

Strategies to Increase Driver Safety and Connect Habitat for Elk and Other Wildlife along Corridor Q in Southwest Virginia

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Research Proposal Abstract

Construction is underway along a 14-mile section of highway in southwest Virginia's Buchanan County. The road segment, designated as U.S. Route 460 (or Corridor Q), is associated with the Appalachian Development Highway System (ADHS). ADHS was created by Congress as a means of connecting Appalachia to the interstate system and generating economic development in relatively isolated areas. Corridor Q will extend from the Kentucky state line to existing U.S. Route 460 in the town of Grundy.

From 2012 to 2014, the Virginia Department of Wildlife Resources (VDWR) relocated 75 elk from Kentucky to reclaimed mined lands in Buchanan County. Today, Virginia's total elk population includes over 250 animals, of which at least 200 inhabit Buchanan County. Approximately 100 elk inhabit the area along Corridor Q and the adjacent lands known as Southern Gap. The large size of elk and the abundance of high-quality habitat along and adjacent to Corridor Q may present challenges with regard to driver safety when the road opens to traffic.

The purpose of this study is to determine the recommended locations and designs for wildlife crossings and fencing along Corridor Q to (1) reduce the risks to driver safety, (2) maintain habitat connectivity for wildlife, and (3) preserve the elk population and the associated local economic benefits they provide. While elk will be the primary focus of the evaluation, other wildlife in the area (including large species such as white-tailed deer and black bear) will also be considered with regard to minimizing wildlife crash risk and maintaining habitat connectivity.

The research team will develop and apply a criteria-based prioritization method to identify locations recommended for wildlife crossings and animal detection driver warning systems. The final report will include information on the specific sizes and features of wildlife crossings recommended for the prioritized locations and the recommended locations for animal detection systems. Because implementation of these measures will depend on funding availability, the study will also include determining funding options and relevant programmatic eligibilities.