

TAYLOR FARM WETLAND MITIGATION SITE TIOGA COUNTY, PENNSYLVANIA

Natural gas development is one of the fastest growing industries in our country and the new infrastructure necessary to keep production moving forward sometimes begets an unavoidable impact on our aquatic resources. WHM Solutions, Inc. (WHM) offers an all-encompassing remediation solution, handling every aspect of the mitigation process from design to landowner relations to permitting.

An undisclosed midstream company contracted WHM to develop compensation for a new natural gas pipeline project that resulted in significant temporary and conversion impacts to wetlands and channels crossed by the pipeline. WHM was responsible for the execution of the deed restriction on the property, for acquiring all necessary permits and dealing with regulatory agencies, and for the design, construction, and monitoring of the project.

WHM completed a desktop analysis within watersheds proposed to be impacted by the project. These sites were initially reviewed through a GIS desktop analysis outlining: aerial photography, LiDAR topographic contour data, floodplain boundaries, hydric soils, and tax parcel data. Landowners with suitable property to conduct mitigation activities were contacted and several landowners with favorable properties were approached throughout the site selection process. Ultimately, due to site suitability, landowner cooperation, and the degraded state of the waters onsite, a farm located in Liberty Township, Tioga County within the Little Elk Run watershed was chosen to accomplish compensatory mitigation for the proposed impacts.

The design of the mitigation site consists of a wetland creation area and the installation of a forested riparian buffer. The mitigation area is a contiguous land feature that will lead to an overall benefit to functions and values in Little Elk Run and the Antes-Lycoming Creeks watershed. The work plan will establish a forested riparian buffer and additional wetland acreage adjacent to Little Elk Run to increase functions and values of the existing condition of the water resources which is in a degraded state due to the current land use as a cattle pasture, resulting in considerable nutrient inputs. The design will incorporate the removal of cattle from the areas proposed for mitigation. The vegetative design of the site will incorporate a diverse planting plan consisting of herbaceous seeding in the wetland creation area and a clumped distribution of tree and shrub plantings. Once the mitigation areas are established, increased nutrient and sediment sequestering will be provided within the areas resulting in an improvement of water quality and habitat enhancement.

The result of the project created 2,364 square feet, or 0.05 acres, of wetland by taking the area out of an active cattle pasture and reverting to functional forested wetland habitat. It has also provided 1.2 acres of forested riparian buffer along Little Elk Run. The site is self-sustaining with little to no long-term management needs because no mechanical structures were incorporated into the design of the site. Long-term financing mechanisms for the site are not expected to be needed due to the nature of the project.



BEFORE



DURING



AFTER