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to six months to fill in the pits and up to two years to replant any wetlands that it creates. ¹⁷¹ Two years cannot be considered temporary under any definition.

Furthermore, temporary fills do not include completely destroying wetlands and then attempting to rebuild them. Temporary fills involve placing fill material in a wetland for a short time and then removing the fill and restoring the wetland after the work is completed. A common example of a temporary fill involves the construction of an access road through a wetland. After the access road is no longer needed, the fill is removed and the wetland functions are restored. Temporary fills also include the placement of fill to bury utility lines, construct erosion control features, ¹⁷² construct cofferdams, and the dewatering of dredged material. ¹⁷³

b. The compensatory mitigation plan is too risky.

Even if the impacts to the wetlands were considered "temporary," it is highly unlikely that Twin Pines will be able to create wetlands that will offset the wetland functions that will be destroyed when Twin Pines conducts its proposed mining operation. In 1990, the Corps and EPA drafted a memorandum of agreement addressing compensatory mitigation. The two agencies agreed that: "There is continued uncertainty regarding the success of wetland creation or other habitat development. Therefore, in determining the nature and extent of habitat development of this type, careful consideration should be given to its *likelihood of success*." In other words, if an applicant proposed to create wetlands as a part of its compensatory mitigation plan, the agencies should assume that there is a good chance the approach will fail.

Created wetlands still have a low probability of success today even under the best of circumstances. Twin Pines, however, is not simply proposing to create wetlands under normal circumstances. It is proposing to create wetlands under extremely challenging circumstances. Dr. Rheinhardt, a wetland ecologist, summed up this daunting task when he said in his expert report, which is attached, that: "In trivializing the difficulty of creating wetlands under potentially inhospitable reclamation conditions, it appears that TPM likely lacks a thorough understanding of the complexities involved." In other words, Twin Pines does not appreciate the difficulties involved in creating wetlands, as Dr. Rheinhardt says, "from scratch." Eric Hughes, a wetland ecologist who worked for EPA Region 4 for over three decades, was not so charitable in his comments when he stated, "the applicant's assertion that

¹⁷¹ SMLUP at 2–5.

¹⁷² New Hampshire Department of Environmental Services, Frequently Asked Questions, https://www.des.nh.gov/organization/divisions/water/wetlands/categories/faq.htm#faq5.

¹⁷³ North Carolina Environmental Quality, Frequently Asked Questions, https://deq.nc.gov/about/divisions/water-resources/water-quality-permitting/401-buffer-permitting-branch/frequently.

¹⁷⁴ Envtl. Prot. Agency and U.S. Army Corps of Eng's, Memorandum of Agreement regarding Mitigation under CWA Section 404(b)(1) Guidelines at 4 (1990) ("Interagency MOA on Mitigation") (emphasis added).

¹⁷⁵ Rheinhardt Report at 5

¹⁷⁶ Rheinhardt Report at 5.