

Comprehensive Plan: Elk County, Pennsylvania

Land within the range of **15% to 24%** slope can be utilized, barring other limitations, with careful site planning. Special consideration should be given to erosion, sedimentation and slope stability problems. These land areas should be limited to low density residential development and to development which adapts to the character and quality of the land being developed, such as vistas. Land **over 25%** slope is generally considered unsuitable for development. In most cases, development in these areas should be avoided.

Comprehensive Plan: Elk County, Pennsylvania

A.6 Soils

Soils in Elk County are formed from noncarbonate sedimentary rocks.

TABLE 1 - SOILS OF ELK COUNTY INCLUDE:

Map Symbol	DEP Class.	Soil Name	Percent Slopes	Major Component Hydric	Hydric Inclusions	Prime Agricultural Soils
AbB	E14	Albrights	3 - 8	No	Yes	Yes
AbC	E14	Albrights silt loam	8 -15	No	Yes	No
AbD	E14	Albrights silt loam	15-25	No	Yes	No
At	D13	Atkins silt loam		Yes	NA	No
Ba	D13	Barbour fine sandy loam		No	Yes	Yes
Bb	D13	Basher silt loam		No	Yes	Yes
BrA	F15	Brinkerton silt loam	0 - 3	Yes	NA	No
BrB	F15	Brinkerton silt loam	3 - 8	Yes	NA	No
BsB	F15	Brinkerton silt loam	0 - 8	Yes	NA	No
BuB	E14	Buchanan silt loam	3 - 8	No	Yes	No
BuC	E14	Buchanan silt loam	8- 15	No	Yes	No
BuD	E14	Buchanan silt loam	15-25	No	Yes	No
BxB	E14	Buchanan silt loam	0 - 8	No	Yes	No
BxD	E14	Buchanan silt loam	8 -25	No	Yes	No
CaA	F15	Cavode silt loam	0 - 3	No	Yes	No
CaB	F15	Cavode silt loam	3 - 8	No	Yes	No
CaC	F15	Cavode silt loam	8 - 15	No	Yes	No
CdB	F15	Cavode silt loam	0 - 8	No	Yes	No
CdD	F15	Cavode silt loam	8 -25	No	Yes	No
CoA	E14	Cookport channery loam	0 - 3	No	Yes	Yes
CoB	E14	Cookport channery loam	3 - 8	No	Yes	Yes
CoC	E14	Cookport channery loam	8 -15	No	Yes	No
CpB	E14	Cookport channery loam	0 - 8	No	Yes	No
CpD	E14	Cookport channery loam	8 -25	No	Yes	No
HaB	A2	Hartleton channery silt loam	3 - 8	No	No	Yes
HaC	A2	Hartleton channery silt loam	8 -15	No	No	No
HaD	A2	Hartleton channery silt loam	15-25	No	No	No
HaF	A2	Hartleton channery silt loam	25-60	No	No	No
HeB	A2	Hartleton channery silt loam, very stony	0 - 8	No	No	No
HeD	A2	Hartleton channery silt loam, very stony	8 -25	No	No	No

Source: USDA - SCS 11/15/95

DEP: Technical Manual for Sewage Enforcement Officers

Comprehensive Plan: Elk County, Pennsylvania

TABLE 1 - SOILS OF ELK COUNTY (Continued)

Map Symbol	DEP Class.	Soil Name	Percent Slopes	Major Component Hydric	Hydric Inclusions	Prime Agricultural Soils
HoB	A4	Hazleton channery loam	3 - 8	No	No	Yes
HoC	A4	Hazleton channery loam	8 -15	No	No	No
HoD	A4	Hazleton channery loam	15-25	No	No	No
HxB	A4	Hazleton channery loam	0 - 8	No	No	No
HxD	A4	Hazleton channery loam	8 -25	No	No	No
HxF	A4	Hazleton channery loam	25-60	No	No	No
HyE	A4	Hazleton channery loam	8 -35	No	No	No
LeB	A2	Leck Kill channery silt loam	3 - 8	No	No	Yes
LeC	A2	Leck Kill channery silt loam	8 -15	No	No	No
LeD	A2	Leck Kill channery silt loam	15-25	No	No	No
LeF	A2	Leck Kill channery silt loam	25-60	No	No	No
NoA	F15	Nolo loam	0 - 3	Yes	No	No
NoB	F15	Nolo loam	3 - 8	Yes	No	No
NxB	F15	Nolo loam	0 - 8	Yes	No	No
Ph	D13	Philo silt loam	3 - 8	No	Yes	Yes
Po	D13	Pope silt loam	8 - 15	No	Yes	Yes
Ub		Udfluvents-Buchanan complex	15 - 25	No	Yes	No
Ud		Udorthents, sandstone and shale	0 - 3	No	Yes	No
Us		Udorthents, sandstone and shale, smoothed	3 - 8	No	Yes	No
WaB	E14	Wharton silt loam	8-15	No	Yes	Yes
WaC	E14	Wharton silt loam	15-25	No	Yes	No
WaD	E14	Wharton silt loam	0 - 8	No	Yes	No
WxB	E14	Wharton silt loam	8 -25	No	Yes	No
WxD	E14	Wharton silt loam	25-45	No	Yes	No

Source: USDA - SCS 11/15/95

DEP: Technical Manual for Sewage Enforcement Officers

Tables 2 and 2A indicate soils which may have some development potential in terms of on-lot sewage disposal within the County. The soil survey of Cameron and Elk Counties, together with DEP's publication #182 indicates no soil types with moderate or few (minor) limitations associated with use for on-lot sewage disposal. All soil types are identified by the Soil Survey of Cameron and Elk Counties, Pennsylvania, USDA, SCS, as having severe limitations associated with use of on-lot sewage disposal systems. The Technical Manual for Sewage Enforcement, DEP publication #182 revised 12/93 classified soils into fifteen (15) groups, based on limitations for subsurface disposal and probable percolation rates. Soils in Elk County fall into the following groups (see Tables 1 & 2).

TABLE 2 DEP PUBLICATION #182 12/93 SOILS

Group A1	Soils which do not have seasonal high water tables, severe flooding hazard, extreme shallowness to bedrock, limestone bedrock but have a very rapid percolation rate with hazard from insufficient filtration and renovation of (sewage) effluent.
Group A2	Deep well drained soils with probable percolation rates of one (1) inch of water in 6 to 15 minutes.
Group A4	Soils which do not have seasonal high water tables, severe flooding hazard, extreme shallowness to bedrock, limestone bedrock and are well drained soils with probable percolation rates of one (1) inch of water in 15 to 30 minutes.
Group D13	Soils that occur on floodplains and have a high flooding hazard and are not suitable for subsurface disposal systems.
Group E14	Moderately well drainage soils on upland sites. These soils have seasonal high water tables which is the major limitation for subsurface disposal systems.
Group F15	Somewhat poorly, poorly, and very poorly drained soils on upland sites. These soils have high water tables and are unsuitable for subsurface disposal systems.

DEP publication #182, classifies a small portion of the County's soils more favorably than the Soil Survey. These soils are Groups A2 and A4 Soils and consist of the Hartleton channery silt loam soils (Group A2), Leck Kill channery silt loam soils (Group A2), and the Hazelton Channery loam soils (Group A4). Table 2A, therefore, identifies these soils, up to 15% slope, as having moderate limitations for on-lot disposal. All others are classified as having severe imitations. These Group A2 and A4, soils make up less than 5% of land area outside of State or Federal ownership.

TABLE 2A ELK COUNTY SOILS WITH SOME LIMITED POTENTIAL FOR ON-LOT SEWAGE DISPOSAL

Map Symbol	Soil Name	Slope
HoB	Hazleton channery loam	3 - 8%
HoC	Hazleton channery loam	8 -15%
LeB	Leck Kill channery silt loam	3 - 8%
LeC	Leck Kill channery silt loam	8 -15%
HaB	Hartleton channery silt loam	3 - 8%
HaC	Hartleton channery silt loam	8 -15%
HeB	Hartleton channery silt loam, very stony	0 - 8%
CUMULATIVE LAND AREA		<5%

Exhibit No. 3 indicates soils identified as prime agricultural soils. Prime farmland soils are soils that are deep, well drained and are level to nearly level. They have yields that average in the upper range of yields for most crops. These soils require a minimal amount of erosion control management. The specific soil mapping units that qualify for prime farmland have been determined by the Soil Conservation Service State Soil Scientist for Pennsylvania.

TABLE 3 SOILS QUALIFYING FOR PRIME FARMLAND

Symbol	Soil Name
AbH	Albrights silt loam, 3 to 8 percent slopes
Ba	Barber fine sandy loam
Bb	Basher silt loam
CoA	Cookport channery loam, 0 to 3 percent slopes
CoB	Cookport channery loam, 0 to 3 percent slopes
HaB	Hartleton channery silt loam, 3 to 8 percent slopes
HoB	Hazelton channery loam 3 to 8 percent slopes
LeB	Leck Kill channery silt loam, 3 to 8 percent slopes
Ph	Philo silt loam
Po	Pope silt loam
WaB	Wharton silt loam 3 to 8 percent slopes

It should be noted that the soils designated as prime agricultural land are, in most cases, the same soil types exhibiting fewest impediments to development, i.e. steep slopes, flooding, and high water tables. For example, the above prime farmland list includes Hartleton, Lack Kill, and Hazelton soils which are the only soils exhibiting properties that might qualify for on-lot sewage disposal systems. Therefore, careful consideration should be given to the loss of the few remaining undeveloped prime agricultural areas to development.