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**COMMONWEALTH of VIRGINIA**  
DEPARTMENT OF CONSERVATION AND RECREATION

June 17, 2019

Shelby Williams  
Project Leader  
US Forest Service  
1700 Park Avenue, SW  
Norton, VA 24273

Re: Ewing Mountain Vegetation Project Scoping

Dear Mr. Williams:

The Department of Conservation and Recreation's Division of Natural Heritage (DCR) has searched its Biotics Data System for occurrences of natural heritage resources from the area outlined on the submitted map. Natural heritage resources are defined as the habitat of rare, threatened, or endangered plant and animal species, unique or exemplary natural communities, and significant geologic formations.

According to the information currently in our files, the Raven Cliff, Jones Knob and Deep Springs Conservation Sites are documented within the project area. Conservation sites are tools for representing key areas of the landscape that warrant further review for possible conservation action because of the natural heritage resources and habitat they support. Conservation sites are polygons built around one or more rare plant, animal, or natural community designed to include the element and, where possible, its associated habitat, and buffer or other adjacent land thought necessary for the element's conservation. Conservation sites are given a biodiversity significance ranking based on the rarity, quality, and number of element occurrences they contain; on a scale of 1-5, 1 being most significant. The Raven Cliff Conservation Site has been given a biodiversity significance ranking of B2, which represents a site of very high biodiversity. The natural heritage resources of concern at this site are:

<i>Fragaria vesca var.americana</i>	Woodland Strawberry	G5T5/S1/NL/NL
	Mountain/Piedmont Cliff	G3/S3/NL/NL

The Jones Knob Conservation Site has been given a biodiversity significance ranking of B3, which represents a site of high biodiversity. The natural heritage resource of concern at this site is:

Southern Appalachian Pine - Oak / Heath Woodland	G3/S3?/NL/NL
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In addition, DCR biologists are currently conducting field surveys to assess the project areas for additional natural heritage resources.

## Karst

This project is situated on karst-forming carbonate rock and can be characterized by sinkholes, caves, disappearing streams, and large springs. The Virginia DCR karst staff screened this project against the Virginia Speleological Survey (VSS) database and the Virginia DMME sinkhole coverage for documented sensitive karst features and caves. One known cave is reported within the footprint is shown in Figure 1. Fry Hill Cave has a small entrance and the cave has not been explored. The approximate location of this cave is: 36.800966/-81.094530.

This project also intersects the edges of the Deep Springs Cave Conservation Site, which has been given a biodiversity significance ranking of B4, which represents a site of moderate biodiversity (see Figure 2). The natural heritage resource at this site is:

*Caecidotea incurva*

Incurved Cave Isopod

G2G4/S2/NL/NL

To help reduce impacts to karst, DCR recommends that the entrance to Fry Hill Cave be located by the Forest Service. Once the entrance is located, DCR recommends avoidance of any work that would cause significant disturbance to the entrance, the soils in its immediate drainage area or footprint. If the USFS would like to evaluate the significance of this cave, DCR recommends coordination with Wil Orndorff, the DCR Division of Natural Heritage Karst Protection Coordinator to discuss options for a field visit by Karst Program staff. While performing work around the Deep Springs Cave Conservation Site, DCR recommends efforts to reduce erosion and sedimentation including avoidance of destabilization of the soils in this area.

If other karst features such as sinkholes, caves, disappearing streams, and large springs are encountered during the project, please coordinate with Wil Orndorff (540-230-5960, [Wil.Orndorff@dcr.virginia.gov](mailto:Wil.Orndorff@dcr.virginia.gov)) to document and minimize adverse impacts. Discharge of runoff to sinkholes or sinking streams, filling of sinkholes, and alteration of cave entrances can lead to surface collapse, flooding, erosion and sedimentation, groundwater contamination, and degradation of subterranean habitat for natural heritage resources. If the project involves filling or “improvement” of sinkholes or cave openings, DCR would like detailed location information and copies of the design specifications. In cases where sinkhole improvement is for storm water discharge, copies of VDOT Form EQ-120 will suffice.

There are no State Natural Area Preserves under DCR’s jurisdiction in the project vicinity.

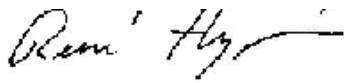
Under a Memorandum of Agreement established between the Virginia Department of Agriculture and Consumer Services (VDACS) and the DCR, DCR represents VDACS in comments regarding potential impacts on state-listed threatened and endangered plant and insect species.

New and updated information is continually added to Biotics. Please re-submit project information and map for an update on this natural heritage information if the scope of the project changes and/or six months has passed before it is utilized.

The Virginia Department of Game and Inland Fisheries (VDGIF) maintains a database of wildlife locations, including threatened and endangered species, trout streams, and anadromous fish waters that may contain information not documented in this letter. Their database may be accessed from <http://vafwis.org/fwis/> or contact Ernie Aschenbach at 804-367-2733 or [Ernie.Aschenbach@dgif.virginia.gov](mailto:Ernie.Aschenbach@dgif.virginia.gov). There is potential for the little brown bat (*Myotis lucifugus*) and /or the tri-colored bat (*Perimyotis subflavus*) to occur within some of the burn units. In addition, state and federal listed animals have been documented within two miles of the project areas.

Should you have any questions or concerns, feel free to contact me at 804-371-2708. Thank you for the opportunity to comment on this project.

Sincerely,



S. Rene' Hypes  
Natural Heritage Project Review Coordinator

Cc: Ernie Aschenbach, VDGIF  
Wil Orndorff, DCR-Karst

Figure 1- Karst Feature-Fry Hill Cave

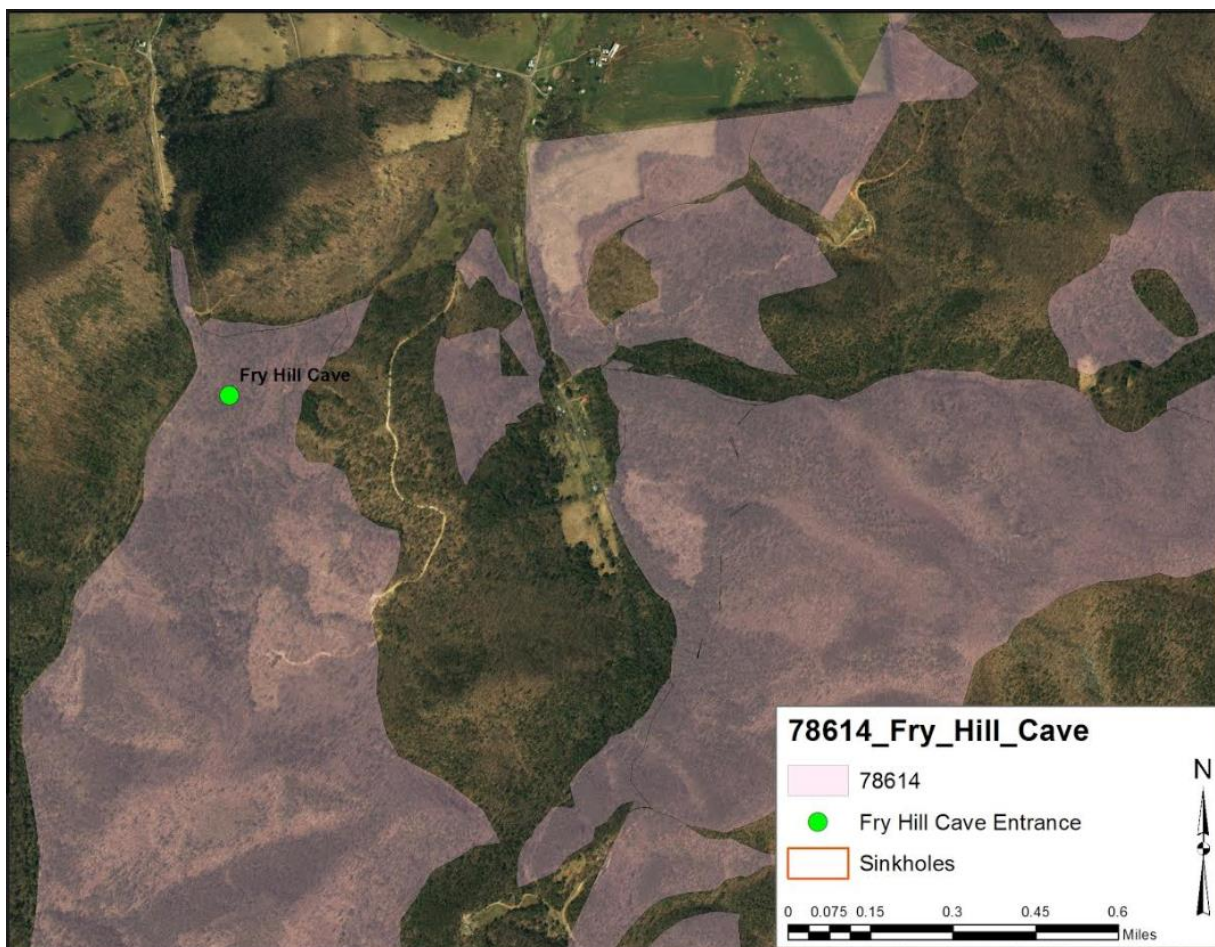




Figure 2- Karst Features- Deep Springs Cave Conservation Site and Sinkholes

