From: Mountain Valley Watch (MVW)

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To: Virginia Department of Environmental Quality

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SUBJ: Mountain Valley Pipeline aerial photo review

To Whom This Concerns,

This report is a review of aerial photos taken during a flight over the Mountain Valley Pipeline. On November 21, 2020, a single engine plane flew a flight over the route of the Mountain Valley Pipeline (MVP) in West Virginia and Virginia. During the flight, the pilot captured several thousand aerial photos of the MVP under construction. Volunteers from the Mountain Valley Watch (MVW) reviewed aerial photos to determine the extent of bare unvegetated soil in the pipeline right of way.

The photos included in this report indicate that vegetative stabilization of disturbed areas in the MVP right-of-way has not met minimum cover requirements. The MVW has flown several flights and taken photos which show areas along the Right-of-way which have remained bare or without adequate vegetative cover for long periods of time.

Minimum Standards

As a reminder, in the Virginia Erosion and Sediment Control Handbook, several Standards and Specifications required for construction projects apply to this project:

1. STD & SPEC 3.31 TEMPORARY SEEDING: The establishment of a temporary vegetative cover on disturbed areas by seeding with appropriate rapidly growing annual plants.

Where exposed soil surfaces will not be fine graded for periods longer than 14 days. Such areas include denuded areas, soil stockpiles, dikes, dams, sides of sediment basins, temporary road banks, etc. A permanent vegetative cover shall be applied to areas that will be left dormant for a period of more than 1 year.

Proper seedbed preparation and the use of quality seed are important in this practice just as in permanent seeding. Failure to carefully follow sound agronomic recommendations

will often result in an inadequate stand of vegetation that provides little or no erosion control.

2. STD & SPEC 3.32 PERMANENT SEEDING: The establishment of perennial vegetative cover on disturbed areas by planting seed.

Conditions Where Practice Applies

1. Disturbed areas where permanent, long-lived vegetative cover is needed to stabilize the soil.

2. Rough-graded areas which will not be brought to final grade for a year or more.

In general, a stand of vegetation cannot be determined to be fully established until it has been maintained for one full year after planting. The contractor is required to inspect seeded areas for failure and make necessary repairs and re-seedings within the same season. If a stand has less than 40% cover, re-evaluate choice of plant materials and quantities of lime and fertilizer. Re-establish the stand following seedbed preparation and seeding recommendations.

It should be noted that due to court ordered stoppage of work, many areas have passed the one-year time period for rough graded areas which were not brought to final grade. Permanent seeding should be applied to these areas because they have exceeded the time limit for stabilization. Recent court rulings have stopped work again in areas with waterbody crossings. It will likely be another 6 months delay before the court reaches a final decision on the Nationwide 12 waterway permits for the Huntington and Norfolk Districts, Corps of Engineers.

Please review the photos below to see several areas with problems that are clearly detrimental to adjacent landowners and downstream waterways. Your assistance and diligent inspections are requested in resolving these problem areas.



November 13, 2020 Franklin County, Pond below ROW full of sediment.



November 13, 2020 Franklin County, Pond below ROW full of sediment.



November 13, 2020 Franklin County, Pond below ROW full of sediment.



November 13, 2020 Franklin County. Bare areas shown. Jute mesh blanket applied to area eroding at bottom of slope.



November 13, 2020 Franklin County drone photo shows MVP alignment up Bent Mountain.



November 13, 2020 Franklin County drone flight shows stream crossing with timber mats displaced by flooding. The stream is brown with sediment flowing from surrounding fields and the MVP right-of-way.



November 13, 2020 Franklin County drone flight shows bridge washout and sediment flowing into stream.



November 13, 2020 Franklin County ground photo shows debris stuck under MVP bridge crossing.



November 13, 2020 Franklin County ground photo shows debris obstructing flow of stream.



Photos taken October 1, 2020 at two MVP road crossings in southern Franklin County. There is no grass or straw showing at these locations.



November 21 flight photos at top of Poor Mountain in Roanoke County shows little vegetative cover. Jute mesh blankets were placed months ago, but show little sign of grass growing.

In this section, aerial flight photos were reviewed by volunteers for areas showing erosion control problems or other water related issues caused by construction of the MVP.

Tab#	Photo No.	Photo Mile Post	Link to photos
SO2	1	292	http://newrivergeographics.com/mvw/MVW20201121/G0022115.JPG
	31	286.6	http://newrivergeographics.com/mvw/MVW20201121/G0022205.JPG



Milepost 286.6 shows bare areas and areas with vegetated cover. There is a stark contrast between the two areas.



April 21, 2019 flight at Milepost 286.6 shows bare areas and areas with vegetated cover. There is little to no change in cover in over 18 months. The pipes laying in the ROW are still present.

Tab #	Photo No.	Photo Mile Post	Link to photos
S02	40	285	http://newrivergeographics.com/mvw/MVW20201121/G0022232.JPG
S01	52	299.8	https://newrivergeographics.com/mvw/MVW20201121/G0021980.JPG
	74	296.6	http://newrivergeographics.com/mvw/MVW20201121/G0022038.JPG
	84	294.8	http://newrivergeographics.com/mvw/MVW20201121/G0022068.JPG



Milepost 294.8 shows evidence of sediment overflowing silt fences and filter socks



Milepost 294.8: Photo on the left was taken on April 21, 2019. Photo on the right was taken on November 21, 2020. Both photos show bare, uncovered areas with little vegetation. There is dead grass in parts of the photo taken in 2020, which does not meet vegetative cover requirements.

Tab #	Photo No.	Photo Mile Post	Link to photos
S02	45	283.8	http://newrivergeographics.com/mvw/MVW20201121/G0022253.JPG



Milepost 283.8 shows pond discolored by sediment. Bare soil shown with gaps in filter socks flowing off ROW.



Milepost 283.8: This photo was taken during a flight on April 21, 2019. It shows the same location as the previous photo with bare areas in the ROW above the farm pond.

46	283.6	http://newrivergeographics.com/mvw/MVW20201121/G0022256.JPG
47	283.55	http://newrivergeographics.com/mvw/MVW20201121/G0022257.JPG
49	283.0-283.3	http://newrivergeographics.com/mvw/MVW20201121/G0022266.JPG



Milepost 283 above Parrott Branch shows areas that are bare or lack vegetative cover.

77 279.9 http://newrivergeographics.com/mvw/MVW20201121/G0022322.JPG



Milepost 279.9 shows bare areas adjacent to Little Jacks Creek.

S02	92	276.3-276.5	http://newrivergeographics.com/mvw/MVW20201121/G0022382.JPG
S03	21	271.3	http://newrivergeographics.com/mvw/MVW20201121/G0022468.JPG



Milepost 271.3 below Golden View Road shows several bare areas with sparse or dead vegetation.

33 269.8

http://newrivergeographics.com/mvw/MVW20201121/G0022496.JPG



Milepost 269.8 shows a large graded area with little vegetation on both sides of the Blackwater River crossing.



Blackwater River crossing below confluence with Magodee Creek.



Milepost 269.5, Magodee Creek crossing, shows sediment lining bank of creek below MVP crossing. Debris jam shown in creek at bottom of photo.

265.1



Milepost 265.1 shows pipe strung across wetlands and stream crossing. The photo shows the pipe in a trench below the principle spillway of a large farm pond. Runoff from pond spillway is eroding a channel above the pipeline.

S04 2 260.5-260.7 http://newrivergeographics.com/mvw/MVW20201121/G0022664.JPG



Milepost 260.3 shows bare areas with water pooling and flowing across bare areas next to Teels Creek crossing.



Another shot of Milepost 260.3 at Teels Creek. The LOD of the cleared area is too close to stream. Photo shows LOD at top of bank of Teels Creek.

S04

11

259.0-259.1

http://newrivergeographics.com/mvw/MVW20201121/G0022690.JPG



Temporary bridge washed out at Teels Cr. Xing next to Grassy Hill Road, Franklin County, VA.



Milepost 255.4, Cahas Mountain Road, shows recent activity to grade slope above road. Dozer is leveling dirt below the road above Little Creek. Stream crossing was washed away by recent storms.

43 253.9 http://newrivergeographics.com/mvw/MVW20201121/G0022776.JPG



Milepost 253.6: large equipment yard with one sediment trap shown in lower edge of cleared area. Was the trap designed for the site? Does the drainage area exceed the limits for a sediment trap? This area has lain bare for over 6 months.

250.8



Large slip area shown in photo near milepost 250.8.

Montgomery County photos

S06 89 222.4	http://newrivergeographics.com/mvw/MVW20201121/G0023478.JPG
91 222.2	http://newrivergeographics.com/mvw/MVW20201121/G0023482.JPG

Recent Agency Actions

West Virginia Department of Environmental Protection (WVDEP) ORDER FOR COMPLIANCE: ...in accordance with Chapter 22, Article 11, Section 1 et seq. of the West Virginia Code, it is hereby agreed between the parties, and ORDERED by the Director:

Because of Columbia Gas Transmission, LLC's Legislative Rule and permit violations,

Columbia Gas Transmission, LLC shall be assessed a civil administrative penalty of six hundred twenty thousand eight hundred forty-one dollars (\$620,841) to be paid to the West Virginia Department of Environmental Protection Water Quality Management Fund¹. During inspection of the Mountaineer Express Pipeline, violations of sections of WV Legislative Rules and the permit were observed and documented.

This action is relevant to the MVP. The Mountaineer Express pipeline runs through similar terrain as the MVP. The MXP has continuing problems with stabilization, erosion control and oil spills that led to WVDEP issuing a Consent order on October 1, 2020.

Respectfully submitted,

Kirk A Bowers Mountain Valley Watch

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¹ Columbia Gas Transmission, LLC Consent Order 906, October 2020, Page 22.