available information, the most likely outcome appears to be some impacts to hydrology. Hydrologic change could indirectly result in modifications to fire behavior, hydrology, and vegetation; thereby impact wildlife and recreational opportunities within the NWR and the surrounding area.

Based on information provided in the JPN and other information currently available to the Service, there appears to be great uncertainty regarding the extent to which alteration of hydrologic processes that sustain the ecosystem may occur.

The range of possible impacts includes moderate to intermittent alteration of hydrologic processes which could indirectly result in seasonally lowered water tables. Lowered water tables within the Okefenokee basin could elevate fire frequency and intensity and alter fire behavior due to increased exposure of traditionally wetted areas. Further, even slight changes in the low mean water table or altered seasonal hydrology could result in a reduction of organic peat soils that dominate the basin. Slight changes in soils, hydrology, and fire behavior would result in changed vegetative patterning that govern habitat conditions. Ultimately, these environmental factors (fire, soils, vegetation) and associated habitat conditions define the ecological and recreational value of the National Wildlife Refuge. To date, data and model results are continuing to be collected and evaluated, therefore, the most likely direct and indirect impacts of the proposed project have yet to be determined.

Several state and federally-listed and federal candidate species may be present or occasionally utilize habitat within the proposed mine footprint. It is unknown how long the effects of the mining will affect these species and the habitats that are currently on and near the site. The effects to the habitat may be permanent and thereby eliminating the species from the local landscape. Also, based on currently available science, it is unknown if the water level and holding capacity of the Okefenokee Swamp will be altered and what impacts this might have on the swamp and surrounding natural features, such as the St. Marys River.

Because of the uncertainty of impacts the Service cannot definitively say that the mining proposal will significantly *affect* the environment. However, we have concerns that the proposed project could pose substantial risks for adverse impacts to OKENWR and the surrounding environment that may be irreversible even with mitigation.

- Item 6; establish a precedent. Though USACE will be primarily considering the impacts of the proposed action from the standpoint of wetlands impacts and compliance with the Clean Water Act; overall, considering the entirety of the project footprint (uplands included), the mine footprint and timeframe are large and impactful. Future mining projects in adjacent portions of Trail Ridge, where there has been mineral interests in the past, could further magnify any environmental impacts by impacting the whole eastern side of the swamp that is adjacent to the sand ridge known as Trail Ridge.

These and other concerns are further described below.