UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Mountain Valley Pipeline, LLC	)	Docket Nos. CP16-10
Equitrans, LP	)	CP16-13

MOTION TO SUPPLEMENT ENVIRONMENTAL IMPACT STATEMENT BY APPALACHIAN VOICES, WILD VIRGINIA, SIERRA CLUB, WEST VIRGINIA RIVERS COALITION, INDIAN CREEK WATERSHED ASSOCIATION, CHESAPEAKE CLIMATE ACTION NETWORK, PRESERVE BENT MOUNTAIN/BREDL, AND PROTECT OUR WATER, HERITAGE, RIGHTS

Pursuant to Rules 202 and 212 of the Federal Energy Regulatory Commission Rules of Practice and Procedure and 40 C.F.R. § 1502.9, Appalachian Voices, Wild Virginia, Sierra Club, West Virginia Rivers Coalition, Indian Creek Watershed Association, Chesapeake Climate Action Network, Preserve Bent Mountain/BREDL, and Protect Our Water, Heritage, Rights (POWHR) request that the Commission supplement its Environmental Impact Statement ("EIS") for the Mountain Valley Pipeline project ("MVP") to address significant new circumstances and information bearing on MVP's environmental impacts.

The Commission ordered MVP to cease pipeline construction in October 2019, after the U.S. Court of Appeals for the Fourth Circuit issued an order staying the 2017 Biological Opinion and Incidental Take Statement for MVP.[1] MVP also currently lacks authorizations from the U.S.

[1] *See* Letter from T. Turpin (FERC) to M. Eggerding (MVP) (Accession No. 20191015-3030).

Army Corps of Engineers, the U.S. Forest Service, and the Bureau of Land Management.[2] As a result, the MVP's path remains uncertain.[3]

MVP cannot obtain authorization to commence construction activities until it has received these required federal authorizations. Certificate Order at Appendix C, Environmental Condition 9 (Accession No. 20171013-4002). *See also id.* at ¶134 ("Applicants *must* satisfy the environmental conditions contained in Appendix C of this order *before they may proceed* with their projects.") (emphasis added); *id.* at ¶187 ("The applicants must obtain all necessary federal and state permits and authorizations … prior to receiving Commission authorization to commence construction."); *Sierra Club v. U.S. Dep't of Interior*, 899 F.3d at 284 n.11 (4th Cir. 2018) ("FERC's authorization for [the pipeline] to begin construction is conditioned on the existence of valid authorizations from [the other federal agencies]. Absent such authorizations, [the pipeline company], should it continue to proceed with construction, would violate FERC's certificate of public convenience and necessity.").

In addition, before FERC may authorize MVP to proceed with construction, FERC must undertake supplemental environmental review. "A supplemental EIS [is] *mandatory* if the agency 'makes substantial changes in the proposed action that are relevant to environmental concerns' or if 'significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts' arise." *Webster v. U.S. Dep't of Agric*., 685 F.3d 411, 418 (4th Cir. 2012) (citing 40 C.F.R. § 1502.9(c)) (emphasis added). As described below, in the more than three years that have passed since FERC issued its EIS for MVP,

[2] *See Sierra Club v. U.S. Forest Serv*., 897 F.3d 582, 592 (4th Cir.), *reh'g granted in part*, 739 F. App'x 185 (4th Cir. 2018); *Sierra Club v. U.S. Army Corps of Eng'rs*, 905 F.3d 285 (4th Cir. 2018), *as amended* (Nov. 27, 2018).

[3] *See, e.g.*, FERC, Notification of Stop Work Order (Accession No. 20180803-3076) ("Commission staff cannot predict when these agencies may act or whether these agencies will ultimately approve the same route.").

"substantial changes" to the project have been made, and "significant new circumstances [and] information relevant to environmental concerns" have arisen. 40 C.F.R. § 1502.9(d). Accordingly, FERC must prepare a supplemental EIS.

ARGUMENT

I. FERC Must Consider New Information and Circumstances that have Arisen Since June 2017, as well as Changes to the Project, in a Supplemental EIS

National Environmental Policy Act ("NEPA") regulations require that agencies:

> (1) Shall prepare supplements to either draft or final environmental impact statements if…:
> (i) The agency makes substantial changes to the proposed action that are relevant to environmental concerns; or
> (ii) There are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts.
> (2) May also prepare supplements when the agency determines that the purposes of the Act will be furthered by doing so.

40 C.F.R. § 1502.9(d). The use of the word "shall" is mandatory and creates a duty on the part of the agency to prepare a supplement to the EIS if there are significant new circumstances or information relevant to environmental concerns. *See Marsh v. Oregon Natural Res. Council*, 490 U.S. 360, 372 (1989); *Price Rd. Neighborhood Ass'n, Inc. v. U.S. Dep't of Transp*., 113 F.3d 1505, 1509 (9th Cir. 1997) (citation omitted) (NEPA "imposes a continuing duty to supplement previous environmental documents").

Accordingly, an agency "must be alert to new information that may alter the results of its original environmental analysis…." *Friends of the Clearwater v. Dombeck*, 222 F.3d 552, 557 (9th Cir. 2000). Here, there are changed circumstances and new information. *See, e.g*., Supplement to the Biological Assessment (April 2020, revised May 28, 2020) at 1 (Accession No. 20200702-5305) ("In response to the federal listing of a new species and the *emergence of new information about potential effects of the Project*, FERC requested reinitiation of

consultation with USFWS on August 28, 2019.") (emphasis added); *Jefferson National Forest; Monroe County, West Virginia; Giles and Montgomery County, Virginia; Mountain Valley Pipeline and Equitrans Expansion Project Supplemental Environmental Impact Statement*, 85 Fed. Reg. 45863, 45864 (July 30, 2020) ("There is *new information and changed circumstances* to consider since the [U.S. Forest Service's Record of Decision] was signed in December 2017.") (emphasis added).

There is also "remaining government action [that] would be environmentally significant," and FERC still has "a meaningful opportunity to weigh the benefits of the project versus the detrimental effects on the environment." *Marsh*, 490 U.S. at 371. While MVP has publicly stated it has "completed 92% of total project work,"[4] MVP's recent Supplement to the Biological Assessment ("BA Supplement") acknowledges that only 155 miles of the 303-mile project have been "fully restored." BA Supplement at 13. Moreover, much of the soil-disturbing construction that has not yet occurred is in areas that contain endangered species habitat. *See, e.g.*, Weekly Report No. 145 (Accession No. 20200817-5106) (showing that only 19.48% of Spread G and 63.53% of Spread H have been trenched). In addition, in endangered Roanoke logperch habitat watersheds, hundreds of streams have yet to be crossed. *See* Responses to FERC Comments on Supplement to the Biological Assessment Issued May 8, 2020 (Accession No. 20200514-5015), at 30 (hereinafter "MVP May 8th Responses") (showing that stream crossings have not been completed for 197 streams in the Roanoke River watershed; 16 streams in the North Fork Roanoke River watershed; 5 streams in the Bradshaw Creek watershed; 49 streams in the Pigg River watershed; and 8 streams in the Harpen Creek watershed).

[4] *MVP Prepares for Construction Completion*, Business Wire (June 11, 2020), https://www.businesswire.com/news/home/20200611005848/en/MVP-Prepares-Construction-Completion?fbclid=IwAR0-MnalbG0K_A_4kuqclWP-huy9nMp7S72hGPoa-t8Jy-qYRX7GoYrSHQI.

Any decision by FERC to allow Mountain Valley to resume pipeline construction would result in significant environmental impacts. Accordingly, FERC must prepare a supplement to the 2017 EIS before authorizing pipeline construction to continue. *See Envtl. Def. Fund v. Tennessee Val. Auth*., 468 F.2d 1164, 1177 (6th Cir. 1972) ("We believe it more consonant with congressional intent to hold that an agency must file an impact statement whenever the agency intends to take steps that will result in a significant environmental impact … whether or not the proposed steps represent simply the last phase of an integrated operation most of which was completed before that date."). FERC will also have to decide whether to extend the deadline it imposed on MVP to complete construction and place the pipeline into service. *See* Certificate Order at p. 108. As the Supreme Court wrote in *Marsh v. Oregon Nat. Res. Council*:

> It would be incongruous with [NEPA's] approach to environmental protection, and with the Act's manifest concern with preventing uninformed action, for the blinders to adverse environmental effects, once unequivocally removed, to be restored prior to the completion of agency action simply because the relevant proposal has received initial approval…. Application of the "rule of reason" … turns on the value of the new information to the still pending decisionmaking process. In this respect the decision whether to prepare a supplemental EIS is similar to the decision whether to prepare an EIS in the first instance: If there remains "major Federal actio[n]" to occur, and if the new information is sufficient to show that the remaining action will "affec[t] the quality of the human environment" in a significant manner or to a significant extent not already considered, a supplemental EIS must be prepared.

490 U.S. at 371 (footnote omitted). Authorizing construction to resume, extending the duration of such construction, and retaining stop-work authority over the project all constitute "government action [that] would be environmentally significant." *Id.* at 372. *See also Klamath Siskiyou Wildlands Ctr. v. Boody*, 468 F.3d 549, 560 (9th Cir. 2006) (citations omitted) ("[I]f the proposed action might significantly affect the quality of the environment, a supplemental EIS is required.").

As described below, changes to the project, new information, and new circumstances all "raise[] new concerns of sufficient gravity such that another, formal in-depth look at the environmental consequences of the proposed action is necessary." *State of Wis. v. Weinberger*, 745 F.2d 412, 418 (7th Cir. 1984). Preparing a Supplemental EIS will help ensure compliance with NEPA's requirement that agencies "take a hard look at environmental consequences" and "provide for broad dissemination of relevant environmental information." *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 350 (1989) (internal quotation marks omitted). Even if MVP obtains all of the federal authorizations that it currently lacks and FERC decides to allow construction to proceed, preparing a Supplemental EIS would assist FERC in evaluating whether to impose additional mitigation measures in light of new information regarding the project's environmental impacts. *See also* 15 U.S.C. § 717f(e). It would also provide assurance to the public that FERC had fully assessed these impacts in light of the project changes, new circumstances, and new information that have arisen since FERC issued the original EIS more than three years ago, in June 2017.

II. Substantial Changes to the Project, as well as Significant New Information and Circumstances, Require Supplementation of the EIS

For an EIS to serve its two main functions—informing agency decision-making and disclosing environmental impacts to the public—its analysis must be based on accurate, up-to-date information. Since the June 2017 issuance of the EIS, significant new information has arisen regarding MVP's impacts, including on water quality and imperiled species, presenting "a seriously different picture of the environmental impact of the proposed project from what was previously envisioned." *Hughes River Watershed Conservancy v. Glickman*, 81 F.3d 437, 443 (4th Cir. 1996). FERC thus has a duty to prepare a Supplemental EIS.

A. Changes to MVP's Cost, Timeline, and Project Design Require Reexamination of the Project's Alternatives and Impacts

Since the June 2017 issuance of the EIS, the cost of the project has increased dramatically and its timeline has been pushed back several years. According to the EIS, "the total capital cost for the MVP would be about $3.5 billion." MVP EIS at 4-394. Costs are now anticipated to be at least $5.4-5.7 billion.[5] Even during the time period when MVP's cost was estimated to be $4.6 billion—significantly less than the current estimate—MVP was substantially more expensive on a cost per mile basis than similar gas pipelines.[6] The cost increase is significant new information because, *inter alia*, FERC rejected alternatives that it deemed "economically impractical"—*i.e.*, that would not "result in an action that generally maintains the price competitive nature of the proposed action." MVP EIS at 3-2.

Meanwhile, the pipeline's foundational shipper recently "told analysts that it's their goal to sell some or all their reserved space on the pipeline." Anya Litvak, *Pipelines come into focus in CNX and EQT messages to investors*, Pittsburgh Post-Gazette (July 28, 2020).[7] *See also id.* ("[EQT Corporation] CFO David Khani told analysts during a Monday call that it would try to make a profit on selling its pipeline space, but the goal is mainly to break even and walk away from the project without paying any penalties.").[8] EQT's President and Chief Executive Officer

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[5] *See* Business Wire, *Equitrans Midstream Announces Second Quarter 2020 Results* (Aug. 4, 2020), https://www.businesswire.com/news/home/20200804005209/en/Equitrans-Midstream-Announces-Quarter-2020-Results; Laurence Hammack, *Mountain Valley, DEQ reach agreement on environmental fines*, Roanoke Times (Aug. 4, 2020), https://roanoke.com/business/mountain-valley-deq-reach-agreement-on-environmental-fines/article_1e38d87f-ccca-5ede-9726-c5974b4c2782.html.

[6] Hamp Smith, *Gas Pipeline Costs Run Higher, Again*, BTU Analytics (Feb. 1, 2019), https://btuanalytics.com/natural-gas-pricing/costs-run-higher-ii.

[7] https://www.post-gazette.com/business/powersource/2020/07/28/cnx-resources-eqt-earnings-energy-stocks-pipelines-midstream-corp/stories/202007270107.

[8] *See also* EQT Corp Q2 2020 Earnings Call Transcript, July 27 2020 - Statement of David Khani, CFO, EQT Corp. (explaining that "sell[ing] down some or all of [EQT's] MVP

recently explained EQT's desire to "lay off" its contracts for capacity on MVP by noting that existing pipeline takeaway capacity from the Appalachian basin already exceeds current production by multiple billion cubic feet per day,[9] that future production in the basin is likely to decline,[10] and that the cost of transporting gas on existing pipelines is significantly less than the cost under EQT's contracts with MVP.[11] This is significant new information given FERC's reliance on MVP's precedent agreement with the anchor shipper to conclude that MVP had demonstrated need for the project.[12] *See, e.g.*, Certificate Order at ¶41.

At the same time, Equitrans Midstream Corp. recently "said it was looking at an expansion that would add an estimated 500 million cubic feet per day."[13] This expansion, which

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capacity… continues to present the biggest potential for a long-term cost reduction improvement"), https://seekingalpha.com/symbol/EQT/earnings/transcripts (Exhibit A).

[9] *See* Exhibit A (EQT Corp Q2 2020 Earnings Call Transcript, July 27 2020 - Statement of Toby Rice, President and CEO, EQT Corp.) ("[T]he dynamics that are set up right now is Appalachia is producing around 32 Bcf a day. We've got about call it 35 Bcf a day of local takeaway -- of takeaway and local demand. So, there is a 3 Bcf a day gap between what we are producing and what we are able to take away. Adding MVP that takes -- that takes you up to call it 37 Bcf a day. So, you've got a pretty big gap between capacity and supply in the basin.").

[10] *Id.* ("[T]he basin is going to struggle to grow. I mean, you've got all operators saying that they're hanging in a maintenance mode. We're also seeing activity levels today, which suggest that this basin is going to decline. All of that is going to widen the gap of takeaway.")

[11] *See id.* ("I think as far as the impact to EQT . . . you look at the change in our . . . net realization from '20 to '21, you're seeing about, almost $0.10 of pricing realization difference in those years. I mean that's largely due to the effect of MVP. So I mean that's the sort of the price that we're looking at, if we can be successful in laying off for MVP capacity.").

[12] *See also* Allison Good, *ConEd may sell pipeline stakes as it reconsiders gas transmission investments*, S&P Global Market Intelligence (Aug. 26, 2020), https://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/coned-may-sell-pipeline-stakes-as-it-reconsiders-gas-transmission-investments-60093361 (describing August 26, 2020 investor presentation in which ConEd Chairman, President, and CEO said ConEd "certainly would" consider monetizing its gas transmission assets, including its stake in MVP: "We made those investments five to seven years ago, and at that time we … viewed natural gas as having a fairly large role in the transition to the clean energy economy…. That view has largely changed….").

[13] Paul J. Gough, *Equitrans plans capacity expansion on Mountain Valley Pipeline*, Pittsburgh Business Times (Aug. 3, 2020),

would further increase the cost of the project, "would be accomplished by adding new compression sites as well as adding horsepower at existing sites."[14] FERC's 2017 EIS examined the impacts of a pipeline designed to transport about 2.0 billion cubic feet per day (Bcf/d). MVP EIS at 1-2. Increasing pipeline capacity would have implications for the project's direct impacts (*e.g.*, air pollution from adding horsepower at existing compressor stations; impacts from building and operating additional compressor stations; safety impacts, including increased "potential impact radius,"[15] due to higher pressure in the pipeline), as well as upstream production impacts and downstream combustion impacts. *See, e.g.*, *id*. at 1-8 (stating that MVP would "alleviate … constraints" on gas production in the Appalachian Basin); *id.* at 4-620 (calculating greenhouse gas emissions from end-use combustion based on total capacity of 2 Bcf/d).

FERC must assess the project need, alternatives,[16] and environmental impacts in light of the increased costs, delayed schedule, and recent statements regarding the anchor shipper's plans to sell its reserved space on the pipeline and plans to significantly expand the pipeline's capacity. The Supplemental EIS must also take into account the proposed MVP Southgate extension into North Carolina—quite literally a "connected" action—including environmental impacts and the

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https://www.bizjournals.com/pittsburgh/news/2020/08/04/equitrans-capacity-expansion-mvp.html

[14] *Id*.

[15] *See* MVP EIS at 4-561.

[16] In addition, the Forest Service has acknowledged that it must "analyze and determine whether the proposed route utilizes rights-of-way in common to the extent practicable," and also "needs to re-evaluate the feasibility and practicality of having routes that are not on [National Forest Service] lands." 85 Fed. Reg. 45863, 45,864 (July 30, 2020). The final route of the pipeline is currently unknown. *See Forest Guardians v. U.S. Fish & Wildlife Serv.*, 611 F.3d 692, 714 (10th Cir. 2010) ("[I]t is clear that an agency may violate NEPA, and consequently the APA, when it predetermines the result of its environmental analysis.").

lack of demonstrated need for the extension.[17] FERC's analysis must incorporate the U.S. Energy Information Administration's recent projection that demand for gas for electricity generation in the South Atlantic region will decline from 2021 to 2030 and will not return to 2021 levels until the late 2040s.[18] FERC's analysis also must be updated to reflect new legislation and other pertinent requirements, such as the recently enacted Virginia Clean Economy Act and North Carolina's Clean Energy Plan.

B. Significant New Information Demonstrates More Severe Impacts to Aquatic Resources than Disclosed or Analyzed in the 2017 EIS

Construction impacts that have occurred to date make clear that FERC's determination "that impacts on waterbodies due to sedimentation will be effectively minimized" was incorrect. Certificate Order at ¶176. The damage already caused by MVP's activities undermines the conclusion that pipeline construction can occur without causing substantial adverse effects to soil and aquatic resources. FERC must prepare a supplement to the EIS that analyzes MVP's impacts in light of the erosion control failures and sedimentation impacts that have occurred to date, which have degraded water quality and adversely affected aquatic species.

1. FERC's 2017 EIS Drastically Overestimated the Effectiveness of Erosion and Sedimentation Control Measures

Much of the MVP route traverses steep slopes and highly erodible soils. In the 2017 EIS, FERC vastly overestimated the effectiveness of mitigation measures designed to reduce erosion and sedimentation impacts. FERC must prepare a Supplemental EIS that uses realistic

[17] *See, e.g.*, North Carolina DEQ, Statement from Secretary Regan on MVP Southgate Decision (Aug. 11, 2020), https://deq.nc.gov/news/press-releases/2020/08/11/statement-secretary-regan-mvp-southgate-decision (noting that MVP Southgate "has always been an unnecessary project").
[18] U.S. Energy Info. Admin., *Annual Energy Outlook 2020*, https://bit.ly/32899g0 (Exhibit B). The undersigned disagree that demand will increase after 2030.

assumptions regarding the efficacy of containment measures and takes into account erosion and sedimentation impacts that have already occurred.

On July 27, 2018, the Fourth Circuit held that the authorizations granted by the U.S. Forest Service and Bureau of Land Management were invalid, remanding to the agencies for additional work. *Sierra Club v. United States Forest Serv.*, 897 F.3d 582, 592 (4th Cir.), *reh'g granted in part*, 739 F. App'x 185 (4th Cir. 2018). The court held that "the Forest Service acted arbitrarily and capriciously in adopting the sedimentation analysis in [FERC's] EIS." *Id.* at 596. The court emphasized the Forest Service's unresolved concerns with the hydrologic analysis of sedimentation prepared by MVP and adopted by FERC. *See, e.g., id*. at 592 (describing the Forest Service's "apprehension" with the 79% containment figure and the 10% "threshold for impact of sedimentation on waterbodies," especially with regard to threatened and endangered species). The Fourth Circuit found that the Forest Service's shift from a 48% ceiling to 79% estimate for effectiveness of sediment controls was "particularly concerning in light of MVP's commentary at the May 9 meeting [with Forest Service representatives] that using the 48% figure would have '*ramifications for the entire project analysis*.'" *Id*. at 595 (emphasis added). As the court noted, the "logical way to interpret th[is] statement is that MVP was troubled that using the 48% figure would undercut other studies and numbers supporting the project, causing the entire project to fail or be delayed." *Id*.

As a result of the court's decision, the Forest Service is currently preparing a Supplemental EIS that will include "[a]n evaluation and assessment of erosion and sedimentation and its associated effects to water quality and threatened and endangered aquatic species," as well as "[a]n evaluation of predicted effects in relation to anticipated mitigation effectiveness." 85 Fed. Reg. at 45865 (Exhibit C). *See also id*. at 45,864 ("there is a need to evaluate and assess

erosion, sedimentation, and water quality effects in relation to anticipated mitigation effectiveness"). In addition, an updated hydrological analysis of sedimentation for streams near suitable habitat for threatened and endangered species has been prepared during the re-consultation process.[19]

These analyses do not replace the NEPA requirement that FERC conduct supplemental environmental review—rather, they leave no room for doubt that there are "significant new circumstances [and] information relevant to environmental concerns and bearing on the proposed action or its impacts" that *require* FERC to do so. 40 C.F.R. § 1502.9(d). FERC must prepare a supplement to the EIS that discloses, analyzes, and considers this new information regarding sedimentation impacts and mitigation effectiveness before authorizing any further construction activity. FERC's analysis must take into account the sedimentation impacts that have already occurred as a result of MVP's activities.

2. Impacts from Previously Authorized Construction Constitute Significant New Information and Circumstances

a. Erosion and sedimentation

Project construction that has occurred to date demonstrates that erosion and sedimentation impacts, and consequent adverse effects on aquatic resources, are far greater than FERC anticipated in its June 2017 EIS. These impacts are a result of, *inter alia*, incorrect

[19] FERC's supplemental NEPA analysis is also critical given the lack of public disclosure and participation during reinitiation of consultation. The public has only been allowed to view a heavily redacted version of MVP's Supplement to the Biological Assessment, and the updated sedimentation analysis has been hidden entirely from public view. MVP has vigorously resisted efforts to publicly disclose this information, and FWS has claimed an inapplicable exemption in response to a FOIA request seeking the updated analysis. In any event, FERC has a NEPA duty to prepare a supplement to the EIS, and cannot simply point to the project proponent's updated analysis. *See also* Email from G. Ferruzzi to L. Auriemmo (March 23, 2020) (Accession No. 20200507-3019) (noting there are "other ways to model erosion on construction sites" and that "[o]nly performing the analysis" would reveal if they would "produce significantly different results" than MVP's analysis).

assumptions regarding the efficacy of mitigation measures and best management practices, as well as violations committed by Mountain Valley.[20]

Since April 2018, the West Virginia Department of Environmental Protection ("WVDEP") has issued 46 notices of violation to MVP's developer, including for violations of state water quality standards for turbidity.[21] The Virginia Department of Environmental Quality ("VADEQ") filed suit against Mountain Valley for hundreds of violations of state water quality requirements. *See* VADEQ Press Release, *Attorney General Herring and DEQ File Lawsuit Over Repeated Environmental Violations During Construction of Mountain Valley Pipeline* (Dec. 7, 2018);[22] Complaint, *Paylor v. Mountain Valley Pipeline, LLC*, No. CL18006874-00 (Va. Cir. Ct. Dec. 7, 2018) (Exhibit E). *See also* VADEQ Press Release, *MVP, LLC to pay more than $2 million, submit to court-ordered compliance and enhanced, independent, third-party environmental monitoring* (Oct. 11, 2019);[23] Laurence Hammack, *Environmental regulators seek more fines against Mountain Valley Pipeline*, Roanoke Times (June 29, 2020);[24] Letter from D.

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[20] *See, e.g.*, VADEQ Press Release, *DEQ Issues Stop Work on Two-Mile Section of Mountain Valley Pipeline*, Aug. 2, 2019, https://www.deq.virginia.gov/ConnectWithDEQ/NewsReleases/MVPStopWork.aspx (announcing stop work instruction for two-mile section in Spread H because "MVP has failed to construct and maintain erosion and sediment control or pollution prevention measures in accordance with approved site-specific plans and/or the erosion and sediment control measures that have been installed are not functioning effectively and MVP has not proposed any corrective action"); *id*. ("'We are appalled that construction priorities and deadline pressures would ever rise above the proper and appropriate use of erosion control measures,' said DEQ Director David Paylor.").

[21] *See* Exhibit D (46 notices of violations issued by WVDEP to MVP for violations of water pollution control permit and water quality standards).

[22] https://www.oag.state.va.us/media-center/news-releases/1341-december-7-2018-herring-and-deq-file-suit-over-environmental-violations-during-construction-of-mountain-valley-pipeline

[23] https://www.oag.state.va.us/media-center/news-releases/1548-october-11-2019-mvp-llc-to-pay-more-than-2-million-submit-to-court-ordered-compliance-and-enhanced-independent-third-party-environmental-monitoring

[24] https://roanoke.com/business/environmental-regulators-seek-more-fines-against-mountain-valley-pipeline/article_31c30aa8-37d8-559a-8009-274ea19e00ae.html

Sligh (Wild Virginia) to T. Miller *et al*. (Accession No. 20200727-5059) at Attachment B (VADEQ inspection reports describing unauthorized sedimentation impacts to streams).

Compounding the damage caused by Mountain Valley's repeated violations is the fact that—in light of the region's steep terrain and highly erodible soils—even strict compliance with the required containment and mitigation measures would not be sufficient to prevent adverse erosion and sedimentation impacts. MVP's own weekly status reports and FERC's compliance monitoring reports demonstrate the frequency with which mitigation measures have proven inadequate. *See, e.g*., Letter from E. Benson (Sierra Club) to K. Bose (FERC) (Accession No. 20191002-5030) at 8. In addition, local residents have regularly documented MVP's erosion control failures, and the consequent sedimentation impacts to local waterways. *See, e.g*., Mountain Valley Watch, September Report (2019) (Accession No. 20190909-5016). For example:

Sediment-laden runoff flowing from the MVP right-of-way over filter socks into Teels Creek, which the 2017 Biological Opinion categorized as "suitable habitat" for Roanoke logperch.

The unnamed tributary (background) running adjacent to Yellow Finch Lane (foreground) feeds into the Roanoke River.

The citizen observer who documented this sedimentation in Bradshaw Creek attested: "I have never before seen sediment running into the creek this severely, or the water as turbid as it was that day, including during tropical storms and flooding. I also observed the creek upstream on that day, and it was much less turbid upstream."

In sum, MVP's construction activities to date show that far from effectively minimizing and mitigating aquatic impacts, MVP's erosion control measures have not prevented significant water quality and aquatic resource impacts from pipeline construction. The risk of similar impacts if MVP is allowed to resume construction is particularly high given statements by

MVP's operator that, upon receiving such authorization, they plan to complete crossings of "critical" streams and wetlands "as quickly as possible before anything is challenged."[25] FERC must analyze and disclose these impacts in a Supplemental EIS.

b. Slips and Landslides

FERC's EIS also underestimated the potential for slope failures, which can cause in-stream sedimentation. *See* Certificate Order at ¶146. Slips and landslides also pose grave safety concerns. *See, e.g.*, Letter from M. Eggerding (MVP) to K. Bose (FERC) (Aug. 8, 2019) (Accession No. 20190808-5134) (reporting a landslide along the pipeline route that posed a threat to landowners located downslope of the slide, making at least one individual's home unsafe to occupy); Environmental Compliance Monitoring Program - Weekly Summary Report (Accession No. 20200424-4001) at 5 ("crews verified that the installed pipe shifted due to the movement of the slips in at least three locations south of Brush Run Road"); Laurence Hammack, *Report of pipeline slips in West Virginia under investigation, raises concern*, Roanoke Times (May 3, 2020);[26] Letter from Indian Creek Watershed Bd. of Directors to K. Bose (FERC) (Accession No. 20200507-5054). A landslide resulted in the explosion of the Leach Xpress gas pipeline in 2018.[27] Slips are also causing impacts to endangered species habitat. *See, e.g.*, MVP May 8th Responses at 1 (showing, *inter alia*, 159.6 acres of tree removal associated with past slips and proposed future tree removal for slip remediation in Indiana bat

[25] Equitrans Midstream Corp. (ETRN) Q2 2020 Earnings Call Transcript - Statement of Diana Charletta, President and COO, Equitrans Midstream Corp. (Aug. 4, 2020), https://seekingalpha.com/article/4364333-equitrans-midstream-corporation-etrn-ceo-tom-karam-on-q2-2020-results-earnings-call?part=single (Exhibit F).

[26] https://roanoke.com/news/local/report-of-pipeline-slips-in-west-virginia-under-investigation-raises-concern/article_05d9ea1e-8944-5a10-a9e9-acad9d709e92.html

[27] *See* Mike Soraghan, *Landslides, Explosions Spark Fear in Pipeline Country*, E&E News (June 4, 2019), https://bit.ly/2M5p7jq; Anya Litvak, *Landslide caused West Virginia pipeline explosion, TransCanada reports*, Pittsburgh Post-Gazette (July 11, 2018), https://www.post-gazette.com/business/powersource/2018/07/11/landslide-caused-pipeline-explosion-columbia-gas-reported/stories/201807100176.

known summer use habitat). FERC must prepare supplemental environmental review that assesses impacts in light of this new information regarding slope failures, shifting of installed pipe, and the adequacy of landslide controls.

c. Blasting

FERC must also analyze the consequences of blasting that has occurred along the right-of-way, as well as additional blasting that would be required if pipeline construction were to resume. While FERC's June 2017 EIS acknowledged the possibility of blasting, it stated that "Mountain Valley has not determined whether blasting would be necessary for construction of the MVP." MVP EIS at 4-203. *See also id*. at 4-203 (cursory discussion of wildlife impacts "[s]hould blasting be necessary during construction of the MVP").

In fact, the practice has been pervasive: "To date, blasting was required along approximately 153 miles of the Project corridor…" BA Supplement at 12. Given that the EIS professes uncertainty as to whether *any* blasting would be necessary, this widespread use of blasting constitutes significant new information bearing on the project's impacts. Accordingly, FERC must prepare a Supplemental EIS that analyzes blasting impacts in light of the amount of blasting that has already occurred, and the additional blasting likely to occur should FERC authorize construction to resume (if and when MVP obtains all of its required federal authorizations).

Blasting impacts that FERC must analyze and disclose in a Supplemental EIS include noise impacts, wildlife impacts (including to threatened and endangered species), and water quality impacts. *See id*. at 20 ("The construction method with the loudest anticipated daytime noise for the Project is blasting…."); Biological Assessment for Mountain Valley Pipeline, LLC (Accession No. 20170707-4008) at 8-30 ("noise, dust and lighting associated with…construction

activities…would affect [Indiana] bats during multiple stages of the annual reproductive cycle"); Supplemental Information to the Biological Assessment (Accession No. 20170727-5178) at 58 ("noise produced during construction of the Project is estimated to harass 63 hibernating [Indiana bat] individuals"); MVP EIS at 4-44 ("Blasting in areas of karst topography could temporarily change groundwater flow, increase the potential for turbidity in nearby springs and wells, and affect their yield."); *id*. at 4-140 ("In-stream blasting has the potential to injure or kill aquatic organisms, displace organisms during blast-hole drilling operations, and temporarily increase stream turbidity."); Mountain Valley Watch, *Cave Report* (May 2020) (Accession No. 20200521-5075).

C. FERC Has Not Analyzed or Disclosed Impacts from Boring Underneath Streams

MVP's Nationwide Permit (NWP) 12 verifications have been vacated or suspended. To circumvent the resulting prohibition on in-stream construction, MVP has sought numerous variances to bore under streams and wetlands. A FERC Environmental Program Manager has quickly granted these requests even though FERC has not analyzed the environmental impacts of boring, including sediment runoff, borehole collapse, inadvertent returns, and water withdrawals. *See* MVP May 8th Responses at 6 ("Mountain Valley may also use water withdrawn from the sources in Table 2, except for the Gauley River, during the bore process of streams and wetlands."). FERC must analyze and disclose the impacts in a Supplemental EIS.

1. Conventional boring

Impacts of boring were not disclosed or assessed in the Final EIS, which stated that "[a]ll waterbody crossings for the MVP would be dry open-cut crossings." MVP EIS at 2-43. On September 13, 2019, a FERC Environmental Project Manager granted MVP's September 11, 2019 variance request "to change the crossing method for 15 waterbodies and 8 wetlands

between mileposts 6.5 and 65.4 from dry open-cuts to a conventional bore." Letter from P. Friedman (FERC) to M. Eggerding (MVP), Sept. 13, 2019 (Accession No. 20190913-3001).[28] The letter asserts that "[u]se of the bore construction technique will result in a reduction in impacts on aquatic resources and have other environmental benefits, as documented in Mountain Valley's August 30, 2019 filing." *Id*. In a footnote, Mr. Friedman wrote that:

> While Mountain Valley's assertions have been challenged by Indian Creek Watershed Association in a filing on September 9, 2019 (Accession No. 20190909-5035), the objection is mainly based on a theoretical statement in the FERC's July 26, 2019 draft Environmental Impact Statement for the Southgate Project (Docket No. CP19-14-000) about *potential risks* from borings. However, as Mountain Valley has pointed out, in reality its previous bores for the Mainline Pipeline have been completed successfully.

Id. at n.1 (emphasis added).

This excuse fails for several reasons. First, NEPA is designed to ensure assessment and disclosure of "potential risks" to the environment. The referenced draft EIS for MVP's Southgate extension leaves no doubt that FERC is aware that boring poses serious risks to the environment, including to aquatic species:

> Conventional bores require large entry and exit pit excavations at each end of the bore pathway and therefore *create the risk of sediment runoff*

[28] Similarly, on August 27, 2019, Mr. Friedman approved MVP's August 23, 2019 request "to change the crossing method for nine waterbodies and one wetland from an [sic] dry open-cut to a conventional bore." Letter from P. Friedman to M. Eggerding (Accession No. 20190827-3000) at 1. But an Environmental Project Manager's cursory assertion that "[u]se of the bore construction technique will result in a reduction in impacts on aquatic resources," *id*., does not satisfy NEPA. *See also* Letter from P. Friedman to M. Eggerding (Accession No. 20190822-3001) (August 22, 2019 letter granting August 20, 2019 request to "change the crossing method for four waterbodies at mileposts 20.8, 74.5, 74.8, and 75.0 from a dry open-cut to a conventional bore"); Letter from P. Friedman to M. Eggerding (Accession No. 20190808-3003) (August 8, 2019 letter granting request, revised on August 6, 2019, "to change the crossing method for 11 streams and 2 wetlands, between MPs 8.8 and 146.2, from a dry open-cut to a conventional bore").

> *entering the adjacent waterbody*. Of greatest risk to the waterbody is the possibility of the borehole collapsing without warning. In such a case *the bed of the waterbody could collapse and reroute the waterbody into the bore pathway*.

Draft EIS for Mountain Valley Pipeline, LLC's Southgate Project, FERC Docket No. CP19-14-000 (July 2019) ("MVP-Southgate Draft EIS") at 4-34 (emphasis added) (Exhibit G). *See also* Pre-Construction Notification, Huntington District (Jan. 2020) ("Huntington PCN") (Exhibit H), at Appendix F, section 1.1 (explaining that if the Greenbrier River "were to be crossed using conventional boring," there could be "difficulties with groundwater management, bore pit stabilization, and equipment ingress and egress"); *id*. at section 7.4.2 (noting that Mountain Valley "considered the potential groundwater impacts as a significant obstacle to boring the Greenbrier River… based on the potential pit depths of a conventional bore."); Letter from Indian Creek Watershed to FERC, Sept. 9, 2019 (Accession No. 20190909-5035) at 4 (listing several potential impacts of conventional boring); Tetra Tech, *Trenchless Construction Feasibility Analysis: Pennsylvania Pipeline Project* (Dec. 2016) ("Trenchless Feasibility Analysis") (Exhibit I) at 9 (water produced from dewatering conventional bore pits will "temporarily lower the ground water table to some degree in the adjacent avoidance obstacle, wetland, or waterbody").

Photographs of bore pits that MVP has already excavated along the route demonstrate the groundwater intrusion and large spoil piles from boring:

MVP's expectation that boring will cause less severe impacts than crossing methods that require instream construction does not obviate the requirement for NEPA review of the *different*

impacts of boring.[29] Moreover, it is disingenuous to characterize the description of potential impacts in the MVP-Southgate Draft EIS as merely "a theoretical statement." Environmental review requires analyzing a project's potential impacts. NEPA is designed to ensure that precisely this type of environmental risk is analyzed and disclosed (and that appropriate mitigation measures are considered). Instead, FERC has improperly allowed an Environmental Project Manager to approve major changes to the project that have not undergone NEPA review.

These blanket approvals with no environmental review also ignore that "[s]ite-specific topographic conditions have a substantial bearing on the potential feasibility of conducting a successful" conventional bore. Trenchless Feasibility Analysis at 8. Moreover, "[a]n analysis of the geological characteristics along a proposed [conventional auger bore] alignment is a vital component of detailed engineering design." *Id*. at 9. FERC's quick approvals of MVP's variance requests avoid the required detailed assessment and public disclosure regarding site-specific conditions, feasibility at specific locations, potential impacts (such as destabilizing subsurface geology and degrading waterways), and potential mitigation measures.

FERC cannot rely on purported successful completion of previous conventional bores to avoid NEPA review. NEPA requires that FERC disclose and analyze potential impacts even if the activity at issue has thus far evaded review. Moreover, there already have been issues with conventional boring along the mainline. *See, e.g.*, Environmental Compliance Monitoring

[29] In discussing the "benefits" of the Direct Pipe © method, MVP has obliquely acknowledged certain impacts of conventional boring: "The steering capabilities of a Direct Pipe © bore would allow Mountain Valley to dig shallower pits; whereas a conventional bore is straight and requires pits to be excavated to the depth of the pipe. This provides a number of benefits from both a constructability and safety standpoint. The Direct Pipe © pit is approximately 10-feet deep compared to a conventional bore pit depth of over 30-feet deep. Geotechnical data shows that water may be encountered at approximately 25-feet deep. By avoiding these strata, the risk of groundwater intrusion is greatly reduced. This will lessen safety concerns and reduce the need for pumping and discharge while working in this location." Supplement to Variance Request No. MVP-014, July 24, 2019 (Accession No. 20190724-5132) at 1.

Program - Weekly Summary Report for August 25-31, 2019 (Accession No. 20190918-4001) at 3 (describing winch breaking during boring and oil sheen inside the entry bore pit due to leaking hydraulic line (MP 140.2)); *id.* at 9 ("The conventional boring crew was boring under stream S-J19, when a winch broke again on the conventional bore…. The Compliance Monitor observed that the newly repaired winch broke down again and began leaking…." (MP 140.2)); Environmental Compliance Monitoring Program, Weekly Summary Report for August 18-24, 2019 (Accession No. 20190909-4004) at 5 ("Topsoil was salvaged from the [bore] pit area and segregated at the side of the extra work area. The topsoil was stacked too high against a row of belted silt retention fence and broke through." (MP 11.3)).

MVP's "Supplemental Information on Benefits of Trenchless Crossings" filing is not a substitute for NEPA review. Letter from M. Eggerding (MVP) to K. Bose (FERC), Aug. 30, 2019 (Accession No. 20190830-5205). MVP asserts that "*[a]s a general matter*, trenchless crossings … provide equal or greater environmental protection than open-cut crossings." *Id*. at 1 (emphasis added). But as FERC has acknowledged elsewhere, conventional bores can severely impact waterways. These potential impacts include "sediment runoff entering the adjacent waterbody" and "the bed of the waterbody … collaps[ing] and rerout[ing] the waterbody into the bore pathway." MVP-Southgate Draft EIS at 4-34. Rather than preparing a supplement to the EIS to disclose and analyze this substantial change to the project that is relevant to environmental concerns and bears on the project's impacts, *see* 40 C.F.R. § 1502.9(c)(1), FERC has improperly relied on self-serving statements by the project applicant. *See also S. Fork Band*, 588 F.3d at 726 ("A non-NEPA document . . . cannot satisfy a federal agency's obligations under NEPA.") (citation omitted).

Finally, it appears that FERC is relying on a May 10, 2019 email from the Army Corps' Huntington District to demonstrate the Corps' concurrence that no permits are necessary under Section 404 of the Clean Water Act. But by its own terms, that email pertains only to horizontal directional drills ("HDD"): "An HDD constructed entirely under these types of jurisdictional waters can be performed in a manner that would not constitute a discharge of dredged or fill material." Email from M. Hatten (USACE) to P. Friedman (FERC), May 10, 2019 (Accession No. 20190611-5091) at Attachment 3. Without explanation, FERC applies this statement regarding HDD to conventional boring. *See* MVP Variance Request Form (Accession No. 20190806-5075) (noting that "[a] copy of an email from Michael Hatten, U.S. Army Corps of Engineers, Huntington District Chief, Regulatory Division confirms that boring under non-Section 10 waters is not a USACE jurisdictional activity").[30] But an email regarding HDD does not show that the Corps has taken a position regarding conventional boring or other boring methods.

HDDs and conventional bores are not equivalent. For example, for the six waterbody crossings that FERC requested MVP assess the feasibility of using HDD, MVP determined that "an HDD would have required a minimum length of 1,287 feet." MVP EIS at 4-119. It is reasonable to expect that the potential impacts from this type of directional drill would be quite different from conventional bores, which (unlike HDD) "require large entry and exit pit excavations at each end of the bore pathway and therefore *create the risk of sediment runoff entering the adjacent waterbody*." MVP-Southgate Draft EIS at 4-34 (emphasis added).

[30] *See also* Environmental Compliance Monitoring Report for the Period of May 31-June 6, 2020 (Accession No. 20200616-4002) at 1 ("Communications between staff of [FERC] and the U.S. Army Corps of Engineers confirmed that no permits are necessary under Section 404 of the Clean Water Act for conventional bore of wetlands or waterbodies for non-Section 10 waters."). It appears the referenced communications only refer to HDD.

Moreover, HDDs are typically much deeper than conventional bores. *See, e.g*., Trenchless Feasibility Analysis at 8 ("Comparatively, these [conventional bore pit] depths are much less than those obtained by HDD."). This suggests that conventional bores pose a greater risk of "the borehole collapsing" such that "the bed of the waterbody could collapse and reroute the waterbody into the bore pathway." MVP-Southgate Draft EIS at 4-34. But FERC has not analyzed and disclosed such risks (or potential mitigation), and its reliance on an Army Corps email regarding a different crossing method suggests FERC is erroneously conflating these distinct methods and their impacts.

2. Guided Conventional Bore

In addition to analyzing and disclosing conventional bore impacts in a Supplemental EIS, FERC must assess the impacts of other boring methods that have yet to be considered in a NEPA document. For example, MVP recently requested a variance to change its crossing method for Stony Creek—a "sensitive crossing[]"[31] that contains habitat for the endangered candy darter — from conventional bore (previously approved without NEPA analysis) to a guided conventional bore method. Variance Request G-12 (Accession No. 20200508-5286). The variance request indicates a variety of potential impacts caused by this crossing method. *See, e.g.*, *id* at 78 (pumping to dewater bore pits "may need to occur 24 hours a day"); *id*. at 82 (acknowledging the need to monitor the surface for inadvertent returns); *id*. (noting that "where air is the medium to carry back cuttings, the stream will be monitored during drilling for any evidence of air escaping to the stream bed"); *id*. at 83 (noting possibility of "[u]nanticipated geological or hydrological conditions in which ground or surface water affects construction, or the geologic materials become unstable or collapse"); *id.* at 85 (acknowledging that method may result in discharge of

[31] Variance Request G-12 (Accession No. 20200508-5286) at 84.

turbid water from the work area "and potentially mixing with Stony Creek"); *id*. at 86 (discussing the need for approximately 21,000 gallons of water to complete the guided conventional bore, and suggesting that a large quantity of groundwater "may be encountered"[32]).

Despite these various risks, MVP simply asserts that "[t]here are no impacts to aquatic resources associated with this variance and thus no impacts to listed RTE aquatic species." *Id*. at 125. In addition, MVP relies on field surveys conducted nearly five years ago, on October 19, 2015. *Id*. MVP does not specify which aquatic species it is referring to.

3. Microtunneling

FERC also must analyze the impacts of microtunneling in a Supplemental EIS. On May 20, 2020, Mountain Valley submitted a variance request "to change the crossing method of Roanoke River from an open cut dry method as indicated in the FEIS to a microtunnel bore method." Variance Request H-21 (Accession No. 20200520-5046). The variance request states that the "Roanoke River is not expected to incur impacts and will be protected using Reinforced Filtration Devices (RFDs)…." *Id*. at 2. But this cursory assertion by the applicant is insufficient. Microtunneling does pose environmental risks, and FERC must disclose and analyze those impacts in a Supplemental EIS.

Mountain Valley acknowledges that "microtunneling typically requires two pits to be excavated, one on each side of the feature to be bored. These pits are typically closer to the feature being crossed than they would be for an HDD…" *Id*. at 6. As FERC has acknowledged elsewhere, pit excavations "create the risk of sediment runoff entering the adjacent waterbody." MVP-Southgate Draft EIS at 4-34. Moreover, the approximate bore pit depth is 30.9 feet.

[32] *See id*. at 86 (stating that "groundwater may be encountered that would provide the necessary cooling required for the pilot bore *in which case the municipal water would not be necessary*") (emphasis added).

Variance Request H-21 at 42. FERC must analyze impacts associated with bore pit stability and groundwater intrusion. Moreover, it is not enough to simply rely on Mountain Valley's assertion that using a dewatering structure will "greatly reduce[] the amount of turbid water discharging from the work area and potentially mixing with the Roanoke River." *Id*. at 7.

Microtunneling also presents a "risk of collapse." *Id*. at 6. *See also* MVP-Southgate Draft EIS at 4-34. While Mountain Valley may believe that microtunneling reduces this risk as compared to other methods, FERC has not analyzed or disclosed this risk for microtunneling or any other boring method.

These impacts, including but not limited to sediment runoff, groundwater intrusion, and risk of collapse,[33] must also be considered in light of the long duration that this method requires. *See* Variance Request H-21 at 7 ("The microtunnel bore construction is expected to take approximately 90 days to complete."). MVP's assertion that "[t]here are no impacts to aquatic resources associated with this variance" and "no impacts to listed [rare, threatened, and endangered] aquatic species" does not satisfy FERC's duty to analyze and disclose potential impacts in a NEPA document. *Id*. at 46. Notably, imperiled species are present. *See id*. ("Roanoke logperch were observed while snorkeling…").

MVP similarly requested "a variance to change the crossing method of the Gauley River from an open cut dry method as indicated in the FEIS to a microtunnel method." Variance Request D-35 (Accession No. 20200508-5286) at 2. *See also* Huntington PCN at Appendix F, section 1.0 ("Mountain Valley is proposing to cross the Elk River and Gauley River using microtunneling technology."). Candy darters are assumed present in the Gauley River. Despite

[33] *See also* Variance Request H-21 at 9 ("Mountain Valley estimates approximately 500,000 gallons of water be [sic] required to complete the microtunnel bore crossing of the Roanoke River.").

the risks of microtunneling discussed above, MVP flatly asserts that "[t]he Gauley River will incur no impacts…" Variance Request D-35 at 2. But Mountain Valley acknowledges several potential impacts of microtunneling. *See id*. at 6 (discussing requirement of two pits that are "typically closer to the feature being crossed than they would be for an HDD," which FERC has elsewhere acknowledged can result in sediment runoff into the adjacent waterbody); *id.* (acknowledging there is a "risk of collapse"); *id*. at 7 (acknowledging "the risk of an inadvertent return"); *id*. at 8 (acknowledging that groundwater intrusion in the microtunnel bore pits may result in the discharge of turbid water from the work area "and potentially mixing with the Gauley River."); *id*. at 10 (acknowledging that fish are a "relevant biotic receptor[]" for drilling fluid additives). While Mountain Valley may believe that microtunneling reduces some of these risks as compared to other boring methods, FERC has yet to analyze and disclose the risks of microtunneling or similar boring methods in a NEPA document.

Likewise, the risks associated with a "slower drilling rate," *id*. at 7, and a 50-foot bore pit depth (which would presumably increase the risk of groundwater intrusion and involve a significantly larger spoil pile), *id*. at 72, have not been analyzed. Nor have additional risks associated with "the possibility of encountering hard rock that cannot be penetrated by the auger or cobbles that divert the bore away from the intended path"[34] (*id*. at 8); the use of "approximately 40,000 gallons of water" from a "freshwater source" to complete the microtunnel (*id*. at 10); and difficult site conditions.[35] As a result, Mountain Valley's conclusory assertion

[34] *See id*. at 9 ("the resistivity data cannot preclude the possibility that unconsolidated materials such as boulders and cobbles may exist within the path of the horizontal bore beneath the river").
[35] *See, e.g.*, Supplements to Variance Request Nos. D-35 and G-12 (Accession No. 20200514-5172) ("During field work, DAA field personnel attempted to collect resistivity data on the north side of the Gauley River as well to evaluate the subsurface beneath the northern bore pit. However, the full width of the Limits of Disturbance (LOD) was found to be full of downed trees and very large boulders on a steep slope, with the underlying ground surface inaccessible").

that "[t]here are no impacts to aquatic resources associated with this variance and thus no impacts to listed RTE aquatic species" is insufficient. *Id*. at 76.[36]

While FERC may believe that use of the microtunnel technique "will result in a reduction in impacts on aquatic resources," Partial Approval of Variance Requests No. D-35 and G-12 (Accession No. 20200518-3008) at 1, it has not analyzed and disclosed these impacts in a NEPA document. The crossing technique and pathway for impacts are substantially different from the original method proposed (dry open-cut), and FERC cannot rely on its previous analysis of the impacts of that different crossing method.

D. Impacts on Endangered and Threatened Species

FERC also must prepare a Supplemental EIS in light of new circumstances and information regarding impacts on imperiled species, as well as "[n]ew information includ[ing] recent federally listed threatened and endangered species and critical habitat designations." 85 Fed. Reg. 45863, 45864. The degree to which an action may adversely affect an endangered or threatened species or its critical habitat is relevant under NEPA.

As an initial matter, the degradation of waterways that has already resulted from MVP construction has caused impacts to protected aquatic species, such as the endangered Roanoke logperch, that FERC failed to foresee and analyze. *See, e.g*., Letter from K. Hastie (FWS) to K. Bose (FERC) (Accession No. 20190412-5164) (April 2019 letter from FWS to FERC requesting, *inter alia*, "additional sediment analysis" and "an analysis of effects to" Roanoke logperch and candy darter). The candy darter has been newly listed as endangered, and FWS has proposed critical habitat along the pipeline route. *See id*. (requesting an analysis of effects to candy darter's proposed critical habitat). In addition, blasting has been much more prevalent along the

[36] Moreover, the referenced mussel field surveys were conducted nearly five years ago, in August 2015. *Id*.

route than anticipated in the EIS. *See* section II.B.2.c, *supra*. And while the EIS states that MVP will "reduce impacts on freshwater mussels by relocating mussels in the construction zone," MVP EIS at 4-223, the Atlantic Coast Pipeline project demonstrates the risks of this approach.[37]

Based on this new information, the project is likely to continue to have more severe adverse impacts on imperiled species than disclosed in the EIS. Once properly assessed, the severity of impacts may lead FERC to reach a different determination regarding the harm to be inflicted on these species from pipeline construction and the need to reroute the project.

FERC cannot treat consultation under Section 7 of the Endangered Species Act as a substitute for NEPA compliance. As an initial matter, Section 7 consultation process does not define cumulative impacts in the same way that FERC defined them in its NEPA review.[38] The cumulative impacts analysis under the ESA focuses on non-federal actions within the action area,[39] while FERC's analysis included federal actions and was not limited by the ESA concept of "action area."[40] Moreover, "the ESA's Section 7 consultation process fails to provide for public comment in the same way that NEPA does."[41] *See also San Luis & Delta-Mendota Water Auth. v. Jewell*, 747 F.3d 581, 650 (9th Cir. 2014) ("We cannot say that Section 7 of the ESA renders NEPA 'superfluous' when the statutes evaluate different types of environmental impacts through processes that involve varying degrees of public participation.").

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[37] *See* USFWS, *Clubshell (Pleurobema clava), 5-Year Review: Summary and Evaluation* (2019) ("In 2018, 69 clubshells were salvaged from Hackers Creek. Salvaged mussels were transported to White Sulphur Springs National Fish Hatchery for long-term captive propagation and restoration activities. Most of the salvaged mussels have died while in captivity.").
[38] *See Fund for Animals v. Hall*, 448 F. Supp. 2d 127, 136 (D.D.C. 2006).
[39] *See* 50 C.F.R. § 402.02.
[40] *See* MVP EIS at Section 4.13.
[41] *Fund for Animals*, 448 F. Supp. 2d at 136; *see also Catron Cty. Bd. of Comm'rs v. U.S. Fish & Wildlife Serv.*, 75 F.3d 1429, 1437 (10th Cir. 1996).

1. New information reveals that the pipeline will more significantly impact the endangered Roanoke logperch than previously considered

FWS has concluded that "[s]mall [Roanoke] logperch populations could go extinct with *minor habitat degradation*," and "[a]ll the populations are small."[42] *See also* BA Supplement at 53 ("the USFWS determined, as of 2007, the Roanoke logperch remained in danger of extinction throughout its range"). Roanoke logperch are particularly susceptible to sedimentation and siltation, including due to upland land disturbance. *See, e.g.*, 2017 Biological Assessment (Accession No. 20170707-4008) at 8-8, 8-58; Supplemental Information to the Biological Assessment (Accession No. 20170727-5178) at 39, 66. Both FERC and FWS underestimated the project's sedimentation impacts on aquatic habitats, and the concomitant impacts on the Roanoke logperch. *See, e.g.*, Letter from K. Hastie (FWS) to K. Bose (FERC) (Accession No. 20190412-5164); Letter from E. Benson (Sierra Club) to W. Weber (FWS) (Accession No. 20190813-5013). As a result, FWS has been engaged in the process of re-consultation and drafting a new Biological Opinion for the past year.

In its Supplemental EIS, FERC must analyze sedimentation impacts and the resulting effects on the Roanoke logperch and other imperiled species, taking into account the new information and circumstances that have arisen since 2017. This supplemental environmental review must address any updated sedimentation analyses that have been conducted for this project, as well as "any other available/readily obtainable sedimentation model from any sources that addresses concerns about implementation and efficacy of sediment and erosion control measures." Letter from K. Hastie (FWS) to K. Bose (FERC) (Accession No. 20190412-5164).

[42] U.S. Fish & Wildlife Service, *Roanoke Logperch* - Percina rex, Oct. 2010 (emphasis added) https://www.fws.gov/northeast/pdf/RoanokeLogperch.pdf.

According to MVP's recent Supplement to the Biological Assessment, "Mountain Valley refined its methodology for accounting for potential increased sediment to streams and rivers attributed to the Project's construction, including construction activities in upland areas…." BA Supplement at 21-22. While the majority of the relevant sections of the Supplement is redacted (for example, section 3.4.1 - "Revised Sedimentation Model" and section 3.4.2 – "Delineation of Aquatic Action Area"), MVP does reveal that "[t]he aquatic action area defined here includes, *and expands upon*, the expected and reasonable extent of direct and indirect effects of construction and operation of the Project." *Id.* at 23 (emphasis added). FERC has also stated that "[i]t is Commission staff's opinion that the action area defined in the Supplement includes, but expands upon, the expected and reasonable extent of direct and indirect effects of construction and operation of the Project. Letter from J. Martin (FERC) to C. Schulz (FWS) (Accession No. 20200507-3066). FERC must undertake supplemental NEPA review that includes this potentially affected area that is larger than the area previously analyzed.

In addition, MVP's responses to FERC's comments on the Supplement reveal that MVP analyzed 2,284 stream miles for sedimentation impacts from the project, and concluded that "119 miles are expected to experience a temporary increase in sediment loads over Baseline conditions of greater than five percent under the During Construction scenario." MVP May 8th Responses at 12. *See also* 2017 Biological Assessment (Accession No. 20170707-4008) at 4-10 ("over 705 miles of stream reaches would be expected to experience a 10 percent increase or more" in sediment load). These responses also indicate that MVP concluded the project "'is anticipated to increase the embeddedness in the Impact Area to 51.3 percent, resulting in adverse impacts to Age-1+ and YOY Roanoke logperch.'" MVP May 8th Responses at 34 (quoting Section 6.3.5.2 of the BA Supplement).

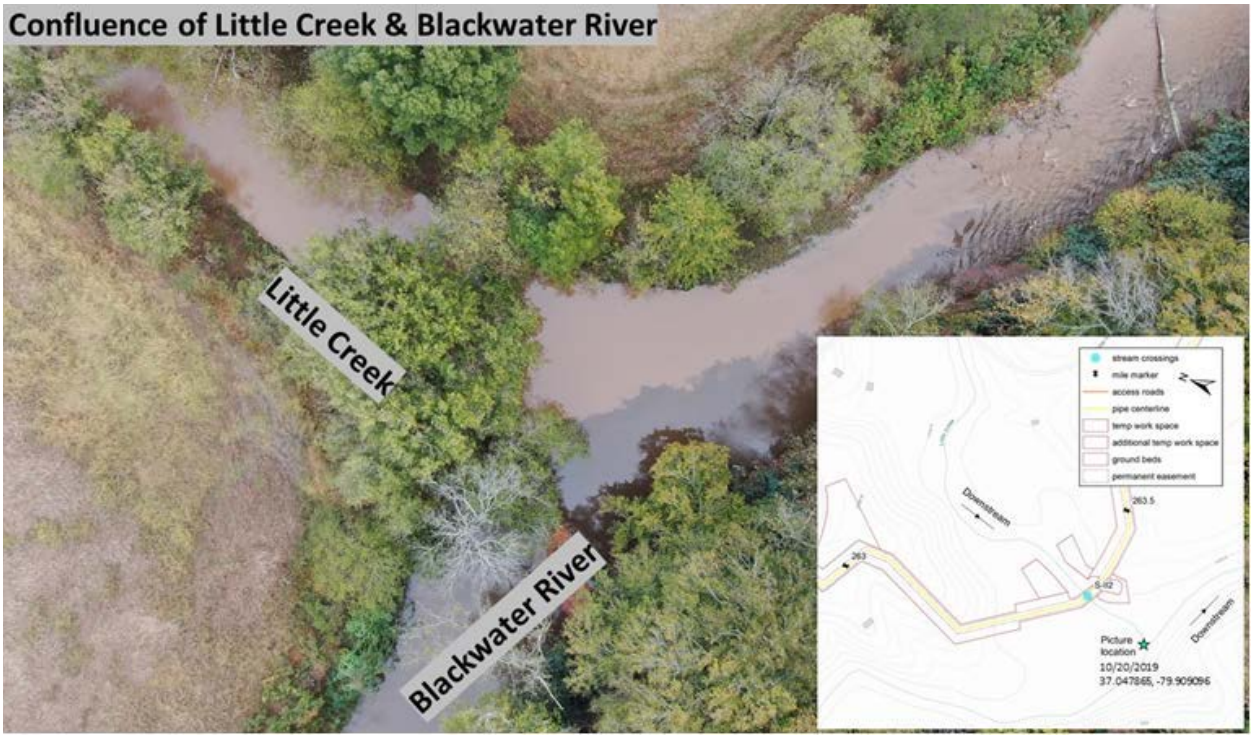
In sum, FERC must prepare a Supplemental EIS that addresses sedimentation impacts that have not been previously analyzed or disclosed in a NEPA document, and must assess the consequent impacts on endangered species such as the Roanoke logperch. FERC also must analyze the MVP mainline's impacts on the Roanoke logperch in combination with the MVP-Southgate extension's impacts on this species. *See* MVP-Southgate Final EIS at 4-99 to -100; Comments on MVP-Southgate DEIS at 36-39 (Accession No. 20190916-5161).[43]

Sediment-filled water from Bradshaw Creek (downstream of the MVP right-of-way) flowing into the North Fork of the Roanoke River. According to FWS's Roanoke Logperch Recovery Plan, "[h]ighest priority should be placed on reducing the quantity of silt entering the North Fork Roanoke…."[44] The citizen observer who documented this sedimentation noted that over the course of 30 years, she has never observed this much sediment running into Bradshaw Creek.

[43] *See also N. Plains Res. Council v. U.S. Army Corps of Eng'rs*, No. CV-19-44-GF-BMM, 2020 WL 1875455, at *7 (D. Mont. Apr. 15, 2020), *amended*, No. CV 19-44-GF-BMM, 2020 WL 3638125 (D. Mont. May 11, 2020), *appeal filed* (9th Cir. 20-35412) ("Project-level review, by itself, cannot ensure that the discharges authorized by [Nationwide Permit 12 (NWP 12)] will not jeopardize listed species or adversely modify critical habitat. The Corps has an ongoing duty under ESA Section 7(a)(2) to ensure that its actions are not likely to jeopardize the continued existence of endangered and threatened species or result in the destruction or adverse modification of critical habitat. 16 U.S.C. § 1536(a)(2). The Corps failed to fulfill that duty when it reissued NWP 12 in 2017.").

[44] U.S. Fish and Wildlife Service, Roanoke Logperch (*Percina rex*) Recovery Plan, https://www.fws.gov/northeast/virginiafield/pdf/PARTNERS/longleaf_pine/logperch_recovery_plan.pdf

Sediment-laden water from Little Creek entering the Blackwater River near their confluence, downstream of the MVP right-of-way, on October 31, 2019. Both waterways are suitable habitat for the Roanoke logperch. MVP 2017 BiOp at 14.



Little Creek and the Blackwater River are "suitable habitat" for Roanoke logperch. MVP 017 BiOp at 14.

Teels Creek site, May 27, 2018

Teels Creek site, June 23, 2018

2. The listing of the endangered candy darter suggests greater impacts from the pipeline than previously considered

Since publication of the EIS in 2017, the candy darter has been listed as endangered under the ESA,[45] and FWS has proposed designating critical habitat that overlaps with the MVP project area.[46] The candy darter is "intolerant of siltation." BA Supplement at 30. *See also id*. at 32 ("Dunn (2013) suggested potential causes for the reduction of candy darter populations in Virginia are attributed to increased stream temperature and increased sedimentation in streams."); FWS, *Special Status Assessment (SSA) Report for the Candy Darter (Etheostoma osburni)*, March 2018 ("SSA Report") (Exhibit J) at 1 ("Candy darters are intolerant of excessive sedimentation and stream bottom embeddedness (the degree to which gravel, cobble, rocks, and boulders are surrounded by, or covered with, fine sediment particles)."); *id*. at 38 ("Survey results and species accounts suggest the candy darter has a strong association with clear streams with rocky bottoms"); FWS, Candy Darter Recovery Outline (Exhibit K) at 2 ("primary factors needed to support the candy darter include … unembedded gravel and cobble substrates with minimal sedimentation").

For the candy darter, "[t]he risk of extinction is high…." *Id*. at 5. "Existing populations should be maintained and enhanced by protecting habitat integrity and quality of streams within watersheds that currently support the species: This should be accomplished by avoiding and minimizing threats to the species including: 1) sedimentation…." *Id*. at 6

In the 2017 EIS, FERC's discussion of impacts to candy darter was brief. *See* MVP EIS at 4-233. After briefly describing the fish and where it is found, the EIS concluded that, "[b]ased on the measures Mountain Valley would implement to avoid or minimize impacts on

[45] Candy Darter Final Listing Rule, 83 Fed. Reg. 58,747 (Nov. 21, 2018).
[46] *See* BA Supplement at 32.

fisheries…[,] the MVP is not likely to contribute to a trend toward federal listing for the candy darter." MVP EIS at 4-233. FERC's EIS contains less analysis of MVP's impacts on the candy darter than the SSA Report. *See* SSA Report at 39. In a Supplemental EIS, FERC must address, *inter alia*, the impacts to the candy darter from "increase[d] sediment loading in the relevant watersheds" due to "the stream crossings and forest clearing associated with the permanent right-of-way…." *Id*.

The proposed critical habitat is significant new information because it (1) confirms candy darter presence in streams crossed by the MVP;[47] (2) establishes that those streams provide "physical or biological features [that] are essential to the conservation of the candy darter;"[48] and (3) confirms that effects associated with the MVP, such as increased "sedimentation and stream bottom embeddedness," are a threat to those features.[49] *See also* SSA Report at 38 ("Excessive stream sedimentation (or siltation) results from soil erosion associated with upland activities (e.g., … pipeline construction…) as well as activities that can destabilize stream channels themselves (e.g., … culverts, pipeline crossings, or other instream structures)") (citation omitted).

In addition, while MVP states in the Supplement to the Biological Assessment that "[m]icro-tunneling and conventional bore techniques proposed for the Gauley River and Stony Creek, respectively, *eliminate* potential for effects on candy darter individuals from in-stream activities," BA Supplement at 85 (emphasis added), this ignores both (1) potential impacts from these activities (*see* section II.C, *supra*), and (2) that boring may not be feasible (*see, e.g*., Huntington PCN at 24 ("If any of the borings is unsuccessful for any reason, the dry open cut

[47] *See* 83 Fed. Reg. 59,236 (noting that several streams crossed by the MVP are "occupied by the species").
[48] *Id*. at 59,235.
[49] *Id*.

method will be utilized."). *See also* Letter from K. Hastie (FWS) to K. Bose (FERC) (Accession No. 20190412-5164) (requesting "additional review of the geotechnical analysis by a qualified individual" to evaluate risks of the Stony Creek bore crossing); MVP May 8th Responses at 6 ("Mountain Valley is proposing to withdraw water from locations in two streams that potentially support federally listed aquatic species: the Gauley River (candy darter) and the Little Kanawha River (clubshell and snuffbox).").

Finally, while "Mountain Valley's sedimentation analysis did not show a measurable increase in sedimentation to the Gauley River or Stony Creek due to the Project," FERC concluded that "based on further discussions with FWS, sedimentation effects from the Project in candy darter habitat cannot be ruled out due to the relative location of Project activities and nature of the tributaries that feed into the streams that contain candy darter." Letter from J. Martin (FERC) to C. Schulz (FWS) (Accession No. 20200708-3031). *See also* Letter from K. Hastie (FWS) to K. Bose (FERC) (Accession No. 20190412-5164) (requesting additional sediment analysis and "analysis of effects to candy darter and its proposed critical habitat"). These impacts to the candy darter and its habitat must be disclosed and analyzed in a Supplemental EIS that includes an updated analysis of increased sediment loading from, *inter alia*, upland construction activities and the permanent right-of-way.

E. Pipe Integrity

FERC's Supplemental EIS also must examine and disclose pipe integrity issues related to pipe shifting (*see* section II.B.2.b, *supra*) and above-ground storage. On April 14, 2020, the Pipeline and Hazardous Materials Safety Administration (PHMSA) sent Equitrans Midstream Corporation a warning letter describing non-compliance with pipeline safety regulations. *See*

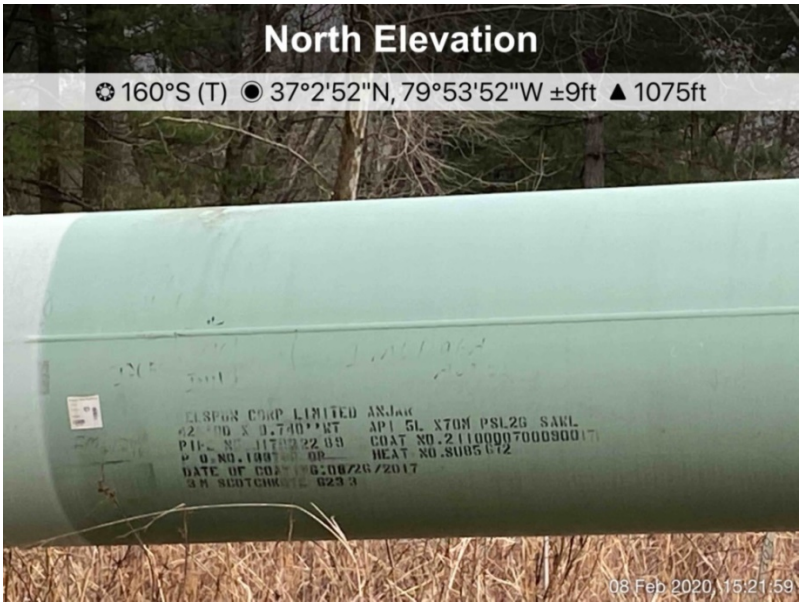
Letter from R. Burrough (PHMSA) to G. West (Equitrans) (April 14, 2020)[50] at 2 ("At Mudlick Run Road, 42-inch diameter pipe was noted to have been placed within a rock laden trench without adequate support padding and/or backfill material to protect the pipe coating from damage…. At Camp Creek Road, the PHMSA inspector observed 42-inch diameter pipe being placed within a rock laden trench inconsistent with EQT's construction standard requirements."). PHMSA concluded that the pipeline was "not being installed… in a manner that minimizes stresses and protect the pipe and pipe coating" at these locations. *Id*.

In addition, due to the prolonged exposure of coated pipes to the elements in storage yards and along the right-of-way, FERC must prepare a supplemental analysis of potential impacts on pipeline integrity. *See, e.g.*, MVP Temporary Stabilization Plan (Accession No. 20180809-5013) at 6 ("Pipe segments strung along the ROW for an extended period are also subject to UV damage to the coating…. Therefore, the coating will continuously degrade while staged on the ROW."); National Association of Pipe Coating Applicators, Bulletin 12-78-04: *External Application Procedures for Plant Applied Fusion Bonded Epoxy (FBE) Coatings and Abrasion Resistant Overlay (ARO) Coatings to Steel Pipe*[51] (Exhibit L) ("The intended use of these coatings is to provide corrosion protection for buried pipelines. Above ground storage of coated pipe in excess of 6 months without additional Ultraviolet protection is not recommended.").

FERC must also assess and disclose potential impacts to the environment and public health resulting from the prolonged, exposed pipe storage. *See, e.g.*, Letter from V. Guidry (NC Department of Health and Human Services) to K. Bose (FERC), Oct. 25, 2019 (Accession No. 20191025-5088) (Exhibit M) at 2 (discussing the need for additional information regarding

[50] https://www.eenews.net/assets/2020/05/06/document_ew_03.pdf
[51] http://www.napca.com/pdf/Bulletin-12-78-04.pdf

"leachability and potential toxicity of the FBE coasting" for similar pipeline). In sum, to ensure that the prolonged exposure of the FBE-coated pipeline is not resulting in environmental and health impacts that are inconsistent with the conclusions in the EIS, FERC must prepare a Supplemental EIS that analyzes and discloses these potential effects. *See* FERC, Information Request for the Atlantic Coast Pipeline and Supply Header Projects (Accession No. 20200630-3033) (Exhibit N).



Pipe coated in 2017, photographed in 2020.

F. Public Health Risks

Finally, even if MVP obtains all required federal authorizations, FERC should take into account the ongoing pandemic before authorizing construction to being. The disruption and public health risks caused by COVID-19 are widespread and severe. Public health experts recommend masks and social distancing measures to tamp down community spread of the coronavirus. Construction activities associated with MVP would bring an influx of out-of-state workers into rural communities, some of which have limited medical facilities:

> More than 20 legislators signed a letter urging work stop as pipeline officials recently announced 4,000 workers will be brought into Virginia and West Virginia to continue work on the project. Roanoke Senator John Edwards signed the letter and said bringing in these workers could potentially cause a spike in coronavirus cases in the area.
>
> "Craig and Giles County, for example, don't have any ICU beds. Pittsylvania County has no ICU beds, so we have inadequate facilities to take care of this problem," Virginia Senator John Edwards said.

Annie Schroeder, *State lawmakers urge Northam to halt work on Mountain Valley Pipeline amid pandemic*, WSLS (Aug. 10, 2020).[52] *See also* Letter from Del. Dawn Adams *et al*. to Gov. Northam *et al.* (Aug. 6, 2020) (Exhibit O) ("Bringing thousands of out-of-state workers to a medically underserved area of the Commonwealth in the middle of the COVID-19 pandemic is a dangerous undertaking that would undermine efforts to keep infection rates down and intensive care unit beds available."); *id*. (noting that the communities along the MVP route "have high concentrations of older people, poor people, and those with cardiovascular diseases, COPD, and other conditions that place them at high risk during this pandemic"); Emily Little, *Northam should halt pipeline construction*, Roanoke Times (July 2, 2020) ("According to the Kaiser

[52] https://www.wsls.com/news/local/2020/08/11/state-lawmakers-urge-northam-to-halt-work-on-mountain-valley-pipeline-amid-pandemic/

Family Foundation, Craig, Giles, Pittsylvania and Roanoke counties have zero ICU beds.").[53] Volunteer monitors have already observed MVP crews failing to socially distance and wear masks.[54] Before authorizing construction activities to commence, FERC must assess the health risks to community members and pipeline workers.

CONCLUSION

For these reasons, the Commission must supplement the EIS for the MVP, circulate the Supplemental EIS for public comment, and stay the Certificate Order pending finalization of the Supplemental EIS.

Dated: August 27, 2020

Respectfully submitted,

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[53] https://roanoke.com/opinion/commentary/little-northam-should-halt-pipeline-construction/article_203a3536-c40c-5dcd-90d6-e9f28dc4b657.html
[54] *See, e.g.*, https://www.newrivergeographics.com/mvw/gallery/photo-gallery/april-2020

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CERTIFICATE OF SERVICE

I hereby certify that I have on August 27, 2020, caused the foregoing document to be served upon each person designated on the official service list compiled by the Secretary in this proceeding.

/s/ Elly Benson
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Sierra Club