



MERIDIAN LAND SERVICES, INC.

CIVIL ENGINEERING | LAND SURVEYING | PERMITTING | SOIL & WETLAND MAPPING | SEPTIC DESIGN | ENVIRONMENTAL

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Vernal Pool Assessment

This office conducted site visits to Lots 21-253-16 & 17 in April and May of 2020. The purpose of the site visits was to evaluate the parcel for buildable land areas and to perform an on-site wetland evaluation including delineation of the wetlands for setback determination. The entirety of the wetland on lot 17 were delineated. Portions of lot 16 were delineated. While there were several areas of pooling water during the delineation none of the areas displayed characteristics typical of vernal pools. The ponded area on lot 16 appeared to have a permanent to semipermanent water regime. By definition vernal pools have a hydroperiod supportive of specialized faunal biota. This hydroperiod, generally speaking, involves standing water in the later winter early spring, partial drying by late spring/early summer, and complete or near complete drying sometime in the summer months. Duration of hydroperiod has been shown to influence the speciation of vernal pools. The permanent to semipermanent hydroperiod of the ponded area is not complimentary to vernal pool characteristics. The Ponded area was partially connected to other surrounding water/wetland resources via a culvert under Leighton Avenue North. Predators were observed in the pond, primarily painted turtle, however the permanent/semipermanent hydroperiod would be supportive of small vertebrate fish species. No egg masses were observed in the ponded area during the delineation. The only other potential vernal pool site would have been on the south/central portion of the wetland on lot 17. The area was flat enough to trap surface flows and runoff from precipitation events but lacked the depressional characteristics sufficient to support standing water that would last more than a few days. At the time of the wetland delineation and topographic survey (May, 2020) little to no standing water was observed with the deepest areas of standing water having a depth of 4-6" and a diameter of 6-10 ft. While this area may function as amphibian breeding habitat it appeared highly unlikely that this area would function as a Vernal Pool. No egg masses were observed in the vicinity and there was no observed evidence of primary species.

Based on these findings and the observations from the April and May site visits this office concludes that the wetland areas depicted on the plan did not have vernal pools within their limits and are unlikely to support biology dependent on vernal pools for survival.

