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of its sands are heavy minerals such as zircon and ilmenite (a source of titanium dioxide). Mostly, the sand is quartz. Interspersed throughout the ridge are what Twin Pines refers to as units of "humate-cemented sand (Black Sand)." Water flows more slowly through these sands. Twin Pines' project, as described in its permit application, would destroy these low permeability layers and replace them with homogenized sands, thereby allowing "groundwater to more freely drain from the ridge." In the 1990s, when DuPont proposed to mine a strip of Trail Ridge immediately to the north of Twin Pines' proposed project, a tidal wave of public protest broke on DuPont and caused it to abandon its plans. One of the biggest criticisms of the plan was that DuPont could not demonstrate that the proposed mine would not drain the Okefenokee Swamp. The U.S. Fish and Wildlife Service detailed some of those concerns:

Significant long-term alterations to the hydrology and water quality of the Okefenokee Swamp and St. Marys River are likely. Impacts could include the destruction of thousands of acres of wetlands, alterations to surface water flow, and permanent changes to the hydrological relationships among the swamp, the underlying aquifer, and the surficial groundwater in the adjacent mined area.

\* \* \*

Endangered species and their habitats that may be directly affected include red-cockaded woodpeckers, indigo snakes, and wood storks. In addition to environmental effects, the mine operation could significantly degrade the unique wilderness experience available to [visitors] through a variety of visual impacts and noise pollution.<sup>14</sup>

In short, the proposed mine could cause a trainwreck of adverse effects.

The similarities between the DuPont proposal and the Twin Pines proposal are striking. Throughout the application process, Twin Pines has repeatedly misrepresented the scale and severity of its project's impacts. For example:

• Twin Pines misrepresented the size of the mine. At a public meeting, Twin Pines told the public it was a "myth" that it "is planning to mine 12,000 acres of property." According to Twin Pines, the 12,000-acre figure is merely "the area that Twin Pines evaluated." However, Twin Pines disclosed to federal agencies (but not the public) that it intends to mine "12,000 acres in 1,000 acre phases over a 30-year period." \*\*Intends\*\*

<sup>&</sup>lt;sup>12</sup> Permit Application, App. F.

<sup>&</sup>lt;sup>13</sup> Hutson Report at 5.

<sup>&</sup>lt;sup>14</sup> U.S. Fish and Wildlife Serv., *Okefenokee National Wildlife Refuge: Annual Narrative Report, Calendar Year 2000*, at 56 (April 2001) (excerpts attached as Ex. E)

<sup>&</sup>lt;sup>15</sup> Twin Pines, LLC, Myths v. Facts: Twin Pines Mining Project at ¶ 3 (Aug. 13, 2019) ("Twin Pines Fact Sheet").

<sup>&</sup>lt;sup>16</sup> USACE Issue Paper at 1; USFWS Letter at 1; E-mail from Christopher Stanford, TTL, to Jared Lopes, U.S. Army Corps of Eng'rs (July 23, 2018) ("The mine site is approximately 12,000 acres and the area will be mined in 1,000-acre parcels over 30 years."). Twin Pines was less coy during its presentation to the Okefenokee Chamber of Commerce on September 11,