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COMMONWEALTH of VIRGINIA
DEPARTMENT OF CONSERVATION AND RECREATION

May 28, 2021

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

Re: Ewing Mountain Vegetation Project Scoping EA

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 associated with this site are:

Mountain/Piedmont Cliff	G3/S3/NL/NL
Southern Appalachian Mesic Calcareous Cliff	G2/S1S2/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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According to a DCR ecologist, the significant natural communities that fall within the proposed project boundary provided would not be adversely affected by canopy thinning or prescribed fire. The Southern Appalachian Pine - Oak / Heath Woodland present at Jones Knob is showing good pine recruitment and has benefited from fire in the landscape (natural or prescribed). The Southern Appalachian Mesic Calcareous Cliff at Raven Cliff was an exemplary occurrence in 2018 with little to no exotic invasive plants. However, the surrounding landscape continues to be compromised by the Forest Road at the cliff base, which is now extensively used by horses and is serving as a vector for invasive weeds. Based on review of the proposed actions in Ewing Mountain Vegetation Project Environmental Assessment (EA), DCR does not anticipate impacts to this cliff. The Mountain / Piedmont Acidic Cliff within the Raven Cliff Special Management Area (*the Raven Cliff*) is also within the project boundary, but does not appear to be involved in any of the proposed activities.

According to a DCR botanist, the Carolina hemlock (*Tsuga caroliniana*, G2G3/S2/NL/NL), a southern Appalachian endemic was documented in several places throughout the project area. During inventory surveys, these areas were mapped by DCR staff and provided to the Forest Service. This species is currently on DCR's rare plant watchlist. However, due to adelgid impacts to the Carolina hemlock the global rarity rank for this species has been recently elevated to G2 (Globally Imperiled) by NatureServe. DCR recommends not harvesting areas with documented occurrences of Carolina hemlock.

According to a DCR zoologist, based on recent surveys no rare animals were documented in the project area. DCR supports the use of best management practices including maintaining riparian buffers to protect water quality as outlined in the 2021 USFS Ewing Mountain Vegetation Project EA Fisheries and Aquatic Habitat Specialist Report.

Karst

DCR reiterates its 2019 comments for this project. "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) 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.

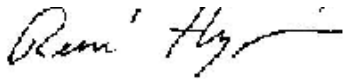
Under a Memorandum of Agreement established between the Virginia Department of Agriculture and Consumer Services (VDACS) and the DCR, DCR represents VDACS in comments regarding potential impacts on state-listed threatened and endangered plant and insect species.

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 Wildlife Resources (VDWR) 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@dwr.virginia.gov.

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,

A handwritten signature in black ink, appearing to read "S. Rene' Hypes", with a stylized flourish at the end.

S. Rene' Hypes
Natural Heritage Project Review Coordinator

Cc: Wil Orndorff, DCR-Karst

Figure 1- Karst Feature-Fry Hill Cave

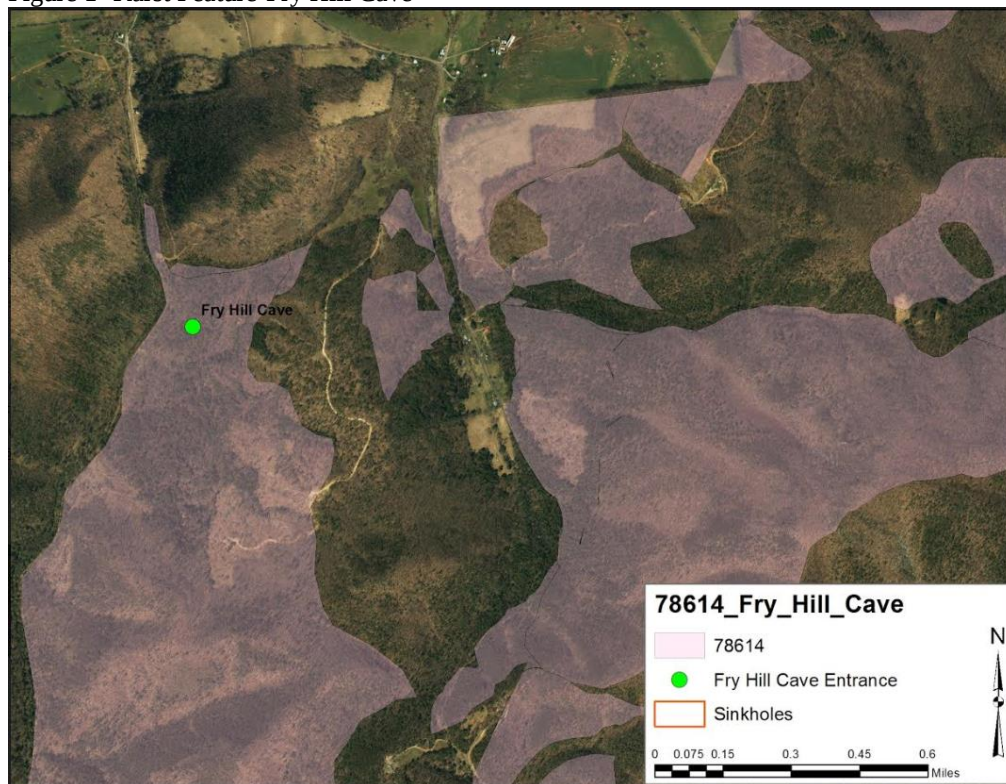


Figure 2- Karst Features- Deep Springs Cave Conservation Site and Sinkholes

