

Functional Assessment of Wetlands Using a Hydrogeomorphic Model

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Background/Justification

The Hydrogeomorphic (HGM) Method for wetland functional analysis relies on rapid assessment techniques to collect data that can be used in a model that establishes how that wetland functions in comparison to reference standards developed using data collected from wetlands in the same wetland HGM class. The HGM class is based on the wetlands hydrogeomorphic setting. In the Mid-Atlantic Piedmont a model will be developed for wetlands in the slope class. Slope wetlands are wetlands that get their hydrology through ground water discharge. Hydrogeomorphic refers to: (1) geomorphic setting--position in the landscape, (2) hydrology--water source, and (3) hydrodynamics--flow and fluctuation of water once in the wetland. The hydrogeomorphic (HGM) method refers to the observation and analysis of a wetland in its natural state of functioning. The HGM method involves collecting data from known wetlands, allowing the information produced to be referenced as standard wetland processes. Reference wetlands are the places for data collection and initial analysis. They are selected because they have a range of characteristics for a specific kind of wetland. Reference wetlands are valuable because they are used to develop HGM models for specific wetland types. These models are used in jurisdictional cases involving questions of wetland identification and delineation. The models are also important for wetland restoration and construction projects. The information produced from the reference wetland serves as a guide and as an objective resource for these projects.

Objectives

In this project two subclasses of slope wetlands are being developed as HGM models using reference wetlands: (1) slope discharge seeps which discharge water most of the year and (2) slope discharge seeps found at the toeslope of floodplains and discharge water seasonally. The long term data collected from the reference sites will be used to develop these models.