FRIENDS of BLACKWATER

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Clyde Thompson
Forest Supervisor
Monongahela National Forest
200 Sycamore St
Elkins, WV 26241

February 12, 2015

Re: Atlantic Coast Pipeline Survey

Dear Forest Supervisor,

We are writing to comment on the proposal to issue a special use permit to Dominion Resources for surveys for the Atlantic Coast Pipeline Project (ACP). We are concerned that surveys for this project will not be sufficient to document and protect the resources of the Monongahela National Forest which are owned and valued by the citizens of the United States.

Friends of Blackwater (FOB) is a not-for-profit West Virginia membership organization devoted to preserving wilderness and wildlife; protecting West Virginia's forests, parks, rivers, wild lands, unique habitats and endangered species; and fostering a West Virginia land preservation ethic. FOB has over 10,000 members and supporters. FOB also has a long-standing interest in the West Virginia northern flying squirrel, Glaucomys sabrinus fuscus. FOB supports studies of the flying squirrel; staff of FOB has communicated with scientists from a number of states and Canada on the squirrel's natural history and status and collected a large library of information of this squirrel. FOB also works to protect West Virginia's endangered bats and other rare wildlife and plants and their habitats both on and off the Monongahela National Forest. We educate our 10,000 members and supporters about these issues through newsletters, our website and comments to the press.

We are concerned about surveys for the West Virginia northern flying squirrel, the Cheat Mt. salamander, the Indiana, Virginia big-eared, and northern long-eared bats, rare mussels, aquatic species, migratory birds and eagles, rare plants, cultural resources, water resources, soils, and caves. We believe that Dominion's current route through the Monongahela and George Washington National Forest is ill-advised and recommend that an alternative route be explored.

The threatened **Cheat Mountain salamander** (CMS) is a terrestrial species of lungless salamander found at high elevations in moist forests and requires a moist forest floor to survive. It is found in Randolph and Pocahontas Counties in the pipeline corridor. CMS survival requires microhabitats with high relative humidities or moisture (Feder 1983, Feder and Pough 1975) and acceptable temperatures. Foraging and mating are inhibited or enhanced by these external conditions (Keen 1984). Vegetative structure also affects salamander populations. Moist old growth stands have greater abundance and species richness than dry old growth or younger stands of various moisture levels (Welsh and Lind 1988), probably due to the complex structure of older stands (Franklin and Spies 1984, and Franklin et al. 1981) and resulting amenable microclimates. Old stands provide dense litter layers, abundant woody debris, and stratified canopies, which all enhance moisture retention (Pentranka et al. 1994) and limit moisture and temperature variations in the forest floor. Salamander abundance and richness decrease after logging (Bury and Corn 1988, Pough et al. 1987, Enge and Marion 1986, Bury

1983, Bennett et al. 1980, Bury and Martin 1973) because microclimate and cover characteristics, which determine habitat suitability, deleteriously change (Baker 1938). Its numbers have been declining over the past forty years which may be due to logging and climate change. The project area must have an up-to-date survey for this rare high elevation species. CMS surveys need to be done during summer months when high humidity and warmer temperatures allow the salamander to emerge and move across the forest floor.

Bats: There are 950 caves in Pocahontas and Randolph Counties some of which contain the endangered **Indiana bat** (*Myotis sodalist*) and **Virginia big-eared bat** (*Corynorhinus townsendii virginianus*) and soon to be listed **northern long-eared bat** (*Myotis septentrionalis)*. Primary range for the Indiana "includes summer foraging, roosting, and fall swarming areas, [and] is defined as all areas within 5 miles of hibernacula." Monongahela NF Forest Plan Revision FEIS 2006, at 3-242. The Virginia big-eared bat is an endangered sub-species of the Townsend's big-eared bat, with a very limited range in the central Appalachians. On the national forest proper, there are 23 known occupied hibernacula for this species. Virginia big-eared bats are not migratory, and most tend to stay in close proximity to summer roosting and maternity caves (sometimes the same as winter hibernating sites) for foraging. Thus, it can be expected that energy development activities affecting cave habitat may also affect surface/foraging habitat, and vice versa.

Indiana and Virginia big-eared bats have declined across their range, in part, because of human disturbance of cave habitat, including modification of delicately balanced air flow and temperature regimes. Drilling into karst layers has the potential to alter air flow in caves, which can in turn change humidity and temperature patterns. Indiana bats, in particular, can only hibernate successfully within a very narrow, specific temperature range, and have been known to abandon hibernacula when structural or other changes to the caves resulted in unsuitable temperatures.

White-nose syndrome (WNS) is the greatest threat to ever confront North America's hibernating bat species. This newly emerging disease has decimated bats throughout the Northeast United States since late winter 2006. It was confirmed in West Virginia's high mountain caves in 2009 near the proposed ACP route. Scientists have been stating clearly and publicly that white nose syndrome has the potential to bring about the extinction of one or more species of bats in the near future. Biologists have documented mortality rates well over 90 percent in affected areas. In West Virginia DNR biologist Craig Stihler states that 92% of the Indiana bats in surveyed caves have died. This disease had led to the proposed listing for the northern long-eared bat. The northern long-eared requires older growth forests for its summer habitat. Due to the epidemic of WNS any activity in bat habitat that has the potential to further stress individual bats or render their habitat less suitable, must be considered with extreme caution and thorough analysis.

Numerous Indiana bat captures have been documented along the ACP route. Surveys for bats along the route should include acoustic monitoring paired with mist net surveys in summer and cave surveys in winter. Blasting during pipeline construction could change the air flow and temperature in caves far off the route by damaging the sensitive karst strata that caves form in. Such changes could make the caves unfit for bats or kill them outright. Therefore surveys of caves should cover the broad band of karst in both Randolph and Pocahontas Counties through which the pipeline is proposed to be built.

West Virginia northern flying squirrel (Glaucomys sabrinus fuscus): There is a strong potential for the project to reduce the population of the rare West Virginia northern flying squirrel (WVNFS) along its route. There are extensive capture sites, occupied habitat and suitable habitat for the

WVNFS in the area being considered for the pipeline corridor. The WVNFS needs unfragmented high elevation northern hardwood and red spruce forests for feeding, shelter and breeding. Surveys for this rare squirrel require the use of baited traps which must be monitored daily to avoid injury to the squirrel. Because the squirrels are elusive and rare trapping must be done over a long period of time. In addition past capture sites and suitable habitat should be avoided. The squirrel is found on both the Monongahela and George Washington National Forests and is protected on the Monongahela under a Memorandum of Understanding between the Forest Service and the US Fish and Wildlife Service and is considered a listed species under the Monongahela Forest Plan.

Birds: Bald and Golden eagles are of concern and protected under the Bald and Golden Eagle Act. Surveys for these raptors should be done by Dominion. Bald eagles nest in West Virginia and their nests should not be disturbed. Golden eagles winter in West Virginia along the West Virginia/Virginia border in the project area. They require remote undisturbed areas to hunt for prey. Appropriate seasonal surveys should be done.

Plants need to be surveyed for during the summer months when they are most visible. Federally listed plants are running buffalo clover, shale barren rock cress, small whorled pogonia and Virginia spirea. There are 2 Regional Foresters Sensitive Species of plants: the Shriver's frilly orchid and the blunt-lobed grapefern.

Virginia Spiraea – Virginia spiraea is a clonal shrub found on damp, rocky banks of large, high-gradient streams (USFWS 1992a). Within the Upper Greenbrier project area boundary, potential habitat for Virginia spiraea may occur along channels and banks of large streams such as the West Fork of the Greenbrier River, the East Fork of the Greenbrier River, and the Little River of the West Fork on the MNF.

Running Buffalo Clover – Potential habitat for running buffalo clover typically exists in lightly disturbed forests and woodlands on soils derived from circumneutral geologic features (NatureServe 2006a, USFWS 2007). The Monongahela National Forest is a stronghold for running buffalo clover, with the largest and highest quality populations range-wide occurring on the Forest (USFWS 2007). Most of the Forest's populations are associated with old skid trails, lightly used roads, or other features that cause moderate soil disturbance.

Small Whorled Pogonia – Habitat preferences for small whorled pogonia are poorly known, but could include a variety of forested habitats. The available literature indicates occurrence in mixed deciduous and pine-hardwood habitats of a variety of ages, often near partial canopy openings (USFWS 1992b). It can only be surveyed for in late spring and early summer. It is found on the MNF.

Shale barren Rockcress – Shale barren rockcress occurs in specialized habitats known as shale barrens in eastern West Virginia and western Virginia (USFWS 1991). Shale barrens are limited to the drier areas of the Monongahela National Forest.

Aquatic Species; Aquatic Regional Foresters Sensitive Species (RFSS) that have been documented in the upper Greenbrier River watershed (Welsh and Cincotta 2007; Clayton 2004; Stauffer et al. 1995; West Virginia Heritage Database) include candy darter (Ethoestoma osburni), Appalachian darter (Percina gymnocephala), New River shiner (Notropis scabriceps), Kanawha minnow (Phenacobius teretulus), eastern hellbender (Cryptobranchus alleganiensis), elktoe (Alasmidonta marginata), and green floater (Lasmigona subviridis). The four RFSS of fish along with bigmouth chub

(Nocomis platyrhychus) are endemic to the New River drainage that contains the upper Greenbrier River watershed (Stauffer 1995). Surveys are need for these sensitive species along with native brook trout.

Native Brook Trout: The Monongahela National Forest (MNF) regards native brook trout as a Management Indicator Species and states in its Management Direction for Fish and Wildlife. One of the MNF's objectives is to "Maintain at least 560 miles of coldwater stream habitat capable of supporting wild, naturally producing brook trout, a Management Indicator Species."

Water Resources: New directives to protect ground water must be considered in surveying for waterways and water sources that could be impacted by the ACP. The MNF Forest Plan states that, "In general, standards and guidelines are established to protect water quality and aquatic ecosystems on the Forest. The standards and guidelines are designed to:

- Prevent or reduce sedimentation related to management activities,
- Protect riparian areas and streamside vegetation,
- Protect water quality and quantity,
- Maintain or improve habitat for native brook trout and species of concern, and
- Restore or rehabilitate watershed and aquatic conditions to support their designated uses."

There are an estimated 660 acres of **wetlands** in the upper Greenbrier River watershed; 430 acres (65 percent) on NFS lands and 230 acres (35 percent) on private lands. Numerous emergent, scrub/shrub and forested wetlands of small to moderate size occur throughout portions of the watershed. **Blister Swamp, a National Natural Landmark** protected by the Park Service**,** is an emergent wetland (wet meadow) of better than 10 acres size, mostly on private land in the extreme headwater of the East Fork. Additional wetland lines the East Fork channel downstream on private and NFS lands. Many tributaries of both the East and West Forks have wetland habitat adjacent to the stream channels. Land and shallow water immediately surrounding Lake Buffalo is also considered riparian/wetland habitat. Although wetlands comprise less than one percent of the watershed, they provide numerous ecological benefits and are reservoirs of biological diversity. Please survey and document current conditions for water quality (sediment, temperature, turbidity) and wetland areas to avoid disturbance.

Karst and Caves

Numerous caves occur in the Greenbrier limestone on the Monongahela National Forest and in the pipeline corridor. Because the limestone is part of the karst area which is more soluble, it is likely that there are abundant fractures and solution cavities which serve as conduits for groundwater issuing as springs into numerous creeks in the area. Numerous streams receiving water from the Greenbrier Formation are well known trout streams.

The concern is that the blasting for the proposed pipeline can change fractures through which groundwater flows and ultimately issues as springs into the streams that support trout. Wherever there is blasting that intercepts the fractures through which groundwater is flowing, this can change the direction, quantity and quality of water that flows toward springs (and, therefore, trout streams). Overall concerns include the quantity and flow pattern of the groundwater. Surveys should be done of these limestone water sources to avoid damaging this sources of water.

Impacts to karst and its limestone will also impact caves and could negatively impact cave habitat for bats and other caves dwellers as mentioned above. Caves near the ACP corridor which harbor listed bats are Aqua-Terra, Harper Trail, Izaak Walton, Sinks of Gandy, and Stewart Run among others. All of these caves are considered winter hibernacula. Another important cave system which could be damage by blasting for the pipeline is the Sinnett Thorn cave system in Pendleton County in

the karst belt which the ACP is proposed to cross. Surveys should be done to allow for an analysis of possible impacts to this National Natural Landmark cave system as well.

Cultural Resources:

George Washington surveyed in this area in the 1750's as he looked for locations for frontier forts during the French and Indian Wars. The ACP runs along the historic Staunton Parkersburg Highway and near the Camp Allegheny Civil War Battlefield on the MNF and the historic recreation area at Locust Springs on the George Washington National Forest.

Cheat Summit Fort
This Monongahela National Forest site off US 250 is about 9 miles southeast of Huttonsville. This Federal stronghold was constructed to control the Staunton-Parkersburg Pike and protect the B&O Railroad. Robert E. Lee's Confederates menaced the fort on Sept. 12, 1862, but never really mounted an attack. Earthworks are still visible a short walk from the parking area.

Camp Allegheny
This Monongahela National Forest site is off U.S. 250 at the Virginia-West Virginia border. A dirt road, part of the original route of the Staunton-Parkersburg Pike, takes you back to the site of fortifications and camp occupied by Col. Edward Johnson's Confederates during part of the winter of 1861. Union attacks here Dec. 13 failed to dislodge Johnson, but the Southerners soon withdrew near Staunton due to long supply lines and inclement weather. Experienced Civil War historians and travelers marvel at this wonderfully preserved site. The chimney stones have fallen in place from the Confederate huts and the scenery is breathtaking. The national forest provides interpretation. Some of the area is privately owned.

Surveys for the cultural resources at these sites and others including prehistoric sites should be done in cooperation with the MNF Archaeologist and the West Virginia State Historic Preservation Office, the National Trust for Historic Preservation and the Advisory Council on Historic Preservation.

Recreation and Scenic Areas: Important scenic areas such as Gaudineer Knob (a National Natural Landmark) exist along the proposed ACP route. There is also a candidate Research Natural Area just north of Gaudineer for Red Spruce 60 acres in size. Recreation areas including Island Campground, Camp Pocahontas, and Buffalo Lake Picnic Area. These special areas could be negatively impacted by the ACP and careful analysis of the impact to these sites and their viewsheds should be included in the surveys. ACP surveyors should be aware of the following Monongahela National Forest regulations.

Forest Plan standards:
Standard MG27
Gas pipelines and gas well sites are not allowed within developed recreation areas.
Standard MG28
Gas well sites are not allowed within 300 feet of a developed recreation area or Scenic Area.
Standard MG29
No new gas/oil road construction is allowed within developed recreation areas.
Standard MG30
Within 500 feet of the boundary of developed recreation areas or any designated Scenic Area, construction and gas drilling and development activities are not allowed during the primary recreation use season, which is determined for each developed recreation area.

Monongahela National Forest 2006 Land and Resources Management Plan states in its Management Direction for Lands and Special Uses that proposed special uses of NFS lands—such as hydroelectric development, wind energy development, communication sites, water developments, and utility corridors—are considered that meet public needs, are consistent with direction for other Forest resources and management prescriptions, and cannot be accommodated off the National Forest. And that work with utilities and others to minimize the use of NFS lands for utility corridors, and to share existing corridors when feasible. Proposals for utility and communication facilities outside existing sites or corridors shall be considered only after improvement or expansion of existing facilities is determined to be inadequate or impractical**. These management guidelines indicate that the ACP surveys should include work to see if an alternative corridor that avoids the National Forests can be developed during the survey process.**

The ACP survey process is only useful in aiding a future decision by Forest Service on the pipeline right-of-way if it is comprehensive and sufficient to allow an analysis of all impacts to the MNF of the proposed ACP construction and permanent infrastructure. Detailed survey protocols must be developed by the Forest Service in consultation with US Fish and Wildlife Service. These protocols should be made available for public review through a comment period. This will increase the transparency of the process and allow other experts to improve the survey protocols with their comments.

Thanks you for the opportunity to comment on this important process.

Sincerely,

Judith S. Rodd
Director of Friends of Blackwater