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the loss of even a single individual may cause the collapse of the river's population; diminish the genetic diversity of the South Atlantic DPS; and hasten the regional population's continued decline.

b. Red-Cockaded Woodpecker

The red-cockaded woodpecker (RCW) is among the coastal plain's most charismatic, visible and imperiled species. Though RCWs were once found throughout the greater Southeast, from New Jersey to Florida and west to Texas, historical logging operations resulted in the loss of nearly 90 million acres of longleaf pine. Because the species uniquely depends upon mature pine forest—trees that are at least 60–80 years old—as few as 7,800 active clusters exist today across the species' range, down from a historical, pre-European settlement estimate of 1–1.6 million family groups. The species remains listed as Endangered under the ESA.

The larger 12,000-acre project is adjacent to the Refuge, where several active RCW clusters are known to reside. Currently, the Refuge is home to 97 clusters, 46 of which are active. These "are most likely the remains of a much larger population that once depended on the pine stands surrounding the refuge," such as that within the proposed project site. 229

Based on recent surveys, there are at least 15 active clusters near the southeastern-eastern refuge boundary. Some RCWs may use the project site for foraging, and the full project could eliminate what habitat remains for dispersing individuals. For the Okefenokee clusters, this is of concern, since the population is already small, isolated and suffering from a lack of connectivity—three factors that are known to heighten the risk of extinction for the red-cockaded woodpecker. All the survey of the red-cockaded woodpecker.

In addition to obvious habitat fragmentation concerns, the disturbances caused by light, noise and smoke pollution may further affect the Okefenokee population. The proposed mine will require the installation of heavy machinery, the erection of semi-permanent facilities, road construction, and night-time lighting near the Refuge. These activities may affect the nesting and foraging patterns of those found along the Trail Ridge boundary.

²²⁷ U.S. Fish and Wildlife Service. 2018. Draft Species Status Assessment Report for the Red-Cockaded Woodpecker (Picoides borealis). Version 1.1, at 1, 5.

²²⁸ U.S. Fish & Wildlife Serv., Okefenokee National Wildlife Refuge-Red-Cockaded Woodpeckers Report.

²²⁹ *Id.* at 1.

²³⁰ *Id*.

²³¹ Schiegg K, Daniels SJ, Walters JR, Priddy JA, Pasinelli G. 2006. Inbreeding in red-cockaded woodpeckers: Effects of natal dispersal distance and territory location. Biological Conservation 131:544–552.