

December Report

2018

Introduction

In our August report we compiled a number of case studies and examples from the most egregious violations. Since that report we have continued to compile citizen monitor surveys using Survey123. Additionally we have volunteers collecting aerial data through drones and piloted aircraft. An aerial image review process is now in place to process any flight data that is recorded. As volunteers get more comfortable with evaluating aerial images, we will submit these on a more regular basis.

Monthly Citizen Reports

Since our previous report to the Water Control Board, a total of 165 citizen submissions have been compiled in our database as of 12/5/2018. Volunteers have consistently documented overwhelmed erosion and sediment control devices throughout every county in Virginia. Figure 1 shows incidents reported in the Mountain Valley Watch Dashboard from 8/14/2018 - 12/5/2018.

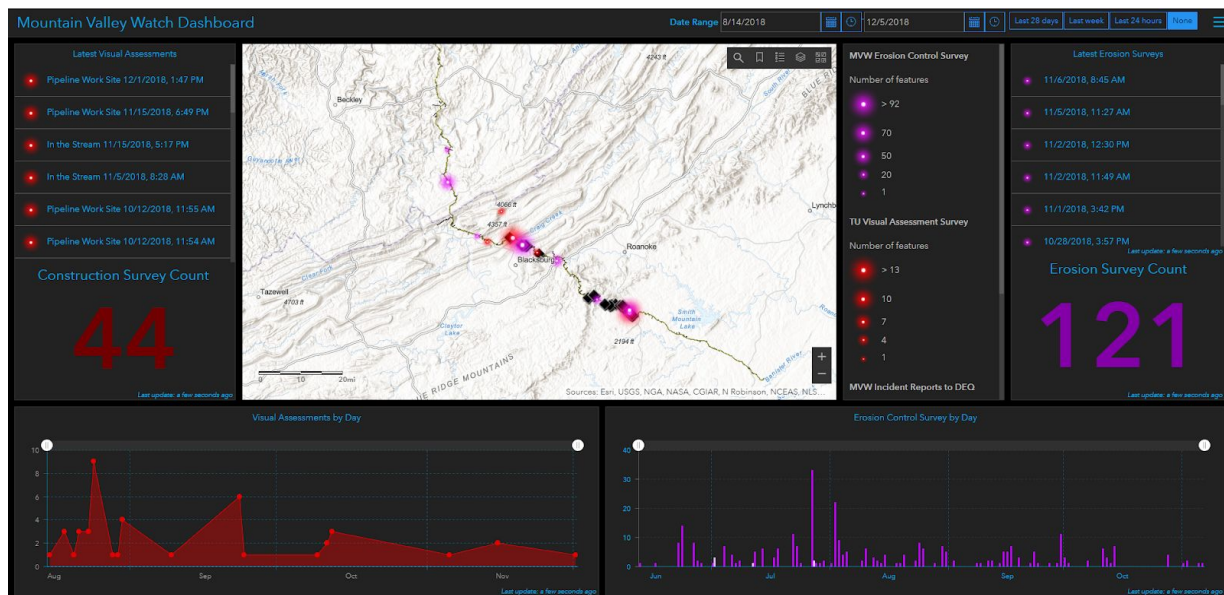


Figure 1: Data dashboard showing citizen survey submissions from 8/14 - 12/05/2018.

Highlighted Recurrences

A review of areas having recurrent issues shows locations continue to see erosion and sedimentation issues. Piloted flights on September 18th, October 12th, and November 11th reveal a number of incidents. The next sections will highlight specific locations along the route, sometimes with additional field support pictures to give a more complete overview of the potential incidents observed.

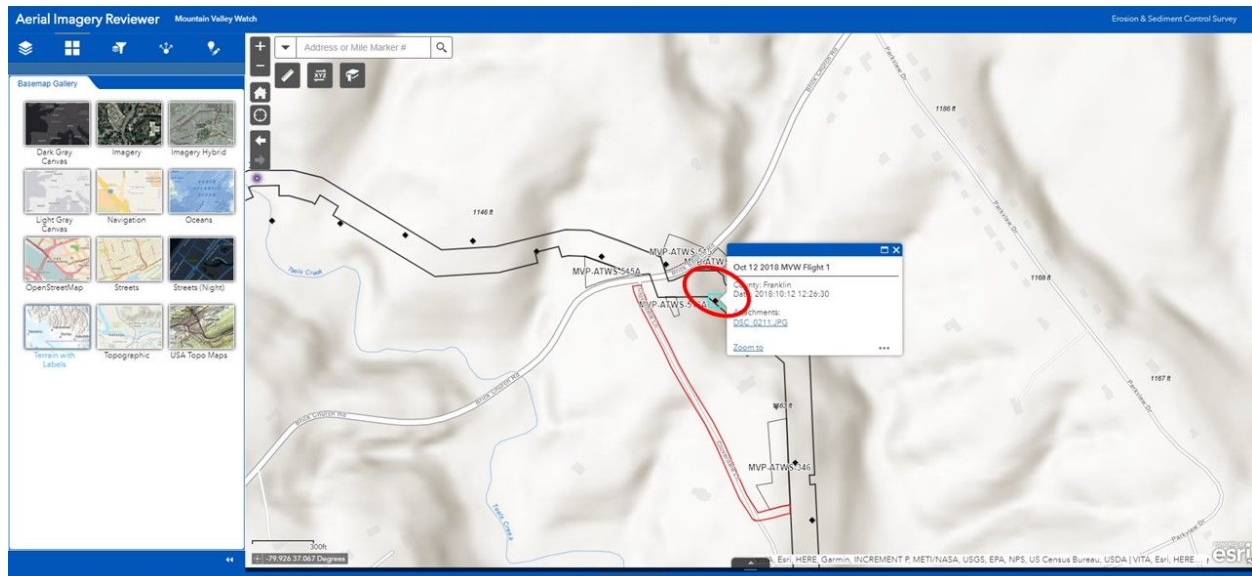


Figure 2: Brick Church Road crossing in Franklin County Virginia.



Figure 3: Image from 10/12/2018 shows E&S issues in area identified by red circle.



Figure 4: A closer view.



Figure 5: Ground support images. Pallets and plywood sheeting used as sediment barriers.



Figure 6: Brush Mountain in Montgomery County, Virginia; Flight date 9/18/2018; Flow lines indicated by red arrows.



Figure 7: Ground images showing issues along the MVP construction LOD

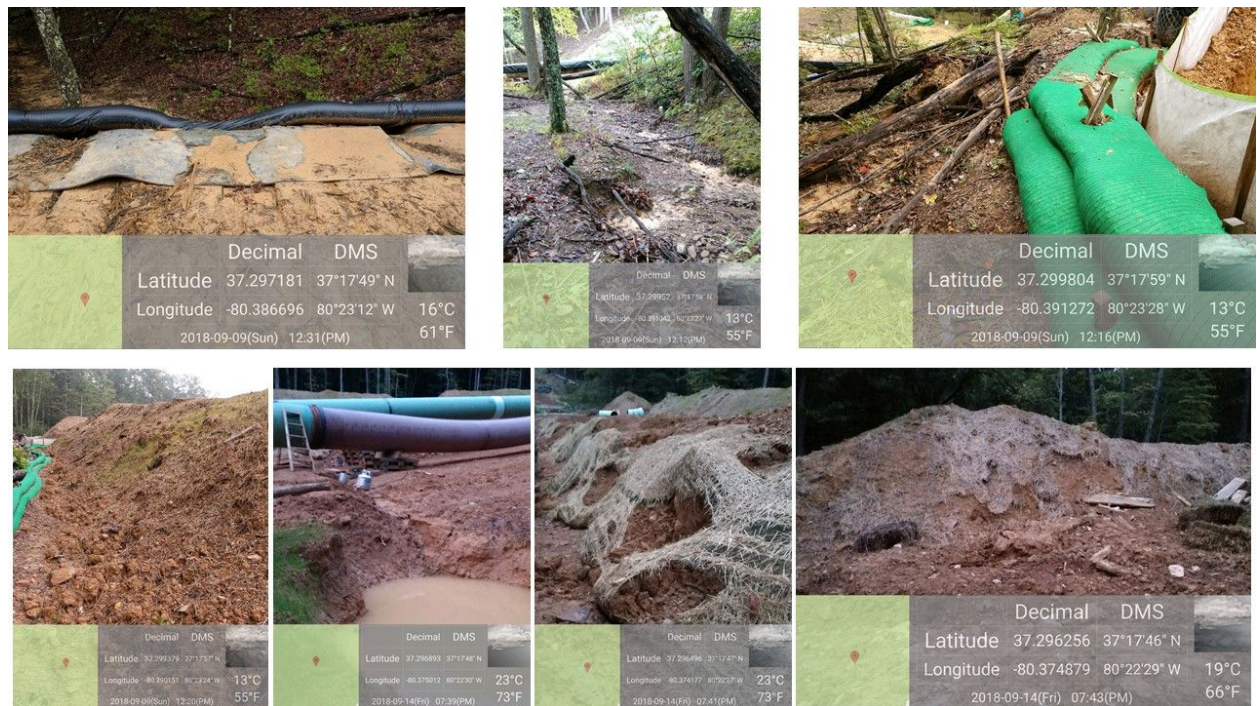


Figure 8: Additional ground images showing erosion & sedimentation as well as lack of stabilization on soil stockpiles.



Figure 9: Base of Paris Mountain in Catawba. Numbers 1 & 2 indicate locations of constant overflow. Closer views in figure 10 & 11.



Figure 10: Location 1 shows full catch basins and sediment laden stormwater flowing to the North Fork of the Roanoke River. Flows are constant during every rain event.



Figure 11: Location 2 is another location at this site where sediment laden stormwater continually flows into the North Fork of the Roanoke River during rain events.

October 12, 2018

A flight from 10/12/2018 reveals a number of issues.

Figures 12 - show water flow directions in relation to the Mountain Valley Pipeline construction LOD,

Figure 13 shows an aerial basemap prior to construction,

Figure 14 shows a shaded relief as a basemap, and

Figure 15 shows the imagery from the 10/12/2018 flight.

Locations all along the pipeline have clay rich soils. Full catchment basins at the edge of the LOD take much longer to drain in clay rich soils, so each successive rain event causes the basin to overflow and overwhelm adjacent E&S controls. The result is sediment laden ponds on adjacent landowners properties as seen by the tan color of the two ponds shown.

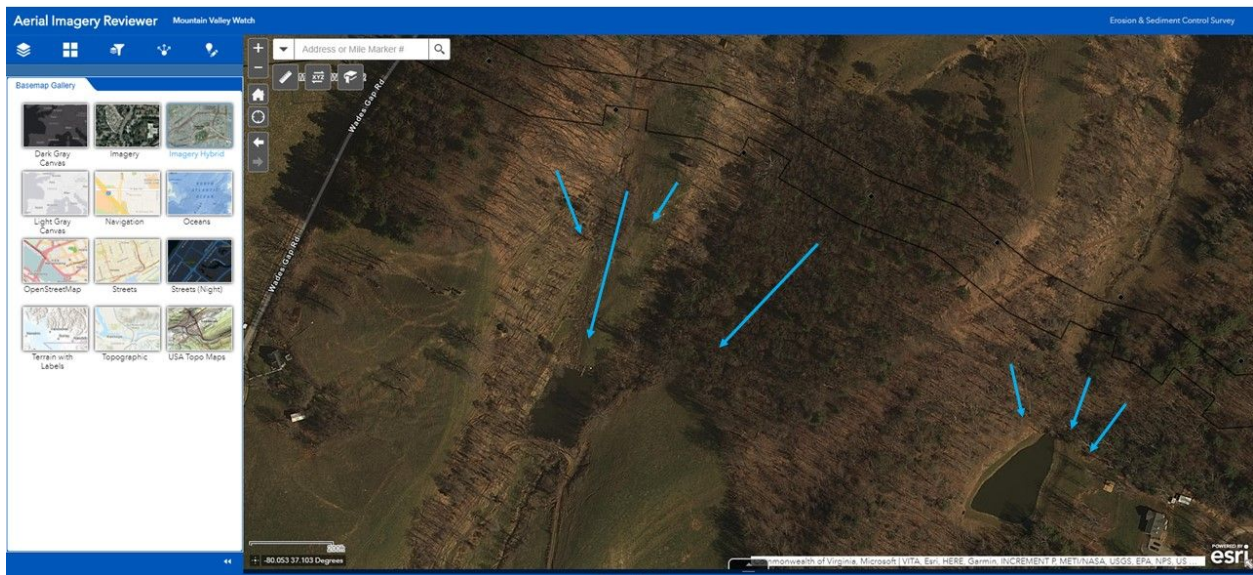


Figure 12: Runoff drainage flow patterns from MVP construction LOD, aerial image prior to construction.



Figure 13: Same location as figure 6, shaded relief map used as basemap showing drainage flow patterns.



Figure 14: Same location as figures 6 & 7. Sediment laden **ponds** and flow pattern arrows from MVP construction LOD indicate potential source.



Figure 15: Franklin County, Virginia image (10/12/2018) showing a large section of pipe washed from MVP construction ROW due to flooding.

November 11, 2018

Figures 16 thru 37 show sediment flow paths from the MVP construction ROW and wetland areas near streams. These identifications have been validated with site visits to the properties or adjacent properties. Figures 13 thru 24 show a sequence of images in Franklin county, east of Route 220, identifying flow paths to nearby streams.



Figure 16: Flow paths where sediment leaves MVP construction ROW during rain events.



Figure 17: Flow paths where sediment leaves the MVP construction ROW during rain events.

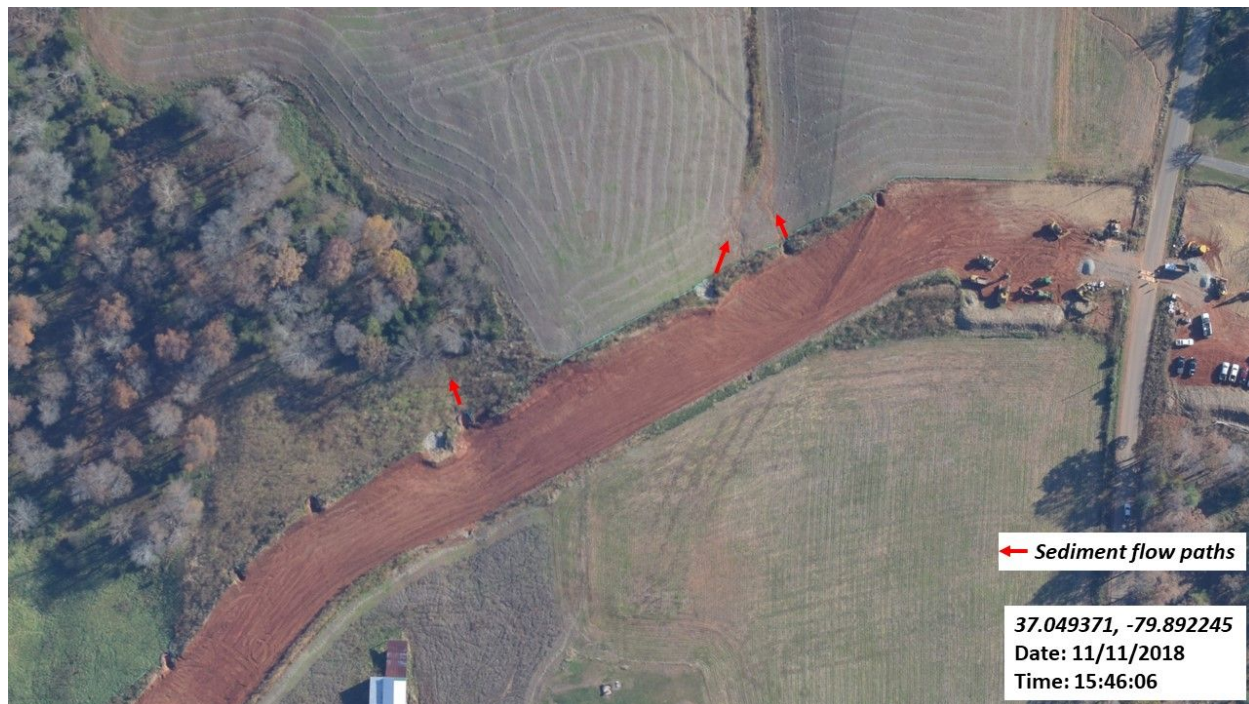


Figure 18: Sediment flowing off pipeline corridor onto adjacent properties.



Figure 19: Sediment flowing into adjacent field.



Figure 20: Sediment flowing into adjacent field into drainage channel conveying sediment to stream.



Figure 21: Sediment flowing into field from right of way diversions.



Figure 22: Sediment flowing into adjacent fields and drainage channels flowing to stream. Sediment ponding in delineated wetlands.



Figure 23: Sediment flowing from waterbars off of pipeline corridor. Sediment ponding in delineated wetlands.



Figure 24: Iron Ridge Road shows discoloration from mud in roadway. Flow paths and wetland identified.



Figure 25: Sediment flowing off right of way into adjacent stream. Sediment deposits may be seen along stream.



Figure 26: Sediment flowing off of right of way into stream and wetland areas.



Figure 27: Trenching in a wetland; area is shown in ground photos below from table 1 & 2.



Table 1: Four Corners Farm flooding and poor MVP construction site management.

 <p>This photo is from 10/28/2018 at ~3:57pm.</p>	<p>South East Elevation</p> <p>303°NW (T) LAT: 37.057346 LON: -79.914780 ±5m ▲ 324m</p> 
<p>West Elevation</p> <p>77°E (T) LAT: 37.057407 LON: -79.915039 ±5m ▲ 311m</p> 	<p>East Elevation</p> <p>282°W (T) LAT: 37.057373 LON: -79.914749 ±5m ▲ 315m</p> 

Table 2: Pictures of Four Corners Farm during a rain event showing sediment laden water piping through a cavity from LOD to creek.

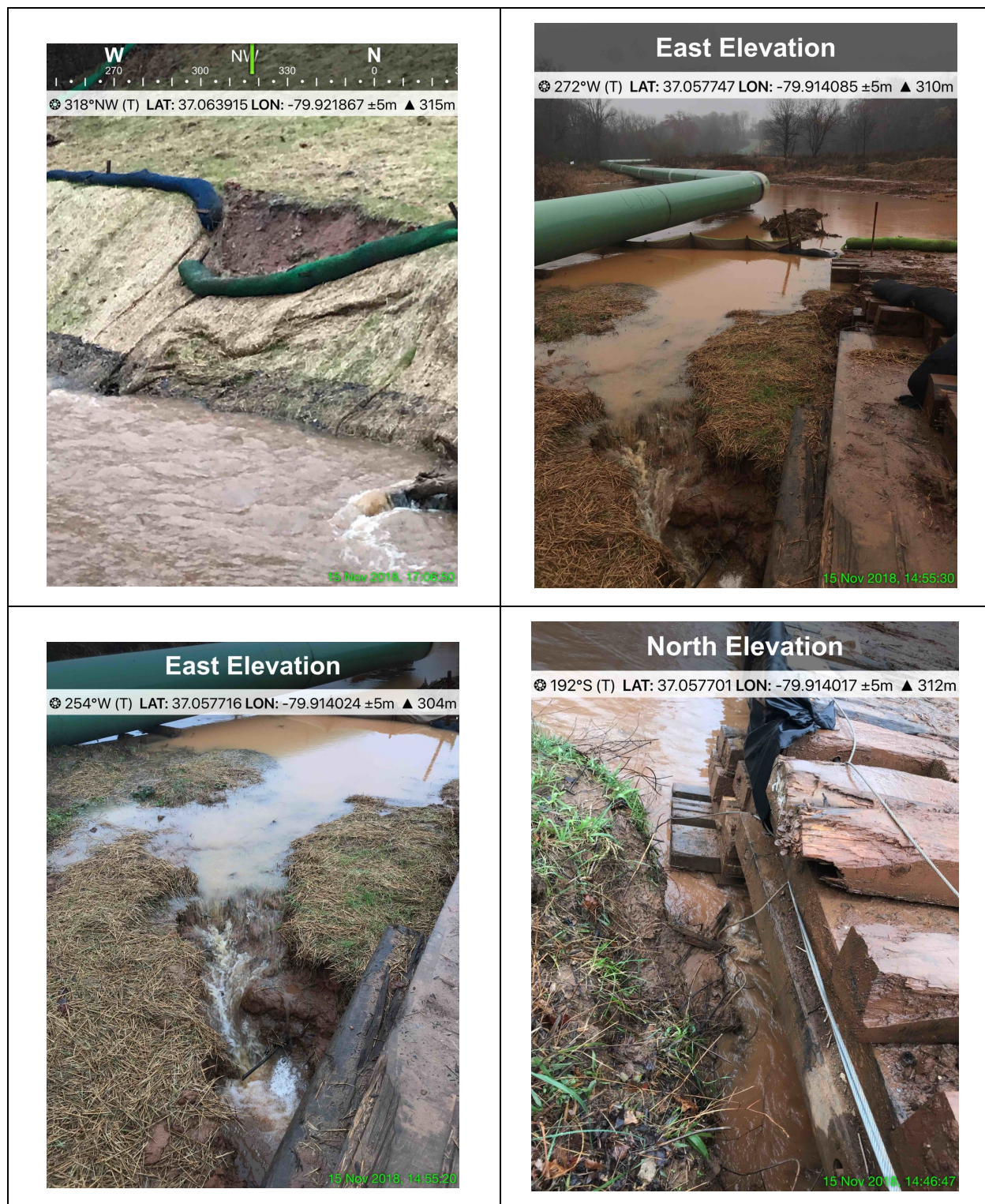


Table 3: Images from 11/15/2018, Four Corners Farm, Franklin County, Virginia.



Figure 28: Wetlands and stream show evidence of sediment contamination.



Figure 29: Sediment flowing into wetlands and adjacent stream.

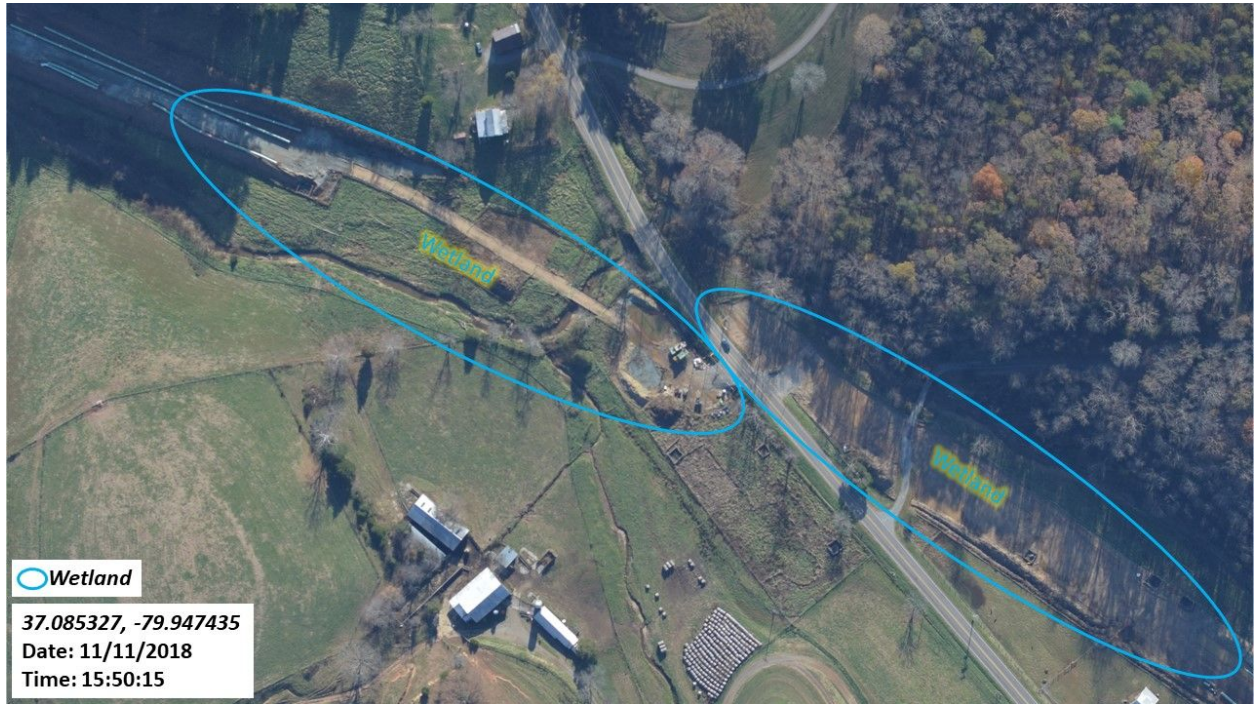


Figure 30: Wetlands area encroachment.



Figure 31: Wetlands area and floodplain encroachment. Stream channels inundated with sediment.



Figure 32: Wetlands area encroachment.



Figure 33: Wetlands area encroachment. Flooding occurred in these areas.



Figure 34: Wetlands area encroachment. Sediment flowing into stream adjacent to right of way.



Figure 35: Sediment flowing into stream channel from pipeline right of way. Stream channel is at bottom or slopes.



Figure 36: Wetlands area encroachment. Sediment flowing into North Fork Roanoke River.



Figure 37: Sediment flowing into stream channel from right of way.

Regulatory Reported Incidents

8/27/2018		Brick Church Rd.	Franklin	148034	Closed
8/29/2018	4:14 PM	Iron Ridge Rd.	Franklin	148353	Closed
8/30/2018	5:00 PM	Doe Creek Rd.	Giles	148555	Closed
8/30/2018	4:09 PM	Lat: 37.05823 Lon: -79.91867	Franklin	148556	Closed
9/2/2018	11:14	Mt. Tabor Rd.	Montgomery	151956	Closed
9/2/2018	10:56	Mt. Tabor Rd.	Montgomery	151973	Closed
9/8/2018	19:43	Mt. Tabor Rd.	Montgomery	152573	Closed
9/15/2018	9:00	Rt. 220; Lat: 37.05633 Lon: -79.88175	Franklin	152993	Closed
9/15/2018	10:00	Brick Church Rd; Lat: 37.06876 Lon: -79.92412	Franklin	152994	Closed
9/15/2018	13:43	Grassy Hill Rd; Lat: 37.0873 Lon: -79.9496	Franklin	152995	Closed
9/15/2018	14:05	Leaning Oak; Lat: 37.0893 Lon: -79.9617	Franklin	152996	Closed
10/9/2018	11:45 AM	37.05554, -79.91122	Franklin	157715	Closed
10/11/2018	12:20	37.30761, -80.46781	Giles	157716	Closed
10/11/2018	12:27	37.3057, -80.46716	Giles	157717	Closed
10/14/2018	12:42	Leaning Oak; 37.08905, -79.96171	Franklin	157718	Closed
10/14/2018	2:12	37.08584, -79.94896	Franklin	157719	Closed
10/14/2018	2:28	37.08461, -79.94711	Franklin	157720	Closed
10/14/2018	2:54	37.08361, -79.94668	Franklin	157721	Closed
11/2/2018	11:49 AM	37.23111, -80.19833	Montgomery	157816	Closed
10/28/2018	12:24 PM	37.08905, -79.96171	Franklin	157817	Closed
10/28/2018	12:39 PM	37.0882, -79.9502	Franklin	157818	Closed
10/28/2018	12:24 PM	Iron Ridge Rd; 37.05796, -79.91721	Franklin	157819	Open
11/1/2018	3:42 PM	Elliston; 37.2311, -80.1985	Montgomery	157820	Closed
11/2/2018	12:30 PM	37.066, -79.875	Franklin	157823	Open
11/5/2018	11:27 AM	37.231, -80.199	Montgomery	158096	Closed

Table 4: Incidents since previous report and their status.

Responses from agencies:

West Virginia Department of Environmental Protection has issued 19 Notices of Violations (NOVs) for the Mountain Valley Pipeline.

On July 9, 2018, the Virginia Department of Environmental Quality (DEQ) issued a Notice of Violation ("NOV") to MVP citing violations identified during the May and June complaint investigations and inspections. Virginia DEQ documented 40 incidents of erosion problem areas between 8/17/2018 and 10/25/2018 in the PREP incident reports database for the MVP. The majority of problems recorded were sediment runoff, overwhelmed E&SC, failure to maintain erosion control devices, and sediment leaving the pipeline right of way.

Conclusion

The purposes of the State Water Control Law are to:

- (1) protect existing high quality state waters and restore all other state waters to such condition of quality that any such waters will permit all reasonable public uses and will support the propagation and growth of all aquatic life which might reasonably be expected to inhabit them;
- (2) safeguard the clean waters of the Commonwealth from pollution;
- (3) prevent any increase in pollution; and
- (4) reduce existing pollution.

The Commonwealth has developed a regulatory framework designed to minimize the environmental impact associated with land disturbing activities that imposes strict requirements on entities in advance of engaging in any such activity and continuing until land disturbing activity is complete and permanent stabilization is achieved.

However, the release of sediment and sediment laden stormwater off of the MVP right of way onto adjacent private property and into surface waters of the Commonwealth has occurred numerous times as documented by MVW volunteers and DEQ inspectors. Numerous instances of inadequate stabilization in violation of Minimum Standard 1 and instances of inadequate stabilization in violation of Minimum Standard 2 were documented by MVW volunteers. The numerous observations over a long period of time constitute violations of MVP's Annual Standards and Specifications, MVP's Site Specific ESC and SWM Plans, the State Water Control Law, the Virginia Stormwater Management Act, the Erosion and Sediment Control Law, and Section 401 Water Quality Certification issued to MVP.

Therefore, the Section 401 Certificate should be revoked immediately until the MVP is in compliance with the State Water Control Laws, the Virginia Stormwater Management Act, the Virginia Erosion and Sediment Control Law, and the Board's regulations.