



July 9, 2020

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Sent via email

Re: Comments on Draft Integrated Report for 2020

Board of Directors:

Ms. Mueller:

Bette Dzamba
Sarah Fromme
Katie Keller
Leigh Kirchner
Elise Togbe
Jamie Trost
Ryan Wagener
Elizabeth Williams

I am submitting these comments on behalf of Wild Virginia and our members throughout the state and in other parts of the United States. We assert that one primary deficiency with the Integrated Report (IR) is the failure to properly acknowledge violations of the general or narrative criteria in the water quality standards regulation. We present new evidence and cite significant evidence that is already in the possession of the Department of Environmental Quality (DEQ) showing clear violations of those narrative criteria. DEQ must incorporate this evidence into the water quality assessment and, where violations have occurred, must add waters to the impaired waterbodies list.¹

Introduction

The objective of the Clean Water Act (CWA), the ultimate aim for all efforts under that statute, is:

To restore and maintain the chemical, physical, and biological integrity of the Nation's waters.

33 U.S. Code § 1251(a) [CWA § 101(a)].

The Act further defines goals and policies, including that “wherever attainable, an interim goal of water quality which provides for the protection and propagation of fish, shellfish, and wildlife and provides for recreation in and on the water be achieved by July 1, 1983.” *Id.*

Water quality standards (WQS) are one of the foundational tools created by the CWA and federal regulations stipulate that WQS must be designed to serve the objective and goals.²

¹ We wish to endorse and adopt by reference comments submitted by Shenandoah Riverkeeper and Potomac Riverkeeper Network as those comments and the evidence they include are consistent with our assertions.

² See 40 C.F.R. § 131.2, “States adopt water quality standards to protect public health or welfare, enhance the quality of water and serve the purposes of the Clean Water Act (the Act). ‘Serve the purposes of the Act’ (as defined in sections 101(a)(2) and 303(c) of the Act) means that water quality standards should, wherever

States are responsible for “reviewing, establishing, and revising water quality standards,” 40 C.F.R. § 131.4, and those WQS may be more stringent than required by the federal regulation. *Id.* To be effective, WQS must define the conditions that are to be maintained in our waters to support healthy and sustainable aquatic systems and all designated and existing uses, as those uses are defined by law. These definitions must include narrative descriptions and, wherever possible and appropriate, numeric measures of physical, chemical, and biological characteristics that are necessary to maintain acceptable water quality to support all beneficial uses. Both types of criteria have equal legal weight and DEQ has an obligation to enforce both of them equally.

Virginia’s narrative water quality criteria, termed “general criteria” in the regulation, state as follows:

State waters, including wetlands, shall be free from substances attributable to sewage, industrial waste, or other waste in concentrations, amounts, or combinations which contravene established standards or interfere directly or indirectly with designated uses of such water or which are inimical or harmful to human, animal, plant, or aquatic life.

Specific substances to be controlled include, but are not limited to: floating debris, oil, scum, and other floating materials; toxic substances (including those which bioaccumulate); substances that produce color, tastes, turbidity, odors, or settle to form sludge deposits; and substances which nourish undesirable or nuisance aquatic plant life. Effluents which tend to raise the temperature of the receiving water will also be controlled. Conditions within mixing zones established according to 9VAC25-260-20 B do not violate the provisions of this subsection.

9 VAC 25-260-20.

The IR claims that “Virginia bases its water quality assessment on the ability of the waters to support the associated designated uses” and that “[d]esignated use support is established on the waters meeting the criteria for each use as defined in the numeric and/or narrative water quality standards.” IR at 48 - 49. However, the report does not explain the components of these narrative criteria or describe how compliance with their mandates are assessed. Further, DEQ has made no effort to apply most of the parts of the narrative criteria, despite the public’s presentation of cases where activities allowed by the state was under its authority from both CWA section 402 (VPDES permitting) and section 401 (water quality certifications) and in earlier versions of this IR.

attainable, provide water quality for the protection and propagation of fish, shellfish and wildlife and for recreation in and on the water and take into consideration their use and value of public water supplies, propagation of fish, shellfish, and wildlife, recreation in and on the water, and agricultural, industrial, and other purposes including navigation.” (emphasis added).

In fact, in at least one case a member of the State Water Control Board (Board) noted that, according to the WQS regulations, the narrative criteria include a condition she paraphrased to indicate that “turbidity is not authorized.”³ That Board member’s assertion is consistent with the condition in the narrative criteria which states, in part, that “[s]pecific substances to be controlled include . . . substances that produce . . . turbidity.” 9 VAC 25-260-20. In response to the Board, a DEQ official stated that she did not know how a narrative criteria violation could be identified for turbidity, because Virginia has no numeric turbidity criteria.⁴ Of course, such a stance on the part of DEQ improperly negates the value of the Board’s duly-adopted narrative criteria, contrary to the clear wording of the regulation.

This approach also conflicts with the Board’s explicitly-stated intent when it adopted water quality standards in 1981. The statement of basis and purpose made clear that the Board intended both narrative and numeric limits to be given force and effect:

Water quality standards consist of narrative statements that describe water quality requirements in general terms, and of numeric limits for specific physical, chemical, biological or radiological characteristics of water. These narrative statements and numeric limits describe water quality necessary to meet and maintain reasonable and beneficial uses such as swimming and other water based recreation, public water supply and the propagation and growth of aquatic life. Standards include general as well as specific descriptions, since not all requirements for water quality protection can be numerically defined.⁵

DEQ has refused to apply several portions of the narrative criteria. Especially notable, is its failure to designate waters heavily degraded by the presence of “substances which nourish undesirable or nuisance aquatic plant life” such as is proven in Riverkeepers’ current comments and in its repeated submittals during the last ten years or more.⁶ However, in these comments we focus primarily on violations of the conditions related to turbidity and color.

Turbidity and Color

As quoted above, the addition of substances to a stream that produce color or turbidity is expressly prohibited. In addition, the General Criteria include prohibits “substances . . . which contravene established standards or *interfere directly or indirectly with designated uses.*” 9VAC 25-260-20.A. (emphasis added). Thus, it is not necessary that a use be eliminated by a change in water quality to violate the regulation, only that it be interfered with.

³ Statement by Nissa Dean, State Water Control Board meeting, August 21, 2018.

⁴ Statement by Melanie Davenport, State Water Control Board meeting, August 21, 2018.

⁵ Commonwealth of Virginia State Water Control Board, Water Quality Standards (eff. Dec. 12, 1981) (excerpt). The current water quality standards at 9 Va. Admin Code Ch. 260 are derived from this 1981 enactment.

⁶See also: DEQ Presentation, Shenandoah River Algae, Field Monitoring Methods, Data Summary and Current Status, April 10, 2019, https://vwmcvwrcc.wp.prod.es.cloud.vt.edu/wp-content/uploads/2019/04/Wyrick_2019-1.pdf (last accessed July 9, 2020).

Unusual colors and turbidity in a stream can affect habitats and species in ways that “interfere with” the designated use for support of aquatic life, defined in the regulation as “the propagation and growth of a balanced, indigenous population of aquatic life, including game fish, which might reasonably be expected to inhabit them; wildlife; and the production of edible and marketable natural resources, e.g., fish and shellfish.” 9VAC 25-260-10.A. Sediments or other solids that produce turbidity and/or color may greatly alter or destroy stream habitat, as demonstrated at sites described below that have been affected by discharges during Mountain Valley Pipeline (MVP) construction. The existence of color- or turbidity-producing substances may also block sunlight from penetrating the water column, inhibiting plant and animal growth, feeding, etc.

Another impact from color and turbidity is the interference with recreational uses of waterbodies. Such uses are to be protected under Virginia regulations at 9 VAC 25-260-10.A. The degree to which members of the public are deterred or prevented from using a waterbody due to color or turbidity will be determined by visual perception of the affected users and by the physical qualities of the polluted water. The fact that such visual impacts may “interfere with” uses cannot be seriously questioned. Use of a stream that, under natural conditions is clear and has low amounts of suspended matter, will certainly be impaired and the regulations require DEQ to acknowledge these kinds of problems by adding them to the CWA 303(d) priority waters list and then to take action through development and implementation of Total Maximum Daily Loads (TMDLs) to eliminate the impairments.

Streams Impaired by Color and/or Turbidity

A number of streams in areas that have been affected by discharges from MVP construction show clear violations of the narrative criteria. We present two different sets of data below: 1) DEQ field inspection reports to assess compliance with the Virginia Water Protection (VWP) regulations and 2) information provided by citizens about impacts in three specific areas along the MVP route.

In addition, we provide proof of impairment of the James River, resulting from discharges by a paper manufacturing plant.

A. Stream Impairments Due to Mountain Valley Pipeline

- 1) DEQ Inspection reports – DEQ has made a large body of inspection reports related to the MVP available on its web site on a page entitled “Multi-faceted Inspection for Oversight of Pipeline Projects.”⁷ Eight of those inspection reports are entitled “VWP Field Inspection Report.” Each of these inspections revealed instances when heavy discharges of sediment entered waterbodies due to releases from the MVP construction right of way. While we only address these VWP inspection reports here, we note that other reports in the collection on DEQ’s site describe serious discharges of sediment causing many other cases where streams were inundated with sediments resulting in heavy turbidity and color in the streams.

⁷ Accessible at <https://www.deq.virginia.gov/Programs/Water/ProtectionRequirementsforPipelines/Multi-facetedInspectionforOversightofPipelineProjects.aspx>.

Given that this information is within DEQ's control, we do not believe it is incumbent upon us to provide the reports or to describe each in detail. However, what is clear from a review of the reports is that in each of these eight cases, and in many others described as Field Inspection reports or Complaint Investigation reports, the narrative criteria were violated. The most extreme examples include:

- A site identified as "Bacchus Road; 37°15'30.5"N, 80°17'46.8"W, Stream Crossing SMM-15." The inspection of an unnamed tributary to Flatwood Branch, in Montgomery County, was made in June of 2018. Inspectors described a 3,600 foot segment of the stream in which sediment deposits ranged from 1 inch to 7 inches deep throughout the length of the section. The photograph in Figure 1. depicts a small portion of this stream. We can conceive of no clearer example of a discharge that resulted in turbidity and color in the waterbody and which clearly would interfere with aquatic life and recreational uses. Apparently, MVP personnel were ordered to remove these sediments using hand tools and buckets. However, this represents a serious impairment of the stream.
- At a site identified as "Catawba Road; 37°15'53.6"N, 80°18'30.8"W, Stream Crossing #39 and #40," inspectors found a total of 2,200 linear feet of channel within two separate streams to be coated in sediment ranging from 1 to 5 inches in depth. The photographs of these two tributaries to the North Fork Roanoke River, show water columns where the flows are brownish to orange in color, in addition to the mud-covered stream bottoms. These streams must be designated impaired and follow-up inspections must determine whether or to what extent long-term degradation was caused.

Though the specific discharges that produced these and the other stream impairments shown in the eight VWP inspection reports were of relatively short duration, the impacts of those pollution events could be long-lasting. First, of the large volumes of sediment released to these streams, even if some is removed from the beds of the creeks in the immediate vicinity of the discharge, much of it will travel downstream and have lasting impacts.

Second, the very action of digging within the streams cannot prevent the damage already done to the habitats and, in fact, may well worsen the damage. Third, additional sediment-laden discharges from the work sites will have cumulative effects in combination with these major events. Finally, the interference with designated uses in these streams occurred from the day the pollution events occurred and even if that interference lasted no longer than one week, or even one day, the WQS were violated. Virginia's WQS regulation does not allow for uses to be eliminated or severely damaged for any period of time.

We also note that, while the discharges from MVP in these instances were apparent violations of the water quality certification issued for the project, such a showing of noncompliance is not required for the occurrence to be a violation of WQS. Even if

discharges of sediment or sediment-laden water are held not to violate requirements under a 401 certification or a discharge permit, the creation of turbid or colored conditions in the waterbody are violations of the narrative criteria. Acknowledging this fact is especially important, because these occurrences must be addressed and prevented in future regulatory actions.

- 2) Citizen Documentation of Narrative Criteria Violations – Land disturbance at a site along Teels Creek in Franklin County has caused repeated and frequent discharges of highly turbid and colored water, thereby violating these conditions of the narrative criteria. The site in question is at latitude 37 deg. 5' 18" N and longitude 79 deg. 57' 2" W (see aerial photo of location in relation to pipeline on Figure 3). The MVP right of way crosses Teels Creek both upstream and downstream from this site and runs parallel to the stream for well over 2 miles. Discharges of turbid and colored water have been documented at numerous points along Teels Creek but, for our purposes, it is sufficient to show the impact to the stream at this one location.

Soon after clearing and graded began along this section of the MVP right of way, flows of muddy water began to undermine silt fence bordering Teels Creek and discharges of highly colored and turbid water were discharged to the stream. MVP personnel continually worked on and added control measures but, through time the stream bank along this segment collapsed, dumping even more sediment into the stream. Figure 4 shows the discharge and collapsing bank on May 27, 2018. Nearly a month later, the pollution controls continued to fail and sediment-laden and highly colored water continued to discharge into the stream, as shown in Figure 5.

In the many months after these discharges began, up through early 2020, the area on the right of way adjacent to Teels Creek at the is location was almost continually covered with an impoundment of water that frequently discharge turbid and colored water to the stream.

The prohibition against contributions of color and turbidity to state water in the narrative criteria has been violated on hundreds of days during the last two years. The destruction of the stream bank will continue to contribute sediments to the stream unless and until the bank is reconstructed. The color and turbidity caused by MVP violate the criteria *per se* but also create conditions in the waterbody that interfere with aquatic life uses, through destruction of habitat, and with recreational uses. The landowners at this site and others downstream have valued this stream for its aesthetic qualities, a component of the recreation designated use, and have a right to enjoy that use without interference from MVP's discharges.

DEQ has a duty to report this violation in the IR and to list the associated segment of Teels Creek as impaired. At the same time, DEQ must take the initiative and identify other streams and wetlands where turbidity and color have been impaired, as documented through public reports to the Department. The complaint logs and inspection reports in DEQ's possession are replete with such violations. Unfortunately, DEQ has determined that many of the discharges that led to high turbidity and color in these streams did not constitute violations of the water quality certification issued for MVP. However, as stated

above, the status of those impacts as regards compliance with the requirements imposed on MVP is irrelevant to the question as to whether WQS are violated. Clearly, even when all erosion and sediment control plans are followed and 401 conditions are met, nearby waters have been degraded and impaired in dozens, if not hundreds, of segments.

It is instructive to review the ways other regulators address turbidity in streams, to gauge the seriousness of the kinds of problems we identify herein. The U.S. Environmental Protection Agency has published recommended criteria, based on thousands of samples in a wide variety of streams in each ecoregion in the country. The suggested criterion for the region where the streams examined here is at a level of 2.3 Nephelometric Turbidity Units (FTU).⁸ This number is believed to represent conditions that would be found in high quality or relatively unimpacted streams and, therefore, should be protective of aquatic ecosystems.

The array of water samples shown in Figure 6, shows the appearance of a range of turbidity levels in bottles. While these samples cannot be directly related to the appearance of water instream at the same turbidity levels, they are instructive. The level of turbidity in the discharge and in Teels Creek shown in Figure 5 would appear to be well higher than the 500 NTU sample in Figure 6, and may well be higher than the 2,000 NTU sample. At the very least, the turbidity in Teels Creek, and in the other streams discussed in these comments must be hundreds of times greater than EPA's recommended criterion.

B. Stream Impairment Caused by Paper Mill Waste

In addition to the water quality impairments described above for streams in the MVP construction area, we cite one example of a violation of narrative criteria for color caused by a discharge authorized by a VPDES permit. The facility is called Greif Packaging Paperboard Mill and is covered by permit number VA0006408. As can be seen in the Figure 7, even in the satellite image from Google Earth, the intensity of color in the James River is extreme and the contrast with the upstream waters is stark. This photo is taken within the period covered by this IR (2013 – 2018) but similar impacts on the stream have been present for decades. Similar views can be seen in Google Earth images as early as 2002 and I personally have seen these types of colors in the river at this location from the 1980s up through at least 2010.

There could be no clearer instance of a violation of the narrative criteria's prohibition on the discharge of substances that produce color. Again, even if this discharge is allowed by the current VPDES permit, the WQS violation is clear. The two are not mutually exclusive. DEQ must list this segment of the James River as impaired for color and a TMDL must be developed. This must then be used to revise the discharge permit to ensure future WQS violations are prevented.

Conclusion

The kinds of water quality observations contained in these comments differ from the kind of quantitative measures DEQ generally relies upon. Where numeric criteria exist and suitable data has been collected, these methods will be preferable in most cases. However, the very nature of narrative criteria dictate that DEQ must not exclude these types of evidence but give

⁸ U.S. EPA, *Ambient Water Quality Criteria Recommendations, Information Supporting the Development of State and Tribal Nutrient Criteria, Rivers and Streams in Nutrient Ecoregion XI*, December 2000, p. vi.

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these materials the weight they deserve. Rather, DEQ has a duty to seek out this kind of evidence and use it in preparation of the final IR.

Sincerely,

/s/ David Sligh

David Sligh
Conservation Director

Att: "Figures with Wild Va. Comments on 2020 draft IR"

Figures to accompany Wild Virginia Comments on draft IR report for 2020



Figure 1 – Unnamed Tributary to Flatwoods Branch, from DEQ inspection report



Figure 2 – Unnamed Tributary to North Fork Roanoke River, from DEQ inspection report

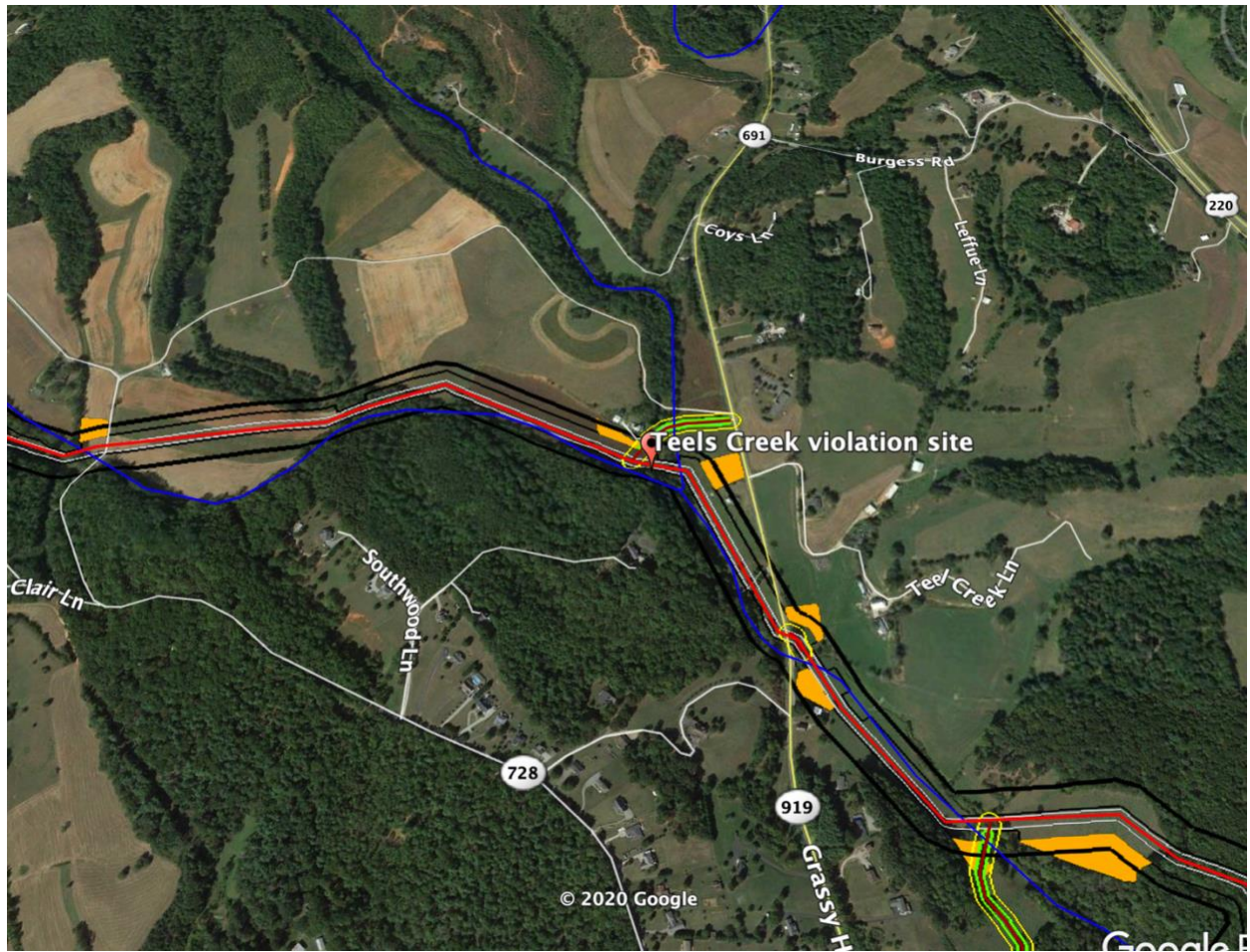


Figure 3 – Site of violations on Teels Creek in relation to MVP right of way



Figure 4 – Teels Creek site, May 27, 2018



Figure 5 – Teels Creek site, June 23, 2018

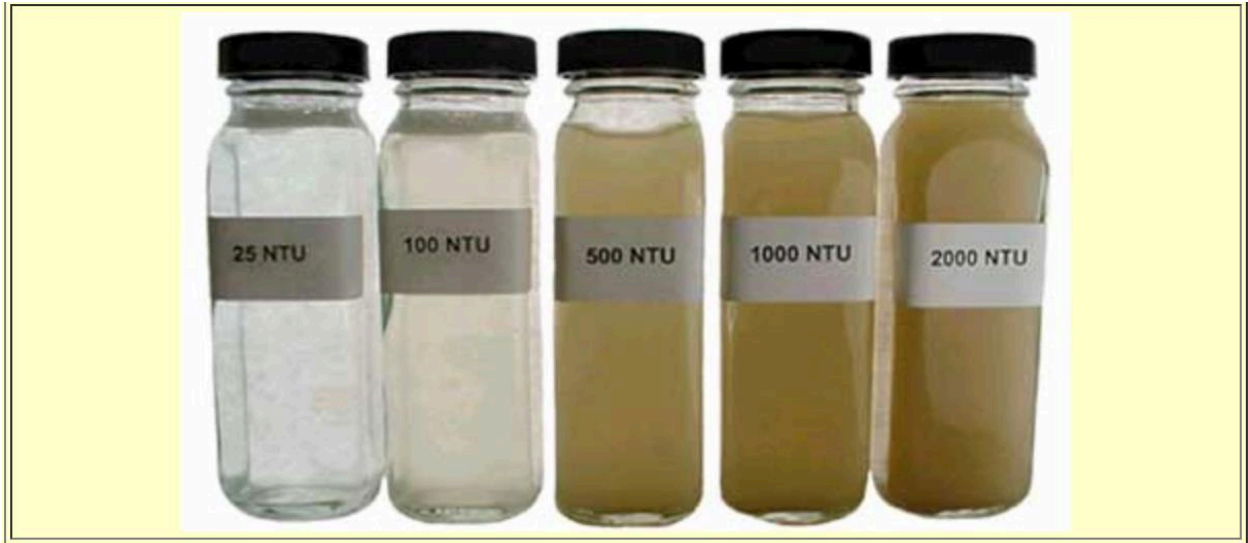


Figure 6 – Example, appearance of water samples at different turbidity levels



Figure 7 – color in James River from paper mill discharge, 9/15/15s with

**Mountain Valley Watch
Citizen Monitoring Report**

Observation Info

Construction Stage: active construction **Date:** 05/27/2018

Incident Data

Assessment Type: Pipeline Work Site

Description of potential violation

Construction Site Conditions

- evidence of sediment leaving the construction site
- evidence of flooding at the site
- evidence of erosion at the site

Silt Fence Conditions

- fence is damaged, collapsed, un-entrenched or otherwise ineffective
- sediment has not been removed per maintenance requirements
- silt fence not properly located and installed



**Mountain Valley Watch
Citizen Monitoring Report**

Observation Info

Construction Stage: active construction **Date:** 06/19/2018 12:30 PM

Incident Data

Assessment Type: Pipeline Work Site

Description of potential violation

Construction Site Conditions

- evidence of sediment leaving the construction site
- evidence of flooding at the site
- evidence of erosion at the site

Silt Fence Conditions

- fence is damaged, collapsed, un-entrenched or otherwise ineffective
- sediment has not been removed per maintenance requirements
- silt fence not properly located and installed



**Mountain Valley Watch
Citizen Monitoring Report**

Observation Info

Construction Stage: active construction **Date:** 06/23/2018 11:00 AM

Incident Data

Assessment Type: Pipeline Work Site

Description of potential violation

- evidence of sediment leaving the construction site
- evidence of flooding at the site





David home

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