

Table 5. Soil limitations for town and country planning

Series	Map Unit Symbol	Map Unit Description	Septic tank absorption fields
Albrights	AbB	Albrights silt loam, 3 to 8 percent slopes	Severe: seasonal high water table; moderately slow permeability
Albrights	AbC	Albrights silt loam, 8 to 15 percent slopes	Severe: seasonal high water table; moderately slow permeability
Albrights	AcB	Albrights very stony loam, 0 to 8 percent slopes	Severe: seasonal high water table; moderately slow permeability
Albrights	AcC	Albrights very stony silt loam, 8 to 15 percent slopes	Severe: seasonal high water table; moderately slow permeability
Allegheny	AlB	Allegheny silt loam, 2 to 8 percent slopes	Slight
Andover	AnB	Andover channery loam, 0 to 8 percent slopes	Severe: high water table; slow permeability
Andover	AnC	Andover channery loam, 8 to 15 percent slopes	Severe: high water table; slow permeability
Andover	AoB	Andover very stony loam, 0 to 8 percent slopes	Severe: high water table; slow permeability
Andover	AoC	Andover very stony loam, 8 to 15 percent slopes	Severe: high water table; slow permeability
Armagh	ArA	Armagh silt loam, 0 to 3 percent slopes	Severe: high water table; slow permeability
Armagh	ArB	Armagh silt loam, 3 to 8 percent slopes	Severe: high water table; slow permeability
Atkins	At	Atkins silt loam	Severe: high water table; flooding; moderately slow to slow permeability
Basher	Ba	Basher loam	Severe: flooding; seasonal high water table
Berks	BkB	Berks shaly silt loam, 3 to 8 percent slopes	Severe: depth to bedrock
Berks	BkC	Berks shaly silt loam, 8 to 15 percent slopes	Severe: depth to bedrock
Berks	BkD	Berks shaly silt loam, 15 to 25 percent slopes	Severe: slope; depth to bedrock
Berks	BID	Berks very stony silt loam, 8 to 25 percent slopes	Severe: slope; depth to bedrock
Berks	BMF	Berks and Weikert soils, steep	Severe: slope; depth to bedrock
(Interpretations for BMF apply to Weikert part of unit as well as to Berks part)			
Brinkerton	BrA	Brinkerton silt loam, 0 to 3 percent slopes	Severe: high water table; slow permeability
Brinkerton	BrB	Brinkerton silt loam, 3 to 8 percent slopes.	Severe: high water table; slow permeability
Brinkerton	BrC	Brinkerton silt loam, 8 to 15 percent slopes	Severe: high water table; slow permeability
Brinkerton	BsB	Brinkerton very stony silt loam, 0 to 8 percent slopes	Severe: high water table; slow permeability
Buchanan	BitB	Buchanan loam, 2 to 8 percent slopes	Severe: seasonal high water table; slow permeability
Buchanan	BuB	Buchanan channery loam, 3 to 8 percent slopes	Severe: seasonal high water table; slow permeability
Buchanan	BuC	Buchanan channery loam, 8 to 15 percent slopes	Severe: seasonal high water table; slow permeability
Buchanan	BxB	Buchanan extremely stony loam, 0 to 8 percent slopes	Severe: seasonal high water table; slow permeability; large stones
Buchanan	BxD	Buchanan extremely stony loam, 8 to 25 percent slopes	Severe: seasonal high water table; slow permeability; large stones
Carlisle	CA	Carlisle muck	Severe: high water table; flooding; organic material
Cavode	CdA	Cavode silt loam, 0 to 3 percent slopes	Severe: high water table; slow permeability
Cavode	CdB	Cavode silt loam, 3 to 8 percent slopes	Severe: high water table; slow permeability
Chagrin	Ch	Chagrin soils	Severe: flooding
Clarksburg	CkA	Clarksburg silt loam, 0 to 3 percent slopes	Severe: high water table; slow permeability
Clarksburg	CkB	Clarksburg silt loam, 3 to 8 perc+C70ent slopes	Severe: high water table; slow permeability
Clymer	CIB	Clymer sandy loam, 3 to 8 percent slopes	Slight
Clymer	CIC	Clymer sandy loam, 8 to 15 percent slopes	Moderate: slope
Clymer	CvB	Clymer very stony sandy loam, 0 to 8 percent slopes	Moderate: large stones
Clymer	CvD	Clymer very stony sandy loam, 8 to 25 percent slopes	Severe: slope
Dunning	Du	Dunning silty clay loam	Severe: flooding; slow permeability; high water table
Edom	EdB	Edom silt loam, 2 to 8 percent slopes	Moderate ² : depth to bedrock
Edom	EdC	Edom silt loam, 8 to 15 percent slopes	Moderate ² : slope; depth to bedrock
Edom	EdD	Edom silt loam, 15 to 25 percent slopes	Severe ² : slope
Ernest	ErB	Ernest channery silt loam, 3 to 8 percent slopes	Severe: slope; seasonal high water table; moderately slow and slow permeability
Ernest	ErC	Ernest channery silt loam, 8 to 15 percent slopes	Severe: slope; seasonal high water table; moderately slow and slow permeability
Ernest	ErD	Ernest channery silt loam, 15 to 25 percent slopes	Severe: slope; seasonal high water table; moderately slow and slow permeability
Ernest	EvB	Ernest very stony silt loam, 3 to 8 percent slopes	Severe: slope; seasonal high water table; moderately slow and slow permeability
Ernest	EvD	Ernest very stony silt loam, 8 to 25 percent	Severe: slope; seasonal high water table; moderately slow and slow permeability

*An asterisk in the first column indicates that at least one mapping unit is made of two or more kinds of soil.

Table 5. Soil limitations for town and country planning

Sewage lagoons

Moderate: slope; small stones
 Severe: slope
 Moderate: slope; small and large stones
 Severe: slope
 Moderate: slope; moderate permeability
 Moderate: slope; small stones; inflow hazard
 Severe: slope
 Severe: slope
 Moderate: slope; small and large stones; inflow hazard
 Moderate: slope; depth to bedrock; inflow hazard
 Moderate: slope; depth to bedrock; inflow hazard
 Severe: flooding
 Severe: flooding; permeable substratum
 Severe: depth to bedrock; moderately rapid permeability; small stones
 Severe: slope; depth to bedrock; moderately rapid permeability; small stones
 Severe: slope; depth to bedrock; moderately rapid permeability; small stones
 Severe: slope; depth to bedrock; moderately rapid permeability; small stones
 Severe: slope; depth to bedrock; moderately rapid permeability; small stones

Slight; inflow hazard
 Moderate: slope; inflow hazard
 Severe: slope
 Moderate: slope; large stones; inflow hazard
 Moderate: slope; small stones
 Moderate: slope; small stones
 Severe: slope
 Severe: large stones
 Severe: slope; large stones
 Severe: organic material; flooding; moderately rapid permeability
 Moderate: depth to bedrock; inflow hazard
 Moderate: depth to bedrock; inflow hazard
 Severe: flooding; permeable substratum
 Slight
 Moderate: slope
 Severe: moderately rapid permeability
 Severe: slope; moderately rapid permeability
 Severe: moderately rapid permeability
 Severe: slope; moderately rapid permeability
 Severe: flooding
 Moderate²: slope; moderate permeability; depth to bedrock; small stones
 Severe²: slope
 Severe²: slope
 Moderate: slope
 Severe: slope
 Severe: slope
 Moderate: slope; large stones
 Severe: slope

Dwellings with basements

Moderate: seasonal high water table
 Moderate: slope; seasonal high water table
 Moderate: large stones; seasonal high water table
 Moderate: slope; large stones; seasonal high water table
 Slight
 Severe: high water table
 Severe: high water table
 Severe: high water table
 Severe: high water table
 Severe: high water table
 Severe: high water table
 Severe: flooding; high water table
 Severe: flooding
 Moderate: depth to bedrock
 Moderate: slope; depth to bedrock
 Severe: slope
 Severe: slope
 Severe: slope

Severe: high water table
 Severe: high water table
 Severe: high water table
 Severe: high water table
 Moderate: seasonal high water table
 Moderate: seasonal high water table
 Moderate: slope; seasonal high water table
 Severe: large stones
 Severe: slope; large stones
 Severe: high water table; flooding; organic materials
 Severe: seasonal high water table
 Severe: seasonal high water table
 Severe: flooding
 Moderate: seasonal high water table; shrink-swell potential
 Moderate: seasonal high water table; shrink-swell potential
 Slight
 Moderate: slope
 Moderate: large stones
 Severe: slope
 Severe: flooding; high water table
 Moderate: shrink-swell potential; depth to bedrock
 Moderate: slope; shrink-swell potential; depth to bedrock
 Severe: slope
 Moderate: seasonal high water table; shrink-swell potential
 Moderate: seasonal high water table; shrink-swell potential
 Severe: slope
 Moderate: large stones; seasonal high water table; shrink-swell potential
 Severe: slope

*An asterisk in the first column indicates that at least one mapping unit is made of two or more kinds of soil.

Table 5. Soil limitations for town and country planning

Lawns and landscaping

Slight
 Moderate: slope
 Moderate: large stones
 Moderate: slope; large stones
 Slight
 Severe: high water table
 Severe: high water table
 Severe: high water table
 Severe: high water table
 Severe: high water table
 Severe: high water table
 Severe: flooding; high water table
 Moderate: flooding
 Moderate: depth to bedrock
 Moderate: slope; depth to bedrock
 Severe: slope
 Severe: slope
 Severe: slope
 Severe: slope
 Severe: high water table
 Severe: high water table
 Severe: high water table
 Severe: high water table
 Slight
 Slight
 Moderate: slope
 Severe: large stones
 Severe: slope; large stones
 Severe: high water table; flooding; surface texture
 Moderate: seasonal high water table
 Moderate: seasonal high water table
 Moderate: flooding
 Slight
 Slight
 Slight
 Moderate: slope
 Moderate: large stones
 Severe: slope
 Severe: flooding; high water table
 Slight
 Moderate: slope
 Severe: slope
 Slight
 Moderate: slope
 Severe: slope
 Moderate: large stones
 Severe: slope

Local roads and streets

Moderate: frost action
 Moderate: slope; frost action
 Moderate: frost action
 Moderate: slope; frost action
 Severe: frost action
 Severe: high water table; frost action
 Severe: high water table; frost action
 Severe: high water table; frost action
 Severe: high water table; frost action
 Severe: high water table; frost action
 Severe: high water table; frost action
 Severe: flooding; high water table; frost action
 Moderate: flooding; frost action
 Slight
 Moderate: slope;
 Severe: slope
 Severe: slope
 Severe: slope
 Severe: slope
 Severe: high water table; frost action
 Severe: high water table; frost action
 Severe: high water table; frost action
 Severe: high water table; frost action
 Moderate: frost action
 Moderate: frost action
 Moderate: slope; frost action
 Moderate: large stones; frost action
 Severe: slope
 Severe: high water table; flooding; frost action; organic material
 Severe: frost action
 Severe: frost action
 Moderate: flooding; frost action
 Moderate: frost action; shrink-swell potential
 Moderate: frost action; shrink-swell potential
 Slight
 Moderate: slope
 Slight
 Severe: slope
 Severe: flooding; high water table; frost action
 Moderate: frost action; shrink-swell potential
 Moderate: slope; frost action; shrink-swell potential
 Severe: slope
 Moderate: shrink-swell potential; frost action
 Moderate: slope; shrink-swell potential; frost action
 Severe: slope
 Moderate: shrink-swell potential; frost action
 Severe: slope

*An asterisk in the first column indicates that at least one mapping unit is made of two or more kinds of soil.

Table 5. Soil limitations for town and country planning

Sanitary landfill¹ (trench)

Severe: seasonal high water table
 Severe: seasonal high water table
 Severe: seasonal high water table
 Severe: seasonal high water table
 Slight
 Severe: high water table
 Severe: high water table
 Severe: high water table
 Severe: high water table
 Severe: high water table; depth to bedrock
 Severe: high water table; depth to bedrock
 Severe: flooding; high water table
 Severe: flooding; permeable substratum; seasonal high water table
 Severe: depth to bedrock; moderately rapid permeability
 Severe: depth to bedrock; moderately rapid permeability
 Severe: depth to bedrock; moderately rapid permeability
 Severe: depth to bedrock; moderately rapid permeability
 Severe: slope; depth to bedrock; moderately rapid permeability

Severe: high water table
 Severe: high water table
 Severe: high water table
 Severe: high water table
 Severe: seasonal high water table
 Severe: seasonal high water table
 Severe: seasonal high water table
 Severe: large stones; seasonal high water table
 Severe: large stones; seasonal high water table
 Severe: high water table; moderately rapid permeability; organic material; flooding
 Severe: depth to bedrock; seasonal high water table
 Severe: depth to bedrock; seasonal high water table
 Severe: flooding; permeable substratum
 Severe: seasonal high water table
 Severe: seasonal high water table
 Severe: moderately rapid permeability
 Severe: moderately rapid permeability
 Severe: moderately rapid permeability
 Severe: moderately rapid permeability
 Severe: flooding; high water table; too clayey
 Severe: too clayey; depth to bedrock
 Severe: too clayey; depth to bedrock
 Severe: too clayey; depth to bedrock
 Severe: seasonal high water table
 Severe: seasonal high water table
 Severe: seasonal high water table
 Severe: seasonal high water table
 Severe: seasonal high water table

*An asterisk in the first column indicates that at least one mapping unit is made of two or more kinds of soil.

Table 5. Soil limitations for town and country planning

Gilpin	GIB	Gilpin channery silt loam, 2 to 8 percent slopes	Severe: depth to bedrock
Gilpin	GIC	Gilpin channery silt loam, 8 to 15 percent slopes	Severe: depth to bedrock
Gilpin	GID	Gilpin channery silt loam, 15 to 25 percent slopes	Severe: slope; depth to bedrock
Hagerstown	HaA	Hagerstown silt loam, 0 to 3 percent slopes	Moderate ² : depth to bedrock
Hagerstown	HaB	Hagerstown silt loam, 3 to 8 percent slopes	Moderate ² : depth to bedrock
Hagerstown	HaC	Hagerstown silt loam, 8 to 15 percent slopes	Moderate ² : slope; depth to bedrock
Hagerstown	HcB	Hagerstown silty clay loam, 3 to 8 percent slopes	Moderate ² : depth to bedrock
Hagerstown	HcC	Hagerstown silty clay loam, 8 to 15 percent slopes	Moderate ² : slope; depth to bedrock
Hagerstown	HcD	Hagerstown silty clay loam, 15 to 25 percent slopes	Severe ² : slope
Hazelton	HhB	Hazelton channery sandy loam, 3 to 8 percent slopes	Moderate: depth to bedrock
Hazelton	HhC	Hazelton channery sandy loam, 8 to 15 percent slopes	Moderate: slope; depth to bedrock
Hazelton	HhD	Hazelton channery sandy loam, 15 to 25 percent slopes	Severe: slope
Hazelton	HSB	Hazelton extremely stony sandy loam, gently sloping	Severe: large stones
Hazelton	HSD	Hazelton extremely stony sandy loam, moderately steep	Severe: slope; large stones
	HTF	Hazelton-Dekalb association, very steep (Hazelton part)	Severe: slope; large stones
Hazelton	HTF	Hazelton-Dekalb association, very steep (Dekalb part)	Severe: slope; depth to bedrock; large stones
Hublersburg	HuA	Hublersburg silt loam, 0 to 3 percent slopes	Slight
Hublersburg	HuB	Hublersburg silt loam, 3 to 8 percent slopes	Slight ²
Hublersburg	HuC	Hublersburg silt loam, 8 to 15 percent slopes	Moderate ² : slope
Hublersburg	HuD	Hublersburg silt loam, 15 to 25 percent slopes	Severe ² : slope
Laidig	LaB	Laidig channery loam, 3 to 8 percent slopes	Severe: moderately slow permeability
Laidig	LaC	Laidig channery loam, 8 to 15 percent slopes	Severe: moderately slow permeability
Laidig	LaD	Laidig channery loam, 15 to 25 percent slopes	Severe: slope; moderately slow permeability
Laidig	LcB	Laidig extremely stony loam, 0 to 8 percent slopes	Severe: moderately slow permeability; large stones
Laidig	LcD	Laidig extremely stony loam, 8 to 25 percent slopes	Severe: moderately slow permeability; large stones
Laidig	LDF	Laidig extremely stony loam, steep	Severe: slope; large stones; moderately slow permeability
Leck Kill	LkB	Leck Kill channery silt loam, 3 to 8 percent slopes	Moderate: depth to bedrock
Leck Kill	LkC	Leck Kill channery silt loam, 8 to 15 percent slopes	Moderate: slope; depth to bedrock
Leck Kill	LkD	Leck Kill channery silt loam, 15 to 25 percent slopes	Severe: slope
Leck Kill	LiB	Leck Kill very stony silt loam, 0 to 8 percent slopes	Severe: slope
Leck Kill	LiD	Leck Kill very stony silt loam, 8 to 25 percent slopes	Moderate: large stones; depth to bedrock
Leck Kill	LMF	Leck Kill and Calvin soils, steep (Leck Kill part)	Severe: slope
Leck Kill	LMF	Leck Kill and Calvin soils, steep (Calvin part)	Severe: slope; depth to bedrock
Leetonia	LtB	Leetonia extremely stony loamy sand, 0 to 12 percent slopes	Severe: large stones; depth to bedrock
Leetonia	LvB	Leetonia sand, variant, 3 to 8 percent slopes	Slight ²
Leetonia	LvC	Leetonia sand, variant, 8 to 15 percent slopes	Moderate ² : slope
Lindside	Lx	Lindside soils	Severe: flooding; seasonal high water table
Markes	MaB	Markes silt loam, 2 to 10 percent slopes	Severe: high water table; slow permeability; depth to bedrock
Meckesville	MeB	Meckesville silt loam, 3 to 8 percent slopes	Severe: moderately slow permeability
Meckesville	MeC	Meckesville silt loam, 8 to 15 percent slopes	Severe: moderately slow permeability
Meckesville	MkB	Meckesville very stony silt loam, 0 to 8 percent slopes	Severe: moderately slow permeability
Meckesville	MkD	Meckesville very stony silt loam, 8 to 25 percent slopes	Severe: slope; moderately slow permeability
Melvin	Mm	Melvin silt loam	Severe; flooding; high water table
Millheim	MnB	Millheim silt loam, 2 to 8 percent slopes	Moderate ² : depth to bedrock
Millheim	MnC	Millheim silt loam, 8 to 15 percent slopes	Moderate ² : slope; depth to bedrock
Millheim	MnD	Millheim silt loam, 15 to 25 percent slopes	Severe ² : slope
Monongahela	MoB	Monongahela silt loam, 2 to 8 percent slopes	Severe: seasonal high water table; moderately slow permeability
Morrison	MrB	Morrison sandy loam, 2 to 8 percent slopes	Slight

*An asterisk in the first column indicates that at least one mapping unit is made of two or more kinds of soil.

Table 5. Soil limitations for town and country planning

Severe: depth to bedrock	Moderate: depth to bedrock
Severe: slope; depth to bedrock	Moderate: slope; depth to bedrock
Severe: slope; depth to bedrock	Severe: slope
Moderate ² : moderate permeability; depth to bedrock	Moderate: depth to bedrock; shrink-swell potential; sinkhole hazard
Moderate ² : slope; moderate permeability; depth to bedrock	Moderate: depth to bedrock; shrink-swell potential; sinkhole hazard
Severe ² : slope	Moderate: slope; depth to bedrock; shrink-swell potential; sinkhole hazard
Moderate ² : slope; moderate permeability; depth to bedrock	Moderate: depth to bedrock; shrink-swell potential; sinkhole hazard
Severe ² : slope	Moderate: slope; depth to bedrock; shrink-swell potential; sinkhole hazard
Severe ² : slope	Severe: slope; sinkhole hazard
Severe: moderately rapid permeability and rapid permeability; small stones	Moderate: depth to bedrock
Severe: slope; moderately rapid permeability and rapid permeability; small stones	Moderate: slope; depth to bedrock
Severe: slope; moderately rapid and rapid permeability; small stones	Severe: slope
Severe: large and small stones; moderately rapid and rapid permeability	Severe: large stones
Severe: slope; large and small stones; moderately rapid and rapid permeability	Severe: slope; large stones
Severe: slope; moderately rapid permeability	Severe: slope; large stones
Severe: slope; depth to bedrock; large stones; moderately rapid permeability	Severe: slope; depth to bedrock; large stones
Moderate: moderate permeability	Moderate: shrink-swell potential; sinkhole hazard
Moderate ² : slope; moderate permeability	Moderate: shrink-swell potential; sinkhole hazard
Severe ² : slope	Moderate: slope; shrink-swell potential; sinkhole hazard
Severe ² : slope	Severe; slope; sinkhole hazard
Moderate: slope; small stones	Slight
Severe: slope	Moderate: slope
Severe: slope	Severe: slope
Severe: large stones	Severe: large stones
Severe: slope; large stones	Severe: slope; large stones
Severe: slope; large stones	Severe: slope; large stones
Severe: moderately rapid permeability	Slight
Severe: slope; moderately rapid permeability	Moderate: slope
Severe: slope; moderately rapid permeability	Severe: slope
Severe: moderately rapid permeability	Moderate: large stones
Severe: slope; moderately rapid permeability	Severe: slope
Severe: slope; moderately rapid permeability	Severe: slope
Severe: slope; moderately rapid permeability	Severe: slope
Severe: large and small stones; moderately rapid permeability	Severe: large stones
Severe: rapid permeability	Slight
Severe: slope; rapid permeability	Moderate: slope
Severe: flooding; permeable substratum	Severe: flooding
Severe: depth to bedrock; small stones	Severe: high water table
Moderate: slope	Slight
Severe: slope	Moderate: slope
Moderate: slope; large stones	Moderate: large stones
Severe: slope	Severe: slope
Severe: flooding	Severe: flooding; high water table
Moderate ² : slope; moderate permeability; depth to bedrock	Moderate: shrink-swell potential; sinkhole hazard
Severe ² : slope	Moderate: slope; shrink-swell potential; sinkhole hazard
Severe ² : slope	Severe: slope; sinkhole hazard
Moderate: slope	Moderate: seasonal high water table
Severe: moderately rapid permeability	Slight

*An asterisk in the first column indicates that at least one mapping unit is made of two or more kinds of soil.

Table 5. Soil limitations for town and country planning

Moderate: depth to bedrock	Moderate: frost action
Moderate: slope; depth to bedrock	Moderate: slope; frost action
Severe; slope	Severe: slope
Slight	Moderate: shrink-swell potential; frost action
Slight	Moderate: shrink-swell potential; frost action
Moderate: slope	Moderate: slope; shrink-swell potential; frost action
Moderate: surface texture	Moderate: shrink-swell potential; frost action
Moderate: slope; surface texture	Moderate: slope; shrink-swell potential; frost action
Severe: slope	Severe: slope
Moderate: surface texture	Slight
Moderate: slope; surface texture	Moderate: slope
Severe; slope	Severe: slope
Severe; large stones	Moderate: large stones
Severe; slope; large stones	Severe: slope
Severe; slope; large stones	Severe: slope
Severe; slope; large stones	Severe: slope
Slight	Moderate: frost action; shrink-swell potential
Slight	Moderate: frost action; shrink-swell potential
Moderate: slope	Moderate: slope; frost action; shrink-swell potential
Severe; slope	Severe: slope
Slight	Slight
Moderate: slope	Moderate: slope
Severe; slope	Severe: slope
Severe; large stones	Moderate: large stones
Severe; slope; large stones	Severe: slope
Severe; slope; large stones	Severe: slope
Slight	Slight
Moderate: slope	Moderate: slope
Severe; slope	Severe: slope
Moderate: large stones	Slight
Severe; slope	Severe: slope
Severe; slope	Severe: slope
Severe; slope	Severe: slope
Severe: large stones; surface texture	Moderate: large stones
Severe: surface texture	Slight
Severe: surface texture	Moderate: slope
Moderate: flooding	Moderate: flooding; frost action
Severe: high water table	Severe: high water table; frost action
Slight	Moderate: frost action
Moderate: slope	Moderate: slope; frost action
Moderate: large stones	Moderate: frost action
Severe: slope	Severe: slope
Severe: flooding; high water table	Severe: flooding; high water table; frost action
Slight	Moderate: frost action; shrink-swell potential
Moderate: slope	Moderate: slope; frost action; shrink-swell potential
Severe: slope	Severe: slope
Slight	Moderate: frost action
Slight	Moderate: frost action

*An asterisk in the first column indicates that at least one mapping unit is made of two or more kinds of soil.

Table 5. Soil limitations for town and country planning

Severe: depth to bedrock
 Severe: depth to bedrock
 Severe: depth to bedrock
 Severe: too clayey; depth to bedrock
 Severe: too clayey; depth to bedrock
 Severe: too clayey; depth to bedrock
 Severe: too clayey; depth to bedrock
 Severe: too clayey; depth to bedrock
 Severe: too clayey; depth to bedrock
 Severe: moderately rapid and rapid permeability; depth to bedrock
 Severe: moderately rapid and rapid permeability; depth to bedrock
 Severe: moderately rapid and rapid permeability; depth to bedrock
 Severe: large stones; moderately rapid and rapid permeability; depth to bedrock
 Severe: large stones; moderately rapid and rapid permeability; depth to bedrock
 Severe: slope; depth to bedrock; moderately rapid and rapid permeability; large stones
 Severe: slope; depth to bedrock; moderately rapid permeability; large stones
 Severe: too clayey;
 Severe: too clayey;
 Severe: too clayey;
 Severe: too clayey;
 Slight
 Slight
 Moderate: slope
 Severe: large stones
 Severe: large stones
 Severe: slope; large stones
 Severe: moderately rapid permeability; depth to bedrock
 Severe: moderately rapid permeability; depth to bedrock
 Severe: moderately rapid permeability; depth to bedrock
 Severe: moderately rapid permeability; depth to bedrock
 Severe: moderately rapid permeability; depth to bedrock
 Severe: slope; moderately rapid permeability; depth to bedrock
 Severe: slope; moderately rapid permeability; depth to bedrock
 Severe: large stones; depth to bedrock
 Severe: rapid permeability
 Severe: rapid permeability
 Severe: flooding; permeable substratum; seasonal high water table
 Severe: high water table; depth to bedrock
 Slight
 Slight
 Moderate: large stones
 Moderate: slope; large stones
 Severe: flooding; high water table
 Severe: too clayey; depth to bedrock
 Severe: too clayey; depth to bedrock
 Severe: too clayey; depth to bedrock
 Severe: seasonal high water table
 Severe: moderately rapid permeability

*An asterisk in the first column indicates that at least one mapping unit is made of two or more kinds of soil.

Table 5. Soil limitations for town and country planning

Morrison	MrC	Morrison sandy loam, 8 to 15 percent slopes	Moderate: slope
Morrison	MrD	Morrison sandy loam, 15 to 25 percent slopes	Severe: slope
Morrison	MsB	Morrison very stony sandy loam, 0 to 8 percent slopes	Moderate: large stones
Morrison	MsD	Morrison very stony sandy loam, 8 to 25 percent slopes	Severe: slope
Morrison	MTF	Morrison very stony sandy loam, steep	Severe: slope
Murrill	MuA	Murrill channery silt loam, 0 to 3 percent slopes	Slight ²
Murrill	MuB	Murrill channery silt loam, 3 to 8 percent slopes	Slight ²
Murrill	MuC	Murrill channery silt loam, 8 to 15 percent slopes	Moderate ² : slope
Murrill	MuD	Murrill channery silt loam, 15 to 25 percent slopes	Severe ² : slope
Murrill	MvB	Murrill very stony silt loam, 0 to 8 percent slopes	Moderate ² : large stones
Murrill	MvD	Murrill very stony silt loam, 8 to 25 percent slopes	Severe ² : slope
Nolin	No	Nolin silt loam, local alluvium, 0 to 5 percent slopes	Moderate: rare flooding
*Opequon	OhB	Opequon-Hagerstown complex, 3 to 8 percent slopes	Severe ² : depth to bedrock
*Opequon	OhC	Opequon-Hagerstown complex, 8 to 15 percent slopes	Severe ² : depth to bedrock
*Opequon	OhD	Opequon-Hagerstown complex, 15 to 25 percent slopes	Severe ² : slope; depth to bedrock
(For Hagerstown part, see Hagerstown series HcB, HcC, and HcD respectively)			
*Opequon	ORF	Opequon-Hagerstown complex, steep (Opequon part)	Severe ² : slope; depth to bedrock
*Opequon	ORF	Opequon-Hagerstown complex, steep (Hagerstown part)	Severe ² : slope
*Opequon	OxB	Opequon-Rock outcrop complex, 0 to 8 percent slopes	Severe ² : depth to bedrock
*Opequon	OxD	Opequon-Rock outcrop complex, 8 to 25 percent slopes	Severe ² : slope; depth to bedrock
(Rock outcrop parts of OxB and OxD are not rated.)			
Philo	Ph	Philo loam	Severe: flooding; seasonal high water table
Philo	Pk	Philo and Atkins very stony soils (Philo part)	Severe: flooding; seasonal high water table
Philo	Pk	Philo and Atkins very stony soils (Atkins part)	Severe: flooding; seasonal high water table; slow permeability
Pope	Po	Pope soils	Severe: flooding
Purdy	Pu	Purdy silt loam	Severe: high water table; slow permeability
Rayne	RaB	Rayne silt loam, 2 to 10 percent slopes	Moderate; depth to bedrock
Rubble land	Ru	Rubble land	Severe: slope; large stones
Strip mines	Sm	Strip mines, acid	Variable
Tyler	Ty	Tyler silt loam	Severe: seasonal high water table; slow permeability
Ungers	UmB	Ungers channery loam, 3 to 8 percent slopes	Moderate: depth to bedrock
Ungers	UmC	Ungers channery loam, 8 to 15 percent slopes	Moderate: slope; depth to bedrock
Ungers	UmD	Ungers channery loam, 15 to 25 percent slopes	Severe: slope
Ungers	UnB	Ungers very stony loam, 0 to 8 percent slopes	Moderate: large stones; depth to bedrock
Ungers	UnD	Ungers very stony loam, 8 to 25 percent slopes	Severe: slope
*Urban land	URB	Urban land (For Hagerstown part, see Hagerstown series, HaB)	Too variable to rate (requires on-site investigation)
Vanderlip	VaC	Vanderlip loamy sand, 5 to 20 percent slopes	Moderate ² : slope
Weikert	WeC	Weikert shaly silt loam, 5 to 15 percent slopes	Severe: depth to bedrock
Weikert	WeD	Weikert shaly silt loam, 15 to 25 percent slopes	Severe: slope; depth to bedrock
Wharton	WhA	Wharton silt loam 0 to 3 percent slopes	Severe: seasonal high water table; moderately slow permeability
Wharton	WhB	Wharton silt loam, 3 to 8 percent slopes	Severe: seasonal high water table; moderately slow permeability
Wharton	WhC	Wharton silt loam, 8 to 15 percent slopes	Severe: seasonal high water table; moderately slow permeability
Wyoming	Wy	Wyoming gravelly sandy loam, rarely flooded, 0 to 5 percent slopes	Moderate: rare flooding

¹Onsite studies of the underlying strata, water table, and hazards of aquifer pollution into ground water need to be made for landfill deeper than 5 or 6 feet.

²Possible ground water pollution because of rapid permeability, coarse texture, creviced bedrock, or sinkholes.

*An asterisk in the first column indicates that at least one mapping unit is made of two or more kinds of soil.

Table 5. Soil limitations for town and country planning

Severe: slope; moderately rapid permeability	Moderate: slope
Severe: slope; moderately rapid permeability	Severe: slope
Severe: moderately rapid permeability	Moderate: large stones
Severe: slope; moderately rapid permeability	Severe: slope
Severe: slope; moderately rapid permeability	Severe: slope
Moderate ² : moderate permeability; small stones	Moderate: shrink-swell potential; sinkhole hazard
Moderate ² : slope; moderate permeability; small stones	Moderate: shrink-swell potential; sinkhole hazard
Severe ² : slope	Moderate: slope; shrink-swell potential; sinkhole hazard
Severe ² : slope	Severe: slope; sinkhole hazard
Moderate ² : slope; large and small stones; moderate permeability	Moderate: large stones; shrink-swell potential; sinkhole hazard
Severe ² : slope	Severe: slope; sinkhole hazard
Severe: rare flooding	Severe: rare flooding
Severe ² : depth to bedrock	Severe: depth to bedrock; shrink-swell potential; sinkhole hazard
Severe ² : slope; depth to bedrock	Severe: depth to bedrock; shrink-swell potential; sinkhole hazard
Severe ² : slope; depth to bedrock; hazard of ground water contamination	Severe: slope; depth to bedrock; low strength; shrink-swell potential; sinkhole hazard
Severe ² : slope; depth to bedrock	Severe: depth to bedrock; shrink-swell potential; sinkhole hazard
Severe ² : slope	Severe: slope; sinkhole hazard
Severe ² : depth to bedrock	Severe: depth to bedrock; low strength; shrink-swell potential; sinkhole hazard
Severe ² : slope; depth to bedrock	Severe: slope; depth to bedrock; low strength; shrink-swell potential; sinkhole hazard
Severe: flooding; permeable substratum	Severe: flooding
Severe: flooding; permeable substratum	Severe: flooding; seasonal high water table
Severe: flooding;	Severe: flooding; high water table
Severe: flooding; moderately rapid permeability	Severe: flooding;
Slight: inflow hazard; possible pervious substratum	Severe: high water table
Moderate: slope; depth to bedrock; moderate permeability	Slight
Severe: slope; large stones	Severe: slope; large stones
Variable	Variable
Slight: inflow hazard; possible pervious substratum	Severe: seasonal high water table
Moderate: slope; depth to bedrock; moderate permeability; small stones	Moderate: depth to bedrock
Severe: slope	Moderate: slope; depth to bedrock
Severe: slope	Severe: slope
Moderate: slope; depth to bedrock; moderate permeability; small and large stones	Moderate: large stones; depth to bedrock
Severe: slope	Severe: slope
Too variable to rate	Too variable to rate
Severe ² : slope; rapid permeability	Moderate: slope
Severe: slope; depth to bedrock; moderately rapid permeability; small stones	Moderate: slope; depth to bedrock
Severe: slope; depth to bedrock; moderately rapid permeability; small stones	Severe: slope
Moderate: depth to bedrock	Moderate: seasonal high water table; shrink-swell potential
Moderate: slope; depth to bedrock	Moderate: seasonal high water table; shrink-swell potential
Severe: slope	Moderate: slope; seasonal high water table; shrink-swell potential
Severe: rapid permeability; small stones; rare flooding	Severe: rare flooding

*An asterisk in the first column indicates that at least one mapping unit is made of two or more kinds of soil.

Table 5. Soil limitations for town and country planning

Moderate: slope	Moderate: slope; frost action
Severe: slope	Severe: slope
Moderate: large stones	Moderate: frost action
Severe: slope	Severe: slope
Severe: slope	Severe: slope
Slight	Moderate: shrink-swell potential; frost action
Slight	Moderate: shrink-swell potential; frost action
Moderate: slope	Moderate: slope; shrink-swell potential; frost action
Severe: slope	Severe: slope
Moderate: large stones	Moderate: shrink-swell potential; frost action
Severe: slope	Severe: slope
Slight	Moderate: rare flooding; frost action
Severe: Depth to bedrock	Severe: depth to bedrock; shrink swell potential
Severe: Depth to bedrock	Severe: depth to bedrock; shrink swell potential
Severe: slope; depth to bedrock	Severe: slope; depth to bedrock; shrink swell potential
Severe: slope; depth to bedrock	Severe: slope; depth to bedrock; shrink swell potential
Severe: slope	Severe: slope
Severe: Depth to bedrock	Severe: depth to bedrock; shrink swell potential
Severe: slope; depth to bedrock	Severe: slope; depth to bedrock; shrink swell potential
Moderate: flooding	Moderate: flooding; frost action
Moderate: flooding	Moderate: flooding; frost action
Severe: flooding; high water table	Severe: flooding; high water table; frost action
Moderate: flooding	Moderate: flooding; frost action
Severe: high water table	Severe: high water table; frost action
Slight	Moderate: frost action
Severe: slope; large stones	Severe: slope; large stones
Severe: small stones; extremely acid material	Variable
Moderate: seasonal high water table	Severe: frost action
Slight	Slight
Moderate: slope	Moderate: slope
Severe: slope	Severe: slope
Moderate: large stones	Slight
Severe: slope	Severe slope
Too variable to rate	Too variable to rate
Severe: surface texture	Moderate: slope
Severe: depth to bedrock; small stones	Moderate: slope; depth to bedrock
Severe: slope; depth to bedrock; small stones	Severe: slope
Slight	Severe: frost action
Slight	Severe: frost action
Moderate: slope	Severe: frost action
Severe: small stones	Moderate: rare flooding

*An asterisk in the first column indicates that at least one mapping unit is made of two or more kinds of soil.

Table 5. Soil limitations for town and country planning

Severe: moderately rapid permeability
 Severe: moderately rapid permeability
 Severe: moderately rapid permeability
 Severe: moderately rapid permeability
 Severe: moderately rapid permeability
 Severe: too clayey
 Severe: too clayey
 Severe: too clayey
 Severe: too clayey
 Severe: too clayey
 Severe: too clayey
 Moderate: rare flooding
 Severe: depth to bedrock; too clayey
 Severe: depth to bedrock; too clayey
 Severe: depth to bedrock; too clayey

 Severe: slope; depth to bedrock; too clayey
 Severe: slope; depth to bedrock; too clayey
 Severe: depth to bedrock; too clayey
 Severe: depth to bedrock; too clayey

 Severe: flooding; permeable substratum; seasonal high water table
 Severe: flooding; seasonal high water table; permeable substratum
 Severe: flooding; high water table
 Severe: flooding; moderately rapid permeability; permeable substratum
 Severe: high water table; too clayey; possible pervious substratum
 Moderate: depth to bedrock; moderate permeability; too clayey
 Severe: slope; large stones
 Variable
 Severe: seasonal high water table; possible pervious substratum
 Severe: depth to bedrock
 Severe: depth to bedrock
 Severe: depth to bedrock
 Severe: depth to bedrock
 Severe: depth to bedrock
 Too variable to rate
 Severe: rapid permeability
 Severe: depth to bedrock; moderately rapid permeability
 Severe: depth to bedrock; moderately rapid permeability
 Severe: seasonal high water table; depth to bedrock
 Severe: seasonal high water table; depth to bedrock
 Severe: seasonal high water table; depth to bedrock
 Severe: rapid permeability

*An asterisk in the first column indicates that at least one mapping unit is made of two or more kinds of soil.