

179 FERC ¶ 61,013
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Richard Glick, Chairman;
James P. Danly, Allison Clements,
Mark C. Christie, and Willie L. Phillips.

Mountain Valley Pipeline, LLC

Docket No. CP21-57-000

ORDER AMENDING CERTIFICATE

(Issued April 8, 2022)

1. On February 19, 2021, Mountain Valley Pipeline, LLC (Mountain Valley) filed an application pursuant to section 7(c) of the Natural Gas Act (NGA)¹ and Part 157 of the Commission's regulations² to amend its certificate of public convenience and necessity granted in Docket No. CP16-10-000,³ which authorized the construction and operation of the Mountain Valley Pipeline Project. In its amendment application, Mountain Valley proposes to: (1) change the crossing method for 183 waterbodies and wetlands at 120 locations (some locations contain more than one waterbody/wetland feature) from open-cut to trenchless; (2) slightly shift the permanent right-of-way at mileposts (MP) 0.70 and 230.8 to avoid one wetland and one waterbody, respectively; and (3) conduct 24-hour construction activities at eight trenchless crossings (Amendment Project). For the reasons discussed below, we grant the requested authorization, subject to certain conditions.

I. Background and Proposal

2. Mountain Valley is a Delaware limited liability company. Upon commencing operations of its Mountain Valley Pipeline Project, Mountain Valley will become a natural gas company within the meaning of section 2(6) of the NGA.⁴

¹ 15 U.S.C. § 717f(c).

² 18 C.F.R. pt. 157 (2021).

³ *Mountain Valley Pipeline, LLC*, 161 FERC ¶ 61,043 (2017) (Certificate Order), *order on reh'g*, 163 FERC ¶ 61,197 (2018), *aff'd sub. nom. Appalachian Voices v. FERC*, No. 17-1271, 2019 WL 847199 (D.C. Cir. Feb. 19, 2019) (unpublished).

⁴ 15 U.S.C. § 717a(6).

3. On October 13, 2017, the Commission issued Mountain Valley a certificate of public convenience and necessity authorizing the construction and operation of the Mountain Valley Pipeline Project, a new interstate pipeline system designed to provide up to 2,000,000 dekatherms per day of firm natural gas transportation service from Wetzel County, West Virginia, to Transcontinental Pipe Line Company, LLC's Compressor Station 165 in Pittsylvania County, Virginia (Certificate Order).⁵

4. Due to several permitting challenges, Mountain Valley has not yet completed construction of the project.⁶ Relevant to this amendment proceeding, on November 9, 2020, the U.S. Court of Appeals for the Fourth Circuit issued a stay of Mountain Valley's Nationwide Permit 12 verifications, issued by the U.S. Army Corps of Engineers (Corps) for the project.⁷ The Corps' Nationwide Permit 12 verifications had authorized Mountain Valley, pursuant to section 404 of the Clean Water Act, to cross waters of the United States using an open-cut method, which was the crossing method approved in the Certificate Order.

5. Subsequently, on November 18, 2020, in Docket No. CP21-12-000, Mountain Valley filed a request to amend its certificate authorization to: (1) cross all remaining wetlands and waterbodies between MP 0 and 77 by trenchless method as opposed to open-cut method;⁸ and (2) shift the permanent right-of-way slightly at MP 0.70 to avoid one wetland. On January 26, 2021, Mountain Valley withdrew the request, explaining that it intended to conduct a "comprehensive review of all outstanding waterbody and wetland crossings"⁹ and then file a new certificate amendment application with the Commission, as well as a new permit application with the Corps.

⁵ Certificate Order, 161 FERC ¶ 61,043.

⁶ On October 9, 2020, the Commission issued Mountain Valley an extension of time, until October 13, 2022, to complete construction of the project and place the facilities into service. *Mountain Valley Pipeline, LLC*, 173 FERC ¶ 61,026 (2020).

⁷ *Sierra Club v. U.S. Army Corps of Eng'rs*, Nos. 20-2039 and 20-2042 (4th Cir. Nov. 9, 2020) (order granting stay); *Sierra Club v. U.S. Army Corps of Eng'rs*, 981 F.3d 251 (Dec. 1, 2020) (accompanying opinion).

⁸ As discussed below, *infra* P 144, trenchless crossings of waters of the United States, unlike open-cut crossings, do not require authorization from the Corps under section 404 of the Clean Water Act.

⁹ Approximately 460 waterbodies and 183 wetlands remain to be crossed.

6. In its analysis of the remaining crossings, Mountain Valley examined a number of factors, including crossing length, slope, stream depth, karst terrain,¹⁰ and other feasibility concerns.¹¹ Based on that analysis, Mountain Valley filed the application for the Amendment Project, in Docket No. CP21-57-000. Specifically, Mountain Valley proposes to use 117 conventional bores, 2 guided conventional bores, and 1 Direct Pipe®. A right-of-way shift at MP 0.70 would modify 0.23 acre that was certificated as temporary construction workspace to permanent workspace, and a shift at MP 230.8 would require 0.13 acre of new construction right-of-way and 0.04 acre of new permanent operational right-of-way. Additionally, Mountain Valley requests authorization to conduct limited 24-hour construction activities at eight trenchless crossings¹² because these crossings would be under a railroad¹³ or because the previously-approved specific trenchless methods proposed (i.e., microtunneling,¹⁴ guided conventional bore, or Direct Pipe®) typically require 24-hour operation to avoid the potential for collapse of the bore trench or freezing up of the pipe within the bore.

7. On March 4, 2021,¹⁵ Mountain Valley filed an individual permit application with the Corps, pursuant to section 404 of the Clean Water Act, requesting authorization to

¹⁰ Karst areas are characterized by distinctive landforms (e.g., springs, caves, sinkholes) and a unique hydrogeology that results in aquifers that are highly productive but vulnerable to contamination. Karst terrain is created from the dissolution of soluble bedrocks, principally limestone and dolomite.

¹¹ Mountain Valley's February 19, 2021 Amendment Application at 7.

¹² Commission staff already approved use of a trenchless method at two of the eight crossings, at the Gauley and Roanoke Rivers, through the variance process; however, 24-hour work at those two crossings was not previously approved.

¹³ The railroad owners require boring operations to progress on a 24-hour basis until complete.

¹⁴ Use of the microtunneling method was previously approved for the Gauley and Roanoke Rivers through the variance process. Use of the microtunneling method is not proposed as part of the Amendment Project.

¹⁵ On February 19, 2021, Mountain Valley voluntarily requested that the Corps administratively revoke its September 25, 2020 Nationwide Permit 12 verifications for the Mountain Valley Pipeline Project. The Corps granted Mountain Valley's request and revoked the Nationwide Permit 12 verifications on March 2, 2021 (Pittsburgh and Huntington Districts) and March 3, 2021 (Norfolk District).

cross all the other remaining waterbodies and wetlands (i.e., those not covered by the amendment application) using the originally certificated open-cut method.¹⁶

II. Notice, Interventions, and Comments

8. Notice of Mountain Valley's amendment application was issued on March 1, 2021, and published in the *Federal Register* on March 5, 2021.¹⁷ The notice established March 22, 2021, as the deadline for filing comments and interventions. Timely, unopposed motions to intervene were filed by: Appalachian Voices, Blue Ridge Environmental Defense League, Chesapeake Climate Action Network, Indian Creek Watershed Association, Preserve Craig, Inc., Preserve Montgomery County VA, Sierra Club, Virginia Conservation Network, West Virginia Highlands Conservancy, West Virginia Rivers Coalition, and Wild Virginia (jointly); Freeda Cathcart; James Chandler; Kathy Chandler; Russell Chisholm; Bruce Coffey; Mary Coffey; Duke Energy Carolinas, LLC and Duke Energy Progress, LLC (jointly); Franklin County, Virginia; Gas and Oil Association of West Virginia, Inc.; Louisa Gay; GFWC Star Woman's Club; Charlotte Giff; Giles County, Virginia; Karolyn Givens; Nan Gray; Georgia Haverty; Jacob Hileman; Maury Johnson; Robert Johnson; Donald Jones; Suzanne Keller; William Limpert; Lynda Majors; Elizabeth Struthers Malbon; Paula Mann; Kelsey Marlett; Lois Waldron Martin; Robert McNutt; Mothers Out Front Roanoke Team; Mountain Valley Watch; Natural Resources Defense Council and Sustainable FERC Project (jointly); North Carolina Utilities Commission; Piedmont Natural Gas Co., Inc.; Kimberly Powell; Preserve Bent Mountain; Preserve Giles County; Preserve Monroe; Preserve Salem; Heather Price; Protect Our Water, Heritage, Rights; Joseph Reilly; Mary Ellen Rives; Roanoke County, Virginia; Rex Coal Land Co., Inc.; Roseanna Sacco; Emily Satterwhite; Tina Smusz; Transcontinental Gas Pipe Line Co., LLC; Grace Tuttle; Fred Vest; Katie Whitehead; Wild Virginia; and Carl Zipper.¹⁸

9. Irene Leech; Elizabeth Reynolds; Jason Shelton; Linda Parsons Sink; Frank Terry, Jr; Grace Terry; John Terry, III; Union Hill Freedmen Family Research Group; and Joshua Vana each filed late motions to intervene, which were granted by Secretary's Notices issued on April 28 and May 12, 2021. The Natural Gas Supply Association and

¹⁶ Mountain Valley also requested Corps approval to cross, via any method (i.e., trenchless or open-cut), five waterbodies that are subject to section 10 of the Rivers and Harbors Act. The Corps has indicated that its individual permit decision will include a decision on the section 10 requests. *See* EA at 2,n.4.

¹⁷ 86 Fed. Reg. 12,934 (Mar. 5, 2021).

¹⁸ Timely, unopposed motions to intervene are granted by operation of Rule 214 of the Commission's Rules of Practice and Procedure. 18 C.F.R. § 385.214(c)(1) (2021).

the Center for Liquefied Natural Gas filed a joint, late motion to intervene, which was denied by Secretary's Notice issued on November 2, 2021.

10. Numerous individuals and entities filed comments regarding the need for the Mountain Valley Pipeline Project, the status of permits and federal authorizations required for completion of the project, environmental impacts associated with the proposed change in crossing method, and the need for a supplemental environmental impact statement (EIS). The comments are addressed in the environmental assessment (EA) Commission staff prepared for the proposal or in this order, as appropriate.

III. Discussion

11. Because Mountain Valley's requested changes require amending the Certificate Order, the requests are subject to the Commission's jurisdiction and requirements of NGA sections 7(c) and (e).¹⁹

A. Certificate

12. In the Certificate Order, the Commission found that the Mountain Valley Pipeline Project was required by the public convenience and necessity.²⁰ Because Mountain Valley had no existing customers, there was no potential for subsidization by, or adverse effects on, existing customers as a result of the project.²¹ There would also be no adverse impact on existing pipelines and their captive customers.²² The Commission further found that Mountain Valley had taken appropriate steps to minimize impacts on landowners.²³

13. Several commenters allege that the Mountain Valley Pipeline Project is not needed and that the Commission should not authorize any additional fossil fuel infrastructure.²⁴ This amendment order does not authorize any new infrastructure. The Certificate Order found a market need for the project based on Mountain Valley's execution of long-term

¹⁹ 15 U.S.C. §§ 717f(c), (e).

²⁰ Certificate Order, 161 FERC ¶ 61,043 at P 64.

²¹ *Id.* P 32.

²² *Id.* P 56.

²³ *Id.* P 57.

²⁴ *See, e.g.*, Protect Our Water, Heritage, Rights' March 10, 2021 Comments; Allegheny-Blue Ridge Alliance, et al.'s September 13, 2021 Comments at 116-124.

precedent agreements for the entirety of the project's capacity, and the United States Court of Appeals for the District of Columbia Circuit upheld this finding.²⁵ In this proceeding, we are evaluating only Mountain Valley's request to change the crossing method for certain wetlands and waterbodies, slightly shift the right-of-way in two places, and conduct limited 24-hour construction activities; we are not re-examining the need for the project generally. Comments regarding need for the Mountain Valley Pipeline Project, compliance with evolving state energy policies, and the possibility of captive ratepayers paying for unneeded capacity were addressed in the underlying Certificate Order,²⁶ and thus are improper collateral attacks on that order and need not be considered further.

14. The Amendment Project does not change the Commission's prior findings on need, impacts to existing customers, and impacts on other pipelines and their captive customers. The Amendment Project will not affect any new landowners,²⁷ all construction disturbance will occur within the currently authorized construction workspace,²⁸ and, for the two pipeline right-of-way shifts, Mountain Valley already has the necessary land rights.²⁹ Thus, we find that Mountain Valley has taken appropriate steps to minimize impacts of the Amendment Project on landowners.

15. Accordingly, we find that the proposed amendment does not alter the Commission's previous finding that the Mountain Valley Pipeline Project's benefits will outweigh any adverse economic effects on existing shippers, other pipelines and their captive customers, and landowners and surrounding communities. Therefore, we conclude that the proposal is consistent with the criteria set forth in the Certificate Policy Statement and analyze the environmental impacts of the proposal below.³⁰

²⁵ *Appalachian Voices v. FERC*, No. 17-1271, 2019 WL 847199, at *1.

²⁶ Certificate Order, 161 FERC ¶ 61,043 at PP 34-53.

²⁷ Mountain Valley's February 19, 2021 Amendment Application at 7.

²⁸ *Id.*

²⁹ *Id.* at 8.

³⁰ See *Certification of New Interstate Natural Gas Pipeline Facilities*, 88 FERC ¶ 61,227, at 61,745-46 (1999) (explaining that only when the project benefits outweigh the adverse effects on the economic interests will the Commission then complete the environmental analysis), *corrected*, 89 FERC ¶ 61,040 (1999), *clarified*, 90 FERC ¶ 61,128, *further clarified*, 92 FERC ¶ 61,094 (2000) (1999 Certificate Policy Statement).

B. Environmental Analysis

16. On March 16, 2021, the Commission issued a *Notice of Scoping Period and Requesting Comments on Environmental Issues for the Proposed Amendment to the Certificate of Public Convenience and Necessity for the Mountain Valley Pipeline Project*, which established a 30-day comment period for identifying the scope of issues to be addressed in the EA.³¹ The scoping period ended on April 15, 2021.

17. On July 1, 2021, the Commission issued a *Notice of Supplemental Scoping Period for the Proposed Amendment to the Certificate of Public Convenience and Necessity for the Mountain Valley Pipeline Project and Request for Comments on Environmental Issues*, which established a second 30-day scoping period, closing on August 2, 2021.³²

18. In response to the notice of application and the scoping notices, the Commission received approximately 400 comments from individuals, federal and state agencies, elected officials, environmental non-profit groups, and companies/organizations, as well as over 1,000 form letters from individuals.

19. The primary issues raised in the comments include concerns about air quality, greenhouse gases (GHG), climate change, impacts on aquatic resources, sedimentation impacts, impacts on cultural resources, trenchless crossing constructability, environmental justice, noise, water quality (including impacts on surface water and groundwater), safety, impacts on wetlands, spoil storage, and impacts on threatened and endangered species.

20. To satisfy the requirements of the National Environmental Policy Act (NEPA) of 1969, Commission staff, in cooperation with the Corps, prepared an EA for Mountain Valley's proposal. The EA addresses geology, soils, water resources, wetlands, vegetation, wildlife, threatened and endangered species, land use, recreation, cultural resources, air quality, noise, safety, cumulative impacts, and alternatives. All substantive comments received during scoping were addressed in the EA.

21. The EA was issued for a 30-day comment period and placed into the public record on August 13, 2021. The Commission received over 60 comments on the EA from individuals and landowners, federal and state agencies, elected officials, and

³¹ 86 Fed. Reg. 15,215 (Mar. 22, 2021).

³² 86 Fed. Reg. 36,275 (July 9, 2021). The Commission issued the supplemental scoping notice upon learning that the entire environmental mailing list may not have received copies of the March 16, 2021 scoping notice.

environmental non-profit groups, as well as over 1,700 form letters from individuals.³³ The commenters raised concerns regarding the need for an EIS, as well as impacts on geology, wetlands, waterbodies, threatened and endangered and sensitive species, cultural resources, environmental justice communities, cumulative impacts, climate change, noise, reliability, and safety. We address those comments, as well as certain comments that were determined to be outside the scope of the NEPA analysis, below.

1. Procedural Concerns

a. Requests for a Supplemental EIS

22. On June 23, 2017, Commission staff issued a final EIS (FEIS) for the Mountain Valley Pipeline Project, which the Commission considered in its determination to authorize the project. Several commenters argue that a supplemental EIS should be prepared to fully analyze the Amendment Project's impacts and to ensure that the public meaningfully participates in the process.³⁴ They argue that because an EIS was prepared for the Mountain Valley Pipeline Project any supplemental NEPA document must also be an EIS.³⁵ In addition, commenters state that the Corps, a cooperating agency in the NEPA process, requires an EIS to satisfy its regulatory requirements.³⁶

23. The Council on Environmental Quality's (CEQ) regulations implementing NEPA require preparation of a supplemental EIS if "[t]he agency makes substantial changes to the proposed action that are relevant to environmental concerns[.]" or if "[t]here are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impact."³⁷ New information must be sufficient to

³³ In addition, on August 16, 2021, the Monacan Indian Nation and the Sappony Tribe filed comments, stating that Mountain Valley had agreed to address the Tribes' concerns and that they were withdrawing all previous statements of opposition to the Mountain Valley Pipeline Project.

³⁴ See, e.g., Allegheny-Blue Ridge Alliance, et al.'s September 13, 2021 Comments at 4-8.

³⁵ *Id.* at 4.

³⁶ *Id.* at 8-30.

³⁷ 40 C.F.R. § 1502.9(d) (2021).

show that the remaining federal action will affect the environment in a significant manner or to a significant extent not already considered.³⁸

24. The change in crossing method proposed here is not a substantial change to the proposed action because it will not cause significant increased impacts. Nor are there significant new circumstances or information relevant to environmental concerns. As Commission staff found in the EA, the requested amendment will not result in any significant environmental impacts and, accordingly, preparation of an EA was appropriate.³⁹

25. In addition, as stated in the EA, the Corps was a cooperating agency that assisted the Commission in preparation of the EA. The Corps may adopt the EA, per 40 C.F.R. § 1501.8 if, after independent review of the document, it concludes that its requirements and/or regulatory responsibilities have been satisfied; however, the Corps would present its own conclusions and recommendations in its record of decision or determination. Otherwise, the Corps may elect to conduct its own supplemental environmental analysis.⁴⁰

26. Several commenters also argue that the Commission should conduct a “new review” of the FEIS, claiming that it was insufficient and completed years ago.⁴¹ Analyses from the FEIS that pertain to the amendment activities and required updating, such as the environmental justice discussion, were updated in the EA.

b. NEPA Regulations

27. The EA was prepared in accordance with CEQ’s July 16, 2020 final rule, *Update to the Regulations Implementing the Procedural Provisions of the National Environmental Policy Act*.⁴² Allegheny-Blue Ridge Alliance, et al. claim that the Commission should apply CEQ’s pre-2020 NEPA regulations, and further allege that the 2020 regulations are not lawful or applicable to the Amendment Project.⁴³ The

³⁸ *Marsh v. Or. Nat. Res. Council*, 490 U.S. 360, 374 (1989).

³⁹ *See* 40 C.F.R. § 1501.5 (2021).

⁴⁰ *See* EA at 3.

⁴¹ *See, e.g.*, Elizabeth Struthers Malbon’s September 13, 2021 Comments at 1.

⁴² 85 Fed. Reg. 43,304 (July 16, 2020).

⁴³ Allegheny-Blue Ridge Alliance, et al.’s April 15, 2021 Comments at 7-10 and September 13, 2021 Comments at 4.

2020 NEPA regulations “apply to any NEPA process begun after September 14, 2020,” and agencies “may apply the regulations [] to ongoing activities and environmental documents begun before September 14, 2021.”⁴⁴ The NEPA process for the Amendment Project began on March 16, 2021.⁴⁵ Therefore, we find it was lawful and appropriate for Commission staff to use the 2020 NEPA regulations to prepare the EA.

c. Inadequate Time Between Scoping Notices and Issuance of the EA

28. Several commenters argue that the period of time between the end of the supplemental scoping period on August 2, 2021, and the issuance of the EA on August 13, 2021, was not long enough for Commission staff to fully assess comment letters received during this time.⁴⁶ As noted above, the supplemental scoping notice was issued because Commission staff became aware that the entire environmental mailing list may not have received the original scoping notice. The supplemental notice did not identify any new issues that were not included in the original notice. In response to the supplemental notice, the Commission received approximately sixty comment letters. The majority of the comments filed in response to the supplemental notice raised issues that were already noted during the prior scoping period and, thus, Commission staff had already begun review of those issues. As stated in the EA, staff reviewed and considered all comment letters submitted prior to issuance of the EA, including the comments received during the supplemental scoping period.

d. Requests to Extend the EA Comment Period

29. Preserve Craig and Indian Creek Watershed Association requested that the 30-day comment period for the EA be extended by an 30 additional days to close on October 13, 2021.⁴⁷ We declined to extend the 30-day comment period, which is the

⁴⁴ 40 C.F.R. § 1506.13 (2021).

⁴⁵ Commenters also claim that the Amendment Project is a continuation of the existing Mountain Valley Pipeline Project and the original NEPA review from 2017. Even if the Commission were to determine that the NEPA process for the Amendment Project began before September 14, 2020, it would still be within the Commission’s discretion, pursuant to the 2020 regulations, to use the 2020 regulations in preparing the EA.

⁴⁶ *See, e.g.*, Elizabeth Struthers Malbon’s September 13, 2021 Comments at 1.

⁴⁷ Preserve Craig and Indian Creek Watershed Association’s September 13, 2021 Request for Extension of Comment Deadline.

standard period of time provided to comment on EAs, but we note that comments filed through October 13, 2021, were considered in this order.

2. Comments on the EA

a. U.S. Environmental Protection Agency

30. The U.S. Environmental Protection Agency (EPA) provided comments and recommendations regarding the crossing method of the Blackwater River, monitoring of trenchless crossing locations, water quality monitoring, potential secondary effects to downstream resources, cumulative impacts at a watershed level, contamination risks to groundwater sources, trenchless crossing information relative to karst features, air quality and greenhouse gas (GHG) emissions, and environmental justice. These comments are addressed below.

Blackwater River Crossing

31. EPA recommends additional analysis on whether the Blackwater River could be crossed via a trenchless crossing method.⁴⁸ As stated in the EA, Commission staff reviewed Mountain Valley's assessment of site conditions and concluded that the constraint at the Blackwater River is legitimate.⁴⁹ Further, Commission staff considered the impacts of an open-cut crossing of the Blackwater River in the FEIS and determined that an open-cut crossing was an acceptable crossing method, and the Commission agreed. No new information has been provided that would change our prior assessment and approval of the use of an open-cut crossing of the Blackwater River.

Monitoring of Trenchless Crossing Locations

32. EPA recommends monitoring at trenchless crossing locations to determine if the crossings have any lasting negative impacts on aquatic resources.⁵⁰ Commission staff uses a combination of factors to determine whether additional monitoring is required. In the EA, staff concludes that a bore hole collapse or inadvertent return is possible but extremely unlikely.⁵¹ If a bore hole collapse occurred, Commission staff would require

⁴⁸ EPA's September 14, 2021 Comments, Enclosure at 1.

⁴⁹ EA at 93 (confirming that, at the Blackwater River crossing location, there may not be space for spoil storage within the limits of disturbance and the slope on one side of the stream may not be conducive to a trenchless crossing).

⁵⁰ EPA's September 14, 2021 Comments, Enclosure at 1.

⁵¹ EA at 33-36.

additional monitoring of the affected stream following the incident. Monitoring before an incident does not provide any sort of early warning and is, therefore, not warranted. Monitoring for an inadvertent return is already a part of Mountain Valley's *Direct Pipe® and Horizontal Directional Drilling Contingency Plan*. Therefore, we agree with staff that monitoring beyond that already required during construction is not necessary.

33. EPA recommends development of a more robust monitoring plan than the water quality monitoring program developed to comply with conditions of the U.S. Fish and Wildlife Service's (FWS) 2020 Biological Opinion (2020 BO).⁵² The monitoring required by the 2020 BO is related to impacts from construction of the Mountain Valley Pipeline Project in areas where federally listed aquatic species are present or presumed to be present. FWS determined the parameters that should be monitored, based on its determination that additional take of listed species could occur above certain turbidity thresholds. As discussed further below, on February 3, 2022, the U.S. Court of Appeals for the Fourth Circuit (Fourth Circuit) vacated FWS's 2020 BO but found that the monitoring plan "provided a 'clear' mechanism for assessing responsibility for an exceedance [in take]".⁵³ On remand, FWS may require changes to the monitoring plan. However, the scope of activities proposed in the amendment application, however, is limited to very minor ground-disturbance within mostly disturbed right-of-way that has already been cleared. In addition, the proposed trenchless crossings will result in reduced in-stream sedimentation as compared to the in-water construction previously approved for the Mountain Valley Pipeline Project. Therefore, we find that additional monitoring is not warranted.

Potential Secondary Effects to Downstream Resources

34. EPA recommends analyzing the potential secondary effects from trenchless crossings, such as changes to hydrogeomorphology, sedimentation, and compaction from construction activities on downstream reaches and adjacent wetlands.⁵⁴ As stated above, the scope of activities proposed in the amendment is limited to minor ground-disturbances within mostly disturbed right-of-way. The use of trenchless crossing methods to cross an environmental resource, such as a waterbody or wetland, avoids direct impacts to the resource. In addition, trenchless crossings result in less disturbance of riparian areas adjacent to the waterbodies. Consequently, we find that analysis of secondary effects on downstream reaches and adjacent wetlands is not necessary.

⁵² EPA's September 14, 2021 Comments, Enclosure at 1.

⁵³ *Appalachian Voices v. U.S. Dep't of the Interior*, 25 F.4th 259, 282-83 (4th Cir. 2022).

⁵⁴ EPA's September 14, 2021 Comments, Enclosure at 1.

Cumulative Impacts at a Watershed Level

35. EPA recommends that the EA provide a cumulative effects analysis at a watershed level.⁵⁵ As noted above, the EA was prepared in accordance with CEQ's 2020 NEPA regulations, which do not require such an analysis.⁵⁶ Therefore, the EA included Commission staff's analysis of environmental trends and planned activities in affected areas, but did not include a specifically-denominated cumulative impacts analysis. However, cumulative watershed level impacts are discussed further below.⁵⁷

Contamination Risks to Groundwater Sources

36. EPA requests a geologic cross-section or similar spatial reference to indicate locations and depths of drinking water aquifers relative to bedrock stratigraphy and the planned drilling sites, in order to identify where structural features (e.g., bedding planes, karst features, faults, etc.) may exist and potentially create conduits of groundwater flow in the vicinity of the borehole locations.⁵⁸ As stated in section B.2.1 of the EA, bedrock aquifers predominate in the Amendment Project area with minor surficial alluvial aquifers occurring along streams.⁵⁹ Aquifers in the Amendment Project area are typically characterized by small groundwater capture areas. However, there are exceptions, and wells in close proximity to streams may be affected by induced recharge from the streams if the streams are within the radius of influence of groundwater pumping. As discussed in section B.1 of the EA, Mountain Valley states that, based on the Natural Resources Conservation Service's Soil Survey Geographic Database data, the bore pits at most of the proposed crossings will be excavated within bedrock overburden and alluvium material consisting of heterogeneous valley fill deposits of poorly graded silt, sand, gravel, cobbles, and boulders, as well as decomposed bedrock regolith.⁶⁰

37. The proposed trenchless crossings could result in a minor, temporary change to the impacts on shallow groundwater due to bore-pit dewatering as compared to the open-cut

⁵⁵ *Id.*

⁵⁶ *See supra* P 27.

⁵⁷ *See infra* P 83.

⁵⁸ EPA's September 14, 2021 Comments, Enclosure at 2.

⁵⁹ EA at 26.

⁶⁰ *Id.* at 27.

crossings previously approved for the Mountain Valley Pipeline Project.⁶¹ In some instances, pumping may be required 24 hours per day, for several days, to keep up with water infiltration and to ensure personnel are able to enter the bore pits safely and efficiently when beginning bore activities each day.⁶² However, given the low permeability constraints of the fractured bedrock aquifers and overburden material, the depths of the borings and bore pits, and local aquifer boundary conditions (i.e., alluvium valleys in contact with the bedrock over a short lateral distance), much lower pumping rates are expected to maintain dry working conditions in the drill pits.⁶³

38. EPA requests clarification of what is meant by “a small linear permeability contrast relative to the surrounding aquifer matrix,” and “undisturbed aquifer material on each side” in section 2.1 of the EA.⁶⁴ Here, the EA is conveying that the bore hole and pipeline will be either more or less permeable than the surrounding aquifer, but, given the volume of the aquifer compared to the bore hole and pipeline, the small area of change will not affect overall aquifer characteristics or flow patterns.

39. EPA recommends that a detailed assessment of contamination risks for groundwater sources of drinking water, including measures to avoid, respond, and mitigate potential contamination events, be provided.⁶⁵ As stated in the EA, although no known public or private groundwater wells or springs are located within 150 feet of the Amendment Project area, Mountain Valley has indicated that private wells could be located within 150 feet of the proposed bore pits at MPs 203.6 (near a residence at crossing G-009) and 270.6 (near a structure at crossing I-040).⁶⁶ As outlined in its *Water Resources Identification and Testing Plan*, Mountain Valley will identify and assess private water supplies within 150 feet of the Amendment Project, or within 500 feet if in karst terrain. Groundwater withdrawal during bore pit dewatering could potentially result in short-term, water-level drawdown of shallow groundwater in wells within the vicinity of the bore pits, and in a temporary reduction in the discharge rate of nearby springs. The magnitude and lateral distance of water-level drawdown and spring-flow impacts would depend on the existing groundwater levels at each site at the time of construction and site-specific aquifer characteristics. The EA concludes, however, that any groundwater-

⁶¹ *Id.* at 28.

⁶² *Id.* at 11 and 27.

⁶³ *Id.* at 27.

⁶⁴ EPA’s September 14, 2021 Comments, Enclosure at 23.

⁶⁵ EPA’s September 14, 2021 Comments, Enclosure at 2.

⁶⁶ EA at 28.

level drawdown and related impacts would be short-term and temporary, and that levels would be expected to recover to non-pumping conditions following construction.⁶⁷ We agree.

40. As noted above, no drinking water wells within 150 feet of any bore hole were identified. Consequently, contamination of drinking water wells would require that a spill occur and that it migrate more than 150 feet. The EA concludes that spills are unlikely.⁶⁸ Mountain Valley will implement its *Spill Prevention, Control, and Countermeasures Plan* (SPCC), which includes preventive measures such as personnel training, equipment inspection, and refueling procedures to reduce the likelihood of spills, as well as mitigation measures such as containment and cleanup to minimize potential impacts should a spill occur. In addition, Mountain Valley is required by its *Wetland and Waterbody Construction and Mitigation* (Procedures) to place portable equipment such as water pumps in secondary containment structures in order to contain any leaks or spills. Consequently, the risk of an uncontained spill is low and the risk of a spill migrating more than 150 feet is extremely unlikely. Therefore, we find that no additional assessment on contamination risks for groundwater sources is required.

41. EPA also requests that the EA discuss impacts within wellhead protection areas.⁶⁹ The EA concludes that the Amendment Project would not result in any changes to the impact analysis in the FEIS regarding wellhead protection areas.⁷⁰ Wells located within wellhead protection areas will not be significantly affected because, as previously stated, any groundwater-level drawdown from bore pit dewatering will be short-term and expected to recover immediately following construction. In addition, Mountain Valley will implement its SPCC, which includes preventive measures such as personnel training, equipment inspection, and refueling procedures to reduce the likelihood of spills, as well as mitigation measures such as containment and cleanup to minimize potential impacts should a spill occur.

Trenchless Crossing Information Relative to Karst Features

42. In order to understand how drilling may impact karst terrain, EPA recommends that the EA provide the elevation and linear distance of the entry and exit points of the

⁶⁷ *Id.*

⁶⁸ *Id.* at 42.

⁶⁹ EPA's September 14, 2021 Comments, Enclosure at 2.

⁷⁰ EA at 17.

bores relative to the current high water marks.⁷¹ As stated in section 5.0 of the EA, plan and profile views of topographic conditions at each of the planned crossings relative to borehole and bore pit depths below the resource, including information concerning bank conditions, pipe depth, and positioning of the bore pits, were provided by Mountain Valley and are available for review in the project docket.⁷²

43. As stated in the EA, only five of the proposed conventional bores (crossings G-017, G-023, G-024, H-017, and H-020), all located between MP 206.6 to 235.5, will be in areas that may exhibit karst features.⁷³ Mountain Valley will implement its *Karst Mitigation Plan* for these crossings. Mountain Valley's *Karst Mitigation Plan* requires the presence of karst inspectors in karst areas during construction to surveil potential karst feature formation. The inspectors have stop-work authority, and if a cover-collapse type feature is activated during dewatering/filtering, the karst inspector would notify Mountain Valley to stop work, assess the feature, and mitigate discharge directed toward the feature. The feature would be stabilized according to the *Karst Mitigation Plan*, and further discharge would be re-directed away from the karst feature. The EA concludes that when a trenchless crossing method is used through karst terrain, any potential karst voids are observable during construction and, therefore, immediate mitigation measures can be implemented.⁷⁴

44. EPA recommends that Mountain Valley's *Karst Mitigation Plan* be updated to include all considerations mentioned in karst terrain-related state legislation enacted after September 2017 to ensure compliance with all state laws and regulations.⁷⁵ Mountain Valley's *Karst Mitigation Plan* includes its commitment to conduct construction in compliance with all state requirements. Additionally, as discussed further below, Environmental Condition 12 requires Mountain Valley to file a revised *Karst Mitigation Plan* that requires coordination with the Virginia Department of Conservation and Recreation (Virginia DCR) to identify crossing locations with high potential for surface stream loss and develop impact minimization measures, as appropriate.⁷⁶

⁷¹ EPA's September 14, 2021 Comments, Enclosure at 3.

⁷² EA at 8; *see also* Mountain Valley's February 19, 2021 Application, at app. C.

⁷³ EA at 32.

⁷⁴ *Id.* at 97.

⁷⁵ EPA's September 14, 2021 Comments, Enclosure at 3.

⁷⁶ *See infra* P 79.

Air Quality and GHG Emissions

45. Regarding air quality impacts, EPA suggests that the Commission and Mountain Valley articulate all measures that will be employed to reduce construction emissions, including those which the EA notes were previously described in the FEIS.⁷⁷ In addition to the dust suppression techniques described in the EA, Mountain Valley will also implement measures previously described in the FEIS, including spraying water on the right-of-way, covering truckloads during transit, limiting on-site vehicle speed, and measures to reduce soil track-out on public roads.⁷⁸

46. EPA recommends utilizing a qualitative discussion disclosing the increasing conflict over time between continued GHG emissions and GHG emissions reduction policy.⁷⁹ However, the Amendment Project will not result in any additional operational emissions.⁸⁰ Consequently, an analysis of emissions over time is not warranted.

47. Relatedly, Allegheny-Blue Ridge Alliance claims that the NEPA analysis in the EA is inadequate in that it considers only GHG emissions, and potential climate change impacts, associated with the Amendment Project, and not those associated with the entire Mountain Valley Pipeline Project.⁸¹ The Commission already authorized the Mountain Valley Pipeline Project. In this proceeding, we are reviewing only whether to authorize the proposed amendment activities. Thus, the EA properly analyzed impacts associated with the Amendment Project. We note that, in July 2021, Mountain Valley announced its carbon offset plan, by which it would purchase carbon offsets that are expected to be equivalent to 90% of the greenhouse gas emissions associated with operations of the Mountain Valley Pipeline Project over a 10-year period.⁸² That plan is not under consideration in this proceeding.

48. Allegheny-Blue Ridge Alliance also contends that the EA is inadequate because it fails to assess the significance of the GHG emissions associated with the Amendment

⁷⁷ EPA's September 14, 2021 Comments, Enclosure at 4.

⁷⁸ FEIS at 4-505.

⁷⁹ EPA's September 14, 2021 Comments, Enclosure at 4.

⁸⁰ EA at 69-70.

⁸¹ Allegheny-Blue Ridge Alliance, et al.'s September 13, 2021 Comments at 38-40.

⁸² See Mountain Valley's July 12, 2021 Filing.

Project on climate change.⁸³ The Commission is not herein characterizing emissions from the Amendment Project as significant or insignificant because we are conducting a generic proceeding to determine whether and how the Commission will conduct significance determinations going forward.⁸⁴ However, we are providing and considering information about these emissions, based on the information in this proceeding.⁸⁵ With respect to the GHG emissions associated with the amendment activities, the EA estimates that the change from open-cut dry to trenchless crossings would result in an increase in GHG emissions during construction equaling approximately 14,626.02 tons (13,268.5 metric tons) of CO₂e.⁸⁶ These emissions would occur only during an approximately 4-month period.⁸⁷ The Amendment Project will not result in any changes to the Mountain Valley Pipeline Project's estimated operational emissions, nor are there any incremental downstream emissions associated with the amendment.⁸⁸

49. As we have done in prior certificate orders, we compare the project's GHG emissions to the total GHG emissions of the United States as a whole. This comparison allows us to assess the project's share of contribution to GHG emissions at the national level, which provides us additional context in considering the project's potential impact on climate change. At a national level, 5.769 billion metric tons of CO₂e were emitted in 2019 (inclusive of CO₂e sources and sinks).⁸⁹ This project could potentially increase

⁸³ Allegheny-Blue Ridge Alliance, et al.'s September 13, 2021 Comments at 40-44.

⁸⁴ Although we acknowledge that the Commission has previously assessed the "significance" of GHGs, *see N. Nat. Gas Co.*, 174 FERC ¶ 61,189 (2021), we do not do so here. The Commission is considering approaches for assessing significance in a pending proceeding. *See Certification of New Interstate Natural Gas Facilities*, 178 FERC ¶ 61,197 (2022).

⁸⁵ *WildEarth Guardians v. Jewell*, 738 F.3d 298, 309 (D.C. Cir. 2013).

⁸⁶ *See* EA at 69.

⁸⁷ *See id.* at 11-12, 15.

⁸⁸ *Id.* at 69-70. As explained above, the Commission already considered the GHG emissions for Mountain Valley Pipeline Project in the Certificate Order. *See* Certificate Order, 161 FERC ¶ 61,043 at P 295.

⁸⁹ EA at 75.

CO₂e emissions based on the 2019 levels by 0.0002%.⁹⁰ At the state level, energy related CO₂e emissions in 2018 were 90.0 million metric tons in West Virginia, and 107.8 million metric tons in Virginia.⁹¹ Accordingly, the Amendment Project could potentially increase CO₂e emissions based on the West Virginia 2018 levels by 0.0069%, and on Virginia 2018 levels by 0.0066%.⁹²

50. EPA recommends that the Commission not rely on the percentage comparisons of project GHG construction emissions and national- and state-level emissions, noting that CEQ's 2016 GHG guidance states that "[a]gencies should not limit themselves to calculating a proposed action's emissions as a percentage of sector, nationwide, or global emissions in deciding whether or to what extent to consider climate change impacts under NEPA."⁹³ EPA states that project-level GHG emissions have incremental impacts that are important to consider and mitigate or avoid, and that the percentage comparisons in the EA diminish their significance. Thus, EPA recommends that the EA expand the discussion of the Amendment Project's GHG emissions in the context of national and state GHG emission reduction goals. EPA recommends that this discussion consider the U.S. 2030 GHG reduction target, 2050 net-zero pathway, and an end date of the Amendment Project's expected lifetime.

51. The EA provides information about national and state level emissions targets and, to give context, the EA also provides comparisons to national and state emission totals.⁹⁴ As stated in the EA, the Amendment Project would increase the atmospheric concentration of GHGs, in combination with past and future emissions from all other

⁹⁰ Although the national emissions reduction targets expressed in the EPA's Clean Power Plan were repealed in 2019, *EPA, Repeal of the Clean Power Plan*; Greenhouse Gas Emissions from Existing Electric Utility Generating Units; Revisions to Emissions Guidelines Implementing Regulations, 84 Fed. Reg. 32,520, 32,522-32 (July 8, 2019), the Biden Administration announced in 2021 that the United States will rejoin the Paris Climate Accord, *Tackling the Climate Crisis at Home and Abroad*, 86 Fed. Reg. 7619 (Jan. 27, 2021). It is not yet clear if the U.S. will retain or modify its former goals.

⁹¹ EA at 75.

⁹² *Id.*

⁹³ EPA's September 14, 2021 Comments, Enclosure at 4 (quoting CEQ, *Final Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and Effects of Climate Change in National Environmental Policy Act Reviews* (Aug. 1, 2016)).

⁹⁴ EA at 74-75.

sources, and would contribute cumulatively to climate change.⁹⁵ However, the Commission is unable to determine how individual projects will affect international, national, or state-wide GHG emissions reduction targets or whether a project's GHG emissions comply with those goals or laws.

52. EPA also recommends that the Commission use estimates of the social cost of GHGs to disclose and consider the climate damages from GHG emissions from the Amendment Project,⁹⁶ including where project emissions are expected to have small, or marginal, impacts on cumulative global emissions.⁹⁷

53. The social cost of GHGs is an administrative tool intended to quantify, in dollars, estimates of long-term damage possibly resulting from future emissions of carbon dioxide, nitrous oxide, and methane. In response to EPA's comments, we are disclosing Commission staff's estimate of the social cost of carbon from emissions from the construction changes associated with the Amendment Project using the calculations described below.⁹⁸ However, noting pending litigation challenging federal agencies' use of the GHG Interagency Working Group's (IWG) interim values for calculating the social cost of GHGs,⁹⁹ we are not relying on or using the social cost of carbon estimates to make any finding or determination regarding either the impact of the Amendment Project's GHG emissions or whether the Amendment Project is in the public convenience and necessity.¹⁰⁰

⁹⁵ *Id.* at 73.

⁹⁶ EPA's September 14, 2021 Comments, Enclosure at 4-5.

⁹⁷ *Id.* at 4.

⁹⁸ *See also Vecinos para el Bienestar de la Comunidad Costera v. FERC*, 6 F.4th 1321, 1329-30 (D.C. Cir. 2021).

⁹⁹ *Missouri v. Biden*, 8th Cir. No. 21-3013; *Louisiana v. Biden*, No. 21-cv-1074-JDC-KK (W.D. La). On February 11, 2022, the U.S. District Court for the Western District of Louisiana issued a preliminary injunction limiting federal agencies' employment of estimates of the social costs of GHGs and use of the IWG's interim estimates. On March 16, 2022, the U.S. Court of Appeals for the Fifth Circuit issued a stay of the district court's preliminary injunction, finding among other things that the federal agency defendants' continued use of the interim estimates was lawful. *Louisiana v. Biden*, No. 22-30087 (5th Cir. Mar. 16, 2022).

¹⁰⁰ Furthermore, the Commission is not applying the social cost of carbon herein because it has not determined which, if any, modifications are needed to render that tool

54. As both EPA and CEQ participate in the IWG, Commission staff used the methods and values contained in the IWG's current draft guidance but note that different values will result from the use of other methods.¹⁰¹ Emissions during construction would be from construction equipment and would primarily be carbon dioxide with very little nitrous oxide and methane. Accordingly, Commission staff calculated the social cost of carbon using carbon dioxide equivalent (CO₂e) in lieu of the social cost of GHGs of carbon dioxide, nitrous oxide, and methane. Assuming discount rates of 5% (\$14 per metric ton in 2020), 3% (\$51 per ton in 2020), and 2.5% (\$76 per ton in 2020),¹⁰² the social cost of carbon from 13,266 metric tons of CO₂e emitted during the construction period of the Amendment Project is calculated to be \$200,000, \$700,000, and \$1,000,000, respectively (all in 2020 dollars).¹⁰³ And using the 95th percentile of the social cost of carbon using the 3% discount rate (\$152 per ton in 2020),¹⁰⁴ the social cost

useful for project-level analyses. See CEQ's May 27, 2021 Comments filed in Docket No. PL18-1-000, at 2 (noting that it is working with representatives from the IWG to develop forthcoming additional guidance regarding the application of the social cost of GHGs tool in federal decision-making processes, including in NEPA analyses).

¹⁰¹ *Technical Support Document: Social Cost of Carbon, Methane, and Nitrous Oxide Interim Estimates under Executive Order 13990*, Interagency Working Group on Social Cost of Greenhouse Gases, United States Government, February 2021 (IWG Interim Estimates Technical Support Document).

¹⁰² IWG Interim Estimates Technical Support Document at 24. To quantify the potential damages associated with estimated emissions, the IWG methodology applies consumption discount rates to estimated emissions costs. The IWG's discount rates are a function of the rate of economic growth where higher growth scenarios lead to higher discount rates. For example, IWG's method includes the 2.5% discount rate to address the concern that interest rates are highly uncertain over time; the 3% value to be consistent with OMB circular A-4 (2003) and the real rate of return on 10-year Treasury Securities from the prior 30 years (1973 through 2002); and the 5% discount rate to represent the possibility that climate-related damages may be positively correlated with market returns. Thus, higher discount rates further discount future impacts based on estimated economic growth. Values based on lower discount rates are consistent with studies of discounting approaches relevant for intergenerational analysis. *Id.* at 18-19, 23-24.

¹⁰³ The IWG draft guidance identifies costs in 2020 dollars. *Id.* at 5 (Table ES-1).

¹⁰⁴ This value represents "higher-than-expected economic impacts from climate change further out in the tails of the [social cost of CO₂] distribution." *Id.* at 11. In other words, it represents a higher impact scenario with a lower probability of occurring.

of carbon from construction of the Amendment Project is calculated to be \$2,000,000 (in 2020 dollars).

Environmental Justice

55. EPA recommends minority and low-income population benchmarks be clearly presented so there is an understanding of what “meaningfully greater” means based on the minority population percentage in different states.¹⁰⁵

56. Minority and low-income population benchmarks were included in the FEIS in part. As stated in the FEIS, CEQ’s environmental justice guidance provides that an environmental justice community exists where the minority population of an area is greater than 50% of the total population or is meaningfully greater than the population percentage for a surrounding reference area such as the state or county.¹⁰⁶ Under the meaningfully greater threshold, a minority community is present if the block group minority population percentage is 10% greater than the minority population percentage in the county.¹⁰⁷

57. The U.S. Census Bureau defines “low-income populations” as those living below the established poverty level. In the United States, the “poverty line” is set annually by the U.S. Department of Health and Human Services. CEQ’s Environmental Justice Guidance directs low-income populations to be identified based on the annual statistical poverty thresholds from the U.S. Census Bureau. Using *Promising Practices*’ low-income threshold criteria method, a low-income community is present when the

¹⁰⁵ Other commenters also note general concerns with potential environmental justice impacts and the analyses included in the EA. *See, e.g.*, John Surr’s August 27, 2021 Comments; Jacob Hileman’s September 13, 2021 Comments at 2; Wild Virginia’s September 13, 2021 Comments at 7 (Emily Satterwhite’s individual comments included in attachment); Appalachian Voices’ September 13, 2021 Comments at 29 (Pam Tinker’s individual comments included in attachment); Kathy E. and James T. Chandler’s September 14, 2021 Comments at 6. These comments are addressed in our response to EPA’s comments.

¹⁰⁶ CEQ, *Environmental Justice: Guidance under the National Environmental Policy Act*, at 25 (1997), https://www.epa.gov/sites/default/files/2015-02/documents/ej_guidance_nepa_ceq1297.pdf.

¹⁰⁷ EPA, *Promising Practices for EJ Methodologies in NEPA Reviews* (Mar. 2016) (Promising Practices), https://www.epa.gov/sites/default/files/2016-08/documents/nepa_promising_practices_document_2016.pdf at 21-25. The FEIS and EA did not include a definition of “meaningfully greater” for identifying minority communities.

percentage of the population living below the poverty level in the census block group is equal to or greater than the percentage of the population living below the poverty level in the county.¹⁰⁸

58. EPA also recommends use of EJSCREEN and the most current data. Commission staff uses EJSCREEN as an initial screening tool to gather information regarding the potential presence of environmental justice communities in the project area. We also clarify here that in the EA, Commission staff used the most recent data available from the U.S. Census Bureau at the time of issuance, which was data from 2019.¹⁰⁹ EPA further recommends identification of opportunities for impact avoidance, minimization, and/or mitigation, which is discussed below.

59. Appendix F of the EA provided current environmental justice community data for the areas affected by the Amendment Project, including data for the states, counties, and affected block groups. Commission staff, in both the FEIS and EA, used block groups that included project facilities as the appropriate unit of geographic analysis for the environmental justice analysis. Staff believes this geographical unit is appropriate for the Amendment Project because the impacts associated with the proposed action would be experienced immediately adjacent to project activities, with the effects diminishing with further distances from the project area. We believe the block groups that include project activities are sufficiently broad for the Amendment Project considering the temporary nature of air emissions and noise, visual, and traffic impacts.

60. In the EA, Commission staff relied on Section 4.9.2.8 of the FEIS and the data in Appendix F of the EA to conclude that none of the counties or census blocks crossed by the Mountain Valley Pipeline Project have minority populations exceeding 50% nor have minority populations meaningfully greater than the minority population percentage in their respective states. Further, Commission staff noted that low-income populations exist along the Mountain Valley Pipeline Project route. Following issuance of the EA, and using the Commission's current threshold for identifying minority populations, staff

¹⁰⁸ The FEIS and EA state that a low-income population is present if the percent of the population below the poverty level in the block group is 20% or greater. Commission staff has since aligned its threshold criteria with the method recommended in EPA's *Promising Practices*.

¹⁰⁹ Betty Werner requests clarification of the census data that was used by Commission staff and included in Appendix F of the EA. Betty Werner's September 13, 2021 Comments at 9. The EA mistakenly referred to 2021 Census Data. However, the data used in the Commission's updated environmental justice analysis (as provided in Appendix F of the EA) was 2019 data (the most recent data available at the time of issuance).

identified a total of 6 census block groups that qualify as environmental justice communities with minority populations only. Additionally, using the Commission's current threshold for identifying low-income populations, staff identified 7 census block groups that qualify as environmental justice communities with low-income populations only. Further, using current thresholds, staff identified 5 census block groups that qualify as environmental justice communities with both minority and low-income populations. Overall, staff has identified a total of 18 census block groups (out of 35 total affected census block groups) that qualify as environmental justice communities (6 with minority populations, 7 with low-income populations, and 5 with both minority and low-income populations). Appendix B of this order, which is an updated version of the EA's Appendix F, highlights the 18 environmental justice census block groups that will be affected by the proposed amendment activities. Out of 120 stream crossings, 64 crossings will occur in environmental justice communities. Out of 8 nighttime crossings, 6 will occur in environmental justice communities. One of the route adjustments will occur in an environmental justice community.

61. In addition to the low-income and minority communities referenced in EPA's comments, some commenters note that the Amendment Project would disproportionately affect elderly residents.¹¹⁰ Appendix B of this order includes census block group data for elderly populations (over age 64) within impacted census block groups. There are 17 block groups (out of a total of 35 affected block groups) within the project area that have a higher percentage of individuals over the age of 64 than the county level. For purposes of evaluating any potential adverse impacts on elderly populations, the following project-related impacts are considered for elderly populations alongside environmental justice communities with minority and low-income populations.

62. EPA recommends that potential adverse impacts in areas where there are environmental justice concerns be addressed. Section 4.1 of the EA described project-related construction activities and air and noise impacts on environmental justice communities. Beyond the impacts discussed in the EA, we also note that the Amendment Project may have temporary, minor traffic, visual, and socioeconomic impacts on environmental justice communities. All of these potential impacts on environmental justice communities (as well as on elderly individuals) are discussed below. Environmental justice concerns are not present for other resource areas, such as geology, wetlands, and wildlife, due to the minimal overall impact the Amendment Project will have on these resources and the absence of any specific connection between those resources and environmental justice communities.

¹¹⁰ See, e.g., John Surr's August 27, 2021 Comments; Kathy E. and James T. Chandler's September 14, 2021 Comments at 6.

63. As to air impacts, the EA states that air emissions from the trenchless crossings would be slightly higher than the emissions from the originally certificated open-cut crossings.¹¹¹ However, these emissions, which will be from construction equipment, will be temporary and localized and will occur only during construction. Mountain Valley estimated that the average length of time required for a conventional bore crossing (including pit excavation and boring) would be about 18 days.¹¹² Therefore, the duration of increased air emissions will be, on average, 18 days for each crossing. During that time, there will be minor temporary impacts on localized air quality due to increases in criteria pollutants, volatile organic compounds, and fugitive dust in the areas of trenchless crossing activity. Dust suppression techniques, such as watering the right-of-way and working area, may be used as necessary in construction zones near residential and commercial areas to minimize the impacts of fugitive dust on sensitive areas. Overall, impacts on environmental justice communities due to increased air emissions will be minor and temporary. Air quality impacts and mitigation are discussed further in section B.6.1 of the EA.¹¹³

64. As to noise impacts, as discussed in the EA, the Amendment Project will have two distinct phases of construction that will generate high levels of noise: 1) excavation of entry and exit bore pits; and 2) active boring.¹¹⁴ At most of the crossing locations, noise impacts will only occur during the day. However, eight crossings may include 24-hour boring operations (6 of which are located within census block groups containing environmental justice communities). As required by Environmental Condition 10, all landowners within 0.5 miles of nighttime trenchless crossing activities will be notified prior to the start of these activities. In addition, as required by Environmental Condition 11, Mountain Valley will monitor noise levels, document the noise levels in the weekly status reports, and restrict the noise attributable to nighttime construction activities associated with the trenchless crossings to no more than an Ldn of 55 dBA, or no more than a 10 dB increase over background levels where existing noise levels exceed 55 dBA Ldn, at any noise sensitive areas. Impacts on environmental justice communities due to increased construction noise will be temporary and will last the duration of construction, an average of 18 days at each crossing. Noise impacts and mitigation are discussed in section B.6.2 of the EA.¹¹⁵

¹¹¹ EA at 68.

¹¹² *Id.* at 56-57

¹¹³ *Id.* at 67.

¹¹⁴ *Id.* at 57.

¹¹⁵ *Id.* at 75.

65. With regard to traffic impacts, as discussed in the FEIS, construction vehicles will use access roads that have been approved for use by the certificated Mountain Valley Pipeline Project, as well as local roads, which could result in a slight increase in traffic on local roads. As stated in the FEIS, Mountain Valley will minimize impacts on local road users by following the measures outlined in its project-specific Traffic and Transportation Management Plans. Impacts on environmental justice communities due to increased traffic will be temporary and will last the duration of construction, an average of 18 days for each crossing. Traffic impacts and mitigation are discussed further in section 4.9.1.5 of the FEIS.¹¹⁶

66. As to visual impacts, temporary visual impacts will occur as a result of the presence and movement of vehicles, equipment, and construction crews, vegetation clearing between the bore pits, and exposure of bare soils. As stated in the EA, with the exception of a 0.13-acre temporary construction workspace, the Amendment Project will be located entirely within the certificated limits of disturbance, which currently consist of a disturbed right-of-way that has been under intermittent construction since 2018.¹¹⁷ For the trenchless crossings, visual impacts will generally be less than those associated with the previously approved open-cut crossings because boring equipment will be contained within the bore pits for most of the construction duration. Impacts on environmental justice communities due to impacts to visual resources will be temporary, mostly lasting the duration of construction. Impacts associated with vegetation clearing will last approximately 1-3 years until the disturbed area is revegetated. Visual impacts and mitigation are discussed further in section 4.9.1.10 of the FEIS.¹¹⁸

67. Impacts on socioeconomic resources within environmental justice communities (e.g., population, housing demand, and the provision of community services such as police, fire, and schools) will be minor and temporary, as there will be a negligible change from current conditions during construction and no change during operation. The temporary flux of workers/contractors into the community could increase the demand for community services such as housing, police enforcement, and medical care. An influx of workers could also affect economic conditions and other community infrastructure. Impacts on environmental justice communities due to impacts on socioeconomic resources will be temporary, lasting the duration of construction. Socioeconomic impacts are discussed further in section 4.9 of the FEIS.¹¹⁹

¹¹⁶ FEIS at 4-361.

¹¹⁷ EA at 56.

¹¹⁸ FEIS at 4-287.

¹¹⁹ *Id.* at 4-348.

68. The air, noise, traffic, visual, and socioeconomic impacts discussed above could occur in any or all of the identified environmental justice communities (18 census block groups out of 35 total in the project area). The impacts associated with the Amendment Project will not involve the construction of any permanent, aboveground structures. Approximately 51% of the trenchless crossings and 1 of the route adjustments will take place in environmental justice communities. While the proposed route adjustments will result in a minor addition of 0.04 acre of operational impacts, overall, impacts from the Amendment Project will be temporary in nature. In addition, no permanent adverse impacts on environmental justice communities are anticipated from the Amendment Project.

69. In consideration of the updated census data, the limited scope of the proposed amendment activities, the environmental recommendations included as Environmental Conditions in this order, and the fact that the Amendment Project will result in no permanent adverse impacts, Commission staff concluded in the EA that the Amendment Project would not result in a disproportionately high and adverse impact on environmental justice populations.¹²⁰ We agree.

70. EPA also recommends continued community outreach. The EA describes outreach efforts conducted for the Amendment Project.¹²¹ Mountain Valley communicated with affected landowners (including those in environmental justice communities) via telephone, U.S. mail, e-mail, and in-person meetings. Mountain Valley is responsible for notifying all landowners within 0.5 miles of nighttime trenchless crossing activities prior to the start of these activities.¹²² We note that the Office of Public Participation (OPP) can assist with navigating Commission activities relating to the Amendment Project. OPP staff can provide ongoing process information and respond to questions regarding the proceeding.¹²³

¹²⁰ EA at 56-57.

¹²¹ *Id.* at 56.

¹²² *Id.* at 57.

¹²³ The public may contact OPP at (202) 502-6595 or e-mail OPP@ferc.gov.

Miscellaneous

71. EPA also recommends that the EA provide estimated times for borehole completion and the estimated depth to bedrock/thickness of overburden, depth of the bore pits, saturated thickness of the drill pit, and duration of drilling.¹²⁴ We refer EPA to Appendix E of the EA, which contains the requested information.

72. EPA also recommends that the EA include latitude and longitude for the waterbody crossings and waterbody names on the included maps.¹²⁵ Commission staff will consider this recommendation when preparing future NEPA documents. However, for reference, we refer EPA to Appendix B of the EA, which contains U.S. Geological Survey topographic maps showing the location of each crossing.

b. National Park Service

73. While noting that it is more supportive of trenchless crossing methods than open-cut methods, the National Park Service (NPS) expresses concerns regarding sedimentation and inadvertent releases and/or spills of fluids and hazardous materials associated with seven trenchless crossings (F-014, F-015, F-016, F-021, F-022, F-027, and F-107) within the Greenbrier River watershed.¹²⁶ The NPS also notes concern regarding that adequacy of Mountain Valley's implementation of erosion and sediment control measures to minimize any sedimentation that could result from the trenchless crossings.

74. As stated in the EA, during construction, Mountain Valley will implement the construction practices outlined in its Procedures and its *Direct Pipe® and Horizontal Directional Drilling Contingency Plan* to reduce the potential for impacts to occur. Any additives used in the drilling fluids will be non-petrochemical-based, non-hazardous, and National Sanitation Foundation-60 compliant. Additionally, ecotoxicity data will be provided to Commission staff for review and approval prior to its use. Thus, as stated in the EA, any additives used are not expected to negatively impact waterbodies.¹²⁷ In addition, as stated in the EA, to avoid and reduce potential impacts on surface waterbodies, Mountain Valley will implement measures within its SPCC, including locating hazardous material storage and equipment refueling activities at least 100 feet

¹²⁴ EPA's September 14, 2021 Comments, Enclosure at 3.

¹²⁵ *Id.*, Enclosure at 1.

¹²⁶ NPS's September 13, 2021 Comments at 2.

¹²⁷ EA at 37.

from waterbodies.¹²⁸ These measures will reduce the potential for hazardous materials to enter waterbodies.

75. The NPS requests additional information on the small amounts of bentonite or polymer-based lubricant that would be used in certain trenchless crossings.¹²⁹ As stated in the FEIS, bentonite is a naturally occurring clay mineral that can absorb up to 10 times its weight in water, and bentonite-based drilling fluid is a non-toxic, non-hazardous material that is also used to construct potable water wells throughout the United States.¹³⁰ As stated in the EA, Mountain Valley will submit a request for Commission staff approval prior to using any polymer-based lubricants.¹³¹ Unless and until Mountain Valley makes such a request, the Commission cannot provide additional information about polymers. Any request from Mountain Valley to use bentonite or polymer-based lubricants will be publicly available on the project docket, and Commission staff will ensure that the NPS is sent a copy of any request to use polymer-based lubricants at the seven trenchless crossings within the Greenbrier River watershed. In considering the request, staff will consider ecotoxicity data and other factors. With these measures in place, the EA concludes that these materials are not expected to negatively impact waterbodies.¹³² We agree.

c. Bureau of Indian Affairs

76. The Bureau of Indian Affairs notified the Commission that Wetzel County, West Virginia, is within an area of historic interest to the Osage Nation.¹³³ Commission staff reached out to the Osage Nation to determine if it had any concerns regarding the Amendment Project. The Osage Nation did not respond.

¹²⁸ *Id.* at 34.

¹²⁹ NPS's September 13, 2021 Comments at 2.

¹³⁰ FEIS at 4-148.

¹³¹ EA at 36.

¹³² *Id.* at 37.

¹³³ Bureau of Indian Affairs' September 20, 2021 Comments.

d. **Virginia Department of Environmental Quality and other Virginia state agencies**

77. The Virginia Department of Environmental Quality (Virginia DEQ) recommends coordination with FWS if tree removal is proposed.¹³⁴ As noted in the EA, all tree clearing has already occurred.¹³⁵ The Virginia DEQ also recommends continued coordination with FWS for the Clover Hollow Cave Conservation Site and avoidance of the Jacks Creek Conservation Site.¹³⁶ As stated in the FEIS, both of these sites will be avoided.¹³⁷ For the Roanoke River crossing sites (H-015, H-016, and H-019), the Virginia DEQ recommends adherence to erosion and sediment control plans, adherence to time-of-year restrictions for in-stream work, adherence to the SPCC and unanticipated discoveries plan for cultural resources, coordination with FWS, and water quality monitoring of these streams.¹³⁸

78. Mountain Valley will implement erosion and sediment control measures to minimize any sedimentation that could result from the trenchless crossing methods. These measures were developed in coordination with Virginia DEQ and the West Virginia Department of Environmental Protection (West Virginia DEP). As explained in the EA, the trenchless crossing methods will avoid in-stream work.¹³⁹ Mountain Valley will adhere to its SPCC and will also follow its *Plan for Unanticipated Historic Properties and Human Remains*. Additionally, as discussed further below, the Commission will not authorize Mountain Valley to proceed with construction of the Amendment Project until ESA consultation with FWS is complete.

79. The Virginia DEQ recommends coordination with the Virginia DCR Karst Program if caves are encountered during trenchless crossings.¹⁴⁰ As provided in its *Karst Mitigation Plan*, Mountain Valley must contact Virginia DCR upon discovering any previously undocumented karst features. Virginia DEQ also recommends that Mountain Valley coordinate with Virginia DCR regarding the potential for surface stream loss at

¹³⁴ Virginia DEQ's September 8, 2021 Comments, attach. A at 4.

¹³⁵ EA at 45.

¹³⁶ Virginia DEQ's September 8, 2021 Comments, attach. A at 4.

¹³⁷ FEIS at 4-282.

¹³⁸ Virginia DEQ's September 8, 2021 Comments, attach. A at 4-5.

¹³⁹ EA at 41.

¹⁴⁰ Virginia DEQ's September 8, 2021 Comments, attach. A at 5-6.

certain crossing locations in karst terrain.¹⁴¹ Because Mountain Valley's *Karst Mitigation Plan* does not include this specific requirement, Environmental Condition 12 requires that Mountain Valley update its *Karst Mitigation Plan* to include coordination with Virginia DCR on crossing locations with high potential for surface stream loss, prior to construction.

80. A number of Virginia state agencies indicate that certain state permits would be required for the amendment activities.¹⁴² The Virginia Marine Resources Commission (Virginia MRC) notes that a subaqueous permit from Virginia MRC would be required. Virginia DEQ states that development within a Special Flood Hazard Area must be permitted and comply with the location floodplain ordinance. Virginia DEQ also notes that Mountain Valley would be required to dispose of construction waste in accordance with the Virginia Hazardous Waste Management Regulations. The Virginia Department of Transportation (Virginia DOT) indicates that Mountain Valley should monitor Virginia DOT's paving schedule for updates during construction, and that a land use permit would be required for operations within Virginia DOT rights-of-way. With respect to local and state permits applicable to Amendment Project activities, the Commission encourages applicants to file for and receive the local and state permits, in good faith, as stewards of the community in which the facilities are located.¹⁴³

e. Franklin County, Virginia

81. Franklin County expresses concern regarding the need for a spill plan, impacts on Smith Mountain Lake, stormwater management, erosion and sediment controls, introduction of aquatic invasive species, and protection of cultural resources, roadways, visual resources, and water supply wells.¹⁴⁴

82. As discussed above, Mountain Valley will implement its SPCC, which includes preventive measures such as personnel training, equipment inspection, and refueling procedures, to reduce the likelihood of spills, as well as mitigation measures such as containment and cleanup to minimize potential impacts should a spill occur. As discussed in the FEIS, the Mountain Valley Pipeline Project route is 1.9 miles from Smith

¹⁴¹ *Id.*

¹⁴² *Id.*, attach. A at 1-14.

¹⁴³ See, e.g., *Transcontinental Gas Pipe Line Co., LLC*, 172 FERC ¶ 61,036, at P 21 (2020).

¹⁴⁴ Franklin County's September 13, 2021 Comments.

Mountain Lake.¹⁴⁵ Mountain Valley will continue to implement erosion and sediment control measures to minimize any sedimentation that could result from the trenchless crossings. As stated in the EA, the trenchless crossings will result in reduced in-stream sedimentation as compared to the in-water construction previously approved for the Mountain Valley Pipeline Project, and will avoid in-stream work,¹⁴⁶ thereby avoiding the introduction of aquatic invasive species. Protection of cultural resources, roadways, visual resources, and water supply wells were addressed in the FEIS (sections 4.10-cultural resources, 4.8-roadways and visual resources, and 4.3-water resources) and EA (sections B.5-cultural resources and B.2-water resources).

f. Cumulative Impacts

83. West Virginia Rivers Coalition states that the EA should include a cumulative impacts analysis (including cumulative sediment loads within the streams) of crossing multiple segments of the same stream and multiple tributaries within a watershed.¹⁴⁷ Similarly, Allegheny-Blue Ridge Alliance states that the Commission must analyze the cumulative environmental effects of all of the proposed crossings and the combined effect of trenchless crossings and open-cut dry crossings.¹⁴⁸ As stated above, the analysis in the EA was conducted pursuant to CEQ's 2020 regulations. Consistent with those regulations, the EA does not include a section labelled "cumulative impacts" but does consider environmental trends and planned activities.¹⁴⁹ A cumulative impacts analysis, included in the FEIS, concluded that, when added to other past, present, and reasonably foreseeable future actions, the Mountain Valley Pipeline Project would not have significant adverse cumulative impacts on environmental resources within the geographic scope affected by the Mountain Valley Pipeline Project.¹⁵⁰ The EA concludes that the amendment activities would reduce impacts on most environmental resources, including

¹⁴⁵ FEIS at 4-142.

¹⁴⁶ EA at 41.

¹⁴⁷ West Virginia Rivers Coalition's September 13, 2021 Comments at 2.

¹⁴⁸ Allegheny-Blue Ridge Alliance, et al.'s September 13, 2021 Comments at 50-57.

¹⁴⁹ EA at 19-22.

¹⁵⁰ FEIS at 4-622.

minimizing direct impacts on surface water resources, wetlands, aquatic resources, and riparian habitat.¹⁵¹ Accordingly, there is no reason to revise the analysis in the FEIS.

84. Dr. Carl Zipper contends that it is reasonably foreseeable that the Mountain Valley will construct a fourth compressor station, in Ellison, Virginia, and that the Commission should analyze the potential impacts from a fourth compressor station.¹⁵² Mountain Valley has not proposed a fourth compressor station. Prior to pursuing any future expansion plans, such as adding an additional compressor station, Mountain Valley would have to file a new application with the Commission. The Commission would conduct a separate environmental review under NEPA, and the public would have the opportunity to comment on the proposed action.

g. Geology

85. Several commenters express concern that geotechnical borings were not collected at all of trenchless crossing locations.¹⁵³ The need for site-specific characterization of the subsurface material at each individual crossing is discussed in section B.1 of the EA. The EA states that Mountain Valley will use available geologic data based on its experience with its already completed trenchless crossings,¹⁵⁴ as well as site-specific observations during excavation of the bore pits. Mountain Valley will also assess drill cuttings from the bores and modify boring tools and techniques, if needed.¹⁵⁵ Mountain Valley provided boring logs and/or subsurface geotechnical information for crossings C-035 and G-013 (guided conventional bores), H-017, H-031, I-121, and C-022 (guided conventional bores - Elk River), and F-021 (Direct Pipe® - Greenbrier River).¹⁵⁶

86. Although geotechnical bores were not collected for all conventional bore crossings, conventional bore construction is suitable for construction through a wide variety of materials, as is evidenced by the fifty-four trenchless crossings that have been successfully completed for the Mountain Valley Pipeline Project. The conventional bore crossings proposed in the amendment application range between 20 and 405 feet in

¹⁵¹ EA at 22.

¹⁵² Carl Zipper's September 13, 2021 Comments at 4.

¹⁵³ *See, e.g.*, Mothers Out Front Roanoke's September 13, 2021 Comments.

¹⁵⁴ Mountain Valley has already completed trenchless crossings that were approved through the variance process.

¹⁵⁵ EA at 23-24.

¹⁵⁶ *Id.* at 23-29.

length. The bore pits will be excavated before any boring is initiated, and this work will inform the operators if site-specific conditions dictate a change of approach. Given the minimal length of the proposed crossings, and because the conventional bore is a horizontal (rather than steerable) construction method, there is minimal risk that subsurface conditions will differ between the entry and exit pit.

87. Kirk Bowers asserts that the probability of bore failure is high due to the lack of geotechnical analysis.¹⁵⁷ As stated in the EA, the major advantage of conventional auger borings over other boring technologies is that the drill pipe is installed as the boring is advanced and the pipeline is installed immediately behind the bore pipe once the boring is completed, leaving no unsupported borehole. Because the borehole is continuously supported by pipe throughout the process, the risk of bore collapse is minimized. Accordingly, the circulation of drilling fluids to transport drill cuttings and to support the wall of the borehole is not necessary for the drilling of conventional bores. If the conventional auger bore encounters excessively hard rock, an air-driven rock hammer drill can be deployed at the bore face, as needed. Boulders and cobbles up to one-third of the diameter of the installed pipe can be accommodated during the conventional auger borings.¹⁵⁸

88. Mr. Bowers asserts that additional information on rock era, formation, and properties, as well as soil properties, for each trenchless crossing location is necessary.¹⁵⁹ The EA includes a discussion regarding the feasibility of using trenchless crossing methods through subsurface material that may contain boulders, mixed facies (overburden and bedrock along the drill path), flowing/heaving sand, and artesian groundwater flow.¹⁶⁰ Consequently, additional detail is not necessary.

89. Virginia State Delegates Chris Hurst, Rodney Willett, Patrick Hope, Kaye Kory, and Betsy Carr, and State Senators John Edwards, Scott Surovell, and Ghazala Hashmi express concern with potential blasting associated with creation of the bore pits.¹⁶¹ As stated in section B.1 of the EA, in the event that bedrock is encountered that cannot be

¹⁵⁷ Kirk Bowers's September 13, 2021 Comments at 4.

¹⁵⁸ EA at 9.

¹⁵⁹ Kirk Bowers's September 13, 2021 Comments at 4.

¹⁶⁰ Soil information, as obtained from the Natural Resources Conservation Service, is discussed briefly in the EA at 23. Bore pit underlying geologic formation and rock type is included in appendix E of the EA. Additional information on surficial and subsurface geology and soils is described in the FEIS.

¹⁶¹ Virginia State Delegates and Senators' September 13, 2021 Comments at 1.

excavated by standard construction practices and blasting becomes necessary, Mountain Valley will conduct any blasting required to establish bore pits according to its *General Blasting Plan*,¹⁶² which was reviewed and approved as part of the certificated Mountain Valley Pipeline Project and has been used successfully on numerous occasions during construction of the overall Mountain Valley Pipeline Project.

90. Some commenters express concern regarding potential damage to karst from the trenchless crossings.¹⁶³ Five of the trenchless crossings (G-017, G-023, G-024, H-017, and H-020-north side bore pit only) will occur in areas that may include karst terrain. Mountain Valley's *Karst Mitigation Plan* requires that karst inspectors be present in karst areas during construction to surveil potential karst feature formation. Per Mountain Valley's *Karst Mitigation Plan*, if it is determined that any karst feature has connectivity to the subterranean environment and the potential to impact groundwater, mitigation would be conducted in conjunction with recommendations from the appropriate state agency (Virginia DCR's Karst Program or West Virginia DEP). As stated previously, and given the limited length of crossings in karst areas (133 to 360 feet), the EA concludes that when a pit-to-pit trenchless crossing method is used through karst terrain, any potential karst voids are observable during excavation of the pits on either side of the crossing and immediate mitigation measures can be implemented.¹⁶⁴

91. Commenters also express concern that drilling-related fluids (bentonite) associated with the bored crossing of karst areas, such as the crossing of Sinking Creek, could contaminate downstream groundwater, block karst conduits, and impact groundwater flow.¹⁶⁵ As identified in appendix A of the EA, Sinking Creek (crossing number G-023) will be crossed using a conventional bore. As described in the EA, Mountain Valley may use small amounts (typically 1 to 2 gallons per minute) of non-toxic, non-hazardous bentonite clay or polymer-based lubricant on the cutting head and exterior casing of conventional bores to reduce friction; however, the circulation of larger volumes of drilling fluids to transport drill cuttings and support the wall of the borehole is not necessary. Further, Mountain Valley must submit a request to Commission staff for the

¹⁶² EA at 26.

¹⁶³ See, e.g., Lynda Majors's September 13, 2021 Comments (proving comments of Dr. Ernst Kastning).

¹⁶⁴ EA at 23, 32, 97.

¹⁶⁵ See, e.g., Lynda Majors's September 13, 2021 Comments (providing comments of Dr. Ernst Kastning).

use of any polymer-based lubricants prior to their use.¹⁶⁶ Therefore, groundwater contamination resulting from conventional bores is unlikely.

92. Furthermore, karst conduits will not likely be blocked by drilling fluids given the limited volume of bentonite or polymer-based lubricant, if any, that will be used. Should the pipeline intersect a karst conduit, it is expected that groundwater would reroute around the pipeline, resulting in no significant impact to the overall system. As described throughout the EA and the FEIS, the presence of karst terrain was considered extensively during staff's review of Mountain Valley's proposals, and staff concluded in section B.2.1 of the EA that it does not anticipate long-term or significant impacts on groundwater resources as a result of construction or operation of the Amendment Project.¹⁶⁷ We agree.

93. Additionally, Mountain Valley's Karst Hazard Assessment did not identify karst features within 150 feet of the proposed workspace for the Sinking Creek crossing, and Mountain Valley's Karst Specialist team noted during preliminary studies that Sinking Creek insurges approximately 3 miles downstream of the proposed crossing.¹⁶⁸ There is no evidence in the record that there is mature karst development in the near surface, or high communication between surface and groundwater, at the Sinking Creek crossing location.

94. Commenters also express concern that the steep slope and potential for seismic activity at the Sinking Creek crossing could lead to a failure.¹⁶⁹ Mountain Valley conducted a site-specific evaluation of the crossing and assessed the feasibility of successfully completing it. Staff has reviewed the crossing and concluded that it is feasible. We concur.

h. Water Resources

95. Several commenters argue that the EA failed to fully assess and identify drinking water wells and aquifers impacted by the Amendment Project.¹⁷⁰ We disagree. Potential

¹⁶⁶ EA at 36.

¹⁶⁷ *Id.* at 33.

¹⁶⁸ Mountain Valley's December 22, 2016 Filing in Docket No. CP16-10-000, at attach. E.

¹⁶⁹ *See, e.g.*, Lynda Majors's September 13, 2021 Comments (providing comments of Dr. Ernst Kastning).

¹⁷⁰ *See, e.g.*, Elizabeth Struthers Malbon's September 13, 2013 Comments at 1.

issues related to drinking water wells are discussed in section B.2.1 of the EA. As stated in the EA, groundwater withdrawal during bore pit dewatering could potentially result in short-term, water-level drawdown of shallow groundwater in wells within the vicinity of the bore pits, and in a temporary reduction in the discharge rate of nearby springs. However, any groundwater-level drawdown and related impacts will be short-term and temporary, and groundwater levels will be expected to recover to non-pumping conditions following construction. In addition, Mountain Valley must comply with its *Water Resources Identification and Testing Plan* for identifying and assessing water supplies in the vicinity of the Amendment Project. This plan outlines Mountain Valley's commitments to protecting the drinking water of nearby residents, including evaluating any complaints and identifying a suitable solution with the landowner.¹⁷¹

96. Mary Coffey asserts that an EIS is needed to determine whether there are water wells or springs within 150 feet of the Amendment Project.¹⁷² As discussed above, Mountain Valley stated that, although no known public or private groundwater wells or springs are located within 150 feet of the Amendment Project, private wells could be located within 150 feet of the proposed bore pits at two locations.¹⁷³ Consistent with its *Water Resources Identification and Testing Plan*, Mountain Valley must identify, assess, and repair (as necessary) water supplies (including public and private wells) in the vicinity of the Amendment Project.

97. Elizabeth Struthers Malbon states that the EA's analysis of bore pit dewatering is insufficient as it is based on Mountain Valley's limited experience and poor environmental record.¹⁷⁴ Bore pit dewatering is discussed in sections A.5.1, B.2.1 (related to groundwater systems and drinking water), B.2.2 (related to surface waters), B.2.3 (related to wetlands), B.3.1 (related to aquatic resources), B.3.3 (related to wildlife), B.3.5 (related to threatened and endangered species), and B.6.2 (related to noise) of the EA.¹⁷⁵ A qualitative assessment of dewatering conditions is provided based on previously completed bores. As stated in the EA, it is expected that many of the bore pits will not require dewatering except for in stormwater and/or seasonally high water-table conditions.¹⁷⁶ Several commenters assert that the number of bore pits that will

¹⁷¹ EA at 28-31.

¹⁷² Mary Coffey's September 13, 2021 Comments at 4.

¹⁷³ See *supra* P 39.

¹⁷⁴ Elizabeth Struthers Malbon's September 13, 2013 Comments at 1.

¹⁷⁵ EA at 11, 27-33, 35, 39, 42, 46, 52, 87-88.

¹⁷⁶ *Id.* at 28.

require dewatering should be quantified, and that the volume of dewatering, pumping rates, and sites that will require 24-hour pumping should be disclosed.¹⁷⁷ Since water infiltration rates into the bore pits will fluctuate based on stormwater inputs and groundwater levels at the time of construction, locations that will require dewatering, including 24-hour pumping, and pumping rates, cannot be identified in advance. Any dewatering associated with the Amendment Project will be completed in accordance with Mountain Valley's Procedures, as well as West Virginia DEP and Virginia DEQ specifications.

98. Commenters also request further information on where water collected by the dewatering devices would go,¹⁷⁸ as well as information on the size and location of the dewatering devices.¹⁷⁹ As explained in the EA, water removed from the bore pits will be discharged through sediment removal devices, such as filter bags and hay bale-lined dewatering structures,¹⁸⁰ and directed to vegetated land surfaces (where available) to control erosion and runoff.¹⁸¹ The water will pass through a pumped-water filter bag within an appropriately-sized dewatering structure.¹⁸² Any water pumped from the bore pits during dewatering activities will be released back into the same drainage basin and will not be a consumptive use of groundwater from the basin, or a permanent impact on surface water flow.¹⁸³

99. William Limpert asserts that flow channel erosion from dewatering structures could lead to sedimentation entering streams and wetlands.¹⁸⁴ As discussed in section B.2.2 of the EA, Mountain Valley will continuously monitor the structures, flow rates, and volumes of dewatering so as not to cause erosion, compromise the dewatering

¹⁷⁷ See, e.g., Mary Coffey's September 13, 2021 Comments at 2.

¹⁷⁸ See, e.g., Preserve Salem's September 13, 2021 Comments at 5.

¹⁷⁹ West Virginia Rivers Coalition's September 13, 2021 Comments at 2.

¹⁸⁰ See Mountain Valley's December 5, 2017 Filing in Docket No. CP16-10-000 at app. C-2_ESCP VA AS&S_113017_Part 1.pdf & app. C-2_ESCP VAAS&S_113017_Part 2.pdf for filter bag and dewatering structure typical drawings.

¹⁸¹ EA at 33.

¹⁸² *Id.* at 42.

¹⁸³ *Id.* at 33.

¹⁸⁴ William Limpert's September 13, 2021 Comments at 13.

structures, or result in sediment-laden water entering a sensitive resource.¹⁸⁵ Mr. Limpert also claims that spoil piles from the bore pits could erode and contribute to sedimentation of streams and wetlands.¹⁸⁶ As discussed in section B.2.2 of the EA, stockpiled spoils will be stored away from existing slopes, in flatter locations or along ridges, and placed such that they do not exceed a stable angle of repose. Mountain Valley will implement the Amendment Project's *Erosion and Sediment Control Plan* to enhance stockpile stability and protect environmental resources downstream of bore pits and stockpiles. Such measures will include installation of silt fences or super silt fences and temporary mulching of stockpiles. Any spoil remaining following completion of the bores and backing filling of the bore pits will be evenly spread on the right-of-way. Thus, the risk of any off-right-of-way sedimentation is low.¹⁸⁷

100. Preserve Franklin County states that the Commission, Corps, and Virginia DEQ should coordinate with the Federal Emergency Management Agency regarding hazards associated with natural gas pipeline development and construction in floodplain areas.¹⁸⁸ As stated in the FEIS, seasonal and flash flooding hazards are a potential concern where proposed pipeline will cross or be near major streams and small watersheds.¹⁸⁹ Although flooding itself does not generally present a risk to pipeline facilities, bank erosion and/or scour could expose the pipeline or cause sections of pipe to become unsupported. All pipeline facilities are required to be designed and constructed in accordance with 49 C.F.R. § 192. These regulations include specifications for installing the pipeline at a sufficient depth to avoid possible scour at waterbody crossings.

101. To minimize or prevent impacts resulting from flash flooding during construction, Mountain Valley will remove any equipment or loose material from the affected area prior to any anticipated significant rain event. Additionally, Mountain Valley will implement erosion and sedimentation control measures, such as installing trench breakers and water bars, to inhibit water flow along the trench and right-of-way. Upon completion of construction, Mountain Valley will restore the ground surface as closely as practicable to original contours and re-establish vegetation to facilitate restoration of pre-construction overland flow.¹⁹⁰ In addition, installation of the pipeline via trenchless crossing methods

¹⁸⁵ EA at 35.

¹⁸⁶ William Limpert's September 13, 2021 Comments at 5.

¹⁸⁷ EA at 34.

¹⁸⁸ Preserve Franklin County's September 13, 2021 Comments.

¹⁸⁹ FEIS at 4-138.

¹⁹⁰ *Id.*

will generally place the pipe deeper than an open-cut crossing and therefore, the pipeline will be less likely to be exposed by scour.

102. Kirk Bowers asks about the Virginia Department of Wildlife Resources' request that Mountain Valley maintain naturally vegetated buffers of at least 100 feet in width around wetlands and streams where practicable to minimize impacts on wildlife.¹⁹¹ All of the clearing and grading needed between the proposed bore pits was analyzed in the FEIS, as it would have also been required for open-cut crossings. As stated in the EA, trenchless crossings will result in less disturbance of the riparian areas adjacent to waterbodies and wetlands (i.e., the area between the bore pits and the waterbody or wetland) than open-cut crossings. Approximately 10.7 acres of riparian vegetation that would have been affected by the certificated open-cut dry crossings will remain undisturbed as a result of the change to trenchless crossing methods.¹⁹²

103. Mary Coffey asks how changing from open-cut crossings to trenchless crossings achieves equal or greater protection of resources.¹⁹³ As discussed in section A.5 of the EA, trenchless crossing methods avoid direct impacts associated with working directly within the sensitive resource. Trenchless crossing methods allow for uninterrupted existing streamflow and undisturbed wetland soils, thereby minimizing impacts. Additionally, trenchless crossings reduce in-stream sedimentation as compared to in-stream construction. Lastly, trenchless crossings avoid ground-disturbance associated with trenching and backfilling in wetlands, and reduce longer-term impacts by accelerating the post-construction revegetation period.¹⁹⁴ For all of these reasons, trenchless crossings provide a greater or equal protection of waterbodies and wetlands as compared to open-cut dry crossings.

i. Wetlands

104. Some commenters express concern regarding the Amendment Project's potential impacts to wetlands.¹⁹⁵ As stated in section B.2.3 of the EA, installing the pipeline across wetlands via trenchless methods avoids in-wetland construction and disturbance. As compared to the already certificated open-cut crossings, the Amendment Project would reduce impacts on wetlands by 4.2 acres. Bore pit dewatering could temporarily affect

¹⁹¹ Kirk Bowers's September 13, 2021 Comments at 7.

¹⁹² EA at 42 and 45.

¹⁹³ Mary Coffey's September 13, 2021 Comments at 3.

¹⁹⁴ EA at 8.

¹⁹⁵ See, e.g., William Limpert's September 13, 2021 Comments.

wetland hydrology and, consequently, wetland soils and vegetation. However, these effects will be minor and temporary, not unlike the natural within-season variability experienced by wetlands based on fluctuations in precipitation. To further reduce impacts on wetlands, Mountain Valley will implement measures in our *Upland Erosion Control, Revegetation and Maintenance Plan* and its Procedures, including the installation of erosion and sediment controls. Mountain Valley will also adhere to measures within its SPCC, including locating hazardous material storage and equipment refueling activities at least 100 feet from wetlands. We conclude that the Amendment Project will not have a significant impact on wetlands and will result in a reduction of the impacts on wetlands disclosed and analyzed in the FEIS.¹⁹⁶

105. Allegheny-Blue Ridge Alliance states that the EA fails to assess the impacts of borepit dewatering on wetlands.¹⁹⁷ As stated in the EA, bore pit dewatering could temporarily affect wetland hydrology and, consequently, wetland soils and vegetation, however, these effects will be minor and temporary.¹⁹⁸

106. Allegheny-Blue Ridge Alliance also asserts that the EA must examine the unique nature of wetlands on Bent Mountain in Virginia in order for the Corps to satisfy its responsibilities under section 404 of the Clean Water Act.¹⁹⁹ The Corps regulates wetlands under section 404 of the Clean Water Act and section 10 of the Rivers and Harbors Act, and EPA shares responsibility for administering and enforcing the section 404 program. Wetland activities under Section 401 of the Clean Water Act are delegated to the appropriate state agencies: Virginia DEQ and West Virginia DEP. Commission staff provided an analysis of wetland impacts in the EA and concluded that the trenchless crossings would reduce impacts on wetlands as compared to open-cut crossings. The Commission received no specific information from the various agencies that regulate wetlands that Bent Mountain wetlands possess any unique features that require additional analysis.

j. Threatened and Endangered Species

107. Commenters express concern that the trenchless crossings would cause harm to the upland headwaters, springs, and spawning grounds for endangered Roanoke

¹⁹⁶ See EA at 38-39.

¹⁹⁷ Allegheny-Blue Ridge Alliance, et al.'s September 13, 2021 Comments at 54-55.

¹⁹⁸ EA at 39.

¹⁹⁹ Allegheny-Blue Ridge Alliance, et al.'s September 13, 2021 Comments at 57-61.

loggerch.²⁰⁰ Further, commenters express concern that the Amendment Project would impact the endangered candy darter.²⁰¹

108. On July 10, 2017, the Commission initiated formal consultation with FWS under Section 7 of the ESA for the certificated Mountain Valley Pipeline Project. FWS issued a BO on November 21, 2017. In 2020, the Commission reinitiated Section 7 consultation to evaluate the impacts on the newly listed candy darter as well as new and additional impacts that occurred since the 2017 BO. FWS issued a new BO on September 4, 2020.

109. The EA concludes that the Amendment Project activities would not alter the effects to federally listed species determinations made as part of the 2020 ESA section 7 consultation process, or the analysis or conclusions in the 2020 BO.²⁰² On June 4, 2021, Commission staff requested FWS's concurrence with staff's determination that the changes proposed in the amendment application would not alter the effects determinations made in the 2020 consultation process. On January 18, 2022, FWS provided its concurrence that the Amendment Project would not alter the effects determinations made in the 2020 consultation process.²⁰³ However, on February 3, 2022, the Fourth Circuit vacated FWS's 2020 BO.²⁰⁴ Therefore, as explained further below, Mountain Valley will not be authorized to proceed with construction of the Amendment Project until FWS issues a new or revised BO for the Mountain Valley Pipeline Project or ESA consultation for the Amendment Project is otherwise complete.

110. We nevertheless note that, as stated in the EA, the trenchless crossing methods would reduce the potential for any direct impacts on streams and reduce impacts on stream banks and riparian areas.²⁰⁵ We agree with Commission staff's conclusion that

²⁰⁰ See, e.g., Preserve Salem's September 13, 2021 Comments at 3.

²⁰¹ See, e.g., Virginia State Delegates and Senators' September 13, 2021 Comments at 1.

²⁰² EA at 48-49.

²⁰³ See Commission staff's January 19, 2022 Memo to the record (providing FWS's January 18, 2022 concurrence).

²⁰⁴ *Appalachian Voices v. U.S. Dep't of the Interior*, 25 F.4th 259.

²⁰⁵ EA at 53.

any impacts on streams containing federally listed species would be less than those described in the FEIS.²⁰⁶

k. Cultural Resources

111. Kathy and James Chandler assert that the spring box area (crossing H-046) is culturally significant.²⁰⁷ However, there is no evidence in the project docket to support the claim that the spring box area has historical or cultural significance.

112. The Hale Cabin (Architectural Site 80-5677-6) is a contributing element to the Bent Mountain Rural Historic District, located about 97 feet away from the spring box area crossing H-046. The EA stated that “[t]he Hale Cabin was fenced and would be avoided and monitored during construction.”²⁰⁸ The EA further indicated that all project-related impacts on the Bent Mountain Rural Historic District will be mitigated in accordance with a Treatment Plan approved by Commission staff and the Virginia State Historic Preservation Office (SHPO).²⁰⁹

113. Kathy and James Chandler also state that the historic Green Hollow Road is a contributing resource to the Bent Mountain Apple Orchard Rural Historic District and is culturally significant.²¹⁰ The National Register of Historic Places (NRHP) Registration Form for the Bent Mountain Apple Orchard Rural Historic District indicated that “[a] remnant of the historic road network is visible at the entrance of the Hale Homestead (DHR ID #: 080-5731-0013) on Green Hollow Road.”²¹¹ Green Hollow Road is illustrated on maps in the NRHP Registration Form, as are all local roads within the boundaries of the historic district. However, as stated in the EA, Green Hollow Road itself is not listed as a contributing resource to the Bent Mountain Apple Orchard Rural Historic District.

²⁰⁶ See *id.* at 54.

²⁰⁷ Kathy and James Chandler’s September 14, 2021 Comments at 2.

²⁰⁸ EA at 66.

²⁰⁹ *Id.*

²¹⁰ Kathy and James Chandler’s September 14, 2021 Comments at 2.

²¹¹ Mountain Valley’s September 30, 2019 Filing in Docket No. CP16-10-000 at attach. JJ.

114. The Chandlers also express concern regarding a Native American burial site at crossing H-045.²¹² There is no evidence in the record to support the claim that there is a “Siouan” burial mound in the project right-of-way on the Chandler’s property. As indicated in the EA, Mountain Valley had its contractor examine this area and the contractor concluded that it was a bulldozed “push pile” of rock and debris.²¹³ Based on the record, Commission staff agrees. The Virginia SHPO and Preservation Virginia also did not file reports disputing Mountain Valley’s findings. Moreover, the site at issue is outside the limits of disturbance adjacent to crossing H-045.²¹⁴

115. The Chandlers assert that Mountain Valley is “discrediting” the natural cultural and historic resources on their property, which appears to be located within the boundaries of the Bent Mountain Apple Orchard Rural Historic District.²¹⁵ As noted in the EA, Mountain Valley has implemented a Treatment Plan, approved by Commission staff and the Virginia SHPO, to mitigate for project-related impacts on the historic district.²¹⁶

116. Lois Martin states that there may be additional archaeological sites that were not recorded during cultural resource surveys, and that contractors hired by Mountain Valley to complete cultural resource surveys inherently have a conflict of interest.²¹⁷ Contractors that conduct cultural resources inventories are selected in accordance with the Commission’s July 2017 *Guidelines for Reporting on Cultural Resources Investigations for Natural Gas Projects*.²¹⁸ Allowing project sponsors to select contractors to perform the surveys, consistent with the Commission’s guidelines, does not inherently present a conflict of interest: the contractors must meet certain professional standards and adhere to a code of ethics. Most selected contractors are members of the Register of Professional Archaeologists, an organization sponsored by the Society of Professional Archaeologists, Society for American Archaeology, Society for Historical Archaeology, Archaeological Institute of America, and the American Anthropological

²¹² Kathy and James Chandler’s September 14, 2021 Comments at 3.

²¹³ EA at 62.

²¹⁴ *Id.*

²¹⁵ Kathy and James Chandler’s September 14, 2021 Comments at 2-3.

²¹⁶ EA at 66.

²¹⁷ Lois Martin’s September 14, 2021 Comments.

²¹⁸ The guidelines are available at <https://www.ferc.gov/sites/default/files/2020-04/cultural-guidelines-final.pdf>.

Association. Under the terms of the Programmatic Agreement executed on December 15, 2017 for the Mountain Valley Pipeline Project, Mountain Valley's contractors must meet standards published by the NPS (at 36 C.F.R. part 61).²¹⁹ In addition, pursuant to the Programmatic Agreement, Mountain Valley must obtain any permits necessary to conduct cultural resources investigations. The record supports, as discussed in the EA, that the area of potential effect was inventoried for cultural resources, and all cultural resources within 150 feet of the pipeline centerline were identified.²²⁰

117. In conclusion, we find that Mountain Valley's proposed trenchless crossing of the spring box area (crossing H-046), proposed trenchless crossing H-045, and its adherence to the Bent Mountain Rural Historic District Treatment Plan will ensure that Mountain Valley's proposed action will result in no adverse impacts on the historic district or the contributing natural, cultural, and historic resources to the district.

l. Air Quality

118. Kathy and James Chandler state that emissions associated with the trenchless crossings would be higher than emissions associated with open-cut crossings and would be hazardous to community health.²²¹ As discussed in the EA, the Amendment Project will result in increased emissions compared to the certificated Mountain Valley Pipeline Project due to emissions from construction equipment.²²² A temporary reduction in ambient air quality will result from criteria pollutant emissions and fugitive dust generated by construction equipment; however, these emissions are not expected to be hazardous to the surrounding community. The increase in emissions will only occur during construction activities and will be dispersed over the 304 miles of the pipeline route. The EA concludes that there would not be significant impacts associated with construction emissions from the Amendment Project.²²³ We agree.

m. Noise

119. Kathy and James Chandler state that no noise abatement mitigation is discussed for specific crossings on or near their property and that many of the noise studies

²¹⁹ See Commission Staff's December 20, 2017 Letter in Docket No. CP16-10-000 (providing executed Programmatic Agreement).

²²⁰ EA at 62.

²²¹ Kathy and James Chandler's September 14, 2021 Comments at 5.

²²² EA at 69.

²²³ *Id.*

included in the EA are influenced by transportation noise.²²⁴ As stated in the EA, excavation activities will be limited to daytime hours, and noise associated with those activities would not differ significantly from the noise impacts assessed in the FEIS.²²⁵ However, the EA did assess noise levels, and recommend restrictions, associated with the proposed nighttime boring activities. No nighttime boring activities will occur on or adjacent to the Chandler property. To protect the public from noise during nighttime hours, Environmental Condition 11 requires Mountain Valley to restrict, at any noise sensitive areas, the noise attributable to nighttime construction activities associated with the trenchless crossings to no more than 55 dBA Ldn, or no more than a 10 dB increase over background levels where existing noise levels exceed 55 dBA Ldn. As discussed in the EA, Mountain Valley estimated background noise levels due to traffic and railroad noise at applicable noise sensitive areas using the U.S. Department of Housing and Urban Development (HUD) Day/Night Noise Level (DNL) Calculator. The HUD DNL Calculator is a nationally recognized standardized method used to estimate environmental noise from railroads and highways for housing projects.

n. Reliability and Safety

120. William Limpert expresses concern that the pipeline coating could be damaged during trenchless installation.²²⁶ As stated in the EA, pipe utilized at the trenchless crossings will have an abrasion resistant overlay (ARO) over the standard fusion-bonded epoxy (FBE) coating used on all pipe. ARO coatings are more durable than FBE coating and are designed to protect the pipe from abrasions and gouging. Mountain Valley states that ARO coatings are commonly used in trenchless crossings. Most locations will use a mill-applied Powercrete ARO coating. However, crews will coat welds with a field-applied Powercrete coating for crossings that require more than a standard joint of pipe, generally more than about 40 feet long. According to Mountain Valley, the field-applied Powercrete coating is designed for field application and will provide the same protection as a mill-coated ARO. Mountain Valley will check the pipe and weld coatings for pinhole defects immediately prior to installation in compliance with the U.S. Department of Transportation – Pipeline and Hazardous Materials Safety Administration safety regulations.²²⁷

²²⁴ Kathy and James Chandler's September 14, 2021 Comments at 5.

²²⁵ EA at 77.

²²⁶ William Limpert's September 13, 2021 Comments at 3-4.

²²⁷ See EA at 10.

121. Betty Werner states that the EA does not include enough information regarding ARO coatings, including how the pipe will be transported for coating.²²⁸ We disagree. Mountain Valley's proposed coating methods are standard construction techniques that have little to no effect on project impacts and so were not addressed at length in the EA. Contrary to Ms. Werner's comments, we clarify that pipe will not be transported to a mill and then transported back to the right-of-way. The "mill-applied" coatings are completed before the pipe is delivered to the construction site.

o. Alternatives

122. West Virginia Rivers Coalition asserts that the EA should consider the feasibility of trenchless crossings at each waterbody crossing.²²⁹ As part of its permit application to the Corps, Mountain Valley provided an explanation, based on a number of factors including crossing length, pit depth, stream depth, slope, presence of karst terrain, sufficiency of stockpile storage availability, and cost, for each crossing method determination.²³⁰ Mountain Valley evaluated a total of eight alternative stream and wetland pipeline crossing methods for each crossing. The crossing methods can be generally categorized as either open-cut methods—meaning that a trench is excavated in the stream or wetland to install the pipe—or trenchless methods—meaning the pipe is installed with specialized equipment that bores or tunnels under or bridges over the resource. Based on this feasibility analysis, Mountain Valley proposed to change the crossing method for the streams and wetlands for which it determined a trenchless method was appropriate. There is no reason for the Commission to reevaluate the open-cut crossings it already assessed and approved and that Mountain Valley does not propose to change.

123. Allegheny-Blue Ridge Alliance asserts that the EA fails to consider routing alternatives, on a crossing-by-crossing basis, that would allow Mountain Valley to cross streams and wetlands at locations with lesser environmental impacts.²³¹ The route of the Mountain Valley Pipeline Project, including the open-cut crossings of all waterbodies, has already been approved. We are not reexamining the overall route of the Mountain Valley Pipeline Project here, but rather are examining a change in crossing method for a

²²⁸ Betty Werner's September 13, 2021 Comments at 3.

²²⁹ West Virginia Rivers Coalition's September 13, 2021 Comments at 2.

²³⁰ Mountain Valley filed a copy of its Corps permit application in Docket No. CP21-57-000 on March 4, 2021.

²³¹ Allegheny-Blue Ridge Alliance, et al.'s September 13, 2021 Comments at 18-19.

select number of crossings. As noted above, the proposed trenchless crossings will result in fewer environmental impacts than the already approved open-cut crossings.

124. Allegheny-Blue Ridge Alliance asserts that the EA failed to fully evaluate alternative crossing methods for Blackwater River crossing specifically, and suggests that moving the location of the crossings for the Blackwater River could enable a trenchless crossing.²³² While it is possible that an alternative crossing location may not present the constraints that exist at the current crossing location, the right-of-way leading to the Blackwater River location has already been cleared and graded. Moving the crossing to another location would add additional environmental impacts, as it would require creating a new right-of-way. Therefore, the benefits of a trenchless crossing would be counterbalanced by the impacts of additional clearing and grading of undisturbed right-of-way. Moreover, the Commission has already reviewed and approved an open-cut crossing of the Blackwater River.

p. COVID-19

125. Dr. Tina Smusz contends that the Commission should consider public health risks associated with the novel coronavirus (COVID-19) pandemic.²³³ With respect to health issues relating to construction, the Commission has no jurisdiction over workplace safety. Virginia and West Virginia have both issued orders and guidance related to the COVID-19 response.²³⁴ Dr. Smusz expresses concern that Mountain Valley may employ less-experienced workers if skilled workers are unavailable due to COVID-19.²³⁵ Contractor selection is Mountain Valley's decision. However, the Commission's third-party compliance monitoring program would continue to be implemented to ensure that the environmental protections required by this and prior orders are implemented correctly.

q. Compliance Inspections

126. Louisa Gay contends that the Commission, as well as the Corps, West Virginia DEP, and Virginia DEQ, should provide 24-hour surveillance of Mountain Valley's

²³² *Id.* at 19-20.

²³³ Tina Smusz's September 14, 2021 Comments at 2.

²³⁴ Information about Virginia's and West Virginia's responses to COVID-19 are available at <https://www.vdh.virginia.gov/coronavirus/> and <https://dhhr.wv.gov/COVID-19>.

²³⁵ Tina Smusz's September 14, 2021 Comments at 2.

trenchless crossing activities at every site.²³⁶ As explained in the EA, the Commission's third-party compliance monitoring program will continue to be implemented during the proposed trenchless crossing activities.²³⁷ Under the current third-party compliance monitoring program for the Mountain Valley Pipeline Project, nine compliance monitors (one for each construction spread) typically inspect portions of the project six days a week. Based on these monitors' extensive experience with natural gas infrastructure construction, we find that this existing monitoring program is sufficient.

127. Betty Werner states that one environmental inspector (EI) per spread is inadequate.²³⁸ There is no expectation that each trenchless crossing crew will require continual oversight by Mountain Valley's EIs. It is typical for a company-sponsored EI to move between areas of active construction, assess conditions, instruct crews on an as-needed basis, and then move to the next location. If the Commission's third-party compliance monitoring program identifies a need for additional EIs, the Commission can require Mountain Valley to provide additional staff.

r. Performance Bonding

128. Some commenters ask whether the Commission will require Mountain Valley to post a performance bond, or require some other form of financial assurance, to ensure Mountain Valley adequately carries out its obligations under its certificate authorization and/or properly restores the land if the project is abandoned.²³⁹ We note that the Commission does not require bonds because the Commission has the authority to require restoration and remediation to satisfactory levels.²⁴⁰ Additionally, prior to abandoning the project, Mountain Valley would be required to obtain Commission authorization under section 7(b) of the NGA to abandon any jurisdictional facilities.²⁴¹

²³⁶ Louisa Gay's September 13, 2021 Comments at 2.

²³⁷ EA at 17.

²³⁸ Betty Werner's September 13, 2021 Comments at 4-5.

²³⁹ See, e.g., Franklin County's April 15, 2021 Comments at 2.

²⁴⁰ See *Transcontinental Gas Pipe Line Co., LLC*, 154 FERC ¶ 61,166, at P 63 (2016).

²⁴¹ 15 U.S.C. § 717f(b).

s. **EA Maps**

129. Kathy and James Chandler state that the EA maps are too zoomed out, do not include topographic details, and do not completely depict and label the streams.²⁴² As noted above,²⁴³ section 5.0 of the EA stated that plan and profile views of topographic conditions at each of the planned crossings relative to borehole and bore pit depths below the resource, including information concerning bank conditions, pipe depth, and positioning of the bore pits, were provided by Mountain Valley and are available for review in the project docket.²⁴⁴

t. **Trenchless Crossing Durations**

130. Several commenters state that the trenchless crossing timeline provided in the EA seems overly ambitious.²⁴⁵ As stated in the EA, trenchless crossing durations are estimates and the actual duration could be increased to some extent by weather delays or slow boring rates due to unexpectedly hard rock or changing geological makeup that may necessitate equipment change-outs.²⁴⁶ Based on Commission staff's oversight of the previously constructed fifty-four trenchless crossings along the Mountain Valley Pipeline Project, the crossing timelines provided in the EA are reasonable.

u. **Contingency Plans**

131. Some commenters express concern that, if unexpected conditions are encountered during trenchless crossings, Mountain Valley could revert back to open-cut crossings without any additional review or analysis.²⁴⁷ As stated in section A.5.5 of the EA, should all attempts at a trenchless crossing fail, Mountain Valley will seek necessary variances or approvals from the Commission or any other applicable agency, including the Corps, to revise the crossing method.²⁴⁸ To change back to an open-cut crossing method would

²⁴² Kathy and James Chandler's September 14, 2021 Comments at 4.

²⁴³ See *supra* P 42.

²⁴⁴ EA at 8; see also Mountain Valley's February 19, 2021 Application, at app. C.

²⁴⁵ See, e.g., Emily Little's September 13, 2021 Comments.

²⁴⁶ EA at 11.

²⁴⁷ See, e.g., Linda Tanner-Sutton's September 14, 2021 Comments.

²⁴⁸ EA at 15.

require permit approval from the Corps. Thus, review and environmental analysis will be completed by the relevant agencies prior to approval of a modification.

132. Allegheny-Blue Ridge Alliance states that Mountain Valley failed to provide an adequate plan for borehole failures.²⁴⁹ As stated in section A.5.5 of the EA, should Mountain Valley encounter these issues, it would notify the appropriate Commission compliance monitor and attempt another bore 10 feet to either side of the original bore path within the existing right-of-way. Should the failure involve a stuck pipe and standard recovery fails, the pipeline in the area would be abandoned in place and backfilled with grout. As discussed in the EA, Mountain Valley's proposed amendment activities will not result in an unsupported hole during trenchless crossings.²⁵⁰

v. Mountain Valley's Compliance Record

133. Several commenters point to a series of violations documented by Virginia DEQ and West Virginia DEP due to issues with erosion control and runoff at project construction sites.²⁵¹ Mountain Valley reached consent decrees with both Virginia DEQ²⁵² and West Virginia DEP²⁵³ to resolve violations of state environmental standards and regulations, and no additional action by the Commission is necessary.

w. Environmental Analysis Conclusion

134. Based on the analysis in the EA, as supplemented herein, we conclude that if constructed in accordance with Mountain Valley's amendment application and supplements, and in compliance with the environmental conditions in the appendix to this order, our approval of this proposal would not constitute a major federal action significantly affecting the quality of the human environment.

²⁴⁹ Allegheny-Blue Ridge Alliance, et al.'s September 13, 2021 Comments at 37.

²⁵⁰ EA at 15 and 35.

²⁵¹ See, e.g., John Surr's August 27, 2021 Comments.

²⁵² See *David K. Paylor v. Mountain Valley Pipeline, LLC*, Case No. CL18006874-00 (Va. Cir. entered Dec. 11, 2019), <https://www.deq.virginia.gov/Portals/0/DEQ/Water/Pipelines/MVPConsentDecree12-19.pdf>.

²⁵³ See West Virginia DEP, Consent Order Issued under the Water Pollution Control Act (Apr. 19, 2019), <https://dep.wv.gov/pio/Documents/MVPLLCSIGNEDORDER.pdf>.

C. Need for Water Quality Certification

135. Some commenters allege that the Commission-jurisdictional amendment activities trigger the need for state certification under section 401 of the Clean Water Act, and that the Commission cannot act on the amendment application absent new certification,²⁵⁴ or waiver thereof, from the States of Virginia and West Virginia.²⁵⁵

136. Section 401(a)(1) of the CWA provides in part that:

[a]ny applicant for a Federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities, which may result in any discharge into the navigable waters, shall provide the licensing or permitting agency a certification from the State in which the discharge originates or will originate . . . that any such discharge will comply with the applicable provisions of [the CWA]. . . . If the State . . . fails or refuses to act on a request for certification, within a reasonable period of time (which shall not exceed one year) after receipt of such request, the certification requirements of this subsection shall be waived with respect to such Federal application.²⁵⁶

137. Based on Commission staff's technical experience with construction, correspondence with the U.S. Army Corps of Engineers,²⁵⁷ and the construction methods

²⁵⁴ Virginia DEQ issued a water quality certification for the Mountain Valley Pipeline Project on December 8, 2017. *See* Mountain Valley's December 14, 2017 Weekly Status Report No. 6 in Docket No. CP16-10-000. West Virginia DEP waived the requirement for a water quality certification for the Mountain Valley Pipeline Project. West Virginia DEP's November 1, 2017 Letter filed in Docket No. C16-10-000.

²⁵⁵ *See, e.g.*, Allegheny-Blue Ridge Alliance, et al.'s September 13, 2021 Comments at 62-70; West Virginia Rivers Coalition's September 13, 2021 Comments at 3.

²⁵⁶ 33 U.S.C. § 1341(a)(1). Section 401(d) of the CWA provides that a certification and the conditions contained therein shall become a condition of any federal license or authorization that is issued. *Id.* § 1341(d). *See City of Tacoma, Washington v. FERC*, 460 F.3d 53 (D.C. Cir. 2006).

²⁵⁷ The Corps has determined that boring under waters of the United States can be performed in manner that does not constitute a discharge or dredge of filled material into such waters. *See* Corps' May 10, 2019 Email to Commission staff (included as Attachment 4 in Mountain Valley's September 11, 2019 Variance Request filed in Docket No. CP16-10-000).

and mitigation measures proposed, we find that the amendment activities would avoid discharges into waters of the United States.

138. The conventional bore method requires excavation of launching and receiving bore pits located within upland areas on either side of the feature. Once the bore pits are excavated, a jacking pipe and a rotating cutting head is advanced, and the drill pipe is installed behind. Thus, conventional bores do not require any in-water work. The guided conventional bores and Direct Pipe® crossing methods are similar construction techniques that also avoid in-water work.

139. Commenters claim the trenchless crossings could nonetheless result in discharges into waters of the United States through: (1) inadvertent returns; (2) boreholes breaching the streambed; or (3) pumped water flowing into surface waters. The majority of the conventional bore crossings will not require the use of drilling fluids and, in the limited cases that will, the lubricating fluids will be of small volume and not pressurized, thus presenting little if any risk of an inadvertent return. The guided conventional bore and Direct Pipe® crossings will involve the use of limited drilling fluids under pressure, but the risk of inadvertent return will be very low. Mountain Valley has already successfully completed over fifty conventional bore crossings and one Direct Pipe® crossing as part of the Mountain Valley Pipeline Project without an inadvertent release. A bore deflection that would breach a streambed is very unlikely to occur as a deflection of this magnitude would most likely halt any forward process (i.e., stop the machine) before the bore could breach the streambed. Additionally, boring operations will be constantly monitored and bore operators should be able to correct a deflection of this magnitude prior to the streambed being breached. Lastly, there is a possibility the bore pits will contain groundwater and need to be pumped during the boring process. Any water removed from the pits will be discharged through sediment removal devices, such as filter bags and hay bale-lined dewatering structures, and directed to vegetated land surfaces (where available) to control erosion and runoff into nearby sensitive features. The structures, rates, and volumes will be monitored continuously to ensure that the discharge will not cause erosion or result in sediment-laden water entering a waterbody.

140. For the entire Amendment Project, Mountain Valley will also adhere to various construction plans, including the Commission's *Upland Erosion Control, Revegetation, and Maintenance Plan* and Mountain Valley's Procedures, *Erosion and Sediment Control Plans*, and SPCC. The measures contained in these plans will further minimize the potential for a release of materials into waters of the United States.

141. Additionally, Commission staff solicited the States' opinions as to whether the amendment activities would trigger the need for a new certification decision pursuant to section 401 of the Clean Water Act. Virginia DEQ stated that the federal agency authorizing the activity must make the determination as to whether a section 401 certification is required, but noted that if the Commission were to find that the requested

amendment activities do require certification, then Virginia DEQ's certification issued in 2017 for the Mountain Valley Pipeline Project would cover those activities.²⁵⁸ Similarly, West Virginia DEP stated that whether a 401 certification is required is a decision to be made by the Commission, but noted that the amendment activities do not create the potential for a new discharge not previously considered when West Virginia DEP decided to waive its certification authority for the Mountain Valley Pipeline Project in 2017.²⁵⁹

142. For the reasons discussed above, we find that the proposed amendment activities do not trigger the need for new certification decisions pursuant to section 401 of the Clean Water Act.

D. Status of Other Applicable Authorizations

143. A number of commenters raise arguments related to the status of other state and federal authorizations for the Amendment Project and the Mountain Valley Pipeline Project.

144. First, regarding the prior and pending Corps authorizations, some commenters allege that Mountain Valley is attempting to contravene the Clean Water Act or court decision staying the Corps' Nationwide Permits 12 verifications for the Mountain Valley Pipeline Project by requesting the change in crossing method.²⁶⁰ Mountain Valley is not violating the Clean Water Act or the court decision by proposing a change in crossing method. Pursuant to the Clean Water Act, a permit from the Corps would be required for the originally certificated open-cut crossings,²⁶¹ but no permit from the Corps is required to cross wetlands and waterbodies via conventional bore because the activity takes place outside of waters of the United States.

145. To complete construction of the rest of the Mountain Valley Pipeline Project, the outstanding actions required by law are completion of ESA consultation, the Corps'

²⁵⁸ Virginia DEQ's June 25, 2021 Letter at 3 ("If FERC approves the requested amendment then the 2017 Certification covers the approved changes.").

²⁵⁹ West Virginia DEP's July 23, 2021 Letter at 1 ("[West Virginia DEP] does not believe the [amendment activities] create[] a potential for a new discharge not previously considered in the 2017 waiver.").

²⁶⁰ See, e.g., Jacob Hileman's March 22, 2021 Motion to Intervene and Comments at 5.

²⁶¹ Section 404 of the Clean Water Act generally requires that a permit be obtained before dredged or fill material may be discharged into waters of the United States. 33 U.S.C. § 1344.

authorization to conduct the open-cut crossings, pursuant to section 404 of the Clean Water Act, and authorization from the Forest Service and Bureau of Land Management to construct in the Jefferson National Forest.²⁶²

146. Commenters claim that the Commission should not grant Mountain Valley authorization to proceed with the requested amendment activities, or any additional upland work on the Mountain Valley Pipeline Project, until Mountain Valley receives all applicable authorizations required under federal law, or evidence of waiver thereof, for the entire Mountain Valley Pipeline Project.²⁶³ Further, some commenters allege that the construction proposed in the amendment application should not be allowed to proceed until any potential judicial challenges to the pending or recently received authorizations (including the Clean Water Act sections 404 and 401 authorizations for the Corps-jurisdictional activities) result in final judgments upholding those authorizations, or one year has elapsed from the date upon which the latest of any such judicial challenges is commenced, whichever is sooner.²⁶⁴

147. In its January 25, 2022 decision vacating the Forest Service's and Bureau of Land Management's authorizations, the Fourth Circuit noted that those agencies "would surely benefit from FERC's environmental analysis of the use of the conventional bore method for other stream crossings outside the Jefferson National Forest[.]" and that the agencies "improperly approved the use of the conventional bore method for the four streams in the Jefferson National Forest without first considering FERC's analysis."²⁶⁵ This suggests

²⁶² The open-cut crossings of three waterbodies subject to section 10 of the Rivers and Harbors Act also require approval from the Corps pursuant to that act. As noted above, the Corps anticipates issuing its section 404 and section 10 authorizations together. *See supra* note 16. Virginia DEQ and West Virginia DEP issued certifications, pursuant to section 401 of the Clean Water Act, with respect to the Corps-jurisdictional activities on December 20, 2021 and December 30, 2021, respectively. On January 25, 2022, the Fourth Circuit vacated the Forest Service's record of decision and Bureau of Land Management's right-of-way grant issued for the Mountain Valley Pipeline Project. *Wild Virginia v. U.S. Forest Serv.*, 24 F.4th 915 (4th Cir. 2022). Pursuant to Commission order, Mountain Valley remains prohibited from conducting construction activities in the Jefferson National Forest. *Mountain Valley Pipeline, LLC*, 173 FERC ¶ 61,252 (2020).

²⁶³ *See, e.g.*, Amanda Tandy's March 4, 2021 Comments; Coles Terry's August 6, 2021 Comments.

²⁶⁴ *See* Allegheny-Blue Ridge Alliance, et al.'s September 13, 2021 Comments at 71-73.

²⁶⁵ *Wild Virginia v. U.S. Forest Serv.*, 24 F.4th 915 at 929-30.

that a Commission decision on the amendment application, and specifically the Commission's analysis of the environmental impacts associated with the Amendment Project, would assist the other federal agencies in resolving the issues before them.

148. Because we find that the Amendment Project is environmentally preferable to the originally certificated project, we approve Mountain Valley's requested amendment. However, any notice to proceed with construction of the Amendment Project will only be issued upon Mountain Valley's receipt of its outstanding federal authorizations.

149. First, we will require that Mountain Valley obtain the necessary Corps authorizations for all the remaining waterbody crossings before the commencement of construction associated with any remaining waterbody crossings is authorized.²⁶⁶ Therefore, Environmental Condition 8 prohibits Mountain Valley from commencing construction activities associated with the Amendment Project until it receives authorization from the Corps to complete its proposed open-cut crossings.²⁶⁷ Second, we will require that, before Mountain Valley can begin construction associated with the Amendment Project, (1) it must receive a revised or new BO from FWS for the original Mountain Valley Pipeline Project and (2) ESA consultation with FWS for the Amendment Project must be complete.

150. Finally, the Director of the Office of Energy Projects (OEP), or the Director's designee, will issue any notice to proceed and only after verification that Mountain Valley has received the required permits. Therefore, Environmental Condition 9 prohibits Mountain Valley Mountain Valley from commencing construction activities associated with the Amendment Project until ESA consultation with FWS is complete. We also note that Mountain Valley remains prohibited from constructing in the Jefferson National Forest.²⁶⁸

151. At this time, we will not condition authorization of Amendment Project construction activities on the disposition of potential judicial challenges. If any of the

²⁶⁶ As noted above, the amendment application includes a proposed change in crossing method for two waterbodies subject to section 10 of the Rivers and Harbors Act. In addition to the Commission approval of the change in crossing method, Mountain Valley also needs approval from the Corps, pursuant to section 10, prior to conducting those crossings.

²⁶⁷ Environmental Condition 8 also prohibits construction until Mountain Valley obtains approval from the Corps pursuant to section 10 of the Rivers and Harbors Act.

²⁶⁸ See *supra* note 262. Before additional work can proceed in the Jefferson National Forest, the Commission must lift the existing exclusion zone.

authorizations by other agencies are challenged, it would be within a court's discretion to stay those authorizations pending review.

152. Some commenters allege that the Commission must require Mountain Valley to obtain National Pollutant Discharge Elimination System permits from the States of Virginia and West Virginia for construction stormwater discharges.²⁶⁹ The States of Virginia and West Virginia issue and oversee compliance with NPDES permits. Virginia DEQ and West Virginia DEP both note that changes to construction plans, like the requested changes from open-cut to trenchless methods, require updates to state-approved plans.²⁷⁰ Both agencies indicate that their approval of those plans will ensure that stormwater is controlled in accordance with state water quality requirements.²⁷¹

IV. Conclusion

153. Based on our Certificate Policy Statement determination and our environmental analysis, we find under section 7 of the NGA that the public convenience and necessity requires approval of Mountain Valley's proposal, subject to the conditions in this order.

154. Compliance with the environmental conditions included in our orders is integral to ensuring that the environmental impacts of approved projects are consistent with those anticipated by our environmental analyses. Thus, Commission staff carefully reviews all information submitted. Only when satisfied that the applicant has complied with all applicable conditions will staff issue a notice to proceed with the activity to which the conditions are relevant. We also note that the Commission has the authority to take whatever steps are necessary to ensure the protection of environmental resources during construction and operation of the Amendment Project, including authority to impose any additional measures deemed necessary to ensure continued compliance with the intent of the conditions of the order, as well as the avoidance or mitigation of unforeseen adverse environmental impacts resulting from Amendment Project construction and operation.

155. Any state or local permits issued with respect to the jurisdictional facilities authorized herein must be consistent with the conditions of the amended certificate. The Commission encourages cooperation between interstate pipelines and local authorities. However, this does not mean that state and local agencies, through application of state or

²⁶⁹ *E.g.*, Allegheny-Blue Ridge Alliance September 13, 2021 Comments at 75-80.

²⁷⁰ Virginia DEQ's June 25, 2021 Letter at 4; West Virginia DEP's July 23, 2021 Letter at 2.

²⁷¹ Virginia DEQ's June 25, 2021 Letter at 4; West Virginia DEP's July 23, 2021 Letter at 2.

local laws, may prohibit or unreasonably delay the construction or operation of facilities approved by this Commission.²⁷²

156. The Commission on its own motion received and made a part of the record in this proceeding all evidence, including the application, and exhibits thereto, and all comments, and upon consideration of the record,

The Commission orders:

(A) The Certificate Order in Docket No. CP16-10-000 is amended, as described and conditioned herein, and as more fully described in the application and subsequent filings by the applicant, including any commitments made therein. In all other respects, the Certificate Order is unchanged.

(B) The authority issued in Ordering Paragraph (A) is conditioned on Mountain Valley's compliance with the environmental conditions set forth in the appendix to this order.

(C) Mountain Valley shall continue to comply with environmental conditions set forth in Appendix C to the Certificate Order.

(D) Mountain Valley shall comply with all applicable Commission regulations under the NGA, particularly the general terms and conditions set forth in paragraphs (a), (b), (c), (e), and (f) of section 157.20 of the regulations.

(E) Mountain Valley shall complete construction of the Mountain Valley Pipeline Project facilities and make them available for service within the timeframe conditioned in the Certificate Order, as amended by the Commission's October 9, 2020 Order (173 FERC ¶ 61,026 (2020)) extending the timeframe to complete construction, in accordance with section 157.20(b) of the Commission's regulations.

(F) Mountain Valley shall notify the Commission's environmental staff by telephone or e-mail of any environmental noncompliance identified by other federal,

²⁷² See 15 U.S.C. § 717r(d) (state or federal agency's failure to act on a permit considered to be inconsistent with Federal law); see also *Schneidewind v. ANR Pipeline Co.*, 485 U.S. 293, 310 (1988) (state regulation that interferes with FERC's regulatory authority over the transportation of natural gas is preempted) and *Dominion Transmission, Inc. v. Summers*, 723 F.3d 238, 245 (D.C. Cir. 2013) (noting that state and local regulation is preempted by the NGA to the extent it conflicts with federal regulation, or would delay the construction and operation of facilities approved by the Commission).

state, or local agencies on the same day that such agency notifies Mountain Valley. Mountain Valley shall file written confirmation of such notification with the Secretary of the Commission within 24 hours.

By the Commission. Chairman Glick and Commissioner Clements are concurring with a joint separate statement attached.
Commissioner Danly is concurring with a separate statement attached.

(S E A L)

Kimberly D. Bose,
Secretary.

APPENDIX A

As recommended in the environmental assessment (EA), and modified herein, this authorization includes the following conditions:

1. Mountain Valley shall follow the construction procedures and mitigation measures described in its amendment application and supplements including responses to staff data requests and as identified in the environmental assessment (EA), unless modified by the Order. Mountain Valley must:
 - a. request any modification to these procedures, measures, or conditions in a filing with the Secretary of the Commission (Secretary);
 - b. justify each modification relative to site-specific conditions;
 - c. explain how that modification provides an equal or greater level of environmental protection than the original measure; and
 - d. receive approval in writing from the Director of the Office of Energy Projects (OEP), or the Director's designee, **before using that modification.**
2. The Director of OEP, or the Director's designee, has delegated authority to address any requests for approvals or authorizations necessary to carry out the conditions of the Order, and take whatever steps are necessary to ensure the protection of environmental resources during construction of the Amendment Project. This authority shall allow:
 - a. the modification of conditions of the Order;
 - b. stop-work authority; and
 - c. the imposition of any additional measures deemed necessary to ensure continued compliance with the intent of the conditions of the Order as well as the avoidance or mitigation of unforeseen adverse environmental impact resulting from Amendment Project construction.
3. Mountain Valley shall continue to comply with environmental conditions set forth in Appendix C of the October 13, 2017 Certificate Order in Docket No. CP16-010-000.
4. The authorized facility locations shall be as shown in the EA, as supplemented by filed alignment sheets. **As soon as they are available, and before the start of**

construction, Mountain Valley shall file with the Secretary any revised detailed survey alignment maps/sheets at a scale not smaller than 1:6,000 with station positions for all facilities approved by the Order. All requests for modifications of environmental conditions of the Order or site-specific clearances must be written and must reference locations designated on these alignment maps/sheets.

5. Mountain Valley shall file with the Secretary detailed alignment maps/sheets and aerial photographs at a scale not smaller than 1:6,000 identifying all route realignments or facility relocations, and staging areas, pipe storage yards, new access roads, and other areas that would be used or disturbed and have not been previously identified in filings with the Secretary. Approval for each of these areas must be explicitly requested in writing. For each area, the request must include a description of the existing land use/cover type, documentation of landowner approval, whether any cultural resources or federally listed threatened or endangered species would be affected, and whether any other environmentally sensitive areas are within or abutting the area. All areas shall be clearly identified on the maps/sheets/aerial photographs. Each area must be approved in writing by the Director of OEP, or the Director's designee, **before construction in or near that area**.

This requirement does not apply to extra workspace allowed by the Commission's *Upland Erosion Control, Revegetation and Maintenance Plan* and/or minor field realignments per landowner needs and requirements which do not affect other landowners or sensitive environmental areas such as wetlands.

Examples of alterations requiring approval include all route realignments and facility location changes resulting from:

- a. implementation of cultural resources mitigation measures;
 - b. implementation of endangered, threatened, or special concern species mitigation measures;
 - c. recommendations by state regulatory authorities; and
 - d. agreements with individual landowners that affect other landowners or could affect sensitive environmental areas.
6. **Within 60 days of the acceptance of the authorization and before construction of the Amendment Project begins**, Mountain Valley shall file an Implementation Plan with the Secretary for review and written approval by the Director of OEP, or the Director's designee. Mountain Valley must file revisions to the plan as schedules change. The plan shall identify:

- a. how Mountain Valley will implement the construction procedures and mitigation measures described in its amendment application and supplements (including responses to staff data requests), identified in the EA, and required by the Order;
 - b. how Mountain Valley will incorporate these requirements into the contract bid documents, construction contracts (especially penalty clauses and specifications), and construction drawings so that the mitigation required at each site is clear to onsite construction and inspection personnel;
 - c. the number of environmental inspectors (EIs) assigned, and how the company will ensure that sufficient personnel are available to implement the environmental mitigation;
 - d. company personnel, including EIs and contractors, who will receive copies of the appropriate material;
 - e. the location and dates of the environmental compliance training and instructions Mountain Valley will give to all personnel involved with construction and restoration (initial and refresher training as the project progresses and personnel change);
 - f. the company personnel (if known) and specific portion of Mountain Valley's organization having responsibility for compliance;
 - g. the procedures (including use of contract penalties) Mountain Valley will follow if noncompliance occurs; and
 - h. for each discrete facility, a Gantt or PERT chart (or similar project scheduling diagram), and dates for:
 1. the completion of all required surveys and reports;
 2. the environmental compliance training of onsite personnel;
 3. the start of construction; and
 4. the start and completion of restoration.
7. Mountain Valley must receive written authorization from the Director of OEP or the Director's designee **before commencing construction of any Amendment Project facilities**. To obtain such authorization, Mountain Valley must file with

the Secretary documentation that it has received all applicable authorizations required under federal law (or evidence of waiver thereof).

8. Mountain Valley shall **not commence construction activities** associated with the Amendment Project **until** Mountain Valley receives authorization from the U.S. Army Corps of Engineers to complete its proposed open-cut crossings and to cross waterbodies subject to section 10 of the Rivers and Harbors Act.
9. Mountain Valley shall **not commence construction activities** associated with the Amendment Project **until** consultation with the U.S. Fish and Wildlife Service pursuant to the Endangered Species Act for the Mountain Valley Pipeline Project and Amendment Project is complete.
10. **Prior to commencing any nighttime construction activities associated with the eight trenchless crossing locations where nighttime construction is proposed**, Mountain Valley shall notify all landowners within 0.5 mile of nighttime (7:00 pm to 7:00 am) trenchless crossing activities (boring and pipe welding) prior to the start of these activities. Mountain Valley shall confirm its compliance with the required notification in its construction status reports.
11. **During any nighttime construction activities associated with the trenchless crossings**, Mountain Valley shall monitor noise levels, document the noise levels in the weekly status reports, and restrict the noise attributable to nighttime construction activities associated with the trenchless crossings to no more than a day-night average sound level (L_{dn}) of 55 decibels on the A-weighted scale (dBA), or no more than a 10 decibel increase over background levels where existing noise levels exceed 55 dBA L_{dn} , at any noise sensitive areas.
12. **Prior to construction**, Mountain Valley shall file with the Secretary for review and approval by the Director of OEP a revised *Karst Mitigation Plan* that requires coordination with the Virginia Department of Conservation and Recreation to identify crossing locations with high potential for surface stream loss and develop impact minimization measures, as appropriate.

APPENDIX B

| Update to Appendix F in Commission Staff's August 13, 2021 Environmental Assessment | | | | | | | | | | | | | | |
|---|------------------|---|------------------|-------------------------|--|---|-------------------------|--|-----------------------------------|-------------------------------------|--|--|--|---|
| Current Environmental Justice Community Data | | | | | | | | | | | | | | |
| Geographic Area | No. of Crossings | Crossing Number | Total Population | White (%) ^{a/} | African American/Black (%) ^{a/} | American Indian/Alaska Native (%) ^{a/} | Asian (%) ^{a/} | Native HI & Other Pacific Islander (%) ^{a/} | Some Other Race (%) ^{a/} | Two or More Races (%) ^{a/} | Hispanic Origin (any race) (%) ^{a/} | Total Minority Populations (%) ^{a/} | 65 Years Old and Older (%) ^{b/} | Households in Poverty (%) ^{c/} |
| WEST VIRGINIA | | | 1,817,305 | 92.0% | 3.6% | 0.2% | 0.8% | 0.0% | 0.2% | 1.6% | 1.6% | 8.0% | 19.4% | 17.3% |
| Wetzel County | | | 15,436 | 96.9% | 1.1% | 0.0% | 0.0% | 0.0% | 0.3% | 0.9% | 0.9% | 3.1% | 22.8% | 18.3% |
| Block Group 4, Census Tract 305 | N/A | Alignment Shift at MP 0.7 | 790 | 66.2% | 18.5% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 15.3% | 33.8% | 12.2% | 5.6% |
| Block Group 5, Census Tract 305 | 1 | A-008 | 666 | 100.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 22.4% | 26.3% |
| Lewis County | | | 16,166 | 96.3% | 0.2% | 0.5% | 0.5% | 0.0% | 0.0% | 1.2% | 1.2% | 3.7% | 20.2% | 19.1% |
| Block Group 2, Census Tract 9676 | 1 | B-012 | 899 | 100.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 21.2% | 28.0% |
| Block Group 3, Census Tract 9676 | 1 | B-015A | 1,679 | 97.5% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 2.1% | 0.4% | 2.5% | 20.7% | 13.6% |
| Webster County | | | 8,386 | 99.6% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.3% | 0.1% | 0.4% | 22.7% | 26.0% |
| Block Group 1, Census Tract 9701 | 1 | C-013A | 684 | 100.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 35.1% | 29.4% |
| Block Group 2, Census Tract 9701 | 2 | C-018, C-022* | 1,001 | 100.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 25.4% | 18.8% |
| Block Group 4, Census Tract 9701 | 4 | C-022*, C-024, C-028, C-035 | 1,515 | 100.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 22.0% | 27.3% |
| Block Group 1, Census Tract 9703 | 1 | D-010 | 2,147 | 99.1% | 0.1% | 0.0% | 0.0% | 0.0% | 0.0% | 0.6% | 0.2% | 0.9% | 20.8% | 19.9% |
| Nicholas County | | | 25,078 | 96.9% | 0.7% | 0.4% | 0.2% | 0.0% | 0.0% | 1.0% | 0.8% | 3.1% | 21.8% | 17.5% |
| Block Group 1, Census Tract 9504 | 4 | D-022, D-028, D-034, D-035 | 986 | 100.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 23.9% | 8.2% |
| Block Group 2, Census Tract 9504 | 4 | D-036, D-037, D-038, D-040, D-041* | 1,437 | 100.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 19.1% | 23.4% |
| Block Group 4, Census Tract 9506 | 1 | D-041* | 1,144 | 100.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 30.1% | 0.0% |
| Block Group 3, Census Tract 9504 | 4 | D-011, D-012, D-019, D-020 | 1,939 | 100.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 22.2% | 13.2% |
| Block Group 3, Census Tract 9506 | 1 | D-048 | 1,798 | 100.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 19.9% | 15.8% |
| Block Group 1, Census Tract 9507 | 1 | E-005 | 288 | 84.0% | 0.0% | 16.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 16.0% | 59.4% | 27.5% |
| Greenebrier County | | | 35,155 | 92.2% | 2.8% | 0.0% | 0.6% | 0.0% | 0.5% | 1.8% | 2.0% | 7.8% | 22.6% | 16.6% |
| Block Group 1, Census Tract 9503 | 3 | E-009, E-012, E-015 | 632 | 100.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 10.9% | 46.5% |
| Summers County | | | 12,848 | 91.9% | 4.5% | 0.0% | 0.0% | 0.0% | 0.0% | 2.2% | 1.5% | 8.1% | 24.2% | 21.2% |
| Block Group 1, Census Tract 6 | 4 | F-014, F-015, F-016, F-017 | 516 | 87.8% | 10.5% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 1.7% | 12.2% | 25.2% | 34.8% |
| Block Group 2, Census Tract 6 | 3 | F-021, F-022, F-027 | 1,845 | 84.1% | 11.2% | 0.0% | 0.0% | 0.0% | 0.0% | 1.5% | 3.2% | 15.9% | 13.3% | 16.8% |
| Monroe County | | | 13,401 | 96.3% | 0.9% | 0.5% | 0.0% | 0.0% | 0.0% | 1.4% | 0.9% | 3.7% | 24.8% | 15.3% |
| Block Group 4, Census Tract 9502 | 1 | F-032 | 729 | 94.9% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 5.1% | 0.0% | 5.1% | 36.4% | 4.7% |
| Block Group 2, Census Tract 9503 | 1 | F-039 | 2,861 | 99.6% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.1% | 0.3% | 0.4% | 15.4% | 13.7% |
| VIRGINIA | | | 8,454,463 | 61.8% | 18.8% | 0.2% | 6.3% | 0.1% | 0.3% | 3.1% | 9.4% | 38.2% | 15.0% | 10.3% |
| Giles County | | | 16,772 | 94.9% | 2.2% | 0.0% | 0.1% | 0.2% | 0.0% | 0.9% | 1.7% | 5.1% | 21.3% | 9.6% |
| Block Group 1, Census Tract 9301 | 4 | G-017*, G-019B, G-023, G-024 | 1,035 | 99.5% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.5% | 0.5% | 22.3% | 8.5% |
| Block Group 3, Census Tract 9302 | 7 | G-09, G-010, G-011, G-012, G-013, G-014, G-017* | 1,258 | 93.2% | 4.1% | 0.0% | 0.0% | 0.0% | 0.0% | 1.8% | 0.9% | 6.8% | 28.1% | 13.4% |
| Montgomery County | | | 98,140 | 83.3% | 4.4% | 0.4% | 6.6% | 0.0% | 0.6% | 1.5% | 3.2% | 16.7% | 12.2% | 20.0% |
| Block Group 2, Census Tract 213 | 3 | H-009, H-015, H-016 and Route Adjustment at MP 230.8, H-017* | 939 | 96.8% | 0.0% | 0.6% | 0.0% | 0.0% | 0.0% | 1.5% | 1.1% | 3.2% | 22.7% | 5.7% |
| Block Group 1, Census Tract 214 | 2 | H-017*, H-019, H-020* | 714 | 81.7% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 18.3% | 18.3% | 4.1% | 10.1% |
| Block Group 2, Census Tract 214 | 3 | H-020*, H-021, H-022 | 1,856 | 92.7% | 4.2% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 3.1% | 7.3% | 6.6% | 43.6% |
| Roanoke County | | | 93,823 | 85.8% | 5.9% | 0.2% | 3.1% | 0.0% | 0.1% | 1.8% | 3.1% | 14.2% | 21.1% | 8.1% |
| Block Group 3, Census Tract 306 | 11 | H-030, H-031, H-032, H-040, H-042, H-043, H-044, H-045, H-046, H-047A, H-048A | 789 | 89.6% | 0.0% | 0.0% | 1.5% | 0.0% | 0.0% | 8.9% | 0.0% | 10.4% | 31.1% | 5.0% |
| Franklin County | | | 56,187 | 87.2% | 7.4% | 0.3% | 0.5% | 0.0% | 0.3% | 1.5% | 2.8% | 12.8% | 22.8% | 13.4% |
| Block Group 1, Census Tract 201.02 | 1 | I-048 | 1,070 | 86.5% | 6.8% | 0.0% | 0.6% | 0.0% | 0.0% | 6.1% | 0.0% | 13.5% | 28.1% | 4.8% |
| Block Group 1, Census Tract 202 | 1 | I-034 | 1,582 | 93.4% | 4.4% | 0.0% | 0.0% | 0.0% | 0.0% | 2.2% | 0.0% | 6.6% | 11.4% | 6.9% |
| Block Group 2, Census Tract 202 | 6 | 046 | 1,392 | 87.7% | 7.4% | 0.5% | 0.0% | 0.0% | 0.0% | 0.0% | 4.4% | 12.3% | 20.0% | 6.9% |
| Block Group 1, Census Tract 205 | 3 | H-054, H-060, I-001A | 1,861 | 98.9% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 1.1% | 0.0% | 1.1% | 17.0% | 8.5% |
| Block Group 4, Census Tract 205 | 5 | I-009, I-014, I-016, I-020, I-021 | 2,169 | 87.5% | 6.6% | 0.0% | 1.6% | 0.0% | 0.0% | 2.9% | 1.4% | 12.5% | 24.7% | 11.1% |
| Block Group 1, Census Tract 209 | 16 | I-053, I-055, I-056, I-057, I-060B, I-061A, I-062, I-063, I-064, I-065, I-067, I-069A, I-070, I-073, I-074, I-076 | 928 | 76.6% | 19.2% | 0.0% | 2.2% | 0.0% | 0.0% | 2.0% | 0.0% | 23.4% | 20.2% | 17.7% |
| Pittsylvania County | | | 61,256 | 74.1% | 20.0% | 0.1% | 0.4% | 0.0% | 0.0% | 2.8% | 2.6% | 25.9% | 21.8% | 15.7% |
| Block Group 4, Census Tract 103 | 8 | I-078, I-080, I-085, I-086, I-087, I-091, I-092, I-093 | 630 | 58.3% | 40.0% | 0.0% | 0.0% | 0.0% | 0.0% | 1.7% | 0.0% | 41.7% | 13.2% | 29.1% |
| Block Group 1, Census Tract 105 | 8 | I-111A, I-114, I-115, I-116, I-117, I-121, I-122, I-123 | 1,147 | 60.4% | 38.4% | 0.0% | 1.1% | 0.0% | 0.0% | 0.0% | 0.0% | 39.6% | 29.6% | 12.7% |

Update to Appendix F in Commission Staff's August 13, 2021 Environmental Assessment

| Current Environmental Justice Community Data | | | | | | | | | | | | | | | |
|--|------------------|------------------------------|------------------|-----------------|-------------------------------|--------------------------------------|--------------|---|------------------------|--------------------------|-----------------------------------|-----------------------------------|--|-------------------------------|------------------------------|
| Geographic Area | No. of Crossings | Crossing Number | Total Population | White (%) a/ | African American/Black (%) a/ | American Indian/Alaska Native (%) a/ | Asian (%) a/ | Native HI & Other Pacific Islander (%) a/ | Some Other Race (%) a/ | Two or More Races (%) a/ | Hispanic Origin (any race) (%) a/ | Total Minority Populations (%) a/ | | 65 Years Old and Older (%) b/ | Households in Poverty (%) g/ |
| Block Group 3, Census Tract 105 | 4 | I-101A, I-103, I-105, I-106A | 2,267 | 54.2% | 38.2% | 0.0% | 1.4% | 0.0% | 0.0% | 1.6% | 4.5% | 45.8% | | 18.8% | 14.2% |
| Block Group 2, Census Tract 106 | 4 | I-094, I-095, I-096, I-097 | 1,712 | 78.0% | 18.3% | 0.0% | 0.0% | 0.0% | 0.0% | 2.6% | 1.1% | 22.0% | | 29.4% | 14.6% |

a Percent of Total Population (Table B03002 - Hispanic or Latino Origin by Race American Community Survey, 2019 ACS 5-Year Estimates Detailed Tables. U.S. Census Bureau, 2015-2019 American Community Survey 5-Year Estimates: <https://api.census.gov/data/2019/acs/acs5>). Accessed: May 13, 2021

b Sex by Age (Table B01001 - 2019 ACS 5-Year Estimates Detailed Tables. U.S. Census Bureau, 2015-2019 American Community Survey 5-Year Estimates: <https://data.census.gov/cedsci/all?q=B01001>). Accessed: November 22, 2021

c Percent of Households (Table B17017 - Poverty Status in the Past 12 months by Household Type by Age of Householder, 2019 ACS 5-Year Estimates Detailed Tables. U.S. Census Bureau, 2015-2019 American Community Survey 5-Year Estimates: <https://api.census.gov/data/2019/acs/acs5>). Accessed: May 13, 2021

N/A = Not applicable

* Crossing occurs in more than one Block Group

Gray shading denotes an Environmental Justice community.

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Mountain Valley Pipeline, LLC

Docket No. CP21-57-000

(Issued April 8, 2022)

GLICK, Chairman, CLEMENTS, Commissioner, *concurring*:

1. We concur in today's order. The only question before us today is whether to approve Mountain Valley's limited request to amend its certificate, primarily to change its method of crossing numerous waterbodies. We agree that Mountain Valley has met its burden to show that the proposed amendments are consistent with the public interest.

2. We write separately to explain our support for issuing today's order notwithstanding the U.S. Court of Appeals for the Fourth Circuit's decisions vacating (1) the Bureau of Land Management (BLM) and the Forest Service authorization to cross the Jefferson National Forest and (2) the Fish and Wildlife Service's Biological Opinion and Incidental Take Statement. We have previously voiced concerns with the Commission's practice of issuing conditional certificates prior to the pipeline developer obtaining the other federal permits necessary to build a proposed pipeline.¹ In particular, we have expressed concern that the Commission was putting the cart before the horse in allowing certificate holders to condemn private land and commence construction notwithstanding substantial uncertainty as to whether the project would ever be developed successfully. Those concerns may be heightened when, as here, the permits and authorizations needed to develop the project have been vacated—several times—by the courts.²

3. Today's order is different for several reasons. First, in one of its recent decisions vacating MVP's permits, the Fourth Circuit held that it was arbitrary and capricious for BLM to approve Mountain Valley's water crossing method "without *first* considering FERC's analysis."³ Considering that holding, we agree that it is appropriate for the

¹ *PennEast Pipeline Co.*, 174 FERC ¶ 61,056, at PP 1-2 (2021) (Glick & Clements, Comm'rs, concurring); *see Mountain Valley Pipeline, LLC*, 174 FERC ¶ 61,192, at P 1 (2021) (Glick, Chairman, Clements, Comm'r, dissenting).

² *See, e.g., Appalachian Voices v. U.S. Dep't of the Interior*, 25 F.4th 259, 271-77 (4th Cir. 2022) (vacating FWS Biological Opinion because it failed to adequately evaluate environmental baseline and cumulative effects for two listed species, and climate change).

³ *Wild Virginia v. U.S. Forest Serv.*, 24 F.4th 915, 930 (4th Cir. 2022) (emphasis added); *id.* at 929 ("MVP cannot construct the stream crossings outside the Jefferson

Commission to issue today's order, so that BLM can have the benefit of FERC's analysis to satisfy the court's remand. Second, Mountain Valley's usage of trenchless waterbody crossings will result in fewer environmental impacts than the crossing method that the Commission approved under the original certificate, meaning that today's order amending Mountain Valley's certificate will almost certainly represent an improvement over the status quo. Third, the record reflects that the Mountain Valley project is almost entirely constructed⁴ and the amendment project will not require taking any additional land by eminent domain.⁵

4. Finally, as to the Fourth Circuit's recent vacatur of the Biological Opinion, if FWS finds that the amendment would in fact jeopardize a listed species or a critical habitat, then no further construction would be appropriate and Mountain Valley likely would need to come back with another amendment. In addition, today's order does not authorize any change in the route or affect any new landowners, which helps to mitigate our longstanding concerns over the prospect of private property being condemned long before construction begins on a project that may never be fully approved.⁶

For these reasons, we respectfully concur.

Richard Glick
Chairman

Allison Clements
Commissioner

National Forest using the conventional bore method until FERC actually fully approves the amendment to the FERC Certificate to authorize that method.”).

⁴ Weekly Status Report No. 226, Docket No. CP16-10 (Mar. 25, 2022).

⁵ See *Mountain Valley Pipeline, LLC*, 179 FERC ¶ 61,013, at P 14 (2022).

⁶ See, e.g., *PennEast*, 174 FERC ¶ 61,056 at PP 3-4 (Glick & Clements, Comm'rs, concurring).

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Mountain Valley Pipeline, LLC

Docket No. CP21-57-000

(Issued April 8, 2022)

DANLY, Commissioner, *concurring*:

1. I concur with today's order granting the amendment authorization requested by Mountain Valley Pipeline, LLC (Mountain Valley).¹ I write separately to express two points.

2. *First*, as I previously stated,² while not fatal to this order's durability, I would have explicitly repudiated *Northern Natural Gas Company*³ and reaffirmed the Commission's prior position that "[w]ithout an accepted methodology, the Commission cannot make a finding whether a particular quantity of greenhouse gas [GHG] emissions poses a significant impact on the environment, whether directly or cumulatively with other sources, and how that impact would contribute to climate change."⁴ This is because, as the Commission has stated, it is unable to connect a particular project's GHG emissions to discrete, physical effects on the environment.⁵ The Council on Environmental Quality (CEQ) has found similarly.⁶ And the Commission's now-draft Interim GHG Policy

¹ See *Mountain Valley Pipeline, LLC*, 179 FERC ¶ 61,013 (2022) (*Mountain Valley*).

² See, e.g., *Iroquois Gas Transmission Sys., L.P.*, 178 FERC ¶ 61,200 (2022) (Danly, Comm'r, concurring in the judgment at PP 3-5).

³ See *Mountain Valley*, 179 FERC ¶ 61,013 at P 48 n.84 (citing *N. Nat. Gas Co.*, 174 FERC ¶ 61,189 (2021)).

⁴ *Dominion Transmission, Inc.*, 163 FERC ¶ 61,128, at P 67 (2018) (citation omitted).

⁵ See, e.g., *Nat'l Fuel Gas Supply Corp.*, 158 FERC ¶ 61,145, at P 188 (2017).

⁶ See CEQ, *Draft [National Environmental Policy Act (NEPA)] Guidance on Consideration of the Effects of Climate Change and Greenhouse Gas Emissions*, at P 3 (Feb. 18, 2010), <https://obamawhitehouse.archives.gov/sites/default/files/microsites/ceq/20100218-nepa-consideration-effects-ghg-draft-guidance.pdf> ("it is not currently useful for the NEPA analysis to attempt to link specific climatological changes, or the

Statement⁷ does not alter these determinations.⁸ One can also not help but notice the Commission's mention of Mountain Valley's "carbon offset plan."⁹

3. *Second*, regarding the inclusion of a calculation of the Social Cost of Carbon from the project's emissions,¹⁰ the Commission has provided extensive discussion on why the use of the Social Cost of Carbon is not appropriate in project-level NEPA review, and why it cannot meaningfully inform the Commission's decisions on natural gas infrastructure projects under the Natural Gas Act.¹¹ Nothing can be gleaned from the numbers calculated by Commission staff in today's order.

For these reasons, I respectfully concur.

James P. Danly
Commissioner

environmental impacts thereof, to the particular project or emissions, as such direct linkage is difficult to isolate and to understand.”).

⁷ *Consideration of Greenhouse Gas Emissions in Nat. Gas Infrastructure Project Reviews*, 178 FERC ¶ 61,108 (2022) (Interim GHG Policy Statement); *see Certification of New Interstate Nat. Gas Facilities*, 178 FERC ¶ 61,197 (2022) (converting the recent policy statements to drafts).

⁸ *See* Interim GHG Policy Statement, 178 FERC ¶ 61,108 (Danly, Comm’r, dissenting at P 22) (“And while it is not acknowledged at all in the Interim Policy Statement’s procedural history, the Commission has repeatedly stated that ‘it cannot determine a project’s incremental physical impacts on the environment caused by GHG emissions,’ and CEQ has made similar statements.”) (citations omitted).

⁹ *See Mountain Valley*, 179 FERC ¶ 61,013 at P 47 (“We note that, in July 2021, Mountain Valley announced its carbon offset plan, by which it would purchase carbon offsets that are expected to be equivalent to 90% of the greenhouse gas emissions associated with operations of the Mountain Valley Pipeline Project over a 10-year period.”) (citation omitted).

¹⁰ *See id.* P 54.

¹¹ *See, e.g., Mountain Valley Pipeline, LLC*, 161 FERC ¶ 61,043, at P 296 (2017), *order on reh’g*, 163 FERC ¶ 61,197, at PP 275-97 (2018), *aff’d sub nom. Appalachian Voices v. FERC*, No. 17-1271, 2019 WL 847199, at *2 (D.C. Cir. 2019) (“[The

Commission] gave several reasons why it believed petitioners' preferred metric, the Social Cost of Carbon tool, is not an appropriate measure of project-level climate change impacts and their significance under NEPA or the Natural Gas Act. That is all that is required for NEPA purposes.”).