

Indian Creek Watershed Association  
P.O. Box 711  
Union, WV 24983  
[www.IndianCreekWatershedAssociation.org](http://www.IndianCreekWatershedAssociation.org)

December 22, 2016

Ms. Kimberly Bose, Secretary  
Federal Energy Regulatory Commission  
888 First Street NE, Room 1A  
Washington, D.C. 20426  
(Via e-filing)

RE: Docket No. CP16-10-000

Dear Ms. Bose,

Indian Creek Watershed Association hereby files the attached supplemental information to Docket CP16-10-000 concerning the springs in the Greenville-Ellison Ridge-Hans Creek area of Monroe County, WV.

Please file in the appropriate manner.

Respectfully submitted,

**Indian Creek Watershed Association Board of Directors**

Judy Azulay, President; Scott Womack, Vice President;  
Howdy Henritz, Treasurer; Nancy Bouldin, Secretary

*Email:* [info@IndianCreekWatershedAssociation.org](mailto:info@IndianCreekWatershedAssociation.org)

**CC: U.S. Environmental Protection Agency, Region 3**  
Mr. Jon M. Capacasa, Director, Water Protection Division  
Barbara Rudnick, NEPA Team Leader

**US Forest Service—George Washington and Jefferson National Forests**  
Joby Timm, Forest Supervisor  
Jennifer Adams, Special Project Coordinator

**U.S. Army Corps of Engineers, Huntington District**  
Mike Hatten, Regulatory Permits – Energy Resources  
Christopher L. Carson

**West Virginia Department of Environmental Protection**  
Randy Huffman, WVDEP  
Scott Mandirola, Division of Water and Waste Management  
Wilma Reip [401 Certification Program]  
Nancy Dickson [Stormwater Permit]  
Wendy Radcliff

**West Virginia Dept. of Health and Human Resources—Compliance and Enforcement Program**  
Meredith Vance

**West Virginia Department of Natural Resources**  
Robert Fala, Office of Land and Streams  
Danny Bennett

**WV Bureau for Public Health**  
William Toomey, Unit Manager, Source Water Assessment and Wellhead Protection Program  
Environmental Engineering Division

Indian Creek Watershed Association, Inc. is commenting on Section 4 of the Draft Environmental Impact Statement for the Proposed Mountain Valley Project and Equitrans Expansion Project (September 16, 2016), Docket No. CP16-10-000 and Docket No. CP16-13-000.

The DEIS ignores information provided by Indian Creek Watershed Association:

- Supplemental Information of Indian Creek Watershed Association regarding a preliminary count of springs on/near the MVP Corridor in Monroe County, WV, and the significant threat posed by this pipeline route to essential drinking water under CP16-10. Accession #20151125-5164
- Indian Creek Watershed Association Interactive Environmental Map available for public and agencies to investigate and document MVP hazards; examples of hazards at individual sites; request for individual site specific permitting requirements etc. Accession #20160715-5088

**Significance:** The ICWA submittals pointed out the paucity of spring information that is available through state and federal databases.

ICWA submitted information pertaining to the density of springs in the general location of springs that have been identified by volunteers and landowners within the Hans Creek and Indian Creek watersheds crossed by the pipeline route in the Greenville area.

The DEIS ignores information provided by individual affected landowners on or near the route documenting the presence and use of springs on their property. That information was submitted to the docket CP16-10 by individual filings and by Save Monroe's multiple filings that include:

- Supplemental Information of Save Monroe, Inc under CP16-10. Information and Updated Reports from Landowners On and Near the Proposed Route in Monroe County, WV, regarding important features of their property. Accession #20151125-5115
- Supplemental Information of Save Monroe, Inc under CP16-10. Information and Updated Reports from Landowners On and Near the Proposed Route in Monroe County, WV, regarding important features of their property. Accession #20151125-5114

The individual landowner reports were submitted to the FERC electronically and in hard copy by Save Monroe. Almost all landowners included gave explicit consent to on-site visits by the FERC staff for the purpose of evaluating the hazards of the MVP pipeline on their property. For the most part these assents were made by landowners who did not allow MVP surveys on their property, in addition to those who had.

All of these documents referenced the presence of springs in the Ellison Ridge-Greenville area. ICWA and individual landowners extended invitations to the FERC staff to evaluate pipeline hazards to these springs. The staff ignored these requests.

To comply with provisions of NEPA and the Clean Water Act, the FERC must have accurate and complete information about the spring water resources on Ellison Ridge, the cumulative effect of geology on those resources, and the effect of the pipeline construction, operation, and maintenance on the drinking water of low income residents.

**Empirical data:** Figures 1 and 2 show the location of numerous springs on Ellison Ridge and in the Greenville area in close proximity to the proposed MVP route.

- These springs were identified by landowners and ICWA and the GPS locations were plotted on the ICWA Interactive Environmental Map. MVP has not attempted to contact landowners in the area to ascertain the location of potentially vulnerable springs both on and near the pipeline. Hence, because it relied on information provided by MVP, the DEIS does not include most of these springs.
- The layer on the attached maps shows that the location of these springs is on steep slopes below the ridgeline where there is shallow depth to bedrock.
- The data contained in these figures do not provide a complete inventory of the springs in this region of Monroe County. They are simply evidence that the DEIS contains insufficient data and that the location and geological qualities of the springs on Ellison Ridge and near Greenville must be determined **before** a pipeline can be considered by the FERC.

**Significance: Critical Water Resources—NEPA regulations require that the FERC must consider the possible devastating impacts on residents if the MVP pipeline destroyed or degraded the principal and sole drinking water aquifers which supply the spring and well water on Ellison Ridge.**

- In order to protect drinking water aquifers, the FERC must consider the effect of the pipeline construction on property near the pipeline route as well as on the pipeline route itself.
- The DEIS errs by ignoring the August 2016 report of a hydrogeological assessment of impacts to the watersheds of Summers County and Monroe County caused by construction of the proposed MV route. In her report, Dr. Pamela C. Dodds, professional geologist, finds that “The MVP gas pipeline construction will require deforestation and blasting, both of which will reduce groundwater recharge and cause significant changes to the amount of groundwater available as a drinking water source, as well as to groundwater flow routes” (p. 4).<sup>1</sup>
- On December 21, 2016 ICWA supplemented the record on the docket with a report by Dr. Dodds, “Hydrogeological Assessment of the Proposed Mountain Valley Pipeline Route Through Subwatersheds with Tributaries to Indian Creek, Monroe County, WV” Docket CP16-10 (Accession #20161221-5434). That report, wherein she delineated and studied the subwatersheds of Indian and Hans Creeks, contains detailed information about the potential environmental hazards in the subwatersheds that are found in Figures 1 and 2. Figure 3 is excerpted from her report and serves as a prime example of the quality of analysis required to comply with NEPA.
- The pipeline’s effect on the springs must be studied in combination with the effects of the other geologic and hydrological features such as slope, soils, and geology.

**Figure 1 shows the area of the Ellison Ridge-Greenville springs** with two of these critical layers activated:

---

<sup>1</sup> “Hydrogeological Assessment of Watershed Impacts Caused by Constructing the Mountain Valley Gas Pipeline Through Summers and Monroe Counties, West Virginia,” Pamela C. Dodds, Ph.D., L.P.G., August 2016.

- Soil erosion potential: The potential for soil erosion is “high” and the steep slopes could advance runoff and degrade the springs and creeks below.
- Depth to bedrock layer: According to MVP’s application, the shallow depth to bedrock would necessitate blasting. Blasting could destroy or degrade the springs and the water supply of the people who live on or near the line.

**Figure 2 shows springs in the Narrows of Hans Creek** and on the ridge to its south:

- Depth to bedrock: from near 0” at the base of the slopes to 36 inches on the surrounding ridges, also indicating that blasting will be needed.
- Slope: Slopes on both sides of the Narrows crossing are very steep. Increased stormwater run-off will add to an already “narrow” water passage. A scour analysis under extreme event conditions should be included in any environmental assessment of this crossing.

There is **no public water supply** that serves Ellison Ridge. In a recent survey of Monroe landowners on and near the MVP Corridors, 80% reported that they depend on a private well or a spring as their primary source of drinking water; only 20% reported having access to public water.

- *Testing* of water supplies does not mitigate destruction or degradation of spring water. It is not preventative. Testing only shows whether the water **has been** polluted. Spring water is simply irreplaceable. Once a spring is destroyed, it is gone forever.

**Significance: Low Income Populations—The FERC must address the fact that the pipeline with its current route on Ellison Ridge will have a disproportionately high and adverse effect on the water supplies of low income populations.**

- **The DEIS errs in not accounting for the effects of environmental hazards on all the people who would be affected** by this huge project. Monroe County residents rely on springs and wells for safe, reliable drinking water for their families, schools, businesses, and livestock, as well as for irrigating vegetable gardens and crops. Ground and surface water does not respect property boundaries. At this point, MVP is only seeking easements from landowners on the pipeline or its worksites. Until there is a full analysis of the interconnectedness of underlying aquifers and the effect of the pipeline on headwater streams and springs, there can be no assurances that downgradient (in either above or underground flow direction) springs will not be affected.
- **The DEIS errs in examining socio-economic issues at a macro-level** instead of by specific census tract or a study of the people who would actually be affected by this project. NEPA refers to this requirement as *Environmental Justice*. The common term is *Economic Fairness*. As seen in Figure 5, the 2014 median household income of the census tract (540639502.004) that contains the Ellison Ridge area stands at \$25,716 which is only 49.3% of the US median household income of \$52,076. Monroe County landowners who are not being paid for an easement on their property have neither the monetary resources to replace a water system nor the legal know-how and money to hire attorneys to engage in the complicated process to force enforcement of environmental laws and to obtain restitution for losses of their drinking or agricultural water.

## CONCLUSION

**Evidence provided in this comment and others supports the need for rigorous independent analysis by the FERC and other federal and state agencies to assure compliance with NEPA, the Clean Water Act, and other federal, state, and local laws.**

These two map examples drawn from the ICWA ITMS Collection demonstrate the power of spatial applications to show combinations of hazards to springs in the Greenville-Ellison Ridge-Hans Creek region that would be caused by the MVP pipeline. This assessment of the mapped resources supports the need for **a rigorous independent analysis by the FERC and other federal and state agencies** to assure compliance with NEPA, the Clean Water Act, and other federal, state, and local laws. Responsible evaluation of this large-scale industrial project dictates a spatial analysis of **interrelated and cumulative factors combined with fieldwork** that is informed by local knowledge and public input.

These maps serve as *examples* of the type of information that is required by NEPA for a pipeline project of this magnitude in both scale and risk to the fragile Appalachian environment. The level of detail shown in information provided by ICWA, landowners and Dr. Pamela Dodds's reports sharply contrast with the cursory submittals by MVP that form the basis of the DEIS.

**The DEIS errs in not providing analyses of the interactive and cumulative hazards to the springs in this region.** There are no site-specific mitigation plans and no analyses of these plans to evaluate whether mitigation would be successful in protecting these water resources.

**It is the obligation of the FERC and the other federal and state agencies to follow best practices of geologic investigation as described by Dr. Kastning:**

“It is important that all contributing potential hazards along every mile of the pipeline route, and their cumulative impact be taken into account during FERC deliberation process. Interacting, compound hazards are particularly troublesome and must be considered together as this may cause greater damage and dangers than would occur if they occurred individually” (Accession # 20161212-5032, p. 47).

While that statement was made in relation to his study of karst, it bears repeating that this principle holds for other potential environmental hazards as exemplified in the reports of Dr. Pamela Dodds concerning her subwatershed analysis of the Indian Creek watershed.

All of the “waters of the United States,” including the “waters of West Virginia,” are protected by statutes and regulations enforced by federal (USEPA and USACE) and state (WVDEP) agencies. It is the obligation of these agencies to ensure that *all* waters potentially affected by this project and covered by the Clean Water Act are protected from pollution—regardless of construction easement boundaries, and whether or not landowners have granted easements to MVP. We therefore request that the federal and state agencies with cooperating agency status on the MVP project require

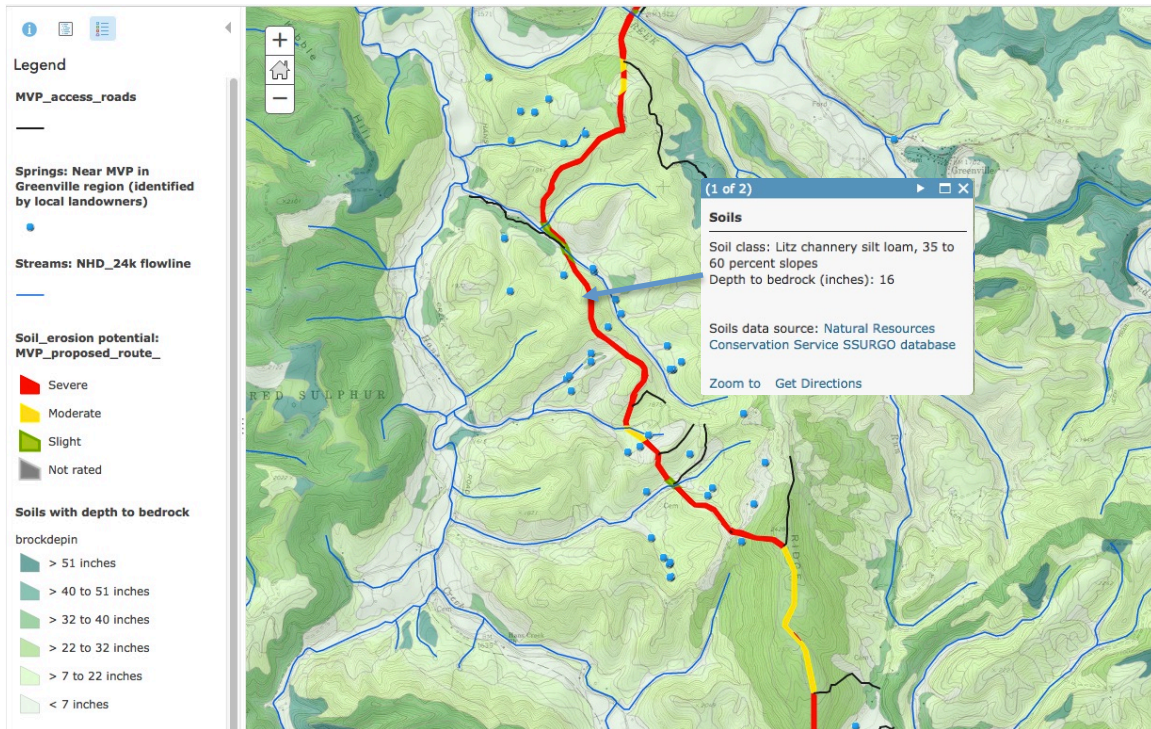
- **In depth, independent hydrogeological studies of critical watershed areas,** especially in regions of karst and *all areas* where public and private drinking water sources are affected.

- **Individual permits which include site-specific plans to prevent impacts on individual stream and wetland crossings and prevent stormwater pollution and groundwater degradation.** The universal conditions in *General* permits are not sufficient to meet site-specific requirements for environmental protection by the 404, 401, and Stormwater permits given the scale of this project, the diverse types of crossings involved, and the unacceptably poor quality of work demonstrated by MVP in its filings to date. Publicly available data are inadequate for a full understanding of issues at individual stream and wetland crossings and other vulnerable locations in proximity to the pipeline route.
- **A broader, regional look at the project's potential cumulative impacts**—both of the MVP along its own route, and of the MVP in relation to other proposed pipelines in the region.
- **A Revised or Supplemental EIS** that corrects the inaccuracies, inadequacies, and misrepresentations found in Section 4, appendices, and non-existent and sketchy mitigation plans of the current DEIS document. To comply with the NEPA requirements the FERC must provide for reasonable **public access, review, and comment on all documents submitted by MVP after the issuance of the DEIS**. The public opportunity to meaningfully analyze and provide comment on the proposed route has been undermined at nearly every stage of the MVP application.

**If the FERC does not issue a new DEIS, we maintain that the FERC has no option except to choose the No Action Alternative.**

Figure 1

**Shallow Bedrock and Severe Soil Erosion Potential  
(with some locally mapped springs near route)\*  
Ellison Ridge Area  
Milepost 182 to Milepost 186**



\* Springs identified by local residents do not represent all springs in the area.

**Representative MVP risks and impacts not adequately addressed in the DEIS:**

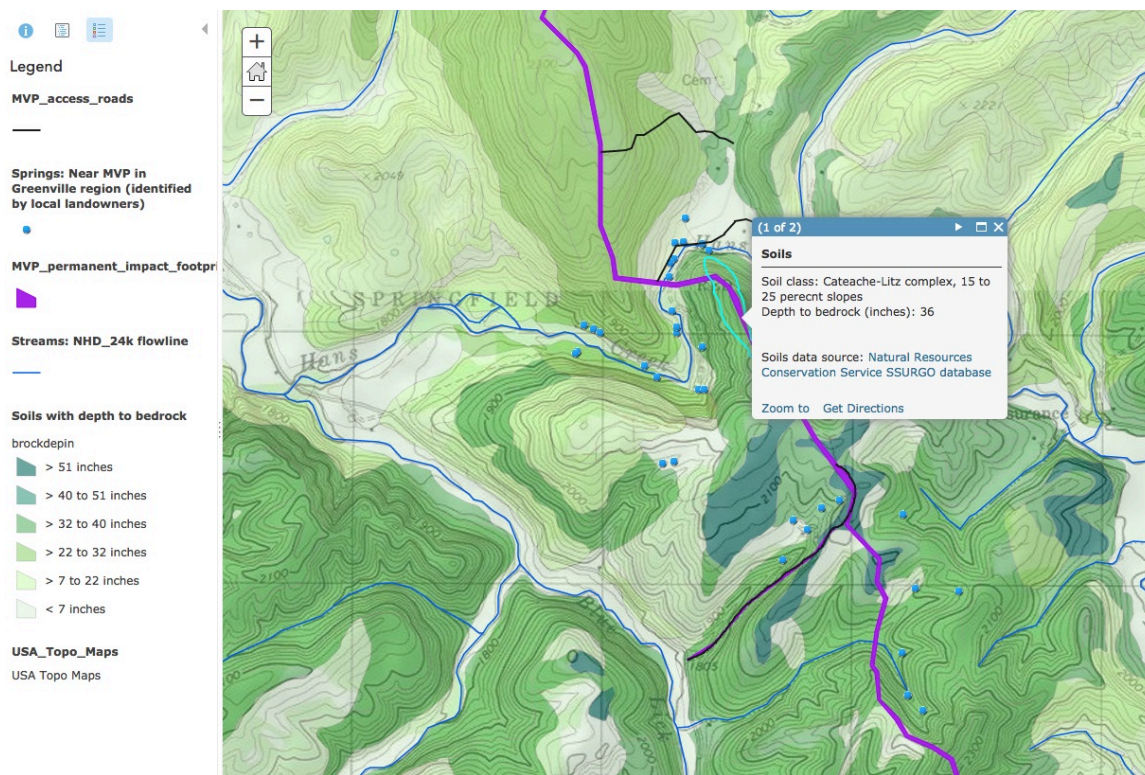
- Shallow depth to bedrock and slip-prone soils cover most of the MVP route through the Ellison Ridge area, where the excavation corridor will be traveling over numerous narrow ridges and slopes ranging in grade from 35 to 60 percent.
- Soil erosion potential is severe. Clearcutting, blasting, and ridgetop removal to create a level 125-ft. construction corridor will dramatically increase erosion, sedimentation and run-off.
- Springs depicted here were reported by local landowners concerned about the risks of MVP construction causing permanent degradation or loss of their springs and wells. Not all areas and properties have been mapped for springs.

**Notes:**

1. MVP mileposts reference September 2016 DEIS map files.
2. ICWA notes that this map and this information does not include all significant risks.
3. Map source: ICWA Environmental Map. Technical development and hosting by Downstream Strategies, LLC.

Figure 2

**Shallow Bedrock and Steep Slopes  
(with some locally mapped springs near route)\*  
Hans Creek Crossing in “Narrows of Hans”  
Milepost 186 to Milepost 188**



\* Springs identified by local residents do not represent all springs in the area.

**Representative MVP risks and impacts not adequately addressed in the DEIS:**

- Hans Creek carves its way from east to west between Ellison Ridge and a ridge to the south in a steep wooded location known locally as “The Narrows of Hans”.
- Shallow soils, which range from a depth of near zero inches (0’) at the base of the slopes to 36 inches on the surrounding ridges, will increase the likely need for blasting.
- ICWA volunteers monitor the creek at locations above and below the proposed MVP crossing. They report exceptionally clear water, with low turbidity and pH about 7.5. The stream bed is mostly bedrock, with large boulders and a range of pebble size.
- Many springs are present along the creek itself as well as on upland locations near the MVP route. The Narrows supports healthy biodiverse flora and fauna.
- MVP’s excavation and construction will take place on steep forested slopes here. Canopy removal will increase soil erosion and change the light and temperature conditions of high gradient springs and streams as well as the Narrows itself. A six-lane interstate pipeline corridor through this environment will not “blend in”.

**Notes:**

1. MVP mileposts reference September 2016 DEIS map files.
2. ICWA notes that this map and this information does not include all significant risks.
3. Map source: ICWA Environmental Map. Technical development and hosting by Downstream Strategies, LLC.

Figure 3, from Dodds, December 2016

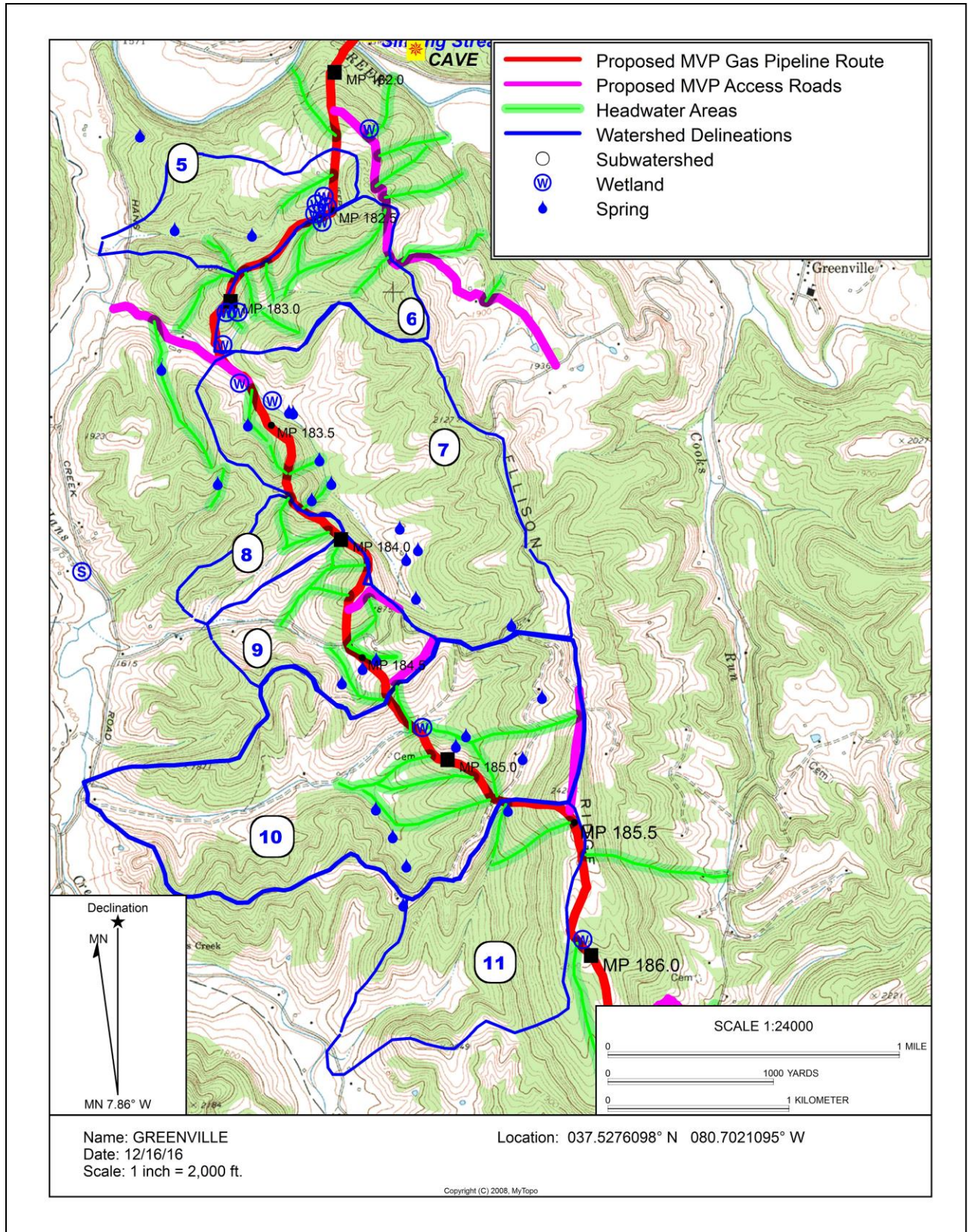


Figure 4.3.1.2 – Subwatersheds 5 through 11 of the Indian Creek watershed.

Document Content(s)

complete springs comment.PDF.....1-10