

of the applicant's potential alternatives are located on the 12,000-acre project site. As a result, all contain high percentages of wetlands and are located within 3.73 miles of the Okefenokee Swamp.

1. Twin Pines artificially limited its search criteria to eliminate off-site alternatives.

Twin Pines gives no credible explanation for why it ignored off-site alternatives.¹²⁵ According to the application, the purpose of the project is to extract of heavy mineral reserves.¹²⁶ Twin Pines acknowledged that “[m]any deposits of heavy mineral sands have been identified in the Atlantic Coastal Plain,” including “a sequence of deposits along the Fall Zone in southeastern Virginia” and “the Lakehurst District in New Jersey.”¹²⁷ It also admits that there are “[c]onsiderable resources” of heavy mineral sands in areas “near the modern shores or on barrier islands, for example the coasts of South Carolina, southeastern Georgia, and northeastern Florida.”¹²⁸

Independent surveys verify these deposits. For example, a geological survey conducted by Georgia's Department of Natural Resources in 1991 identified the occurrence of heavy mineral deposits on five ancient island complexes (left behind by receding sea levels), including the Wicomico (Trail Ridge), Penholoway, and Talbot formations, shown on the map below.¹²⁹

HEAVY MINERALS IN USE, at 1184. Chemours intends to truck from its Amelia Mines in Jesup to its separation plant in Offerman. Southern Ionics Minerals, Press Release (Nov. 27, 2018).

¹²⁵ 40 C.F.R. § 230.10(a).

¹²⁶ Permit Application at 3.

¹²⁷ Permit Application at 3.

¹²⁸ Permit Application at 3.

¹²⁹ Georgia Geologic Survey, Heavy Mineral Bearing Sands from the Wicomico to the Princess Anne Paleobarrier Complexes Along GA Coastal Plain (Bulletin 111) (1991) (attached as Ex. I); *see also* U.S Geol. Survey, Titanium Mineral Resources in Heavy-Mineral Sands in the Atlantic Coastal Plain of the Southeastern United States, Scientific Investigations Report 2018-5045 (2018) (attached as Ex. J). Some of these mines have required permits from the Savannah District.