



Thomas Jefferson Soil and Water Conservation District

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December 5, 2014

Kimberly Bose, Secretary
Federal Energy Regulatory Commission
888 First St., N.E.
Washington D.C. 20426

Re: Dominion Power - Atlantic Coast Pipeline

Dear Ms. Bose and Members of the Commission:

The Thomas Jefferson Soil and Water Conservation District (TJSWCD) has been providing technical assistance related to land management and conservation of soil and water resources for over 75 years. In that capacity, we are all too familiar with the vulnerability of the land in Nelson County to erosion, landslides and debris flows. While the land is extremely vulnerable in its natural, forested state, land disturbance exacerbates these problems significantly. The Atlantic Coast Pipeline (ACP), as proposed, will result in the clearing of wide swaths of forests on steep, geologically unstable slopes. Based on our local knowledge of the critical environmental concerns associated with clearing and grading in this terrain and geology, the TJSWCD respectfully requests that an alternative route for Dominion Power's Atlantic Coast Pipeline be chosen.

Nelson County's mountainous terrain is characterized by shallow soils above granite bedrock. The bedrock contains fractures that convey water underground near the surface. This in itself creates unstable conditions, as the soil is very susceptible to sliding along the smooth bedrock. This was catastrophically demonstrated in 1969 when the remnants of Hurricane Camille came through the area, causing landslides and debris flows, killing hundreds of people, and leaving terrain scars still visible today. While Hurricane Camille was an extreme event, "(s)ignificant rain events that trigger landslides occur in Virginia every 10-15 years" (<http://www.dmme.virginia.gov/DGMR/landslides.shtml>).

When the protective roots and canopy of forest trees are disturbed, similar impacts occur with even *less* significant rainfalls. For example, in 2003, Wintergreen Resort installed a "snow tube park", which involved clearing and grading on the steep slopes in Nelson County. Soon after grass stabilization was achieved, mountain storms resulted in severe erosion and landslides on these vulnerable slopes. The shallow roots of grass, and the lack of tree canopy, provided inadequate protection for the soils. It took several engineered attempts to finally create a stable environment. (See photos of landslides below)

_____ *"To exercise leadership in promoting natural resource protection"* _____



Photos – Wintergreen 2003, mudslides after clearing & grading

In addition to the soil stability impacts along the pipeline route, the clearing of forests will significantly increase the volume and velocity of runoff into the valleys and stream channels below, creating secondary erosion and sediment impacts in those channels. Additional environmental concerns include the well-known problems of forest fragmentation with associated losses of habitat, and the spreading of invasive species.

The TJSWCD urges the Federal Energy Regulatory Commission to require Dominion to satisfactorily show why they think the proposed route is the best route and how they will address the following issues and concerns:

- Management of post construction stormwater runoff to ensure that the volume and velocity of runoff will not increase along the entire pipeline route
- Documentation of risk analyses on similar terrain and geology to predict the landslide potential with clearing and pipeline installation
- Stabilization criteria to guarantee stability on shallow, slide-prone soils (types of vegetation and establishment methods to be used; maintenance criteria to ensure long-term stability)
- Impact of blasting on the surrounding land that is vulnerable to landslides
- Impact of blasting on the water-filled fractures in the bedrock. These rock fractures contain the water that ultimately recharges the wells and springs which supply domestic water to Nelson County residents.
- Protection of public safety in the event the pipeline is exposed through erosion and landslides
- Protection of the pipeline at stream crossings, through streams which are known to constantly move and change shape due to the large amounts of flow from the mountains during storms.

In light of the concerns outlined above, the TJSWCD requests that an alternative route be chosen for the Atlantic Coast Pipeline. The alternative should avoid the sensitive landscapes, geology and terrain that are characteristic of the proposed route.

Respectfully,

Alyson Sappington
District Manager

Cc. U.S Congressman Dave Brat, 7th District
U.S. Congressman Robert Hurt, 5th District