

**UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION**

Columbia Gas Transmission, LLC

Docket No. CP17-80-000

**COMMENTS OF POTOMAC RIVERKEEPER NETWORK AND UPPER POTOMAC
RIVERKEEPER, WATERKEEPERS CHESAPEAKE, CHESAPEAKE CLIMATE
ACTION NETWORK AND FOOD AND WATER WATCH
ON ENVIRONMENTAL ASSESSMENT FOR PROPOSED EASTERN PANHANDLE
EXPANSION PROJECT**

The following comments are submitted on behalf of the above-referenced organizations regarding the Federal Energy Regulatory Commission’s (“FERC”) Environmental Assessment (“EA”) of Columbia Gas Transmission’s (“Columbia”) proposed Eastern Panhandle Expansion Project (“Project”). Columbia proposes to construct and operate 3.4 miles of new 8-inch-diameter natural gas pipeline; three mainline valves; and two new tie-in assemblies. EA at 1-2. The proposed facilities would be constructed and operated in Fulton County, Pennsylvania; Washington County, Maryland; and Morgan County, West Virginia. *Id.* Columbia’s proposed Project would cross beneath the Potomac River (Potomac) and the Chesapeake and Ohio Canal National Historical (CHOH) Park lands (Canal) alongside the Potomac. *Id.* at 4. Columbia proposes to use horizontal directional drilling (HDD) to construct the pipeline under the Potomac and the Canal. *Id.* The Project would connect to the first 23-mile segment of the Mountaineer Eastern Panhandle Expansion Project, a wholly intrastate gas pipeline in West Virginia, subject to approval by the West Virginia Public Service Commission. When completed, the Project would transport extracted, fracked shale gas across Pennsylvania, through Maryland, and into West Virginia, to serve existing and projected West Virginia end-use customers. *Id.*

Commenters believe that the EA incorrectly makes a finding of no significant impact (FONSI), even subject to the mitigation conditions that FERC has imposed. Rather, the Project is a major Federal action under the National Environmental Policy Act of 1970 (NEPA), 42 USC 4332, the Council on Environmental Quality (CEQ) regulations implementing NEPA, 40 CFR 1500-508, and FERC's supplemental NEPA regulations under 18 CFR 380. Accordingly, FERC should have prepared an Environmental Impact Statement (EIS) to determine the purpose and need for the Project; the full range of alternatives, including no action; connected action impacts; past, present and reasonably foreseeable future direct and indirect cumulative impacts; and the potentially catastrophic environmental harms that the construction and operation of the Project may cause. For the following reasons, we urge FERC not to adopt the EA and to undertake a comprehensive environmental review in an EIS before deciding whether to grant the proposed Project a Certificate of Public Convenience and Necessity (PCN) under section 7(c) of the Natural Gas Act.

I. The EA Does Not Properly Address the Mountaineer Project as a Connected Action under NEPA.

FERC's scope of review in an environmental analysis should encompass connected, cumulative, and similar actions. *See* 40 CFR 1508.25(a); *Del. Riverkeeper Network v. FERC*, 753 F.3d 1304, 1308 (D.C. Cir. 2014). Actions are connected if they automatically trigger other actions which may require an EIS, cannot or will not proceed unless other actions are taken previously or simultaneously, **or are interdependent parts of a larger action and depend on the larger action for their justification.** *Id.* at 1508.25(a)(1) (emphasis added). "[A]n agency must discuss '[c]onnected actions' – that is, 'closely related' actions – 'in the same impact statement.'" *Nev. v. Dep't of Energy*, 457 F.3d 78, 91 n. 8 (D.C. Cir. 2006).

The Columbia Project pipeline is an interdependent part of a larger action – the

Mountaineer Project pipeline – and is dependent on that larger action for its justification. The first segment of the Mountaineer pipeline, 23 miles in length, will not be built without a supply line from Pennsylvania, which is exactly what this Project is. And this Project will not be built unless it connects with the Mountaineer pipeline, after crossing the Potomac into West Virginia. The Mountaineer Gas project involves three phases, the first of which was approved in November 2016. *See* NOI at 3. The following image shows how the Eastern Panhandle Expansion will connect with the first phase of the Mountaineer Gas project.



As Figure 1 shows, the Eastern Panhandle Expansion (red line) crosses the Potomac River and terminates where phase 1 of the Mountaineer Gas Pipeline (blue line) begins.

In addition to being functionally connected, the public record is replete with information detailing the interdependency of the Mountaineer and Columbia Gas pipeline projects. For

instance, in March 2016, Mountaineer Gas Company submitted a *Petition to Reopen to Amend Infrastructure Replacement and Expansion Program (IREP)* to West Virginia’s Public Service Commission (PSC) directly discussing the need to amend its original IREP for the Mountaineer Gas Pipeline to include expansion services to the Eastern Panhandle, provided by the Columbia Project. Mountaineer Gas asked the PSC for “timely approval” of the Columbia project so that Mountaineer could move forward on an agreement with Columbia Gas. Local news coverage of the issue also explicitly discusses the link between the two pipelines: “[i]f the Public Service Commission approves the proposed line expansion, [Vice President of Mountaineer Gas, Moses] Skaff said his company will work with Columbia Pipeline Group to engineer the specifics of pipe size and preferred routes.”¹ The Columbia Project has been described as “part of a bigger pipeline plan for the Eastern Panhandle area [of West Virginia]... Mountaineer’s proposal is *dependent upon* the Columbia Gas Transmission line for gas supply.”²

The projects are also similar actions since they share common timing and geography. 40 CFR 1508.25(a)(3). All of the projects are likely to be located in the Potomac River watershed. The projects also overlap in timing much like the projects at issue in *Del. Riverkeeper*. See 753 F.3d at 1317-18. In *Delaware Riverkeeper*, the court held that FERC improperly segmented four pipeline looping projects located along Tennessee’s 300 Line, the same pipeline where the Susquehanna West, Triad Expansion, and Orion Projects are located. *Id.* at 1304. The court stated that the four projects were “indisputably related and significantly ‘connected’” to each other. *Id.* at 1314. The court held that there were no logical termini for the projects and that they

¹ *The Morgan Messenger, Natural Gas Proposal Would Bring Service, Distribution Line Here*, available at: https://www.morganmessenger.com/news/2016-04-06/Front_Page/Natural_gas_proposal_would_bring_service_distribut.html.

² Danyel Vanreenen, *Natural gas pipeline project moving forward*, *The Journal*, Mar. 25, 2017, available at <http://www.journal-news.net/news/local-news/2017/03/natural-gas-pipeline-project-moving-forward/>.

had no substantial independent utility because they were “inextricably intertwined.” *Id.* at 1315-17. The court further emphasized the importance of the timing of the four projects, noting that they were “reviewed separately by FERC, approved, and then constructed in rapid succession between 2010 and 2013.” *Id.* at 1308, 1317-18.

Due to the functional, geographic, economical, and timing connection between the Mountaineer Pipeline and the Columbia Project, the two are “connected actions” within the meaning of NEPA and CEQ regulations. 40 CFR 1508.25(a)(1). As in *Delaware Riverkeeper*, 753 F.3d at 1317, there are no customers of the Columbia Project pipeline. Rather, the Project’s utility wholly relies on its connection to the Mountaineer Project pipeline, and the two are thus “inextricably intertwined.”

Commenters are aware of the decision in *Sierra Club v. U.S. Army Corps of Eng’rs*, 803 F.3d 31 (D.C. Cir. 2015) (*Sierra Club I*) which distinguishes *Delaware Riverkeeper*, and suggests that a federal agency need not consider a non-jurisdictional project as a connected action, but only as a cumulative impact. *Id.* at 50. Commenters believe that this case wrongly narrows the CEQ definition of a connected action in §1508.25(a)(1). There are three separate factors listed, only the first of which asks if the action in question may trigger the need for an EIS of another (implicitly Federal) action. The third factor does not mention the need for an EIS and should be read broadly to include any actions, Federal or not, that the smaller (in this case, the FERC-jurisdictional Columbia Project action) will not proceed without the larger action (in this case, the non-jurisdictional Mountaineer Project). 40 CFR 1508.25(a)(1)(iii).

The EA fails to discuss Mountaineer as a connected action. This is a fatal flaw to its environmental analysis because FERC has not taken the requisite hard look required under

NEPA. *Marsh v. Or. Natural Res. Council*, 490 U.S. 360, 374 (1989). Taken together, these connected actions will result in more than minimal adverse environmental impacts in Pennsylvania, Maryland and West Virginia, including crossing dozens of freshwater streams, many of which are impaired and some of which are direct tributaries to the Potomac. The proposed route of this Project also crosses sensitive karst geology, which presents unique risks during construction and operation that must be fully assessed and avoided in order to protect nearby drinking water wells and the Potomac River. The Potomac River provides clean drinking water to over 6 million people, including tens of thousands just downstream of the proposed crossing, and millions more in the metro D.C. area.³ A construction accident could pollute the Potomac or nearby groundwater with harmful, if not toxic drilling fluids, and an operational accident could result in methane leakage into groundwater that would likely contaminate local drinking water supplies.

II. The EA Does Not Adequately Address the Mountaineer Project as a Cumulative Action under NEPA.

Even if Mountaineer is not considered to be a connected action, the EA acknowledges that Mountaineer is one of eight actions that must be weighed together with the Project under the cumulative impacts analysis. EA at 92-97 & App’x G. This is appropriate. As the court made plain, a “private action is expressly encompassed in the cumulative action analysis.” *See Sierra Club I*, 803 F.3d at 50; *accord Delaware Riverkeeper*, 753 F.3d at 1308.

³ The Potomac River Basin Fact Sheet, Interstate Commission on the Potomac River Basin, available at: https://www.potomacriver.org/wp-content/uploads/2014/11/Potomac-Basin-Fact-Sheet_Oct_2015.pdf. Smaller downstream communities in Maryland have limited water storage capacity in the event of an upstream spill that forces them to shut off their water intakes. For example, see the Source Water Protection Plan for Shephardstown, WV, available at <http://nebula.wsimg.com/a674b1a5211b7edb235de59ad1cf68ae?AccessKeyId=25FE845C37CDCE575BAD&disposition=0&alloworigin=1>

However, the EA does not adequately address the possible adverse impacts of Mountaineer combined with the Project for all of the various resource areas it discusses: soil; water bodies and wetlands; vegetation, fisheries, wildlife, and threatened or endangered species; land use and recreation; air quality and noise; and climate change. For instance, the EA states that “[a]lthough we don’t know specific data for waterbody impacts within the same HUC-12 watersheds as the Project, we know the entire Mountaineer Project would impact 54 waterbodies totaling about 4,000 linear feet.” EA at 92. This statement fails to address publicly available evidence. It is known that the TransCanada pipeline will terminate and connect with the Mountaineer Gas pipeline immediately west of Sleepy Creek in Morgan County, West Virginia.⁴ Therefore, Mountaineer Gas would have to cross Sleepy Creek. Yet, there is no information on what method either Project would use to cross Sleepy Creek.

This is a failure to take the requisite hard look that NEPA requires and to inform the public. *Marsh v. Or. Natural Res. Council*, 490 U.S. at 374; *Baltimore Gas & Electric Co. v. NRDC, Inc.*, 462 U.S. 87, 97(1983); accord, *NRDC v. Nuclear Reg. Comm’n*, 879 F.3d 1202, 1207 (D.C. Cir. 2018). Therefore, the EA draws an unfounded conclusion that: “[d]ue to the limited number of waterbodies crossed using open cut method and Columbia’s mitigation measures to protect waterbodies and downstream resources, . . . the Project would not significantly contribute to cumulative impacts on waterbodies when considered with other projects in the geographic scope.” EA at 93.

Similarly, the EA does not adequately address the possible cumulative impacts on wetlands of the two projects. After noting that Mountaineer will impact 14 wetlands, the EA concludes that, combined with the Project’s impact on wetlands, it does not expect there to be

⁴ See Sleepy Creek Watershed Based Plan, available at: <https://sleepycreekwatershed.org/our-watershed/watershedplan/>.

significant cumulative impacts because “each project would be required to comply with applicable federal and state permit requirements to protect wetland resources and the Project would only contribute impacts on 0.06 acre of wetland.” EA at 93.

This is not analysis; it is merely conclusory. Such “conclusory remarks” are arbitrary and capricious and insufficient to discharge the agency's NEPA obligations; they “do not equip a decisionmaker to make an informed decision about alternative courses of action or a court to review the Secretary's reasoning.” *Natural Res. Def. Council v. Hodel*, 865 F.2d 288, 298 (D.C. Cir. 1988); *accord Gov't of Man. v. Salazar*, 691 F. Supp. 2d 37, 48 (D.D.C. 2010).

III. The EA Does Not Address the Reasonably Foreseeable Upstream Indirect Impacts of Future Shale Gas Development That Would Result From Approving the Project.

The EA simply makes no mention of how this Project will likely further the development of gas shale extraction. It has failed to take the requisite hard look under NEPA to consider the environmental effects of this reasonably foreseeable upstream indirect impact. The CEQ defines indirect effects as those “which 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.” 40 CFR 1508.8(b). In other proceedings, FERC has taken the position that the environmental effects from natural gas production are not caused by the proposed pipeline and are not a reasonably foreseeable consequence of its approval of a pipeline. *See, e.g., Columbia Gas Transmission, LLC*, 153 FERC ¶ 61,064, at P 19 (2015). This is inconsistent with its NEPA obligations.

Contrary to FERC's previously stated view, it is reasonably foreseeable that the construction and operation of new pipelines will induce additional fracking and shale gas

development upstream. An increase in infrastructure to transport a product results in an increase in production of that product. *See e.g., Barnes v. U.S. Dep't of Transp.*, 655 F.3d 1124, 1138-39 (9th Cir. 2011) (adding a new runway at airport “has a unique potential to spur demand”). Not only is there a causally indirect connection between new gas pipelines and additional gas development but such future development is not mere speculation. An indirect effect is “reasonably foreseeable” if it is “sufficiently likely to occur that a person of ordinary prudence would take it into account in reaching a decision.” *Sierra Club v. Marsh*, 976 21 F.2d 763, 767 (1st Cir. 1992). “[W]hen the nature of the effect is reasonably foreseeable but its extent is not, [an] agency may not simply ignore the effect.” *Mid States Coal. for Progress v. Surface Transp. Bd.*, 345 F.3d 520, 549 (8th Cir. 2003). *See also Habitat Educ. Ctr. v. U.S. Forest Serv.*, 609 F.3d 897, 902 (7th Cir. 2010).

In our initial comments on the Notice of Intent (NOI Comments), we presented publicly available evidence that 60,000 shale gas wells could eventually be drilled in Pennsylvania, with as much as 10,000 – 25,000 miles of new gathering pipelines causing an estimated 60,000 to 150,000 acres of direct forest clearing and 300,000 to 900,000 acres of forest edge effects. As the Supreme Court of Pennsylvania recently stated, the exploitation of the Marcellus shale formation “will produce a detrimental effect on the environment, on the people, their children, and future generations, and potentially on the public purse, perhaps rivaling the environmental effects of coal extraction.” *Robinson Twp. v. Pa. Pub. Util. Comm'n*, 83 A.3d 901, 976 (Pa. 2013).

The EA itself notes that this pipeline will provide capacity for “projected” shippers, which are likely to be upstream drillers who would drill less without this pipeline. EA at 2. In its comments, the Natural Gas Supply Association noted that “insufficient infrastructure” limits

“users’ ability to tap into [natural gas] supplies that are close to their market” and that “additional natural gas infrastructure must be in place to transport natural gas from the wellhead to consumers.”⁵ More broadly, the gas industry has acknowledged the link between new midstream infrastructure and increased drilling. According to Tim Greene, owner of Mineral Management of Appalachia, “more pipelines will lead to more drilling all across [West Virginia].”⁶ Furthermore, according to Corky DeMarco, executive director of the West Virginia Oil and Natural Gas Association, “[o]nly 5 percent of the potential Marcellus wells have even been permitted[.]” *Id.* Therefore, increased pipeline capacity will foreseeably lead to additional upstream gas drilling, and FERC must assess the resulting environmental effects.

FERC may not shirk its responsibilities under NEPA by labeling any attempt to discuss and assess such future environmental effects of induced shale gas development as a “crystal ball inquiry.” *Del. Riverkeeper*, 753 F.3d 1304, 1310 (*quoting Scientists’ Inst. For Pub. Info., Inc. v. Atomic Energy Comm’n*, 481 F.2d 1079, 1092 (D.C. Cir. 1973)); *see also N. Plains Res. Council v. Surface Transp. Bd.*, 668 F.3d 1067, 1078-79 (9th Cir. 2011).

In particular, assessment of induced upstream greenhouse gas emissions is feasible and required under NEPA. As discussed below, FERC is required to quantify downstream emissions as indirect effects, *see Sierra Club v. Fed. Energy Regulatory Comm’n*, 867 F.3d 1357 (D.C. Cir. 2017) (*Sierra Club II*), FERC must quantify the greenhouse gas emissions from induced upstream gas drilling and evaluate the impacts of these emissions. Despite FERC’s assertions to the contrary, it is not necessary to know the exact locations of all the wells that will supply gas to the pipelines, or the methods used to obtain that gas, to analyze the potential impacts. Average

⁵ Dena E. Wiggins, Natural Gas Supply Association, Comment Letter on Eastern Panhandle Expansion Project, Docket No. CP17-80-000, May 12, 2017.

⁶ Douglas Becker, *Potential Effects of Forest Fragmentation from the Proposed Mountain Valley Pipeline on Forest Birds*, 32-33.

production rates and production methods from wells in the supply region can be obtained from state databases,⁷ which FERC could have used to estimate the number of wells and the types of equipment and production methods necessary to supply the full pipeline capacity.

Additionally, the Department of Energy has produced detailed calculations of upstream GHG emissions from different sources of gas, including the Marcellus Shale.⁸ Exhibit 2-4, for example, contains detailed GHG emissions for upstream Marcellus Shale natural gas production, breaking down emissions by 13 distinct categories of extraction and processing activities. FERC could also have requested such information from producers and marketers that have contracts to supply gas to the pipeline and used this information to analyze the potential GHG emissions, and to develop alternatives as well as mitigation measures to offset such emissions should it allow the Project move forward.

Indeed, FERC undertook just this type of analysis in the Final EIS for the Constitution Pipeline, updating the cumulative impacts section of its assessment to “provide an estimate of the number of wells needed to provide the capacity of the proposed projects.”⁹ The assessment concluded that induced “Marcellus Shale development activities would result in increased long-term emissions of criteria pollutants, HAPs, and GHGs within the region.”¹⁰ Further demonstrating the feasibility of this approach, Canada now analyzes upstream GHG emissions

⁷ See, e.g., The Pennsylvania Department of Environmental Protection, Office of Oil and Gas Management Oil & Gas Reporting, available at: <https://www.paoilandgasreporting.state.pa.us/publicreports/Modules/Welcome/Welcome.aspx>).

⁸ See Department of Energy, Office of Fossil Energy National Energy Technology Laboratory, *Environmental Impacts of Unconventional Natural Gas Development and Production*, May 29, 2015, available at: https://www.netl.doe.gov/File%20Library/Research/Oil-Gas/publications/NG_Literature_Review3_Post.pdf.

⁹ See Constitution Pipeline, Docket CP13-499-000, Ascension No. 20140212-4002, FEIS at 11.

¹⁰ *Id.* at 4-255.

when evaluating new natural gas pipelines.¹¹ Therefore, FERC should not have avoided this type of analysis in its EA. This omission constitutes a failure to fulfill its NEPA responsibilities. FERC has denied itself and the public valuable information with which to adequately assess significant upstream environmental impacts.

FERC also must use a reasonable time frame to determine the reasonably foreseeable future development of upstream gas shale production that is consistent with what is known about planned and prospective development. For instance, in *Northern Plains*, 668 F.3d at 1079, the Court rejected as arbitrary and too limited the 5-year time frame the agency used to analyze the cumulative impacts of coal bed methane development combined with the STB's approval of a new rail line to transport that coal. According to a report by the research investment firm Morningstar, several companies have "identified between 10 and 30 years of drilling locations across the Marcellus, which should fuel several more years of production growth at relatively low cost."¹² Thus, FERC should have applied at 10-year time frame at a minimum, and arguably as much as a 30-year time frame, to any discussion of reasonably foreseeable upstream impacts.

Yet, the EA failed even to discuss the upstream indirect impacts of reasonably foreseeable gas shale production that approving the Project would induce. This is a fatal flaw to the adequacy of FERC's NEPA review in this proceeding.

¹¹ See, e.g., Environment and Climate Change Canada, *NOVA Gas Transmission Ltd. – 2017 NGTL System Expansion Project Review of Related Upstream Greenhouse Gas Emissions Estimates*, September 2016, <https://www.ceaa-acee.gc.ca/050/documents/p80099/115704E.pdf>.

¹² Morningstar Energy Observer, *Shale Shock: How the Marcellus Shale Transformed the Domestic Natural Gas Landscape and What It Means for Supply in the Years Ahead*, p. 17 (Feb. 2014) (emphasis added), available at http://marcelluscoalition.org/wp-content/uploads/2014/03/Morning-Star_EnergyObserverFebruary2014.pdf.

IV. FERC Did Not Apply the Correct Geographic and Temporal Scope to Its Analysis of the Cumulative Impacts of the Pipeline and Other Past, Present and Reasonably Foreseeable Future Development, Including Future Gas Shale Development

FERC has a duty to consider the cumulative impacts of the Project and all other past, present, and reasonably foreseeable future development, including gas shale development. To do that properly, the EA should have enlarged the geographic scope it applied to each of the resource areas it studied. The CEQ Guidelines state that: “For a project-specific analysis, it is often sufficient to analyze effects within the immediate area of the proposed action. When analyzing the contribution of this proposed action to cumulative effects, however, the geographic boundaries of the analysis almost always should be expanded. These expanded boundaries can be thought of as differences in hierarchy or scale. Project-specific analyses are usually conducted on the scale of counties, forest management units, or installation boundaries, whereas cumulative effects analysis should be conducted on the scale of human communities, landscapes, watersheds, or airsheds.”¹³

The EPA has also provided helpful guidance on the proper scope. “Spatial and temporal boundaries should not be overly restrictive in cumulative impact analysis.”¹⁴ EPA cautions agencies not to “limit the scope of their analyses to those areas over which they have direct authority or to the boundary of the relevant management area or project area.” *Id.* Rather, agencies “should delineate appropriate geographic areas including natural ecological boundaries” such as ecoregions or watersheds. *Id.* It advises that “the most common temporal scope is the life of the project.” *Id.*

¹³ CEQ, *Considering Cumulative Effects under the National Environmental Policy Act*, p. 12 (1997) (emphasis added).

¹⁴ EPA, *Consideration of Cumulative Impacts in EPA Review of NEPA Documents*, p. 8 (1999).

The EA relies on Columbia's identification of the HUC-12 sub watershed as the geographic scope to identify all past, present, and reasonably foreseeable development that could be a cumulative impact. EA at 91-92 & App'x G. While this may be a reasonable geographic scope to address the direct impacts of the Project, it is an impermissibly narrow limitation to address cumulative impacts. The EA applies a temporal scope of only one year, the projected time to build the Project (EA at 90). It does not even discuss the operational life of the Project in its cumulative impacts analysis, in complete disregard of EPA's advice to consider the life of the Project as the correct temporal scope for a cumulative impacts analysis. Yet, numerous pipeline projects have been proposed in the Chesapeake Bay watershed in recent years and the land disturbance and water quality impacts resulting from those pipelines and other development is likely to negatively affect the combined federal/state efforts, under the Chesapeake Bay TMDL, to clean up the Chesapeake Bay. By limiting the geographic and temporal scopes for its cumulative impacts analysis, the EA fails to look at the broader impacts on the Chesapeake Bay.¹⁵ It thus fails to make a proper cumulative impacts analysis.

As discussed above, the EA also failed to consider gas shale development as a cumulative indirect effect. To the extent that this is a failure to apply the appropriate geographic and temporal scopes, the EA is flawed. FERC must widen the geographic and temporal scope to consider the possible adverse impacts of reasonably foreseeable future gas shale development on wildlife and threatened and endangered species, including from the impacts of chronic noise, and must address the habitat fragmentation that gas shale development would cause.

¹⁵ See, e.g., Chesapeake Bay Program, Map: *Protected Lands 2006*, available at <http://www.chesapeakebay.net/maps/map/protected> lands 2006.

V. The EA Uses An Outdated Methane Global Warming Potential (GWP) Methodology to Analyze the Direct and Downstream Effects of the Project on Climate Change.

NEPA requires FERC to ensure “the scientific integrity [] of the discussions and analyses in [EISs].” 40 CFR 1502.24, 1500.1(b) (requiring “accurate scientific analysis”). An agency violates NEPA where its analysis is based on factual inaccuracy. The EA states that the only operational impacts on air quality and climate change would be from “fugitive methane leaks from the pipeline.” EA at 76. It estimates that, because these methane emissions would be “very low,” the resulting GHG emissions “would also be low.” *Id.*

In Table 22, the EA estimates that the operational methane GHG emissions from mainline valve emissions would be between 0.25-1.0; for pipeline emissions, they would be 0.9. The Table explains that it is using a Methane Global Warming Potential (GWP) of 25 to determine these estimates.¹⁶ *Id.* This value of 25 is an outdated 100-year GWP to assess the global warming impacts of methane emissions from this Project.¹⁷ It conflicts with the Intergovernmental Panel on Climate Change’s (IPCC) more recent 100-year GWP for methane of 36.¹⁸

¹⁶ A GWP is a measure of the amount of warming caused by the emission of one ton of a particular greenhouse gas relative to one ton of carbon dioxide. The methane GWP estimates how many tons of carbon dioxide would need to be emitted to produce the same amount of global warming as a single ton of methane. Global warming potentials change based on the amount of time that has passed since the GHG was emitted. Common time periods considered are 100 years and 20 years.

¹⁷ Although the EA fails to specify whether this is a 100-year GWP or a 20-year GWP, we assume the EA used a 100-year GW, given FERC’s use of 25 as the 100-year GWP in prior projects. *See* U.S. Environmental Prot. Agency, *Understanding Global Warming Potentials*, available at: <https://www.epa.gov/ghgemissions/understanding-global-warming-potentials>.

¹⁸ Intergovernmental Panel on Climate Change, *Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* (2013), <http://www.ipcc.ch/report/ar5/wg1/>.

Further, the EA should have calculated the methane GHG emissions by using both the 20-year GWP of 87 and the 100-year GWP of 36. This is important because methane is a much more potent greenhouse gas than carbon dioxide.¹⁹ Use of a 20-year GWP is more appropriate because, relative to carbon dioxide, methane has much greater climate impacts in the near term than the long term. Thus, the IPCC's 20-year GWP for methane of 87 is significantly higher than the 100-year GWP of 36. Therefore, a short-term measure of climate impacts is the more effective time frame in which to analyze the methane GHG emission impacts of the Project on global warming.²⁰

By failing to use the most up-to-date methane GWP, or even to consider a 20-year GWP, the EA violates NEPA. Correcting this error is all the more important given the EA's failure to estimate the considerable upstream methane emissions as cumulative impacts associated with this Project, which FERC also should have analyzed using the correct GWP for methane.

VI. The EA Does Not Adequately Analyze the Downstream Indirect Cumulative Impacts on Climate Change From GHG Emissions That Would Result From Approving the Project.

The EA does address the potential downstream greenhouse gas (GHG) emissions that would result from transporting natural gas through the Project and Mountaineer pipelines to serve gas-fired power plants in West Virginia. It assumes that, if all the transported gas is combusted, the Project can deliver "up to 46.6 MMcf/d of new volumes of natural gas, which if combusted would produce 920,000 metric tons of CO₂ per year." EA at 77. The EA discounts

¹⁹ Gunnar Nyhre & Drew Shindell et al., *Anthropogenic and Natural Radiative Forcing in IPCC, Climate Change 2013: The Physical Science Basis, Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* (2013), available at: http://www.climatechange2013.org/images/report/WG1AR5_Chapter08_FINAL.pdf.

²⁰ *Id.*; see also U.S. Dep't of Energy, *Life Cycle Greenhouse Gas Perspective on Exporting Liquefied Natural Gas*, 1, 8 (2014), <https://www.energy.gov/sites/prod/files/2014/05/f16/Life%20Cycle%20GHG%20Perspective%20Report.pdf> (using a 20-year GWP to calculate the lifecycle GHG emissions from LNG exports to European and Asian markets).

these impacts by observing that it is an upper bound of GHG emissions because it assumes the total maximum capacity is transported 365 days per year and is not used as industrial feedstock.

Id. Further, the EA surmises that burning natural gas would displace the equivalent existing coal or oil use, potentially offsetting some regional GHG emissions. EA at 97. But FERC is not “excused from making emissions estimates just because the emissions in question might be partially offset by reductions elsewhere,” e.g., by reducing output from coal or oil-fired plants. *Sierra Club II*, 867 F.3d at 1374-75. The EA does not demonstrate that retirement of other fossil fuel sources is caused by, or would not occur without, the Project. The EA errs in trying to minimize these impacts by reasoning, without evidentiary support, that replacing coal with gas will reduce CO₂ emissions.

The EA makes no attempt to satisfy the D.C. Circuit’s instruction to provide “a discussion of the ‘significance’ of” indirect greenhouse gas emissions, or their cumulative impact. *Sierra Club II*, 867 F.3d at 1374. The EA simply provides estimates of the amount of downstream combustion emissions without *any* discussion of the significance of these emissions or explanation for the EA’s determination that these impacts are insignificant. EA at 97. The CEQ has provided guidance to agencies on how to assess the GHG emissions impacts on climate change.²¹ It directs agencies to “make decisions using current scientific information and methodologies.” *Id.* at 30.

The EA flouts this policy and the D.C. Circuit’s clear instructions by disclaiming the availability of any methodology to determine “whether, and to what extent, a project’s incremental contribution to greenhouse gas emissions would result in physical effects on the

²¹ *CEQ Final Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in National Environmental Policy Act Reviews* (2016), 81 Fed. Reg. 51866 (Aug. 5, 2016). Although the guidance was withdrawn “for further consideration,” the notice clarifies that the withdrawal does not change any law, regulation, or other legally binding requirement under NEPA. *See* Exec. Order 13783, “Promoting Energy Independence and Economic Growth,” (Mar. 28, 2017); 82 Fed.Reg. 16576 (Apr. 5 2017).

environment for the purposes of evaluating the Project’s impacts on climate change, either locally or nationally.” EA at 97. It rejects the suitability of atmospheric models used by the Intergovernmental Panel on Climate Change, Environmental Protection Agency, National Aeronautics and Space Administration, “and others and we found.” *Id.* But, the EA’s explanation of why these models are not useful is too vague to satisfy the NEPA need for reasoned decision-making; and the failure to mention what the other models were that the EA considered and rejected fails to fulfill the NEPA duty to inform the public. 42 U.S.C. 4332(C)(i); *Baltimore Gas & Electric Co. v. NRDC, Inc.*, 462 U.S. at 97(1983); accord, *NRDC v. Nuclear Reg. Comm’n*, 879 F.3d at 1207.

Moreover, extensive peer-reviewed literature documents the “discrete environmental effects [of] GHG emissions,” including “localized or regional impacts.” *Id.* Indeed, the U.S. Global Change Research Project recently again confirmed and quantified a broad range of environmental impacts resulting from greenhouse gas emissions,²² including discussing how changes in temperature, rainfall, and flood risk from sea level rise will vary for individual regions in the United States.²³ FERC must explain how the EA’s conclusion that it is impossible to “attribute discrete environmental effects to greenhouse gas emissions” (EA at 97) can be squared with these readily available tools and methods. The EA should have analyzed the impact on air quality and climate change of burning the gas transported by the pipeline. *See, Mid States Coalition for Progress v. Surface Transp. Bd.*, 345 F.3d 520 (8th Cir. 2003).

²² U.S. Global Change Research Program, 2017: Climate Science Special Report: Fourth National Climate Assessment, Volume I, doi: 10.7930/J0J964J6 (Nov. 3, 2017), available at https://science2017.globalchange.gov/downloads/CSSR2017_FullReport.pdf .

²³ *See, e.g., id.* at 334.

Finally, even to the extent that the use of atmospheric models is “not suited to determine the incremental impact of individual projects” (EA at 97), FERC ignored a valid methodology for determining such incremental impacts—the “social cost of carbon.” This methodology was established by an interagency working group as a proxy for employing the atmospheric models to assess the incremental physical effects of GHG emissions.²⁴ The social cost tools are built on models of impacts to temperature, sea level rise, ecosystem services, and other physical impacts, together with assessments of how these physical changes will impact agriculture, human health, etc. The protocol then identifies the social cost imposed by the pro rata contribution of a ton of emissions to environmental harms.²⁵ This method either amounts to an assessment of physical impacts or the best-available, generally-accepted alternative to such an assessment; either way, the tool is appropriate for use under NEPA. *See* 40 CFR 1502.22(b)(4). In *Sierra Club II*, 867 F.3d at 1375, the court instructed FERC to address this methodology or explain why that tool is not an aid to its decision-making. Yet, the EA is impermissibly silent regarding this methodology.

Although NEPA does not require agencies to monetize adverse impacts in all cases, *see* 40 CFR 1502.23, it does require FERC to take a hard look at the “ecological . . . , aesthetic, historic, cultural, economic, social, [and] health” effects of its actions, “whether direct, indirect, or cumulative.” 40 CFR 1508.8. Monetization of costs may be required where available

²⁴ Notwithstanding Executive Order 13,783 § 5(b), 82 Fed. Reg. 16,093 (Mar. 28, 2017), which disbanded the Interagency Working Group and formally withdrew its technical support documents, the working group’s 2016 update to the estimates of the social costs of greenhouse gases remains the best available and generally accepted tool for assessing the impact of greenhouse gas emissions. *See* U.S. Interagency Working Group on the Social Cost of Greenhouse Gases (IWG), “Technical support document: Technical update of the social cost of carbon for regulatory impact analysis under executive order 12866 & Addendum: Application of the methodology to estimate the social cost of methane and the social cost of nitrous oxide.” (August 26, 2016), *available at* https://www.epa.gov/sites/production/files/2016-12/documents/sc_co2_tsd_august_2016.pdf.

²⁵ *See, e.g.*, EPA Fact Sheet: Social Cost of Carbon, *available at* https://www.epa.gov/sites/production/files/2016-12/documents/social_cost_of_carbon_fact_sheet.pdf.

“alternative mode[s] of [NEPA] evaluation [are] insufficiently detailed to aid the decision-makers in deciding whether to proceed, or to provide the information the public needs to evaluate the project effectively.” *Columbia Basin Land Prot. Ass’n v. Schlesinger*, 643 F.2d 585, 594 (9th Cir. 1981).

In another recent case concerning an energy infrastructure project, where the agency’s NEPA analysis quantified GHG emissions but claimed that it was impossible to discuss their effects, the court ruled that the agency’s refusal to use the social cost of carbon to assess the impact of these emissions was arbitrary and capricious. *High Country Conservation Advocates v. United States Forest Serv.*, 52 F. Supp. 3d 1174, 1190-91 (D. Colo. 2014). “In effect the agency prepared half of a cost-benefit analysis” by incorrectly claiming it was impossible to quantify the costs, but nonetheless relying on anticipated financial benefits to approve the project. *Id.* at 1191. The EA suffers from the same arbitrary, half-a-loaf analysis.

VII. The EA Does Not Adequately Discuss All Reasonable Alternatives.

The alternatives section “is the heart of the environmental impact statement.” 40 CFR 1502.14. FERC must “[r]igorously explore and objectively evaluate all reasonable alternatives [.]” *Id.* § 1502.14(a). This includes “reasonable alternatives not within the jurisdiction of the lead agency.” *Id.* § 1502.14(c). FERC must “exercise a degree of skepticism in dealing with self-serving statements from a prime beneficiary of the project.” *Simmons v. U.S. Army Corps of Eng’rs*, 120 F.3d 664, 669 (7th Cir. 1997) (quoting *Citizens Against Burlington, Inc. v. Busey*, 938 F.2d 190, 209 (D.C. Cir. 1991) (Buckley, J., dissenting)). FERC “cannot restrict its analysis to those ‘alternative means by which a particular applicant can reach his goals.’” *Id.* (quoting *Van Abbema v. Fornell*, 807 F.2d 633, 638 (7th Cir. 1986)); see also *Nat’l Parks & Cons. Ass’n v. Bureau of Land Mgmt.*, 606 F.3d 1058, 1072 (9th Cir. 2009) (finding a purpose and need

statement that included the agency's goal to address long-term landfill demand, and the applicant's three private goals was too narrowly drawn and constrained the possible range of alternatives in violation of NEPA).

The EA applied three criteria to decide which alternatives to discuss, including the No Action alternative (EA at 98):

- Ability to meet the Project's stated objective;
- Technical and economic feasibility and practicality; and
- Significant environmental advantage over the proposed action.

The EA does not adequately discuss all of the route alternatives. In particular, it addresses one aboveground route that would cross the Potomac by utilizing the existing Route 522 Bridge, thereby avoiding the need to employ HDD to construct the pipeline under the Potomac River and C & O Canal. Conceding that this "aboveground crossing attached to a bridge would also avoid impacts on the Potomac River," the EA then inconsistently and incomprehensively concludes that it "would not decrease the impact on the river in comparison to the proposed HDD crossing." EA at 100-01. In contrast with the alternative that utilizes an existing highway bridge, the use of HDD drilling to construct the pipeline under the Potomac is reasonably likely to result in water quality impacts if a HDD blowout occurs. Impacts to the use of the Potomac as a source of drinking water for downstream residents could also occur from a HDD blowout. Yet none of these risks would be present if the highway bridge alternative was chosen in place of HDD drilling. Given our expressed concerns in our NOI Comments about the potentially catastrophic harm to the health and safety of downstream Maryland citizens and the river from a possible blowout of drilling fluid during HDD construction, the EA's failure to give a fuller explanation of its rejection of this alternative is a complete failure to take the requisite hard look under NEPA. *Marsh v. Or. Natural Res. Council*, 490 U.S. at 374.

The EA also does not discuss the possibility of serving West Virginia customers from any gas pipeline routed from the South. Such an alternative via the expansion of existing pipeline capacity owned by Columbia Pipeline Group was assessed in a Gas Pipeline Feasibility Project prepared by the Thrasher Group to consider alternatives to the Mountaineer Project.²⁶ The Thrasher study found that the expansion and modernization of existing gas infrastructure could provide a new source of natural gas to the panhandle of West Virginia.²⁷ Yet, the EA is silent about this or any other route that would avoid the significant adverse impacts that HDD construction under the Potomac and Canal might cause. This is a failure to comply with the CEQ requirement to consider reasonable alternatives that are not within the agency's jurisdiction. 40 CFR 1502.14(c).

The EA also does not address clean energy alternatives to transporting and burning more natural gas, a fossil fuel that contributes to GHG emissions and climate change. The EA limits its evaluation of alternatives to those that would meet the Project's stated objective to increase natural gas supply options and system reliability for Columbia's (in actuality, Mountaineer's) customers. EA at 98. FERC's failure to consider alternative energy and increased energy efficiency alternatives is at odds with other recent statements. For example, in the Constitution Pipeline Draft EIS (DEIS), FERC considered energy conservation and efficiency and renewable energy alternatives.²⁸ It addressed wind, geothermal, fuel cells, hydroelectric, biomass, photovoltaic solar and tidal and wave power options. *Id.* FERC's narrowing of the range of

²⁶ See <http://www.region9wv.com/plans---studies.html>

²⁷ Eastern Panhandle Regional Planning and Development Council, *Eastern Panhandle Natural Gas Expansion Study*, at 11. Available at <https://www.dropbox.com/s/o31cbb7wwfrpywl/Feasibility%20Study.pdf?dl=0>. A map of the proposed route is available at <https://www.transcanada.com/globalassets/pdfs/natural-gas/wb-xpress-project/transcanada-wb-xpress-project.pdf>

²⁸ See Constitution Pipeline, Docket CP13-499-000, Ascension No. 20140212-4002, DEIS at 3-7 – 3-12.

alternatives in this case to just those alternatives that would transport natural gas means that energy conservation and renewable energy alternatives will never be considered in this proceeding, even if they are economically and technologically feasible and would serve the broader public interest of reducing GHG emissions that contribute to climate change.

VIII. The EA Did Not Properly Address the Need for the Project.

FERC must perform an independent assessment of the need for the Project as part of its NEPA review in order to assess alternatives, including the “no action” alternative. CEQ regulations, 40 CFR 1502.13, and FERC Supp. Regulations, 18 CFR 380.1. FERC cannot rely solely on the Applicant’s stated need. *See Nat’l Parks & Cons. Ass’n v. Bureau of Land Mgmt.*, 606 F.3d 1058, 1072 (2009). FERC also cannot simply defer to the certification determination of public convenience and necessity under Section 7 of the Natural Gas Act.

The EA states that Columbia’s purpose for proposing the Project is to deliver natural gas from Pennsylvania, across Maryland, and into the Mountaineer pipeline to serve West Virginia customers. The EA parrots Columbia’s statement that the Project would meet the market demand growth that its system experiences and benefit both projected and existing shippers. *Id.*

The EA does not address the public need or benefits for the proposed Project. It fails to provide transparency in the decision-making process and thereby frustrates the public’s opportunity to provide meaningful comments on the EA. The public’s right to weigh in on the assessment of need is particularly critical for a project such as this because of its potential impact on the Potomac which provides the drinking water for millions of downstream citizens. The procedures of the Natural Gas Act cannot replace the full and fair public participation in the decision-making process that NEPA mandates. Moreover, the EA’s reliance on the Project’s stated objective to increase natural gas supply options and system reliability for Columbia’s

customers, and omission of any evaluation of clean and renewal energy alternatives that would not release GHG emissions and contribute to climate change, represents a failure to make an independent assessment of the need for the Project under NEPA.

IX. FERC Did Not Properly Address the Potential Adverse Impact on Public Health and Safety and the Environment of Using HDD to Construct the Project under the Potomac and C&O Canal.

The Project would cross a 490.49 foot segment of the Potomac. This makes it a “major” waterbody crossing under FERC’s classification system.²⁹ The Potomac is listed as an American Heritage River.³⁰ The designation sets three goals: (1) continued improvement of water quality and environmental restoration along with development of effective flood control plans; (2) promotion of the region’s rich historical heritage and recreational opportunities; and (3) involvement of citizens at local levels.³¹ “The Potomac River provides drinking water for people in the areas of Hagerstown, Sharpsburg, Funkstown, Smithsburg, and Williamsport [.]”.³² It also provides drinking water downstream to over 6 million people. The Project would also cross the Canal which is designated as a National Historic Register Site. The area of the C&O Canal Park in the vicinity of the proposed pipeline route includes historic features such as the Tonoloway Creek Aqueduct, built between 1835 and 1839 to carry canal traffic over the Creek,³³ and Locks

²⁹ Wetland and Waterbody Construction and Mitigation Procedures, at 2 (a major water body crossing is one that is more than 100 feet wide), available at <https://www.ferc.gov/industries/gas/enviro/procedures.pdf>.

³⁰ See American Rivers, *Potomac River*, available at <https://www.americanrivers.org/river/potomac-river/>.

³¹ American Heritage Rivers, *Potomac River*, available at <https://clinton2.nara.gov/CEQ/Rivers/potomac.html>.

³² Maryland Dep’t of the Environment, *Prioritizing Sites for Wetland Restoration, Mitigation, and Preservation in Maryland – Washington County*, at 5 (May 18, 2006), available at <http://www.mde.state.md.us/programs/water/WetlandsandWaterways/AboutWetlands/Documents/www.mde.state.md.us/assets/document/wetlandswaterways/WA.pdf>.

³³ <https://www.canaltrust.org/discoverypoi/tonoloway-creek-aqueduct/>

51 and 52. A HDD blowout which released large volumes of drilling fluid, or an accidental gas leak or explosion of the operating pipeline could damage or destroy these historic resources.

Columbia proposes to use the HDD method to construct the pipeline under the Potomac and Canal. Drilling fluid is typically composed of water and bentonite clay, but has been found to contain pollutants that could impair water quality or threaten public health, including diesel fuel.³⁴ EA at 44. Columbia has developed an HDD Contingency Plan to minimize the impacts of an inadvertent release into the Potomac River or adjacent habitats. *See* EA 44-45 & App'x B. The EA states that staff reviewed Columbia's assessment of risks and its mitigation plan and found both acceptable. EA at 43. But the analysis takes at face value Columbia's assertion of the minimal risk of "an inadvertent release." EA at 45. FERC should have independently assessed the risks and appropriate mitigation.

Contrary to the EA's reliance on Columbia's assurances, an inadvertent release of drilling fluids during HDD construction poses a grave threat to the public health of over six million people, impacting their drinking water. In light of recent spills that occurred during HDD construction of a natural gas pipeline in Ohio, FERC must take more seriously the potential for significant impacts on the Potomac River from the proposed crossing. On April 14, 2017, the Ohio Environmental Protection Agency ("OEPA") issued two notices of violation to Rover Pipeline, LLC for two so-called "inadvertent returns" related to HDD operations in wetlands.³⁵ These "inadvertent returns" caused over 2 million gallons of drilling fluids to spill into approximately 530,000 square feet of wetlands that "coated the area with a layer of mud and

³⁴ *Infra* Note 34.

³⁵ *See* Rover Pipeline's April 18, 2017 Letter to FERC (Docket No. CP15-93-000, Accession No. 20170418-5244). Drilling mud containing diesel fuel was found near a well and aquifer that supplies drinking water to 40,000 local residents. *See* <http://www.dispatch.com/news/20170602/diesel-fuel-found-in-mud-from-pipeline-project>

impacted water quality.” *Id.* According to the *Washington Post*, OEPA has already “imposed about \$400,000 in fines on Energy Transfer Partners,” the parent company of Rover Pipeline.³⁶ As recently as January 12, 2018, the OEPA wrote to FERC to express its concerns about the poor performance by Rover in taking FERC-mandated remedial actions and requested daily updates.³⁷

In addition, FERC and Ohio EPA subsequently discovered traces of diesel fuel in the spilled drilling fluid, leading to an investigation by FERC as to why Rover Pipeline ignored the specific conditions in its FERC approval which did not allow diesel fuel or other contaminants to be present in the drilling fluid.³⁸ However, despite this recent experience, FERC failed to include an assessment of the risks and impacts of diesel fuel or other contaminants being released into the environment as a result of a HDD spill or other accident in this EA. FERC appears to take it at face value that the HDD drilling fluid will only contain water and bentonite clay, and fails to look any more closely at the very real risk of toxic pollutants being used in drilling fluid, and thus being accidentally discharged into wetlands or waterways during use of HDD for this project.

The Rover pipeline accidents were not isolated incidents, but symptoms of weak regulatory oversight of the use and risks of HDD drilling for gas pipelines. The multi-billion dollar Mariner East 2 pipeline project, slated to carry propane and other liquid gases, suffered numerous spills and caused contamination of local residents’ drinking water wells from HDD blowouts in 2017, forcing the Pennsylvania Department of Environmental Protection to suspend

³⁶ See Steven Mufson, *Pipeline spill by Dakota Access company could have a ‘deadly effect,’* Wash. Post, May 8, 2017 (“Mufson Article”), available at https://www.washingtonpost.com/news/energy-environment/wp/2017/05/08/pipeline-spill-by-dakota-access-company-could-have-a-deadly-effect/?utm_term=.887481eb638b.

³⁷ See *Rover Pipeline Project*, Docket No. CP 15-93, Ascension No. 20180112-5032.

³⁸ See June 1, 2017 letter from FERC to Rover Pipeline LLC regarding the composition of drilling fluid, available at <https://www.ferc.gov/media/statements-speeches/06-01-17-letter.pdf>

all construction on the project in January 2018.³⁹ The regular occurrence and severe impacts of HDD drilling accidents clearly show that such accidents are reasonably foreseeable, and thus their impacts must be fully assessed by FERC in its NEPA review process. In this EA, however, FERC wrongly assumes that HDD drilling will have no impacts, and as a result, no further analysis or imposition of conditions that would avoid such accidents are necessary. FERC's reliance on the EA rests on this flawed assumption, and thus is unsound. In order to comply with NEPA, FERC must conduct a full EIS that considers the impacts of a HDD accident into the Potomac and considers route alternatives and other measures to avoid such a risk.

FERC should carefully assess the risks and impacts of diesel fuel and other pollutants being used in HDD drilling fluid in an EIS for this project. If the project proceeds, FERC must set conditions in its license approval that prohibit the use of diesel fuel or other harmful pollutants in HDD drilling fluid for this project. In the absence of such an assessment, the EA is deficient and violates the "hard look" mandate of NEPA.

The Project pipeline construction would also be occurring in an area that is underlain by a karst landscape characterized by "the presence of sinkholes, caverns, and in some cases a highly irregular, pinnacled bedrock surface." EA 30-31. Karst terrain "often has unique hydrology and highly productive aquifers." *Id.* These sinkholes and aquifers are susceptible to contamination of HDD drilling fluid and the risk of ground collapse that can damage structures, damaging nearby wells and the safety of landowners' well water. The EA also references Columbia's HDD Feasibility Report, which admitted encountering sporadic voids in the limestone during its geotechnical test boring survey. EA at 31. Columbia only took geotechnical borings at five locations for the nearly mile long crossing under the Potomac, but still found voids and other

³⁹ <https://stateimpact.npr.org/pennsylvania/2017/07/07/chesco-homes-hit-with-water-problems-near-pipeline-construction-site/>

indicators of karst geology. Given the risks posed by drilling through porous karst (sinkholes, blowouts) it is clear that additional geotechnical borings along the proposed route under the Potomac should have been taken, to better characterize the geology of the route and determine whether karst is indeed present. The limited geotechnical information provided by Columbia does not give FERC sufficient information on which to conclude that impacts will be minimal. Notwithstanding these risks, the EA incorrectly concludes that: “It is unlikely karst features would have an effect on the Project or that the Project would impact karst features.” EA at 32.

The EA relies solely on Columbia’s own evaluation of the presence of karst geology (EA at 30-31) and its Karst Mitigation Plan to address remedial steps if sinkholes occur during construction.⁴⁰ For instance, Columbia identified 12 private drinking water wells in Washington County, Maryland, within 150 feet of the Project. EA at 37-38 & Table 7. The EA states that Columbia has offered to conduct pre- and post-construction testing of known or identified wells and springs within 150 feet of any construction areas (and within 500 feet of the proposed centerline in locations with karst terrain) for water quality and yield, if requested by the landowner. Columbia also has offered to compensate such landowners for any significant differences in water quality or quantity between initial testing and post-construction that requires the landowner to make repairs, install a new well, or for other options agreeable to the landowner. EA at 39. The EA proposes as additional mitigation that Columbia provide a temporary supply of water if the landowner’s water supply is damaged or contaminated by construction activities. *Id.*

Despite these additional mitigation measures, the EA fails to provide sufficient analysis of the risks posed by drilling through karst geology, and fails to independently assess the adequacy of Columbia’s HDD Contingency plans. FERC should not have finalized the EA

⁴⁰ See e-Library, Docket No. CP17-80-000, Ascension No. 20170712-5159.

before receiving additional information from Columbia that could help inform a more thorough EA, and enhanced contingency planning and mitigation measures that would avoid or minimize the risk of a HDD accident polluting the Canal Park or Potomac River. FERC failed to take the requisite “hard look” at karst risks and impacts in this EA, and thus violated NEPA.

X. FERC Should Have Prepared an EIS instead of an EA.

Columbia’s proposed pipeline is a “major Federal action within the meaning of NEPA, 42 USC 4332, and CEQ regulations, 40 CFR 1508.18(a). FERC’s supplemental NEPA regulations also state that an EIS “will normally be prepared for . . . [m]ajor pipeline construction projects under section 7 of the Natural Gas Act using rights-of-way in which there is no existing natural gas pipeline[.]” 18 CFR 380.6(a)(3). The Project is a major pipeline construction project that plainly fits within FERC’s own definition of when the agency should prepare and EIS. The pipeline would need to acquire a right of way where there is no existing natural gas pipeline. Thus, under both FERC and CEQ regulations, FERC should have prepared an EIS in this proceeding.

FERC’s decision to prepare an EA instead of an EIS represents a failure to take a hard look at the environmental effects the proposed Project will likely cause. *Marsh v. Or. Natural Res. Council*, 490 U.S. at 374. It overlooks the significance of the proposed pipeline. *See* 40 CFR 1508.27. One measure of significance is the degree to which a proposed action may impact public health and safety. 40 CFR 1508.27(b)(2). As discussed above, the potential harms from using HDD to cross the Potomac, especially in light of the Rover blowout of drilling fluid in Ohio, and the possible impact on nearby well water of drilling through karst features in limestone, are by any definition “significant.”

A federal action is also significant, thus requiring an EIS, when it may adversely impact “historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.” 40 CFR 1508.27(b)(3),(8). Because, as noted above, the Potomac River is designated as an American Heritage River, and the C&O Canal is listed on the National Register of Historic Places, these factors support the need for an EIS instead of an EA in this proceeding.

The EA states that “the impacts associated with the Project are limited in scope and could be sufficiently mitigated to support a finding of no significant impact. Consequently, an EA is appropriate and sufficient for disclosing the impacts of the actions requested in Columbia’s application.” EA at 3. The EA fails to observe FERC’s own regulations and CEQ guidance. The decision not to prepare an EIS is therefore flawed. The EA’s finding of no significant impacts subject to mitigation conditions that the Applicant itself self-servingly proposed is a failure to take a hard look at all significant environmental consequences that are likely to result from the Project and ensure that the mitigation measures the agency imposes are sufficient to minimize possible resulting harms.

For the foregoing reasons, FERC should not certify the Project under Section 7 of the Natural Gas Act until it has undertaken the requisite environmental review that NEPA requires.

Respectfully submitted,



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February 26, 2018