



## MEMORANDUM

**TO:** Ms. Jennie Geiger, Apex Clean Energy

**FROM:** Ms. Lauren Shaffer, Wetland Studies and Solutions, Inc.  
Mr. Benjamin Rosner, Wetland Studies and Solutions, Inc.

**RE:** Piratebush (*Buckleya distichophylla*) Assessment  
Rocky Forge Wind Project  
WSSI #22766.02

**DATE:** July 18, 2016

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Wetland Studies and Solutions, Inc. (WSSI) conducted an assessment for Piratebush (*Buckleya distichophylla*) at the Rocky Forge Wind Project (hereafter referred to as the "Project") in Botetourt County, Virginia. While completing invasive species mapping surveys for the Project, WSSI staff searched for and recorded any observed Piratebush specimens, if observed, within potentially suitable habitat located in the central and southern portion of the Project (Figure 1<sup>1</sup>). The Piratebush assessment was completed on from May 2 through 4, 2016 and July 6, 2016.

Piratebush is a parasitic shrub that is known to occur on steep, rocky slopes with exposure to the south or the west. This species is endemic to the southern Appalachian region and is known to occur only in Virginia, Tennessee and North Carolina. Although the species was once thought to be associated exclusively with hemlock species (*Tsuga* spp.), research has shown that Piratebush can occur in acidic cove/mixed oak forests, alongside chestnut oak (*Quercus montana*), Virginia pine (*Pinus virginiana*) or eastern white pine (*Pinus strobus*). The species grows in clumps and reaches about fifteen feet tall. It produces small green flowers in April and May.

No Piratebush individuals were observed by WSSI staff. Species commonly associated with Piratebush, such as Rhododendron (*Rhododendron* spp.), eastern white pine, Virginia pine, chestnut oak, as well as other oak species, were present within the Piratebush survey area. The understory in this portion of the Project contained an open understory with more sunlight reaching the forest floor, a suitable habitat component for the Piratebush.

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<sup>1</sup> The Virginia DCR conducted a search of the Biotics Data System for the Rocky Forge Wind Project and documented their findings in a letter dated March 24, 2016. Species-specific information on the Piratebush can be found at DCR's NatureServe Explorer (<http://explorer.natureserve.org/servlet/NatureServe?searchName=BUCKLEYA+DISTICHOPHYLLA>), accessed by WSSI on June 20, 2016.

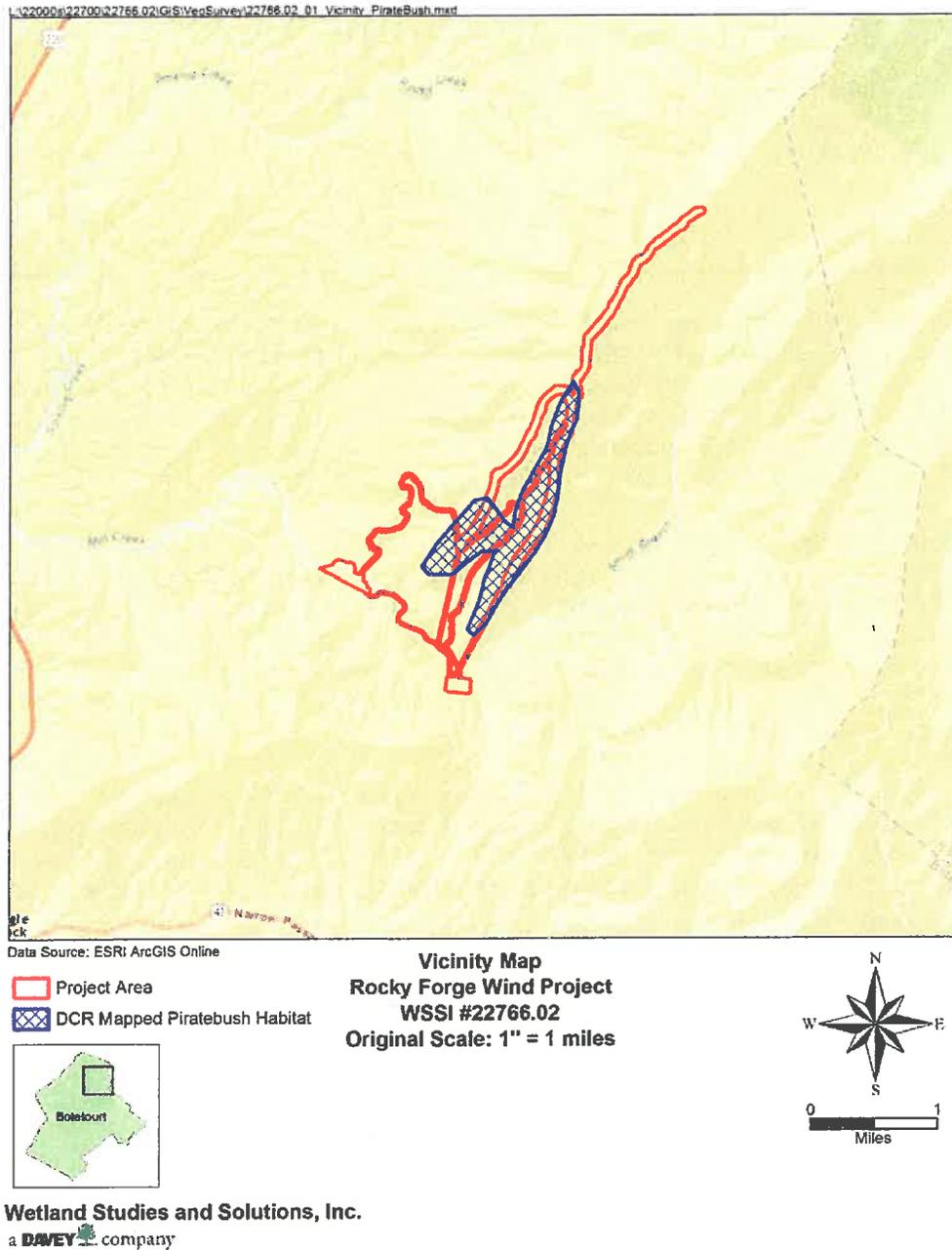


Figure 1. Vicinity Map