resource value and adjacent transition areas.

The EA concludes that “construction and operation of the project would result in short- and long-term impacts on wildlife and wildlife habitat. These impacts are expected to be minor given the mobile nature of most wildlife in the area, the availability of similar habitat adjacent and near the project, and the compatible nature of the restored right of way with species occurring in the area.” EA at 2-44. Heatley rejects this conclusion, finding instead that the project “is likely to present a barrier to movement of sensitive species.” Heatley Comments on the EA at 7. NJDEP agrees with Heatley, questioning:

How can Tennessee Gas determine that either the short- or long-term impacts will be ‘minor’ to New Jersey’s wildlife. Reptiles and amphibians show strong site

¹⁷ See *Pipeline Accident, Rain Cited in Buffalo Creek Spill*, PITTSBURGH TRIBUNE-REVIEW (May 12, 2011), http://www.pittsburghlive.com/x/pittsburghtrib/s_736535.html.

fidelity to critical habitats and home ranges. Destruction of such habitats and/or the widening of the right-of-way (potentially increasing the risk of traveling across the right-of-way) could impact local populations. For rare species and species with delayed maturation and/or low fecundity, this could be detrimental to those local populations; the loss or decline of which could then contribute to genetic isolation.

NJDEP Comments on the EA at 7.

NJDEP concludes that “FERC can not clearly understand the full environmental impact of the proposed project on threatened and endangered species populations and habitat and should not approve the application” until additional materials and review have been completed. NJDEP Comments on the EA at 17, para. 10. The EA makes absolutely no reference to any of these regulations. The effect of the project on species which are critically dependant on the affected area must be evaluated in an EIS.

4. New York Endangered Species Act N.Y.ECL s. 11-0535.

In New York, rare species are protected under the NY Endangered Species Act, N.Y.ECL § 11-0535, which prohibits the “taking” of any endangered or threatened species of fish, shellfish, crustacean or wildlife,” without permit. N.Y. Env'tl. Conserv. Law § 11-0535. Taking is defined broadly and includes not only killing wildlife but “all lesser acts such a disturbing, harrying or worrying” the animal. N.Y. Env'tl. Conserv. Law § 11-0103. A bald eagle was found in the vicinity of the Port Jervis, New York, pipe yard. EA at 2-55. This fact also implicates the MBTA and the BGEPA. See *supra* at Part II.H.2.

Aside from listing that rare species are protected by N.Y.ECL § 11-0535, the EA offers no analysis of which species might be implicated by it or whether or not there is a threat of violating the law with regard to any of the endangered species mentioned. The EA also lists a number of rare plant species, with survey results pending. It does not, however, address whether or not the rare species threaten a violation of the New York law. Instead, it indicates that “[w]here necessary, TGP would transplant individuals to locations outside the construction workspace or permanent right-of-way.” EA at 2-56. This kind of conclusory statement is what the Fifth Circuit warned against when it indicated that “mere perfunctory or conclusory language will not be deemed to constitute an adequate record and cannot serve to support the agency's decision not to prepare an EIS.” *Citizen Advocates For Responsible Expansion, Inc. (I-Care) v. Dole*, 770 F.2d 423, 434 (5th Cir. 1985). Furthermore, the EA’s failure to address the bald eagles found in the vicinity of the Port Jervis pipe yard in relation to the MBTA and the BGEPA, along with the lack of thorough analysis for other species highlights the need for an EIS.

5. Pennsylvania

Pennsylvania also monitors the taking of endangered species. 30 Pa. Cons. Stat. Ann. § 2305. For the reptile, mammal, bird, mussel, and plant species of concern in the Pennsylvania project area, FERC conducts the same superficial treatment in the EA that it has for all endangered species. See generally, EA at 2-53. Although timber rattlesnakes were “documented

along portions of Loop 321,” the EA specifies only that “all gestating snakes” were outside of the workspace. *Id.* However, there is no additional information about the snakes that were not gestating, or what the habitat implications would be. Instead, survey results are still pending, and “TGP stated it would conduct Phase II denning surveys” which have not been completed. EA at 2-54. As for mitigation plans, TGP says only that it will employ snake monitors, conduct daily sweeps, and use route deviations. *Id.* This conclusory treatment of a mitigation plan is far from the level of detail which courts have required under NEPA and again falls under the “mere perfunctory or conclusory language” forbidden by the Fifth Circuit. *Citizen Advocates For Responsible Expansion, Inc. (I-Care) v. Dole*, 770 F.2d at 434.

6. Clean Water Act

Section 401 of the Clean Water Act (“CWA”) requires that proposed dredge and fill activities under Section 404 be reviewed and certified by the state agency so that the project meets state water quality standards. The designated state agencies in question are the PADEP and the NJDEP. EA at 2-22. However, there is no extensive analysis of the proposed dredge and fill activities and whether they met state requirements. Instead, FERC relies on the assumption that all permit requirements will be met.

The project would impact 49.1 acres of wetlands, consisting of 24.09 acres of emergent wetlands, 1.9 acres of scrub-shrub wetland, and 22.4 acres of forested wetlands. 5.55 acres of wetlands would be permanently impacted, 5.5 of them forested. EA at 2-25. While FERC includes a table with sensitive water bodies (EA at 2-13), it does not explain in depth the impact of the Project other than to say that it will be crossing the Monksville Reservoir and Valentine Brook, the public water supply in Milford Township. EA at 2-13.

7. Federal Safe Drinking Water Act

The Project would cross four sole source aquifers (“SSA”). These aquifers supply at least 50 percent of the drinking water consumed in the area, and there are few to no alternative drinking water sources that could supply those who depend on it. EA at 2-9. The Northwest New Jersey 15 Basin SSA, which the project will cross, was designated under the Federal Safe Drinking Water Act in June 1988. *Id.* Additionally, the project will impact the NJ Coastal Plain SSA, a principal source of drinking water for Mercer and Middlesex Counties; Loop 323 will pass over the EPA-designated upstream headwater area. EA at 2-9.

Loop 325 would also cross the New Jersey Highlands Planning and Preservation areas, which provide the majority of potable water used in northern and central New Jersey. Plans for mitigation are not described in detail. Instead, they are discussed prospectively: “TGP *would* develop a comprehensive Mitigation Plan for implementation during construction and operation of the Project through the Highlands Region. The Comprehensive Mitigation Plan *would* be submitted as part of a Highlands Applicability Determination and *would* identify the specific water resources that would be affected by the Project and the measures designed to avoid, minimize, and mitigate adverse impacts on water resources.” EA at 2-11. The lack of a developed mitigation plan and reliance on a hypothetical future scenario interferes with the ability to assess the impact on drinking water.

The EA acknowledges that the risk of water contamination is real. Thirty-five sites have been identified as hazardous waste sites within 1,700 feet of Loops 323 and 325. EA at 2-11. “Shallow groundwater could be vulnerable to contamination caused by inadvertent surface spills of hazardous materials used during construction.” EA at 2-12. Furthermore, “[p]roject construction, including blasting, fueling activities, and accidental spills of hazardous substances could potentially impact the water quality and capacity of nearby water supply wells.” *Id.* Despite these observations, the EA speaks only generally about waste contamination: “In general, chemical releases that occurred nearby and upgradient from the Project would be *more likely to* impact the construction work area than would more distant releases or releases located sidegradient or downgradient from the work area. Thus, TGP does not expect to encounter any issues associated with contamination or hazardous waste during construction.” *Id.* This logic is flawed. The claim that another potential scenario would be more harmful than the Project does not demonstrate that the current scenario does not have significant adverse environmental impact. Nor does the EA present any evaluation of particular hazardous waste sites or any kind of specific mitigation plan, other than to say that “any impacts on water systems would be repaired.” *Id.*

The process for hydrostatic testing is discussed briefly and vaguely: it will require nearly 8 million gallons of water, may use additives and discharge into water sources. *See generally* EA at 2-14. And while the waterbody crossing methods are discussed briefly in the EA and the potential for frac-outs to impact aquatic organisms is discussed, there is no mention of the potential human health impacts of a frac-out. EA at 2-16. Therefore, the EA’s lack of attention to the risk of violating the Federal Safe Drinking Water Act indicates that the EA cannot support a FONSI.

8. Pennsylvania Clean Streams Act

The Clean Streams Act makes it unlawful to discharge “any substance of any kind or character resulting in pollution as herein defined.” 35 Pa. Stat. Ann. § 691.401. The Tennessee Gas Pipeline Company has already earned a reputation for accumulating up to 45 violations of the Clean Streams Law, documented in ten Pike County inspection reports in September 2011. These 45 violations occurred only from the short time period between June 22 and September 19 and reflect “17 instances in which dirt and sediment were discharged into Pennsylvania waters and pollution was documented . . . seven cases [of] . . . work site conditions that had a potential for water pollution, and 21 examples of failure to implement or maintain effective erosion and sediment best management practices.”¹⁸

In Pennsylvania, the DEP does not assess penalties for violations until after the project is finished. However, the track record of the Tennessee Gas Pipeline does more than threaten that violations will incur. Instead, the repeated culture of violation implies a near certainty that the project will violate clean water laws, and therefore requires the preparation of an EIS.

¹⁸ Beth Brelje, *Pike Conservation Official Fed Up with Gas Company’s Violations*, POCONO RECORD, (Sept. 20, 2011), <http://www.poconorecord.com/apps/pbcs.dll/article?AID=/20110920/NEWS/109200330/-1/rss01>.

9. Fisheries in general

In Pennsylvania, the Project would cross 32 water bodies supporting warm water fisheries and 29 water bodies supporting coldwater fisheries, as well as 25 high quality-designated water bodies, 7 exceptional value-designated water bodies, 1 Class A Trout Stream, and 2 Wild trout designated water bodies in Pennsylvania. EA at 2-19. Pennsylvania affords special protections to high quality or exceptional value water bodies and may designate waters to be managed for trout. *Id.* “In New Jersey, the Project would cross 29 water bodies designated for trout production or trout maintenance that are considered to be coldwater fisheries, and 25 water bodies designated as non-trout that are considered to be warmwater fisheries.” *Id.*

FERC identifies the risks to the water from construction, including “direct contact by construction equipment with fish, fish eggs, and other aquatic organisms including fish prey and forage species” as well as the removal of riparian vegetation and the “introduction of pollutants.” EA at 2-21. There is also the possibility that construction would “delay migrating fish from reaching upstream spawning areas or delay downstream movement of juveniles.” *Id.* However, far from discussing any mitigation methods, the EA merely identifies what the greatest risks will be, including “increased sedimentation” which can impact fish eggs and juvenile fish survival, diversity and health, and spawning habitat. *Id.* Furthermore, the “primary impact” that might take place from a HDD is the release of drilling mud during a frac-out, and “in larger quantities the release of drilling mud into a waterbody could affect fisheries or other aquatic organisms by settling in and temporarily inundating the habitats used by these species.” EA at 2-18. Once again, no mitigation measures are discussed sufficiently in the EA.

In Earth Justice’s comments on the 300 Line, Susan Beecher, Executive Director of the Pike County Conservation District, stated that there has not been adequate protection for water resources from the sedimentation caused by transmission line construction. Ms. Beecher indicates:

the transmission line construction process almost guarantees severe water resources impacts because there is too much earth disturbance over prolonged periods to allow for adequate installation and maintenance of erosion and sedimentation controls, timely inspections, and effective enforcement. She notes that standard BMPs are not effective, especially on steep slopes, and that additional protections are needed, such as phased construction of the pipeline. She also has observed that FERC-approved environmental inspectors typically *are inadequate to ensure compliance with Pennsylvania law and regulations*, and she recommends that an *independent* third-party inspector with stop-work authority – ideally CCD staff – be employed to monitor and enforce compliance.

EJ Comments at 18 (first emphasis added).

The EA has done little more than identify the statutes that may apply; it has not indicated whether or not TGP will be in compliance with them. Instead of assuming that TGP will be meeting all permitting requirements, FERC should do a careful investigation of methodology and mitigation measures to ensure not only preservation of important species but also that the project

is in compliance with all federal, local and state clean water laws. Without a more thorough analysis of the potential impacts of the process on laws and regulations, the EA cannot support a FONSI.

For the reasons set forth herein, and in the attached expert reports, intervenors respectfully request that FERC comply with NEPA and prepare an EIS.

Respectfully Submitted,

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