

Phase One “permit area.”<sup>148</sup> All indications are that Twin Pines never intended to mine these acres. Because of their distance from the crest of Trail Ridge, it is likely there are not enough heavy minerals there to make mining economically viable. In its application Twin Pines describes the fall off of “the mineralized zone” as one gets further from the ridge, noting that heavy minerals are “much shallower (10 – 20 ft)” on the TIAA tract.<sup>149</sup> Further, Twin Pines’ own map of mineral depths, not included in the application, does not even extend that far west.<sup>150</sup> Claiming credit for “avoiding” these 550+ acres of wetlands is disingenuous at best. These 554 acres should not count as “avoidance;” if they did, Twin Pines might as well claim to have avoided all the wetlands in the state of Alabama as well.

True avoidance in this case would involve Twin Pines taking a hard look at the wetland and streams in the area they intend to mine and focusing only on these parts of the site that have the most heavy minerals. Twin Pines has also failed to avoid wetlands with respect to its processing facilities and stockpiles. The requirement of avoiding waters to the extent practical means there should be some efficiency trade-off (presumably these facilities are located centrally for convenience, as Twin Pines claims they “will still need to be constructed [in wetlands]” even under Alternative 5 which avoids all 522 acres of wetlands in the mining area).<sup>151</sup> Corps regulations require an effort to avoid aquatic impacts at the outset. Twin Pines cannot skip this step.

## 2. Minimization

Twin Pines likewise fails to minimize the impacts of the proposed mine. Under the 404(b)(1) Guidelines, minimization means “mitigating an aquatic resource impact by managing the severity of a project’s impact on resources at the selected site.”<sup>152</sup> “Minimization is achieved through the incorporation of appropriate and practicable design and risk avoidance measures.”<sup>153</sup> Twin Pines barely mentions its mitigation obligations in the application, saying only that “[t]he team considered layout options that minimized impacts to aquatic resources, but also avoided/minimized impacts to threatened and endangered species.”<sup>154</sup> To minimize its impacts, Twin Pines could, for example, only mine a portion of one of the larger wetlands on the site.

### F. The application’s compensatory mitigation plan violates the Section 404(b)(1) Guidelines.

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<sup>148</sup> Permit Application, Fig. 4.1a.

<sup>149</sup> Permit Application, App. F. It appears that below an elevation of 130 feet, there are not enough minerals worth mining.

<sup>150</sup> Twin Pines Minerals, Map of Mineral Depths (detail of Keystone tract attached as Ex. K).

<sup>151</sup> Permit Application at 12. In fact, none of Twin Pines’ alternatives on the Phase One site consider relocating these facilities.

<sup>152</sup> Env’tl. Prot. Agency, Types of Mitigation Under CWA Section 404, <https://www.epa.gov/cwa-404/types-mitigation-under-cwa-section-404-avoidance-minimization-and-compensatory-mitigation>.

<sup>153</sup> *Id.*

<sup>154</sup> Permit Application at 16; *see also id.* at 18.