



# Soil Concerns

## Restrictions on soil

Soils vary according to composition and location. Each soil type has its limitations. The following list highlights soil problems found in Franklin County.

- Hydric soils are formed under wet conditions that deplete the soil of oxygen in the upper portion for an extended time during the year. These soils exist because of location and composition. Problems include standing water or a very high water table, making it impracticable to build on and install sanitary facilities.
- Shrink-swell potential is the extent soils shrink when dry and swell when wet. This can cause damage to roads, dams, building foundations, and other structures because of changes in pressure on the structures. These soils are high in clay content.
- Depth to bedrock can determine type of land use, such as construction, wells, bridges, etc. If the bedrock is less than 20 inches deep it can cause problems with excavation.
- Steep slopes, areas with slope equal to or greater than 12% (12 feet of change per 100 feet), can cause problems with excavation, grading, and compacting.
- Hard pan, or a firm, dense layer, is a section of soil prohibiting movement of water downward. Hard pan causes problems with drainage.
- Soils with a large amount of stones cause problems with excavation.

Soils should be considered in all land use and development plans. On the other side of this page is a brief listing of some characteristics of different types of soils in Franklin County and their building restrictions. This is not a full description of the soil types; the restrictions will vary depending on slope. The descriptions represent an average of values for that soil type. The soils are rated as posing slight, moderate, or severe limitations. The limitations relate to the number of problems to be overcome in order to utilize the soil for building, roads, etc. Flooding frequency and depth to water table are given as well. There are numerous other soil conditions to be considered before building or landscape construction. Please refer to the Franklin County Soil Survey for a definition of description and the most accurate data. It can be obtained free of charge at the District Office and reviewed at some libraries. If additional soil suitability assistance is needed, please contact the District Office.

## References and Resources:

USDA, Soil Conservation Service (now Natural Resource Conservation Service), Ohio Department of Natural Resources Division of Lands and Soil, and Ohio Agricultural Research and Development Center. Soil Survey of Franklin County, Ohio, 1980.  
Ohio State University Extension, Bulletin 472, Ohio's Agronomy Guide.  
Web Page: [ohioline.ag.ohio-state.edu](http://ohioline.ag.ohio-state.edu) Phone Number: 462-6700.

The Franklin SWCD and NRCS Field Office strive to serve all people equally.

### Franklin Soil and Water Conservation District Natural Resource Conservation Service

1660 Gateway Circle, Suite 2, Grove City, OH 43123-8560  
(614) 801-9450 voice, (614) 801-9456 fax  
[www.franklinswcd.org](http://www.franklinswcd.org)



### Limitations of Some Franklin County Soils

Soil Name	Building Shallow Excavation	Buildings w/Basements	Leaching System	Flooding	Water Table Depth (feet)
Alexandria- Ad	Moderate	Moderate	Severe	None	>6.0
Algiers- Ag	Severe	Severe	Severe	Frequent	.5-0.15
Bennington-Be	Severe	Severe	Severe	None	0.5-0.15
Blount-Bo	Severe	Severe	Severe	None	1.0-3.0
Cardington-Ca	Moderate	Severe	Severe	None	2.0-3.0
Carlisle *-Cc	Severe	Severe	Severe	Frequent	0-1.0
Celina- Ce	Severe	Severe	Severe	None	1.5-3.0
Condit- Cn	Severe	Severe	Severe	None	0-.05
Crane- Cp	Severe	Severe	Severe	None	1.0-3.0
Crosby- Cr	Severe	Severe	Severe	None	1.0-3.0
Eel- Ee	Severe	Severe	Severe	Occasional	3.0-6.0
Eldean- El	Severe	Moderate	Moderate	None	>6.0
Genesee- Gn	Severe	Severe	Severe	Occasional	>6.0
Glynwood-Gw	Severe	Severe	Severe	None	1.5-3.0
Hennepin- He	Severe	Severe	Severe	None	>6.0
Miamiam- Mk	Moderate	Moderate	Severe	None	>6.0
Kendallville- Ke	Slight	Moderate	Severe	None	>6.0
Kokomo *- Ko	Severe	Severe	Severe	None	+0.5-1.0
Lewisburg- Le	Moderate	Severe	Severe	None	2.0-4.0
Medway- Mh	Severe	Severe	Severe	Occasional	1.5-3.0
Milton- Mo	Severe	Severe	Severe	None	>6.0
Mitiwanga- Mr	Severe	Severe	Severe	None	0.5-1.5
Montgomery *- Ms	Severe	Severe	Severe	None	+1-1.0
Ockley- Oc	Severe	Moderate	Moderate	None	>6.0
Pewamo *- Pm	Severe	Severe	Severe	None	+1-1.0
Ritchey- Rh	Severe	Severe	Severe	None	>6.0
Ross- Rs	Severe	Severe	Severe	Occasional	4.0-6.0
Shoals- Sh	Severe	Severe	Severe	Occasional	1.0-3.0
Sleeth- Sl	Severe	Severe	Severe	None	1.0-3.0
Sloan *- So	Severe	Severe	Severe	Frequent	0-0.5
Thackery- Th	Severe	Severe	Severe	None	1.5-3.0
Urban-Bennington-Uu	Severe	Severe	Severe	None	.5-1.5
Urban-Celina- Uv	Severe	Severe	Severe	None	1.5-3.0
Urban-Genesee-Uw	Severe	Severe	Severe	Rare to Common	>6.0
Urban-Ockley- Ux	Severe	Moderate	Slight	None	>6.0
Warsaw- Wd	Severe	Moderate	Slight	None	>6.0
Wea- We	Severe	Moderate	Slight	None	>6.0
Westland *-Wt	Severe	Severe	Severe	None	+0.5-1.0

\* Denotes Hydric Soil