Hydric Soils of Greene County

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The following table lists and describes soils that support wetlands. They may be wetlands at the present or they may have been drained for agriculture or development. If the soils have been disturbed (poor or no wetland vegetation or reduced water source) but have been unfarmed since December of 1987, they are probably jurisdictional wetlands. Many factors go into determination of a jurisdictional wetlands and this method is only a first approximation, so be careful in using the information.

MAP UNIT SYMBOL	MAP UNIT NAME	CLASSIFICATION SUBGROUP	% of land	CONDITION OF FORMATION
Bs, Bt	Brookston	Typic Argiaquolls	7.1	Very poorly drained, saturated win & spr, level or depressions, perm. mod
Ln	Linwood Muck	Terric Medisaprists	0.4	Seeps, fens, organic, high water table perm. rapid to mod
Ms	Millsdale	Typic Argiaquolls	0.2	Seasonal high water table, over bedrock, perm. mod slow
Pa	Patton	Typic Haplaquolls	0.1	Level or depressions, glacial lakes, perm. mod slow
Ra	Ragsdale	Typic Argiaquolls	10.0	In loess,level in uplands,perm. slow
So, Sr	Sloan	Fluvaquentic Haplaquolls	3.9	In alluvium, flood plain, high water table, perm. mod
Ws, Wt	Westland	Typic Argiaquolls	2.6	in loam of outwash terrace, seasonal high water table win & spr, perm. mod slow to rapid
		Total	24.3%	

Discussion

Throughout Greene County the two most widespread soils containing existing wetlands are *Linwood mucks* and *Sloan silty clay loams*. Linwood mucks very often formed in places where groundwater came to the surface in the form of seeps and springs and Sloan soils have nearly permananent high water tables. Both of these soils support at least a moderate permeability and can therefore be associated with fens. Fens are wetlands which have a hydrology supported by ground water. Some soils classified as Westland are seen in and around the Beaver Creek wetland complex. These Westland soils have a seasonal high water table but are probably supported by a moderately high water table through most of the year. These black soils can be seen on the steep parts of terraces on the eastern side of the valley east of Beaver Valley Road and some are associated with very small (less than 1 acre),isolated, fen-like wetlands.

Brookston & Ragsdale soils are most likely to support wetlands in flat or depressional wetlands. Ragsdale soils are particularly frequent in the eastern part of the county and Brookston are more common in

the western part. Because of their poor drainage and moderate to slow permeability they support wetlands that hold water above ground for extended periods. They are probably suited to marshes and hemi-marshes and would support good fringes of prairie community. Patton soils will also support standing shallow water areas.

Millsdale soils have moderately slow permeability but are over shallow bedrock. These areas may support a good growth of wet tolerant prairie grasses and forbs.

Non Hydric Soils of Interest

Algiers soils are not listed as hydric soils but have recent alluvium overlying older darker less permeable deposits. They are subject to flooding and have a water table from 0 to 1.5 feet below the surface. These poorly drained soils have moderate permeability and support a fair growth of wetland plants. Often found along steams, they may be suitable for bottomland hardwood forest habitat.

Other soils that are not listed as hydric but are subject to high water table and/or flooding are Eel, Fincastle, Randolph, Reesville and Sleeth soils. These soils should be considered as possible wetland habitats or capable of supporting wetlands under the proper hydrologic conditions. At the present time they do not fit the definition of wetlands accepted by regulatory agencies, but deserve further research into their natural history. The most likely wetland habitat supported by these soil types would be woodland.

Significance

Knowing the location of hydric soils will permit developers and planning officials to recognize potential wetlands and to avoid areas where permits are required for activities. These areas may also be useful when planning development of greenspace or when persuing wetland restoration.

Under special circumstances these lands may be suitable for preparation of wetland mitigation banks. Mitigation banks can restore high quality wetlands which can be used to mitigate loss of lesser quality wetlands of a similar type. Because Ohio has lost so much wetland, and because we now recognize the high value of wetlands, mitigation of wetland losses should always be at a recovery to loss ratio of at least 2:1. Because of the difficulty in assesing and accomplishing wetland restoration, some wetland losses should not be allowed until the restoration of a mitigation site is complete and shown to be successful. Examples of such wetlands would be fens and forested wetlands.

Reference

Garner, D.E., A. Ritchie and V. L. Siegenthaler. 1978. Soil Survey of Greene County, Ohio. U.S. Department od Agriculture, Soil Conservation Service, Ohio Department of Natural Resources, Division of Lands and Soils and Ohio Agricultural Research and Development Center.

Most work reported is from field studies done 1964-1973. The reference is available from The Greene County Natural Resource Conservation Service office located at 1363 Burnett Dr., Xenia, OH 45385. Phone 372-4478.

February 1994; March 1996