## SOUTHERN ENVIRONMENTAL LAW CENTER

Telephone 434-977-4090

201 WEST MAIN STREET, SUITE 14 CHARLOTTESVILLE, VA 22902-5065 Facsimile 434-977-1483

November 13, 2018

## VIA E-MAIL (HARD COPY TO FOLLOW BY U.S. MAIL)

Matthew J. Strickler Secretary of Natural Resources 1111 East Broad Street Richmond, VA 23219

Re: Elevated Health Risk Due to Chesterfield Coal Ash Ponds

Dear Secretary Strickler,

On behalf of the James River Association and Southern Environmental Law Center, we write to provide you with a report on the human health and environmental risks within contaminated areas of Dutch Gap Conservation Area ("Dutch Gap") due to coal ash pollution flowing from the ash ponds at Chesterfield Power Station. The report was prepared by an outside expert, Dr. Carolyn Fordham, Ph.D., at Terra Technologies Environmental Services, LLC.

The report analyzes surface water and sediment sampling previously conducted in areas of Dutch Gap suspected of coal ash contamination. These areas are easily accessed by recreational visitors boating, fishing, and hiking within park boundaries. Based on this analysis, the cancer risks and noncancer hazards for recreational visitors who engage in activities in contaminated areas are in excess of accepted target levels. At Superfund sites, the Environmental Protection Agency targets a cancer risk of 1x10<sup>-6</sup>, with an upper limit of 1x10<sup>-4</sup>. In other words, when remediating a contaminated site, exposure to the pollution should ideally result in a risk of only 1 additional case of cancer per million people; a risk that rises above 100 additional cancers per million people is deemed unacceptable. Within the contaminated areas in Chesterfield, this report projects risks of 700 additional cancers per million children and 960 additional cancers per million adults—7 to 9.6 times greater than the upper bound of what is considered acceptable risk. The noncancer hazard indices—which could include neurological, cardiovascular, liver, kidney, or other health issues—within these contaminated areas also significantly exceed the target level of 1. For children, the hazard is 140 times higher than the exposure amount considered to have no adverse health impacts; for adults, the hazard is 110 times higher.

As an alternative, the report also analyzes the health risks utilizing groundwater data provided with Dominion's annual groundwater monitoring reports, under the assumption that the contaminated groundwater is the ultimate source of the pollution flowing into Dutch Gap. This alternative analysis also reveals cancer risks and noncancer hazards above target levels.

Finally, the report analyzes risks to ecological receptors, such as fish and benthic organisms, concluding that these receptors also face risks in excess of target levels due to the coal ash pollution flowing into Dutch Gap.

We acknowledge that the conclusions contained in this report are limited to visitors who engage in activities within contaminated areas. It does not, for example, consider the risks in areas further away from the coal ash ponds. As such, more work would need to be performed to fully delineate the contaminated areas, and understand the risks posed throughout the entire park. Nonetheless, this report clearly demonstrates that the coal ash ponds pose a risk to public health and the environment. The excessive risks in these contaminated areas strongly indicate that the coal ash ponds at Chesterfield need remediation to stop the flow of coal ash pollution off-site into Dutch Gap.

We urge you to take appropriate actions based on existing authority to protect health and environment, both in the near-term and in the long-term as closure options for the Chesterfield coal ash ponds are considered. We hope to discuss the report's findings with you at your earliest convenience.

Sincerely,

Nathaniel Benforado

Staff Attorney

Southern Environmental Law Center

201 West Main Street, Suite 14

Charlottesville, VA 22902

Tel.: 434.977.4090

Jamie Brunkow

James Riverkeeper

James River Association

211 Rocketts Way, Suite 200 Richmond, VA 23231

Tel.: 804.788.8811

Enclosure

cc:

Senator Amanda F. Chase

Senator Rosalyn R. Dance

Joshua Saks, Deputy Secretary of Natural Resources

Ann Jennings, Deputy Secretary of Natural Resources for the Chesapeake Bay

David K. Paylor, Department of Environmental Quality, Director

Trieste Lockwood, Department of Environmental Quality, Senior Policy Advisor

Justin Williams, Department of Environmental Quality, Director, Division of Land Protection and Revitalization

Scott Smedley, Chesterfield County, Director of Environmental Engineering