Wetland Characterization

For each of the wetlands described, aerial imagery shows some overhanging canopy which obscures the wetland from overhead view. However, in each case, the overhanging canopy belongs to an upland forest community and is not a part of the wetland. As the Palustrine Plant Community Key for Pennsylvania describes, characterizing vegetative communities requires some consideration for whether overhanging vegetative cover represent a continuation of the vegetative community, or whether there is a distinct zonal difference in the underlying vegetation type. For example, small, open pockets of hydrophytic graminoid species interspersed throughout a low-lying sycamore stand may rightly be considered part of the forested wetland complex due to significant overhead canopy cover. However, a small pocket of wetland in which no trees or shrubs are rooted would not appropriately be described as a forested wetland simply due to the nearby presence of upland forest communities.

In the case of the wetlands in question, the latter situation applies. The hydrophytic, herbaceous vegetative communities growing within these wetlands are distinctly different from the herbaceous, shrub, and/or forest communities immediately adjacent to their limits. In most cases, canopy is visible over the wetland on aerial imagery only because of the diminutive size of the wetlands, which are contained within discrete topographic contours that are devoid, or nearly so, of tree or shrub species. Therefore, they are appropriately categorized according to the distinct vegetative communities within their limits, which represent clear zonal changes from the surrounding vegetative communities.

Specific Wetlands in Carbon County

082515_BT_003_PEM: This wetland is a very small PEM wetland which is supported by seasonal high groundwater and the collection of surface runoff sources in a topographically depressed landscape position. Canopy closure at this habitat is greater than 30%, but that closure is due solely to the small size of the wetland, rather than to a shared vegetative community. The herbaceous vegetative community within the wetland is distinctly different than the surrounding herbaceous understory of the surrounding upland forest community, and the limits of the wetland are clearly bounded by topography and the limits of the peat (*Sphagnum sp.*) mat substrate.

110316_GM_1001_PEM_3: This is a small portion of a larger PEM/PFO wetland complex. The portion of the PEM wetland in question is a narrow incursion of the hydrophytic herbaceous vegetative community into surrounding upland forest. Other portions of this wetland complex are considered PFO where tree species were a part of the vegetation community growing within the wetland extents [red maple (*Acer rubrum)* and eastern hemlock (*Tsuga canadensis*)]. The dominant tree species adjacent to this portion of the PEM wetland was American beech (*Fagus grandifolia*), which is not a hydrophytic species.

010716_GM_1001_VP: This wetland is a very small vernal pool, not a forested wetland. Canopy closure at this habitat may exceed 30%, but the closure is due solely to the small size of the wetland, rather than to any shared vegetative community. The vernal pool exists solely within a small depression and lacks vegetation.

020117_GM_1001_PUB: This feature is a pond. While some trees do overhang the banks of the pond, it is not a forested wetland community. Data forms that were used to document the existing conditions of this pond in 2017 indicate red maple and white oak (*Quercus alba*) were the dominant tree species that surrounded the pond, and that only 20% cover was present over the feature, which is insufficient to categorize it as a forested community.

082515_BT_004_PEM: This wetland is a very small PEM wetland which is supported by seasonal high groundwater and the collection of surface runoff sources in a topographically depressed landscape position. Canopy closure at this habitat is greater than 30%, but that closure is due solely to the small size of the wetland, rather than to a shared vegetative community. The herbaceous vegetative community within the wetland is distinctly different than the surrounding herbaceous understory of the surrounding upland forest community, and the limits of the wetland are clearly bounded by topography and the limits of the peat mat substrate. Per the guidelines of the *Palustrine Plan Community Key for Pennsylvania*, the vegetative community within this wetland would not include overhanging canopy species due to the clear demarcation between herbaceous cover types.