

World Heritage Tentative List, which means it may be nominated for consideration as a World Heritage Site. The EPA considers the Okefenokee NWR an Aquatic Resource of National Importance.

The 2,414-acre Phase 1 project area lies as close as 1.7 miles from the border of the Okefenokee NWR, and the proposed mining footprint within Phase 1 will lie as close as 2.7 miles from the NWR (measured via georeferenced aerial photography). The depth of mining across the Phase 1 project area will vary from approximately 25 feet below land surface in the west to an average of 50 feet below land surface in the central and eastern mine area. The Phase 1 project mining will include excavation of the geologic formation known as Trail Ridge. The U.S. Geological Survey has described Trail Ridge as impounding the Okefenokee Swamp,¹ and the U.S. FWS has referred to Trail Ridge as a “geomorphological ‘dam’ on the east side of the swamp maintaining the hydrology of the swamp.”² The effects of mining through Trail Ridge on local and regional groundwater levels in and affecting the NWR are uncertain at this time.

The applicant proposes to replace 522 acres of wetlands and 2,454 linear feet of streams during mine reclamation. However, detailed wetland and stream reclamation / restoration plans have not been provided. The EPA recommends that additional detailed information be provided on the reclamation / restoration plans for our review in order to evaluate the feasibility of restoring the underlying soil and hydrologic conditions that presently support existing wetlands and streams in the Phase 1 project area and thereby ensure that all impacts to waters of the United States are appropriately avoided, minimized and compensated for, consistent with the CWA 404(b)(1) Guidelines.

Regulations at 40 CFR Section 230.10(c) prohibit discharges that will cause or contribute to significant degradation of waters of the United States, and 40 CFR Section 230.11 requirements include the consideration of secondary and cumulative impacts from proposed discharges. Based on the limited available information, the applicant has not demonstrated that the proposed project will not result in significant degradation, including individual or cumulative effects to fish and wildlife; ecosystem diversity, productivity and stability; and recreational, aesthetic and economic values. Excavation and reclamation of the proposed mine area may alter local or regional groundwater hydrology. Changes in water table elevations and the rate and direction of shallow ground water movement as a result of mining and reclamation may alter hydrologic conditions in the Okefenokee NWR. Regulations at 40 CFR Section 230.40 specifically state the permitting authority should consider potential impacts to sanctuaries and refuges designated under State and Federal laws or local ordinances when making the factual determinations under 40 CFR Section 230.11 and the findings of compliance or non-compliance with the restrictions on discharge at 40 CFR Section 230.12.

Appendix F of the permit application introduces hydrogeologic investigations undertaken or in the process of being completed on and adjacent to the proposed mine area. However, no technical information pertaining to any of these efforts is included. The need to evaluate

¹ Force, E.R. and F.J. Rich. 1989. Geologic evolution of Trail Ridge eolian heavy-mineral sand and underlying peat, northern Florida. U.S. Geological Survey Professional Paper 1499. Washington, D.C.

² Letter from Donald W. Imm, U.S. Fish and Wildlife Service, to Colonel Daniel Hibner, U.S. Army Corps of Engineers, Savannah District. February 20, 2019.