

impact abandoned wells during construction will be included in the project Preparedness, Prevention, and Contingency Plan.

## 4.7 Agricultural Lands

Several state and federal acts and policies have been enacted to protect farmland from conversion to non-agricultural use. Some acts provide incentives to land owners to maintain land in agricultural production. Other acts direct agencies to identify and take into account the adverse effects on agricultural lands and to consider alternative actions that could lessen these adverse effects. The agricultural lands investigation was conducted in accordance with the following state and federal legislation and policies:

- *Federal Farmland Protection Policy Act of 1981 (FPPA)*
- *Pennsylvania Act 100 of 1979, the Administrative Code of 1929*
- *Pennsylvania Act 43, The Agricultural Area Security Law*
- *4 Pa Code Chapter 7, Section 7.301 et seq., Agricultural Land Preservation Policy (ALPP)*

### 4.7.1 Methodology

#### Farmlands

For this study, the *Anderson Land Use and Land Cover Classification System* was used to determine the acreage of farmlands within each alternative alignment. Initially, aerial photographs were utilized in conjunction with project engineering mapping to identify lands potentially in agricultural production within the study area. A field reconnaissance was then conducted to verify the potentially productive agricultural land identified on the aerial mapping. Coordination occurred with the county conservation districts, Pennsylvania Department of Agriculture, and NRCS regarding farm lands and operations within the project area. Individual farmer owners and operators were also interviewed as part of the study.

#### FPPA Farmlands

The purpose of the *Federal Farmland Protection Policy Act of 1981* is “to minimize the extent to which federal programs contribute to the unnecessary and irreversible conversion of farmland to non-agricultural use.” The FPPA classifies farmland as one of the following categories:

- *Prime Farmland* - land which has the best physical and chemical characteristics for the cultivation of agricultural products with a minimum of labor, fertilizer, and pesticides. It does not include land in urban development or land used for water storage.
- *Unique Farmland* - land other than prime farmland that is used for the production of a specific high-value food or fiber crop.
- *Farmland of Statewide Importance* - land other than prime or unique farmland, which has been designated as being of importance for the production of agricultural crops.
- *Farmland of Local Importance* - land other than prime, unique, or of statewide importance, which has been designated by local agencies as containing the best characteristics for the production of agricultural crops.

A listing of the soil types designated as prime, unique, of statewide importance, and of local importance was provided by the USDA, NRCS offices of Allegheny County and Westmoreland County. This information was supplemented by soil mapping and other information contained in the *Soil Survey of Allegheny County* (USDA, 1981) and the *Soil Survey of Westmoreland County* (USDA, 2002), issued by the NRCS. Soil type delineations from NRCS mapping were digitized and incorporated into a GIS database. An overlay of each project alternative alignment was placed over the soils mapping, and the impacts to each farmland type was assessed and totaled. The Farmland Conversion Impact Rating Form (Form AD-1006) was prepared (Parts I, III, and IV) in accordance with the requirements of FPPA regulations (7 U.S.C 4201, Section 6 58.5 [b]) and PENNDOT Directive 440-95 - Draft (March 10, 1995). When completed, Form AD-1006 site assessment points act as evaluation thresholds that establish the need for measures to avoid or minimize impacts to FPPA farmland. If the total score is less than or equal to 60 points, no minimization or avoidance measures are required.

**Agricultural Security Areas**

The *Agricultural Area Security Law* allows landowners to petition local governments to create agricultural security districts. The law provides incentives to encourage farming and disincentives to discourage development in these areas. The Westmoreland County Agricultural Land Preservation Board was contacted and requested to provide information regarding Agricultural Security Areas within the project area. Lands determined to be within an Agricultural Security Area in the study area were identified on aerial photography. An overlay of each alternative alignment was placed over the aerial photography, and the impacts to lands within

Agricultural Security Areas were assessed and totaled.

**Table 4.7.2-1 Agricultural Land Impacts: Section A**

Farmland Category	Alignments and Stations	
	A5-North ha (ac)	A5-South ha (ac)
Agricultural Land	0 (0)	0 (0)
Prime Farmland	4.9 (12.2)	5.5 (13.6)
Farmland of Statewide Importance	49.6 (122.6)	50.6 (125.1)
Land in Agricultural Security Areas	0 (0)	0 (0)
Farmland Category	Roadway Improvements	
	A5-North ha (ac)	A5-South ha (ac)
Agricultural Land	0 (0)	0 (0)
Prime Farmland	2.9 (7.2)	2.9 (7.2)
Farmland of Statewide Importance	17.4 (42.9)	17.4 (42.9)
Land in Agricultural Security Areas	0 (0)	0 (0)
Farmland Category	Total Agricultural Impacts	
	A5-North ha (ac)	A5-South ha (ac)
Agricultural Land	0 (0)	0 (0)
Prime Farmland	7.8 (19.4)	5.5 (13.6)
Farmland of Statewide Importance	67.0 (165.5)	68.0 (168.0)
Land in Agricultural Security Areas	0 (0)	0 (0)

**4.7.2 Impact Analysis**

Heavy commercial, industrial, and residential development has occurred within Sections A and B of the project area; therefore, impacts to all types of agricultural lands were lowest within these sections. The highest impacts were found within the Section C alternative alignments, where agriculture remains a common land use. The total areas of agricultural land (in various categories) that would be impacted within Sections A, B, and C are listed in Tables 4.7.2-1, 4.7.2-2, and 4.7.2-3, respectively.

Any impact to farmlands described throughout this section would consist of the taking of existing land utilized for farming or a related agricultural activity. These impacts would, therefore, take land out of the region’s agricultural inventory and convert it to a transportation use. This loss of

farmland could not be replaced and would be permanent.

**4.7.2.1 Farmlands**

**No-Build Alternative**

The No-Build Alternative would have no direct impact on the farmlands of the project area. Increased travel on existing roads and highways could result in a variety of transportation problems leading to the need for increased capacity and improved safety. In rural and suburban areas, future projects aimed at addressing the need for increased capacity and improved safety could require the conversion of agricultural land to a transportation use.

Insofar as a maglev system would encourage increased development at identified modes, this could help to address sprawl and preserve agricultural land.

**Build Alternatives**

**Sections A and B**

No land currently being used as farmland was found within any of the alternative alignments in Sections A or B.

**Section C**

Similar farmland impact totals were found to be within each of the three alternative alignments in Section C of the project. The lowest impacts (including the alignment/station and roadway improvements), 15.5 hectares (38.4 acres), would be within Alternative Alignment C6. Impacts of 16.3 hectares (40.2 acres) would be associated with Alternative Alignment C2-Mod and 17.8 hectares (44.0 acres) with Alternative Alignment C5.

**4.7.2.2 FPPA Farmlands**

It was determined that there are no unique or locally important farmland soils within the project area.

**Table 4.7.2-2 Agricultural Land Impacts: Section B**

Farmland Category	Alignments and Stations	
	<i>B4-East ha (ac)</i>	<i>B4-West ha (ac)</i>
Agricultural Land	0 (0)	0 (0)
Prime Farmland	3.9 (9.7)	3.6 (8.8)
Farmland of Statewide Importance	17.1 (42.3)	11.0 (27.2)
Land in Agricultural Security Areas	0 (0)	0 (0)
Farmland Category	Roadway Improvements	
	<i>B4-East ha (ac)</i>	<i>B4-West ha (ac)</i>
Agricultural Land	0 (0)	0 (0)
Prime Farmland	0 (0)	0 (0)
Farmland of Statewide Importance	7.2 (17.8)	7.2 (17.8)
Land in Agricultural Security Areas	0 (0)	0 (0)
Farmland Category	Total Agricultural Impacts	
	<i>B4-East ha (ac)</i>	<i>B4-West ha (ac)</i>
Agricultural Land	0 (0)	0 (0)
Prime Farmland	3.9 (9.7)	3.6 (8.8)
Farmland of Statewide Importance	24.3 (60.1)	18.2 (45.0)
Land in Agricultural Security Areas	0 (0)	0 (0)

**No-Build Alternative**

The No-Build Alternative would have no direct impact to prime farmland or statewide important farmland soils. Future projects could require the conversion of limited agricultural land to other uses. Increased travel on existing roads and highways could result in a variety of transportation problems leading to the need for increased capacity and improved safety. Future projects aimed at addressing the need for increased capacity and improved safety could require the conversion of agricultural land to a transportation use.

**Table 4.7.2-3 Agricultural Land Impacts: Section C**

Farmland Category	Alignments and Stations		
	<i>C2-Mod ha (ac)</i>	<i>C5 ha (ac)</i>	<i>C6 ha (ac)</i>
Agricultural Land	16.3 (40.2)	17.8 (44.0)	14.2 (35.1)
Prime Farmland	15.9 (39.2)	14.1 (34.9)	7.8 (19.2)
Farmland of Statewide Importance	49.9 (123.4)	58.3 (143.8)	35.0 (86.5)
Land in Agricultural Security Areas	21.6 (53.4)	15.9 (39.4)	10.2 (25.2)
Farmland Category	Roadway Improvements		
	<i>C2-Mod ha (ac)</i>	<i>C5 ha (ac)</i>	<i>C6 ha (ac)</i>
Agricultural Land	0 (0)	0 (0)	1.3 (3.3)
Prime Farmland	<0.1 (0.1)	<0.1 (0.1)	3.1 (7.6)
Farmland of Statewide Importance	0.6 (1.5)	0.6 (1.5)	11.8 (29.1)
Land in Agricultural Security Areas	0 (0)	0 (0)	<0.1 (0.1)
Farmland Category	Total Agricultural Impacts		
	<i>C2-Mod ha (ac)</i>	<i>C5 ha (ac)</i>	<i>C6 ha (ac)</i>
Agricultural Land	16.3 (40.2)	17.8 (44.0)	15.5 (38.4)
Prime Farmland	15.9 (39.2)	14.1 (34.9)	10.9 (26.8)
Farmland of Statewide Importance	50.5 (124.9)	58.8 (145.3)	46.8 (115.6)
Land in Agricultural Security Areas	21.6 (53.4)	15.9 (39.4)	10.3 (25.3)

Insofar as a maglev system would encourage increased development at identified modes, this could help to address sprawl and preserve agricultural land.

**Build Alternatives**

**Section A**

Alternative Alignment A5-North (including the alignment/station and roadway improvements) would have impacts of 7.8 hectares (19.4 acres) to Prime Farmland and 67.0 hectares (165.5 acres) to Farmland of Statewide Importance. Alternative Alignment A5-South would have impacts of 5.5 hectares (13.6 acres) to Prime Farmland and 68.0 hectares (168.0 acres) to Farmland of Statewide Importance.

Upon completion of Part VI of Form AD-1006, it was determined that the site assessment points totaled 10 for both Alternative Alignments A5-North and A5-South. Because the total site assessment score is less than 60 points in Section A, no minimization or avoidance measures are required for project area FPPA farmlands.

**Section B**

Alternative Alignment B4-East (including the alignment/station and roadway improvements) would have impacts of 3.9 hectares (9.7 acres) to Prime Farmland and 24.3 hectares (60.1 acres) to Farmland of Statewide Importance. Alternative Alignment B4-West would have impacts of 3.6 hectares (8.8 acres) to Prime Farmland and 18.2 hectares (45.0 acres) to Farmland of Statewide Importance.

Upon completion of Part VI of Form AD-1006, it was determined that the site assessment points totaled 25 for both Alternative Alignments B4-East and B4-West. Because the total site assessment score is less than 60 points in Section B, no minimization or avoidance measures are required for project area FPPA farmlands.

**Section C**

Alternative Alignment C2-Mod (including the alignment/station and roadway improvements) would impact 15.9 hectares (39.3 acres) of Prime Farmland and 50.5 hectares (124.9 acres) of Farmland of Statewide Importance. Alternative Alignment C5 would impact 14.1 hectares (35.0 acres) of Prime Farmland and 58.8 hectares (145.3 acres) of Farmland of Statewide Importance. Alternative Alignment C6 would impact 10.9 hectares (26.8 acres) of Prime Farmland and 46.8 hectares (115.6 acres) of Farmland of Statewide Importance.

Upon completion of Part VI of Form AD-1006, it was determined that the site assessment points totaled 18 for all alternatives in Allegheny County and 93 points for all alternatives in Westmoreland County. Because the total site assessment score is greater than 60 points in Section C, Form AD-1006 was submitted to the local NRCS office requesting completion of Parts II, IV, and V for additional analysis. The NRCS can add up to 100 additional points to the rating as a further measure of the impact from the proposed agricultural land conversion (the *Land Evaluation Criterion Relative Value of Farmland to be Converted*).

Upon further review by the NRCS office in Westmoreland County, an additional 51.31 points were added to the assessment score of Alternative Alignment C2-Mod, an additional 51.33 points were added to the assessment score of Alternative Alignment C5, and an additional 35.75 points were added to the assessment score of Alternative Alignment C6. The total assessment scores for each alternative were as follows:

- Alternative Alignment C2-Mod, 144.31 points;
- Alternative Alignment C5, 144.33 points; and
- Alternative Alignment C6, 128.75 points.

The findings of the Farmland Conversion Impact Rating Form indicated that all three of the alternatives under investigation in Westmoreland County would have assessment scores less than 160 points. (Copies of the completed forms are found in the Appendix A.) Alternative Alignment C6 would have the lowest score of 128.75 points. Because all three alternatives would have scores less than 160 points, the project would be in compliance with the *Federal Farmland Protection Policy Act*.

If the total score calculated by NRCS is less than or equal to 160 points (not including the initial 60), which would be the case for Section C, no minimization or avoidance measures

are required for project area FPPA farmlands. If the score exceeds 160 points for the preferred alternative, alternatives that would minimize or avoid impacts to farmlands must be considered.

### **4.7.2.3 Agricultural Security Areas**

#### **No-Build Alternative**

The No-Build Alternative would have no impact to land within Agricultural Security Areas. Increased travel on existing roads and highways could result in a variety of transportation problems leading to the need for increased capacity and improved safety. Future projects aimed at addressing the need for increased capacity and improved safety could require the conversion of land in Agricultural Security Areas to a transportation use.

Insofar as a Maglev system would encourage increased development at identified modes, this could help to address sprawl and preserve agricultural land.

#### **Build Alternatives**

##### **Sections A and B**

No land within Agricultural Security Areas would be impacted by any of the alternative alignments in Sections A or B.

##### **Section C**

All three of the alternative alignments within Section C would result in impacts to land within Agricultural Security Areas. Including the alignment/station and roadway improvements, Alternative Alignment C6 would have the least impact with 10.3 hectares (25.3 acres), Alternative Alignment C5 would impact 15.9 hectares (39.4 acres), and Alternative Alignment C2-Mod would impact 21.6 hectares (53.4 acres).

### **4.7.3 Summary**

The No-Build Alternative could have an impact on the area's farmland. Increased travel could result in a future need for more highway capacity. This could require conversion of farmland to a transportation use.

Under the build alternatives, there would be no impacts to active agricultural land within Sections A and B. Although there would be impacts within Sections A and B to areas identified through soils analysis as Prime Farmland and Farmlands of Statewide Importance, none of these areas are currently used as active agricultural land.

Land use within Section C is currently a mix of commercial, small urban, suburban residential, rural residential, and agricultural. Because of the density of development in Westmoreland County, it would be difficult to "thread" a project of this magnitude through this mixture of land uses without impacting all of them to some degree. Therefore, there would be minimal impacts to active farmland within Section C. Alternative Alignment C2-Mod would impact 16.3 hectares (40.2 acres) of active agricultural land, Alternative Alignment C5 would

impact 17.8 hectares (44.0 acres) of active agricultural land, and Alternative Alignment C6 would impact 15.5 hectares (38.4 acres) of active agricultural land.

Farmland conversion scores were calculated for the project. All scores fell below assessment thresholds. Consequently, the project would be in compliance with the *Federal Farmland Protection Policy Act*.

No Agricultural Security Areas would be impacted in Sections A and B. In Section C, Alternative Alignment C2-Mod would impact 21.6 hectares (53.4 acres) of land within Agricultural Security Areas, Alternative Alignment C5 would impact 15.9 hectares (39.4 acres), and Alternative Alignment C6 would impact 10.3 acres (25.3 hectares).

#### 4.7.4 Mitigation

To lessen the impacts to land currently in agricultural use within the project area, the internal operations of the farms will be determined and any possible modifications to the project design to lessen impacts will be considered. For example, buried cables associated with the project might be placed more deep in some areas to allow the continuation of plowing and crop production. Internal farm roadways may be constructed to allow farm vehicles to travel across project excavation areas to access fields. The maglev system is constructed on elevated guideways. Farm vehicles would be allowed to travel underneath the elevated guideway for access to adjacent fields.

### 4.8 Threatened/Endangered Species

#### 4.8.1 Methodology

Threatened and endangered wildlife and plant species are protected under Section 7 of the *Federal Endangered Species Act*; Pennsylvania Title 25, Chapter 82, *Conservation of Pennsylvania Native Wild Plants*; Title 34, Chapter 133 of the *Game and Wildlife Code*; and Title 30, Chapter 75 of the *Fish and Boat Code*.

Coordination was conducted with the following regulatory agencies to determine if any rare, threatened, endangered, or species of special concern are located within the study area. Copies of the following response letters are included in Appendix A.

- U.S. Fish and Wildlife Service - November 6, 2001
- Pennsylvania Game Commission - May 11, 2001; February 21, 2002
- Pennsylvania Fish and Boat Commission - May 24, 2002
- Pennsylvania Department of Conservation and Natural Resources, Bureau of Forestry - PA Natural Diversity Inventory - August 31, 2001; February 22, 2002; March 8, 2002

As a result of coordinating with these agencies, the USFWS identified that the proposed project is within the known range of the federally listed, endangered Indiana bat (*Myotis sodalis*). Therefore, the USFWS requested that mine openings and natural openings be evaluated to determine if they are potentially suitable for use by bats as winter hibernacula or summer roost sites. The USFWS further provided evaluation criteria (*Criteria for Determining Whether Abandoned Coal Mines Provide Potentially Suitable Bat Habitat*, PGC) for any openings identified, and recommendations for future surveys of the openings and for impact avoidance. In order to