

including corals, and even primates.”³⁰⁶ This is particularly relevant to the Okefenokee Swamp because it is “world renowned for its amphibian populations that are bio-indicators of global health.”³⁰⁷

It will be all but impossible to prevent light from the proposed mine from entering the Wilderness. In addition to the lights on the crane-like dragline and other the excavation equipment, the processing plants described above will also be lighted. At other comparable mines, such mills reach above the tree line and would shine directly into the wilderness area. From the observation tower at Seagrove Lake, visitors have commented on seeing the lights from the D. Ray James Prison, which is located 16 miles from the tower.³⁰⁸ Based on this observation, the lights from the proposed mine would reach far into the wilderness area. Twin Pines must address such light pollution.³⁰⁹

VIII. Before granting a Section 404 permit, the Corps should ensure that the proposed mine would not adversely impact the Okefenokee National Wildlife Refuge.

As previously discussed, the Corps must consider whether the Twin Pines mining proposal would have any adverse impacts on Okefenokee National Wildlife Refuge as part of its analysis under the National Environmental Policy Act, the Clean Water Act Section 404(b)(1) Guidelines and Public Interest Review. In addition to other refuge-related concerns, the Corps has a duty to examine the ramifications of permitting a project that would likely undermine the ability of the Service to fulfill its congressional mandates under the National Wildlife Refuge System Administration Act as amended by the National Wildlife Refuge System Improvement Act (Refuge Administration Act).³¹⁰ Notably, the Corps must give full consideration to the views of the Service on fish and wildlife matters in deciding on the issuance, denial, or conditioning of the Twin Pines Clean Water Act permit.³¹¹

³⁰⁵ Our Nights are Getting Brighter, and Earth is Paying the Price, Science and Innovation, <https://www.nationalgeographic.com/science/2019/04/nights-are-getting-brighter-earth-paying-the-price-light-pollution-dark-skies/>.

³⁰⁶ *Id.*

³⁰⁷ U.S. Fish & Wildlife Serv., Okefenokee National Wildlife Refuge, About the Refuge, <https://www.fws.gov/refuge/Okefenokee/about.html>.

³⁰⁸ E-mail from U.S. Fish & Wildlife Serv. staff member (Sept. 6, 2019).

³⁰⁹ In response to these concerns about light pollution, is Twin Pines willing to conduct a light study to measure how much light will be emitted from the proposed mine and describe what concrete measures, if any, it intends to undertake to ensure that light pollution will not reach the wilderness area? Is Twin Pines willing to accept a permit condition that would limit work in the mine to an 8-hour shift during daylight hours? Is Twin Pines willing to accept a permit condition that would require it to construct an earthen berm of sufficient height to prevent light from directly shining into the wilderness area?

³¹⁰ 16 U.S.C. §§ 668dd-668ee.

³¹¹ 33 C.F.R. § 320.4(c).