

functional wetland mitigation/restoration at the refilled mining pits will be successful is not scientifically credible.”¹⁷⁷

It is not surprising that these experts do not have much faith in Twin Pines’ proposal. In its Corps application, Twin Pines claims that it can:

- 1) strip sections of the site, which is half covered in wetlands, of 6 inches of topsoil;
- 2) dig in horizontal stripes across the site;
- 3) to, in some places, a depth of 70 feet;
- 4) separate out the valuable mineral sands;
- 5) shape the tailings into “wetland” basins, some of which will be over 100 acres in size;
- 6) create all the necessary hydrologic connections between the basins and the on-site streams;
- 7) replace the topsoil;
- 8) plant wetlands plants;
- 9) all within 90 days, while mining continues around it.

In light of these elements, Dr. Rheinhardt found Twin Pines’ mitigation proposal to be a momentous task that Twin Pines is ill-equipped to undertake. Dr. Rheinhardt states in his report that, “TPM’s lack of detailed insights into potential impacts and reasonable targets suggests that it may not have the expertise required to mitigate and compensate for potential on-site environmental impacts and in particular, loss of wetland functions. In fact, TPM did not show that it has ever successfully created wetlands in mined sands.”¹⁷⁸ For these reasons, Dr. Rheinhardt concluded that before this application proceed any further, Twin Pines must prepare an environmental impact statement that includes a compensatory mitigation plan that addresses the questions contained in his report.¹⁷⁹

Hughes concluded in his comments that an EIS is essential too based in large part on Twin Pines’ questionable mitigation plan. As he states in his comments:

The EIS should delve substantially into this [mitigation] matter. The proposed mining process will destroy the existing soil conditions to an approximate 50 foot depth and very likely permanently alter the pre-mining groundwater conditions. Simply backfilling the mining pit with a homogenous quantity of tailings materials will in no way replace or approximate the existing pre-mining soil and groundwater conditions that the existing wetland ecosystems are a part of.¹⁸⁰

Hughes, like Rheinhardt, concluded that Twin Pines must flesh out, to the extent it is qualified to do so, the insufficient mitigation plan that it has produced. Rheinhardt submits that the following questions from his report need to be answered before any mitigation plan can be deemed complete.

¹⁷⁷ Letter from Eric Hughes to Col. Daniel Hibner (Sept. 10, 2019) at 3 (“Hughes Letter”).

¹⁷⁸ Rheinhardt Report at 5.

¹⁷⁹ Rheinhardt Report at 5.

¹⁸⁰ Hughes Letter at 3.