July 18, 2017

Hon. Molly Ward
Secretary of Natural Resources
1111 East Broad Street
Richmond, VA 23219

David K. Paylor, Director
Virginia Department of Environmental Quality
629 East Main St.
Richmond, VA 23219

Robert Dunn, Chair
State Water Control Board
c/o Office of Regulatory Affairs
Department of Environmental Quality
P.O. Box 1105
Richmond, VA 23218

RE: Comments on Mountain Valley Pipeline Additional 401 Water Quality Conditions

Dear Secretary Ward, Director Paylor and Chairman Dunn:

On behalf of my constituents in the Roanoke Valley, I urge the Commonwealth to use the full scope of its authority to assess the impacts of the Mountain Valley Pipeline on our valuable water resources. Our drinking water is too precious to be threatened by the unprecedented scale of construction across the surrounding mountains and valleys that provide valuable water to hundreds of thousands of Virginians and their businesses.

The Virginia Department of Environmental Quality has issued a draft 401 water quality certification and initiated an inadequate 45-day public comment period. I am asking the Commonwealth to suspend the comment period, and to collect and make available more information on the water quality impacts from the MVP, and, in particular on the impacts to drinking water supplies.

The MVP will cross the Roanoke River and its tributaries over 100 times on steep slopes with highly erodible soils, and then in each valley below. No project on this scale with the hazards that are present has ever been constructed. I have seen photographs of the excavation necessary to construct a 42-inch gas pipeline and it seems obvious that construction on the scale proposed in this region will cause irreparable harm to the public water supplies in Roanoke and Salem.
MVP admits that erosion and stream sedimentation would continue long into the future, and may never stop.

The Roanoke River is formed by the confluence of the North and South Forks of the Roanoke River. The tributaries to both forks would be crossed scores of times. The Roanoke River would also be crossed by the MVP near the confluence and just upstream from public water supply intakes. The sediment assessment provided by MVP in the FERC certification process is only a fraction of the story -- it does not include the load added to the South Fork of the Roanoke River via Bottom Creek.

Bottom Creek is a mountain stream that is perched on top of the Blue Ridge Plateau. Bottom Creek and its tributaries would be crossed over 30 times, and the wetlands that feed Bottom Creek and maintain the water balance in the community would be crossed 44 times. The impacts in the Bottom Creek watershed threaten not only the Roanoke River with sediment loading, but also the groundwater that supplies homes and businesses on top of the mountain. The Bent Mountain community has no alternative to the water they drink that comes out of the ground, and the groundwater is all threatened by extensive wetland excavation and the blasting that will be required to get through the shallow bedrock.

Karst geology is a threat in the upstream communities impacted by the MVP. Karst geology is challenging for predicting underground water flow patterns due to the caves and channels through the limestone. In 2015, steep-slope gas pipeline construction west of Roanoke caused diesel contamination in a public water supply that appeared one half mile from the karst sinkhole where the course of the spill originated. Impacts from karst are unpredictable. The hazard assessment upon which MVP relies does not address the karst or seismic hazards present in this region.

Earlier this month, the private water wells in a residential community in Chester County, Pennsylvania were contaminated by gas pipeline construction. The community is in an area characterized by karst geology. The treat was predicted and it came true. There is a nearby public water supply that can be extended to this community, but the communities along the MVP route do not have backup public water on the peripheries.

The DEQ submitted comments to the Federal Energy Regulatory Commission in December 2016 that included recommendations from the Virginia Department of Health for drinking water protections. The recommendations include the identification of the location of all private water supplies and septic systems within 1000 feet of the pipeline corridor once the route has been identified. The VDH documents are attached. Not only will the pipeline corridor cause erosion and sedimentation that can pollute sources of drinking water, particularly in karst geology, but the shallow depth to bedrock along the route likely requires blasting in the construction which can cause unpredictable and widespread impacts to water resources throughout the region.

It is our understanding that the collection of the information that the VDH recommended has not been done, and it is our position that the information is necessary to inform the DEQ in its consideration of the Clean Water Act Section 401 water quality certification.

In addition to collecting the information on private water supplies within 1000 feet of the
corridor, I insist on the conduct of a thorough and transparent assessment of stream and wetland crossings, as well as all impacts from upland construction, operation, and maintenance of the pipeline to evaluate whether Virginia Water Quality Standards, including designated uses, can be maintained.

The Commonwealth must use its broad authority to conduct its own analysis under Section 401 of the Clean Water Act. The scale of the MVP is unprecedented, and would cross hundreds of sensitive waterways in some of the steepest terrain in the Virginia. The MVP would clear thousands of acres of forestlands on steep slopes, which forestlands attenuate and filter rain water before reaching public and private water supply systems. The MVP is proposed to be built through karst geology and seismic areas which create additional risks. The MVP is poses significant threats to our water resources.

We urge the Commonwealth not to rush any part of the review of the water quality impacts from the MVP. The streams, rivers, and wetlands, and each and all of our surface water resources interact with our groundwater. Water supplies are too vital to place at risk, particularly since there has been no analysis or justification provided for any need for the MVP.

Therefore I request that the comment period on the Additional Requirements for 401 Certification be suspended until the following information necessary to consider impacts to water supplies is gathered and provided to the public:

- A thorough study of how much total sediment the pipeline would release into the Roanoke River across the 100 plus crossings both during and after construction, including impacts on downstream communities and their water supplies;
- Supplemental review of upland impacts in the entire Roanoke River Basin;
- Sanitary survey within 1000 feet on either side of the pipeline performed by specialists to ensure water sources are protected as specifically recommended by the Virginia Department of Health; and
- Significant additional dye-testing to trace water flows throughout the pipeline’s impacted area due to the karst geology.

The Commonwealth must take the time to assure it has all necessary information, review that information, give the public an opportunity to thoroughly review the information, and then conduct a thorough and transparent analysis of critical water crossings, all related upland activities and the interconnected groundwater resources and the water supplies that would be impacted.

The Department of Environmental Quality makes the following representation on its website:

The Commonwealth and its localities work together to manage and protect our water resources to meet long-term human and environmental needs. Improved coordination of drought response and water resources management activities at the local, regional and state levels is essential to guaranteeing the adequacy of Virginia's water supplies to meet the current and future needs of Virginia's citizens in an environmentally sound manner.

http://www.deq.virginia.gov/Programs/Water/WaterSupplyWaterQuantity.aspx. We ask that the
Commonwealth live up to the standard that it not only sets for itself but also is intended under the law. We need all of the necessary information and then we need time after we have the information to respond to a proposed 401 water quality certification.

Sincerely,

Sam Rasoul
Member, Virginia House of Delegates
Eleventh District

CC:

Honorable Terry McAuliffe
Governor of Virginia
1111 East Broad Street
Richmond, VA 23219

Honorable Marissa Levine, MD, MPH, FAAFP
Virginia State Health Commissioner
Virginia Department of Health
109 Governor Street
Richmond, VA 23219

Lance Gregory
Program Administration Manager
VDH Office of Environmental Health Services
109 Governor Street, 13th Floor
Richmond, VA 23219
Office of Drinking Water

The Office of Drinking Water has reviewed the Mountain Valley Pipeline project. Below are our comments as they relate to proximity to public drinking water sources (groundwater wells, springs and surface water intakes). Potential impacts to public water distribution systems or sanitary sewage collection systems must be verified by the local utility.

The following public groundwater wells are located within a 1 mile radius of the project site:

<table>
<thead>
<tr>
<th>PWSID</th>
<th>City/County</th>
<th>Waterworks Name</th>
<th>Facility Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1071568</td>
<td>GILES</td>
<td>LHOIST NORTH AMERICA OF VA SPRING</td>
<td></td>
</tr>
<tr>
<td>1121751</td>
<td>MONTGOMERY</td>
<td>CAMP TUK-A-WAY DRILLED WELL</td>
<td></td>
</tr>
<tr>
<td>2770900</td>
<td>ROANOKE CO</td>
<td>WESTERN VA WATER AUTHORITY CAMPBELL HILLS WELL 2 (SB)</td>
<td></td>
</tr>
<tr>
<td>2161283</td>
<td>ROANOKE CO</td>
<td>BENT MOUNTAIN BISTRO WELL</td>
<td></td>
</tr>
<tr>
<td>2161042</td>
<td>ROANOKE CO</td>
<td>BENT MOUNTAIN LIB. &amp; COM. CTR WELL</td>
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</tr>
<tr>
<td>1063148</td>
<td>FLOYD</td>
<td>COPPER HILL DAY CAR CENTER NEW WELL</td>
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</tr>
<tr>
<td>5067043</td>
<td>FRANKLIN CO</td>
<td>BOONES MILL TOWN OF DRILLED WELL NO. 1</td>
<td></td>
</tr>
<tr>
<td>5067043</td>
<td>FRANKLIN CO</td>
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<td></td>
</tr>
<tr>
<td>5067043</td>
<td>FRANKLIN CO</td>
<td>BOONES MILL TOWN OF SPRING</td>
<td></td>
</tr>
<tr>
<td>5067952</td>
<td>FRANKLIN CO</td>
<td>TEEL BROOKE ESTATES WELL NO. 19</td>
<td></td>
</tr>
<tr>
<td>5067952</td>
<td>FRANKLIN CO</td>
<td>TEEL BROOKE ESTATES WELL NO. 15</td>
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<tr>
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</tr>
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<td>5067943</td>
<td>FRANKLIN CO</td>
<td>SUNSHINE VALLEY SCHOOL WELL NO. 1</td>
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</tr>
<tr>
<td>5067256</td>
<td>FRANKLIN CO</td>
<td>GLADE HILL MINUTE MARKET WELL NO. 1</td>
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<tr>
<td>5067255</td>
<td>FRANKLIN CO</td>
<td>GLADE HILL ELEMENTARY SCHOOL WELL NO. 3</td>
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</tr>
<tr>
<td>5067916</td>
<td>FRANKLIN CO</td>
<td>LA TRATTORIA WELL NO. 3</td>
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The following surface water intakes are located within a 5 mile radius of the project site:

<table>
<thead>
<tr>
<th>PWSID</th>
<th>Waterworks Name</th>
<th>Facility Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>2770900</td>
<td>WESTERN VA WATER AUTHORITY SPRING HOLLOW</td>
<td></td>
</tr>
<tr>
<td>5067840</td>
<td>ROCKY MOUNT, TOWN OF BLACKWATER RIVER</td>
<td></td>
</tr>
<tr>
<td>5143210</td>
<td>GRENTA, TOWN OF WHITETHORN CREEK (VADENS MILL)</td>
<td></td>
</tr>
<tr>
<td>5143114</td>
<td>CHATHAM, TOWN OF CHERYSTONE CREEK INTAKE</td>
<td></td>
</tr>
</tbody>
</table>
The project is located within the watershed of the following public surface water sources (intakes where the project falls within 5 miles into their watershed are formatted in **bold**):

<table>
<thead>
<tr>
<th>PWSID</th>
<th>Waterworks Name</th>
<th>Facility Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>2770900</td>
<td>WESTERN VA WATER AUTHORITY</td>
<td>SPRING HOLLOW</td>
</tr>
<tr>
<td>5067840</td>
<td>ROCKY MOUNT, TOWN OF</td>
<td>BLACKWATER RIVER</td>
</tr>
<tr>
<td>5143114</td>
<td>CHATHAM, TOWN OF</td>
<td>CHEERYSTONE CREEK INTAKE</td>
</tr>
<tr>
<td>4087125</td>
<td>HENRICO CO WATER SYSTEM</td>
<td>HENRICO RAW WATER INTAKE</td>
</tr>
<tr>
<td>4075735</td>
<td>JAMES RIVER CORRECTIONAL CTR</td>
<td>JAMES RIVER INTAKE</td>
</tr>
<tr>
<td>5680200</td>
<td>LYNCHBURG, CITY OF</td>
<td>JAMES RIVER-COLLEGE HILL</td>
</tr>
<tr>
<td>5680200</td>
<td>LYNCHBURG, CITY OF</td>
<td>JAMES RIVER-ABERT</td>
</tr>
<tr>
<td>5117707</td>
<td>CLARKSVILLE, TOWN OF</td>
<td>KERR RESERVOIR INTAKE</td>
</tr>
<tr>
<td>5031050</td>
<td>ALTAVISTA, TOWN OF</td>
<td>STAUNTON RIVER</td>
</tr>
<tr>
<td>4760100</td>
<td>RICHMOND, CITY OF</td>
<td>RAW WATER INTAKE</td>
</tr>
</tbody>
</table>

Best Management Practices (BMPs) should be employed on the project site, including Erosion & Sediment Controls as well as Spill Prevention Controls & Countermeasures.

Care should be taken while transporting materials in and out of the project site, as to prevent impacts to surface water intakes within 5 miles.

There may be impacts to public drinking water sources due to this project if the mitigation efforts outlined above are not implemented.

**Office of Environmental Health Services**

See attached memo from Dwayne Roadcap, Division Director, dated December 9, 2016.

**Office of Epidemiology, Division of Environmental Epidemiology**

No comments.

**Office of Radiological Health**

No comments.
December 9, 2016

Memorandum on Mountain Valley Pipeline Project

To:        Drew Hammond, Acting Director, ODW  
Arlene Warren, Policy and Planning Specialist

Through:   Allen Knapp, Director, OEHS

From:      Dwayne Roadcap, Division Director

RE:        Comments regarding the Mountain Valley Pipeline from OEHS

This is in reply to your request for additional comments on the Mountain Valley Pipeline project as requested by the Department of Environmental Quality.

Our understanding is that the pipeline’s path and exact location may change and is not finalized at this time. Once the pipeline’s path and exact location is known, then records at each local county health department can be reviewed to determine what records are available with respect to wells and onsite sewage systems.

In 1990, the Board of Health promulgated the Private Well Regulations (12VAC5-630-10 et. seq.), which establish requirements for the location and construction of private wells in the Commonwealth. These requirements include minimum separation distances from contaminant sources and other features contained in section 380 and Table 3.1. You can find a copy of the Private Well Regulations here. Homeowners in the counties associated with the pipeline could be using springs, cisterns, hand-dug wells, and drilled wells near the pipeline’s path. These water systems would likely have varying types of construction and not meet today’s construction standards or regulations.

Protecting water quality for these property owners is a paramount concern so once the pipeline’s location is confirmed, OEHS would recommend that a complete sanitary survey along the pipeline’s path be performed by a team of persons with expertise in geology, hydro-geology, epidemiology, and public health. OEHS recommends that a sanitary survey within 1,000 feet on either side of the pipeline be performed at a minimum to ensure people and properties using local and regional groundwater and surface water for recreational use or human consumption are identified and protected. Keep in mind that some wells may be located below the ground surface and not visible to the eye, which might require a door-by-door assessment in some cases.

Please note only wells permitted since 2003 are included in the information provided with this memorandum. Records for private wells constructed prior to 2003 may be available in hard copy, but many owners are likely to be using water sources that pre-date 2003. VDH recommends that the project team performing the sanitary survey contact each local health department in the project area to obtain additional hard copy records to assure appropriate separation distances will be maintained between the proposed pipeline and private wells, springs,

In addition to private well records, each local health department has records regarding the location of onsite sewage (septic) systems. In addition to making sure the pipeline does not impact groundwater and drinking water systems, the project team leading the sanitary survey project should identify onsite sewage systems near the pipeline’s final path. Property owners must submit an application to the local health department in which the property is located to relocate any onsite sewage system impacted by the pipeline’s construction.

The pipeline permitting and approval process should provide numerous options and safeguards to protect local and regional surface water and aquifers. The pipeline goes pass through karst topography, which presents specialized concerns. The Mountain Valley Pipeline project will likely have a 42-inch diameter piping system. Burying the pipeline, if necessary, would likely require clearing wide swaths of brush, digging, boring, drilling, blasting and use of fuels and lubricants for heavy equipment. These activities can adversely affect karst landscapes or possibly create new sinkholes depending on site grading and landscaping.

The pipeline project needs to protect public health as follows:

- FERC and/or the Mountain Valley Pipeline project owners should provide VDH with copies of permits, plans, and studies performed throughout the project so VDH can stay informed, review material, and provide informal comments as necessary throughout the process.

- FERC should provide a mechanism to keep the public and local property owners informed through public notice and solicitation of public comments (i.e., 30-day comment period). Holding informational meetings to gather public input on the issues of water supply and recreational water to assess the impact of the project would be valuable. VDH should be invited to participate and offer formal comments through the permitting and application process. Specifically, VDH recommends receiving public comments related to the following questions:

1. What are the public’s concerns related to the impact of the project on water quality and quantity of private wells?
2. What are the public’s concerns related to the impact of the project on recreational use of surface water?
3. What role should VDH play in assuring that public health is protected in regard to private wells and recreational water use in regard to the project?
4. What safeguards should be in place to protect private wells and recreational water?
5. Are additional legislative safeguards desired to protect human health, drinking water, or recreational water?
• FERC should acknowledge and address public comments received and defend any decision to issue an approval for the pipeline. VDH stands ready to help ensure VDH’s comments are adequately addressed.

• The public should be allowed to request a public hearing on the project so that questions and information can be provided.