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Mr. Daniel Taptich, P.E., P.L.S.
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**Re: Wetland Delineation Report
New Indian Valley High School Site
Burnham Borough and Derry Township, Mifflin County, Pennsylvania**

INTRODUCTION

Cedar Run Environmental Services, Inc. recently examined 52 acres at the Indian Valley High School for the presence of jurisdictional wetlands. This wetland study area includes the land surrounding and to the north of the Indian Valley High School in Burnham Borough and Derry Township, Mifflin County, Pennsylvania. This on-site investigation was conducted on February 10, 2006. The following pages will detail the site findings.

Wetlands are defined by the Pennsylvania Department of Environmental Protection (PADEP) and the United States Army Corps of Engineers (USACOE) as:

Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, bogs, marshes, and similar areas.

METHODS

The 1987 Corps of Engineers Wetland Delineation Manual was used to provide the technical criteria, field indicators, and recommended methods to identify any wetlands located within the study area. Under normal site conditions the Routine Method was employed which utilizes the Three Parameter Approach. This approach requires that at least one positive indicator from each parameter be present in order to make a wetland determination.

Essentially the site was examined for evidence of the following:

1. The Predominance of Hydrophytic Vegetation
2. Hydric Soils
3. Wetland Hydrology

Hydrophytic Vegetation

Vegetation on the property was identified and then assigned a wetland indicator classification according to the most recent U.S. Fish and Wildlife guidelines (April, 1988) as follows:

1. **OBL** Obligate Wetland (essentially always found in wetlands; greater than 99% occurrence in wetlands).
2. **FACW** Facultative Wetland (usually found in wetlands; 66 to 99% of the time).
3. **FAC** Facultative (sometimes found in wetlands; 33 to 66% of the time).
4. **FACU** Facultative Upland (seldom found in wetlands; less than 33% of the time).
5. **UPL** Obligate Upland (essentially always found in uplands, less than 1% occurrence in wetlands).

A positive (+) or negative (-) symbol in conjunction with one of the facultative indicator classes relates to a species preference to either the drier or wetter end of its indicator class. Hydrophytic vegetation is prevalent when the dominant species comprising the plant community are typically adapted for life in saturated soil conditions, including FAC, FACW, or OBL species.

Hydric Soils

Hydric soils determination was made in the field by utilizing a tile spade and taking an appropriate number of readings immediately below the "A" horizon in the "B" horizon or within 10 inches of the soil surface (whichever is shallower). Wetland soils represent those whose chroma (of the matrix) is less than or equal to 2 when mottling is present, or chroma 1 without mottles. However, sandy soils are evaluated according to organic streaking of subsurface horizons, high organic matter in the surface horizon, the presence of organic pans, and/or matrix chromas of 3 or less without mottling. Only when a hydric soil supports hydrophytic vegetation and the area exhibits signs of wetland hydrology may the soil be referred to as a "wetland" soil.

Wetland Hydrology

Wetland hydrology was noted by the direct observation of standing water, mucky soils, saturation of soil samples, drift lines, drainage patterns, and / or other indicators of prolonged soil saturation. Any of these indicators may be evidence of wetland hydrologic characteristics.

FINDINGS AND OBSERVATIONS

Examination of the 52 acres associated with the New Indian Valley High School site revealed that **wetlands are not present**. The study area includes the existing high school complex, surrounding athletic fields, parking lots, mowed lawns and the undeveloped hillside to the north of the high school. This site is located in Burnham Borough and Derry Township, Mifflin County, Pennsylvania.

Topography across the site varies from nearly level on the athletic fields to severely sloping on the hillside to the north. The predominant soil typed mapped on this site in the Juniata and Mifflin County Soil Survey (USDA, 1981) is Edom Weikert complex (EfB). These are shallow to deep, well-drained, upland soils. Other soil series mapped within the study area include

Hagerstown, Hagerstown-Rock outcrop complex, and Opequon soils. None of these soils are listed on the hydric soils list for Juniata and Mifflin Counties.

Data collection along the toe-of-slope of the undeveloped hillside revealed an upland plant community dominated by black cherry, black locust, and staghorn sumac. The dense understory is dominated by tartarian honeysuckle, Japanese honeysuckle and multiflora rose. Soil sampling revealed non-hydric soil profiles with a matrix color of 10YR 5/6 with 5/8 mottles. Soil sampling appears to correlate with the soils mapping from the County Soil Survey. No primary or secondary indicators of wetland hydrology were noted.

Data collection further upslope revealed a very steep forested hillside dominated by white oak, red oak, black cherry and black locust. Soil sampling revealed non-hydric rocky soils with no primary or secondary indicators of wetland hydrology.

The land immediately surrounding the school buildings and athletic fields is highly developed and does to contain any wetlands.

CONCLUSIONS AND RECOMMENDATIONS

The proposed site for the New Indian Valley High School **does not contain** any areas that meet the criteria of jurisdictional wetlands due to the lack of a hydrophytic plant community, hydric soils, and no evidence of wetland hydrology.

This report represents an unverified Jurisdictional Determination and the author's scientific opinion of this site. All work was performed in accordance with the guidelines set forth in the *1987 Corps of Engineers Wetland Delineation Manual*. Please be advised that the Pennsylvania Department of Environmental Protection and the United States Army Corps of Engineers have regulatory authority over all wetlands, waterways, and their adjacent 100 year floodway. Prior to any encroachment into these regulated areas, authorization must be obtained from these regulatory agencies.

As always, feel free to contact our office at (570) 726-7887 with any questions.

Prepared By:
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