Additionally, farmland of Statewide Importance has traditionally produced crops at sustainable yields with erosion control or water management practices. Farmland ratings also consider the land use and the potential for conversion to farmland. Federally funded projects require the completion of a farmland impact rating. Some state regulations such as mine permit applications also require a review of prime farmland soils and restoration plans. The Natural Resources Conservation Service (formally the Soil Conservation Service) is the agency that makes prime farmland determinations.

A.7 Flooding

The U.S.D.A., SCS indicates that soils subject to flooding included At (Atkins silt loam) on a frequent basis, particularly between September and July, and on an occasional basis, Ph (Philo silt loam), and Bb (Basher silt loam) usually between December and May. Ub (Udifluvents-Buchanan) complex is occasionally flooded between September and July. Po (Pope silt loam) and Ba (Barbour fine sandy loam) flood on rare occasion.

A.8 Wetlands

Table No. 1 indicates soils with the potential for probable wetlands areas (see Hydric soils). Wetlands are also identified by the U.S. Department of the Interior Fish and Wildlife Service, National Wetlands Inventory Mapping.

Hydric soils are those which are saturated, flooded, or ponded long enough in the growing season to develop anaerobic conditions in the upper soil horizons, a condition in which oxygen is effectively absent. This soil condition, with hydrophytic vegetation and under certain hydrological conditions, may constitute wetlands. Hydric soils, and soils which contain inclusions of hydric soils in low spots and drainageways, may be indications of possible wetland areas. These areas are also listed on **Table 1**.

The soils and plant types are indicators of this hydrology. All three; hydric soils, hydrophytic plants, and hydrology must be present at some period within a growing season. The list of Hydric soils is not a substitute for on site wetland determinations or delineations done by a qualified individual, team, or firm.

The impact of wetlands by development is regulated by Section 404 of the Clean Water Act and Chapter 105 of the Pennsylvania Code. Generally speaking, wetlands impacted by development must be replaced or "mitigated" to maintain functions and values such as flood water storage and wildlife habitat. There is a provision for payment into the Wetlands Replacement Fund for impacts to wetlands less than 0.5 acres in size as an alternative to mitigation. The fund is used to construct wetlands on a larger scale.

A.9 Mineral Resources

Pennsylvania is the fourth largest producer of mineral resources. Elk County lies on the northern edge of Pennsylvania's main bituminous coal field.

Elk County has several bituminous coal seams of the Allegheny Group which have been mined, primarily in surface-mining operations. Elk County produces about 1 percent of the bituminous coal in Pennsylvania. Extensive deep mining has occurred in Fox and Jay Townships through the 1900's.

Elk County has many local reminders of mining operations particularly in Fox Township, Jones Township, and Jay Township. Local reminders are also evidenced by some of the residual problems. One of the most prevalent problems is from the Acid Mine Drainage (AMD) contamination of surface waters.

Elk County has began efforts to abate acid mine impacts in respective watersheds through Watershed Associations such as the Toby Creek Watershed Association, formed to identify problems, not limited to AMD, but including unsealed deep mine entries, subsidence, and highwalls. The Association has worked to effectively abate numerous identified problems and currently is focused on Brandy Camp and Kyler Run AMD treatment systems.

Elk County is the fourth-leading producer of crude oil in Pennsylvania, yielding approximately 10 percent of total state production. Its reserves are located in the Upper Devonian Bradford Sands, centered mostly in Highland Township and western Jones Township. Most of the oil production comes from secondary recovery methods.

'Small amounts of natural gas are produced in Elk County. The County has four active gas storage areas. Small amounts of stone are quarried in Elk County. Geologic resources will have a relatively insignificant impact on future development in Elk County.

A.10 Forest Resources

One of the natural resources in Elk County, forest resources, are probably the most significant. Forest resource are significant both in terms of economics (timbering and tourism) and aesthetics/recreation/conservation.

The Lumber Heritage Region Plan coordinated by North Central Pennsylvania Regional Planning and Development Commission (NCPRPDC) in 1998 identified 30 industries in Elk County, employing approximately 1000 persons total. The lumber and wood product industry employs as reported 289 persons and the paper mills and product industries employ a reported 720+ persons.

The hardwood forests in Elk County still support strong economic sectors of forestry. Elk County has a unique storehouse of renewable forest resources, that if properly managed, can fuel local economy and enhance quality of life for residents and visitors. It has been estimated that State wide, while 71% of the State's forest lands are privately owned, only approximately 3% of private owners have written management plans.

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The Allegheny National Forest is managed by the U.S. Department of Agriculture - Forest Service, and is the only National Forest in Pennsylvania. National Forests are managed to provide multiple benefits, and in a sustainable way so future generations will enjoy these lands. The mandate for "multiple use" and "sustainable use" is a Congress mandate. "Multiple use" and "sustainable use" are terms used to describe protection of the forest resources to furnish a continuous supply of timber and other functions and values such as recreation, tourism, wildlife habitat, and watershed protection. Management activities are planned to be compatible for people, wildlife, and vegetation.

County governments receive 25 percent of the forest's gross receipts each year for schools and roads. From 1987 to 1997, a total of \$48.7 million were distributed to Elk, Forest, McKean and Warren Counties, averaging \$4.42 million annually. Elk County has received approximately 1.3 million over the decade spanning 1987 through 1997.

The way that the Allegheny National Forest is to be managed has been very controversial. The National Forest Management Act of 1976 requires each National Forest to implement a Forest Plan which incorporates extensive public involvement and outlines a vision for how and where management activities will be occurring. The ANF's Forest Plan was approved in 1986. A revision to this plan is pending.

Controversy surrounds various issues including management techniques, i.e. clear cutting and selective cutting, road construction, and habitat management, timber management for recreation and tourism in conjunction with management for resource harvesting, and related impacts of the potential partial loss of revenue for schools and roads.

A.11 Other Resources (The elk herds)

The present day elk herd in Elk and Cameron Counties number approximately 400 animals. The herd is one of the only two wild herds east of the Mississippi. The elk range is located in the Allegheny Plateau, primarily in Jay Township, Benzette Township, and the City of St. Marys. See **Exhibit No. 4.**

The Pennsylvania Game Commission has primary responsibility for elk management. Other contributing agencies include the Department of Conservation and Natural Resources, Bureau of Forestry, conservation groups, and private landowners.

Pennsylvania's elk management goal is to maintain a self-sustaining population in a natural state for public benefit. Habitat management objectives are designed to hold elk on public lands, thus minimizing conflicts on private lands. Crop damage and traffic congestion in elk viewing areas are particular areas of conflict and controversy. Annual surveys, available from the Pennsylvania Game Commission, provide data on mortality, reproduction, movements and calf survival. Surveys are used to make effective management decisions for the well being of the herd and of the public.

The primary range covers approximately 227 square miles. Approximately 39% of this area are public lands. The herd is projected to reach 500 animals by the year 2000. The Elk viewing area is near the top of Winslow Hill. Elk can be seen in the food plot areas established by the Pennsylvania Game Commission on a hillside beyond Cole Draft Hollow. The public aesthetic and economic amenity values of the herd lie in visitor expenditures in the County for elk viewing. It is currently debated whether tourism concerning the elk herd should be developed further or discouraged.