



The Johnstown Area Transportation Study (Cambria County) recognizes that any project or action will have desired effects on the transportation system as well as other impacts to the community and the environment. It also recognizes that recognizes that many impacts are predictable and that advance environmental coordination speeds project delivery, and ultimately reduces costs in time and dollars.

## Transportation Conformity Analysis Report

for the Johnstown Area Transportation Study 2017 TIP and 2040 LRTP

### Purpose

The Transportation Conformity Analysis Report prepared by Johnstown Area Transportation Study and the Pennsylvania Department of Transportation (see Appendix C) provides a regional forecast of emissions and an analysis of the air quality implications of the regionally significant, non-exempt projects listed in the 2017 Transportation Improvement Program and 2040 Long Range Transportation Plan prepared for the Johnstown Area, resulting in a pass/fail status for each program.

### Conformity Analysis Requirement

Cambria County is currently included in the Johnstown, PA maintenance area under the 1997 annual and 2006 24-hour fine particulate matter (PM<sub>2.5</sub>) National Ambient Air Quality Standards (NAAQS). Transportation conformity requires nonattainment and maintenance areas to demonstrate that all future transportation projects will not prevent an area from reaching its air quality attainment goals.

### Conformity Analysis

An emissions analysis was completed for the 1997 annual PM<sub>2.5</sub> NAAQS and the 2006 24-hour PM<sub>2.5</sub> NAAQS, using the methodology and assumptions provide in the report and its attachments. In brief, nine regionally significant highway projects (which may have a significant effect on emissions, i.e. would increase capacity or significantly impact vehicular speeds) would projected to impact emissions for years 2017, 2025, 2035 and 2040. The results demonstrated that projected emissions are below the 1997 annual fine particulate (PM<sub>2.5</sub>) and 2006 24-hour PM<sub>2.5</sub> federal air quality standards (Exhibit 10).

Regionally Significant Highway Projects	Improvement Type	Air Quality Impact
<b>2017 TIP</b>		
Downtown Johnstown Signal Imp by 2018	Congestion mitigation	Reduced emissions
Franklin Street Signals by 2025	Congestion mitigation	Reduced emissions
<b>2040 LRTP</b>		
Bus replacements and mid-life overhauls by 2030	Alternative fuel vehicle	Reduced emissions
Elton Road II Improvements: Donalds Ln.- Industrial Park Rd. by 2040	Congestion mitigation and safety improvements	Reduced emissions
Bedford St. Corridor TSM Improvements: Belmont St. to Luther Rd. by 2040	Congestion mitigation and safety improvements	Reduced emissions
Benshoff Hill Road Widen by 2040	Widening	Increased speed
No. 9 Rd. Reconstruction in Hastings by 2040	Widening	
Hastings Access Road East-PA Route 36 by 2040	New facility/capacity	New emissions
Highway and Bridge Reserve	To be determined	To be determined

### Conformity Determination

Both the 2017 Transportation Improvement Program and 2040 Long Range Transportation Plan are found to conform to the applicable air quality standards or U.S. Environmental Protection Agency conformity requirements for each of the analysis years.

## Environmental Commitments

Toward better environmental outcomes from transportation projects, the Johnstown Area Transportation Study (Cambria County) commits to the following coordination activities:

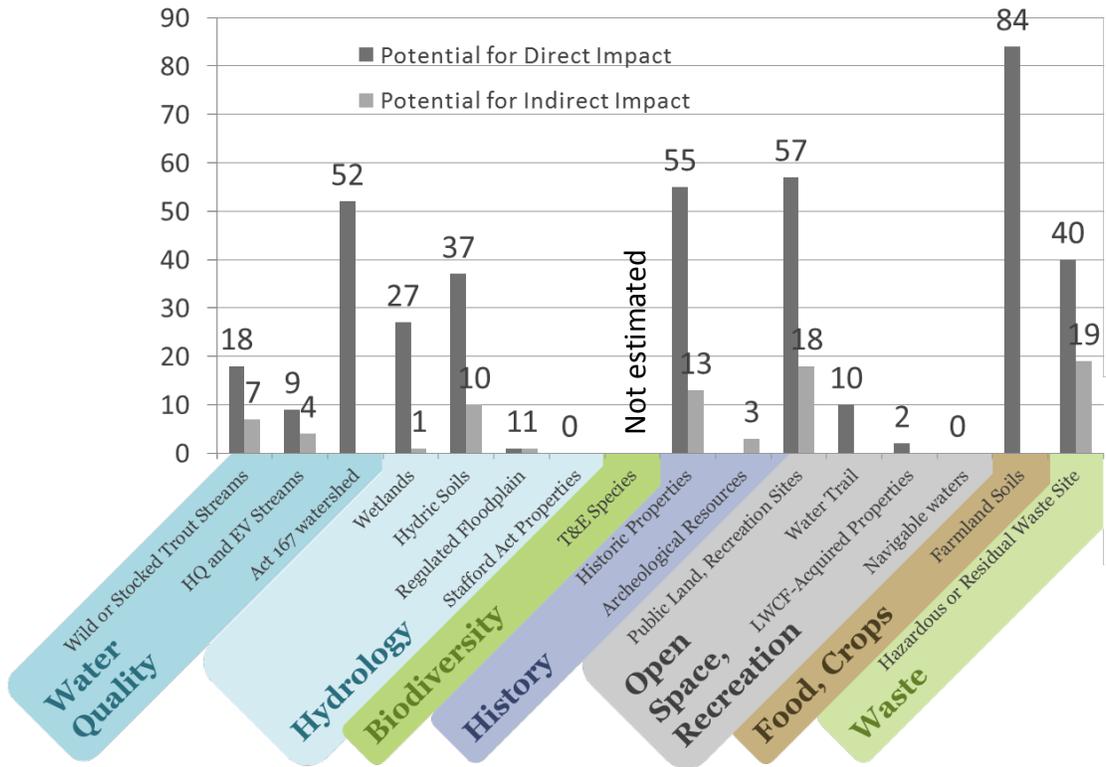
- **To field view and update mapping** of new projects to be programmed on each TIP and to share findings and data/GIS map updates with PennDOT District 9-0, Central Office, and environmental agencies.
- **To use the Linking Planning and NEPA (LPN) system** to identify, verify, and update potential environmental impacts of transportation proposals and projects.
- **To participate in project-level scoping field views** with PennDOT District personnel, and to invite ACM members to field view project sites with complex environmental considerations.
- **To consult with appropriate parties to identify early opportunities** to avoid, minimize, and mitigate environmental impacts during project development, and to consider advanced mitigation opportunities beyond replacement toward enhancement and restoration.
- **To continue to learn more about the NEPA process** through training and resource-specific workshops.

## Environmental Analysis

To anticipate needed environmental coordination, the Johnstown Area Transportation Study (Cambria County) analyzed 85 projects representative of its system-preservation focused project listing. Based on the environmental data provided in Level 2 screening forms in PennDOT's Linking Planning and NEPA database, these projects have been assigned a potential direct impact score of 1 to 10 based if the project was located within 200 to 300 feet of a known resource and assigned a potential indirect impact score of 1 to 10 if located within 1,000 to 3,000 feet; specific distances were used for each resource per the LPN protocol. Proximity to locally designated resources was included where practical.

The results of the environmental screening are shown in Figure 8-1. The 15 resources are grouped in six categories by topic.

**Figure8-1 Representative Projects with Potential for Direct and Indirect Resource Impacts**



Source: Gannett Fleming, Inc.

Figure 8-1 demonstrates that most projects could affect at least one resource category. This can be expected given that transportation systems develop along the same patterns as early settlements, which are typically on the flat and fertile valley floors and along streams and rivers. However, the long-range transportation plan project list comprises system preservation projects almost exclusively—not new facilities—and therefore most impacts would likely be temporary, occurring only during construction.

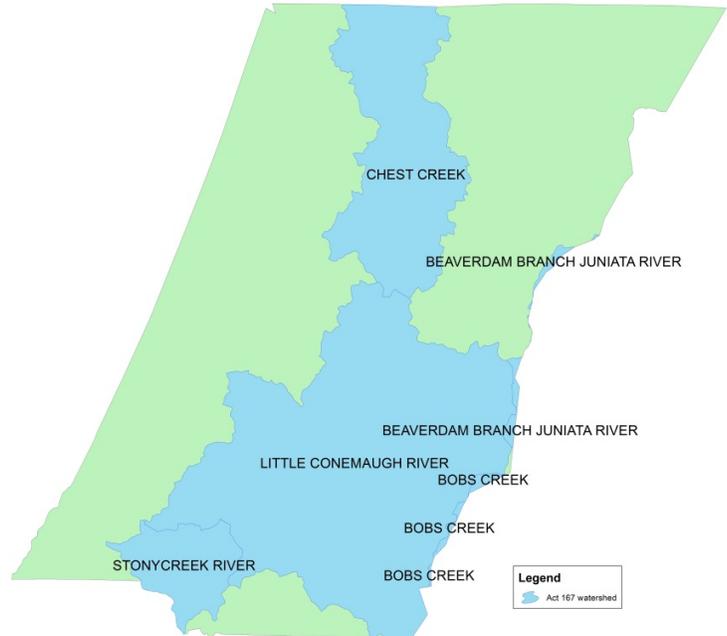
Each of these categories of environmental resources is characterized and further detailed and analyzed in the following sections. Avoidance and mitigation approaches are presented.

### Water Quality

Extensive forest cover and limited development protect water quality across the region. They limit the amount of sediment and nutrients reaching waterways and minimize solar radiation that heats the water. Clean, cool waterways provide quality habitat for aquatic wildlife, including native trout, a cost-effective water supply for community water system withdrawals, and clean water for outdoor recreation.

The purpose of Act 167 plans is to manage the quantity (flow rate) and quality of water as it moves through a watershed after storm events. Act 167 plans have been completed for six watersheds and the associated portions of 46 municipalities in the County.

Figure 8-2 Act 167 Watersheds



Source: The Pennsylvania Department of Environmental Protection eMapping Tool

Table 8-1 Water Quality Resources

Resources and Indicators	Count	Miles
Existing Use High Quality (HQ)/ Exceptional Value (EV) Streams	2 HQ 4 EV	<2 <5
Designated Use HQ/EV Streams	347 HQ 49 EV	253 42
Wild Trout Streams	60	166
Wild Trout Streams, Class A	12	23
Wilderness Trout Streams	2	n/a
Approved Trout (Stocked) Streams	17	n/a
Watersheds with Act 167 plans: Stonycreek River, Little Conemaugh River, Clearfield Creek, Bob’s Creek, Chest Creek	6	27 mi <sup>2</sup>

Source: The Pennsylvania Department of Environmental Protection eMapping Tool

### Why Awareness Matters

These waters support native species for biodiversity and for the local outdoor recreation and tourism industry. They also provide predictable water quality for community water systems.

### Potential Impacts

Of the 85 projects surveyed, 18 project sites lie within 200 feet of waterways with trout-related designations; another 7 project sites lie within 1,000 feet of these resources.

Of the projects surveyed, 9 project sites lie within 200 feet of the high quality and exceptional value waterways with special designations; another 4 project sites lie within 1,000 feet of these resources.

Of the 85 projects surveyed, 52 are located in one of six Act 167 watersheds.

### Avoidance and Mitigation

To minimize impacts to farmland soils, the Johnstown Area Transportation Study (Cambria County) will conduct the following:

1. Review list of upcoming project sites.
2. Where potential impacts are known, verify Act 167 watersheds and liaison with other county departments and municipality(s), as needed.
3. Update the Linking Planning and NEPA database with findings, data and/or GIS maps and notify District 9-0, Central Office, the Pennsylvania Department of Environmental Protection and the Pennsylvania Fish and Boat Commission.
4. If impacts to sites are unavoidable, explore enhancements with The Pennsylvania Department of Environmental Protection and/or the Pennsylvania Fish and Boat Commission to improve water quality on-site or elsewhere in the watershed.

### Hydrology

Climate and waters sculpt the County's landscape. Waters drain from uplands and hillsides to low lying areas, where they collect and infiltrate the surface, creating wet soils during extended wet weather conditions. These hydrologic conditions provide unique and often fleeting habitat for wildlife but play an equally important role in the recharge of aquifers that supply water to private and community wells.

Wetlands are characterized by hydric soils, hydrophytic ("water-loving") vegetation such as cattails, and visible surface water for at least some portion of the year. They are generally found along watercourses or in flat or bowled topographies. The National Wetlands Inventory, a U.S. Fish and Wildlife Service program, screens various data sets to produce an inventory of likely wetland locations. The National Wetlands Inventory estimates approximately 1,750 acres of wetlands in the County. Field verification is necessary to confirm wetland locations and boundaries. Exceptional natural communities that feature wetlands include the Rogue's Harbor Run Biological Diversity Area in Chest Township; several other wetland complexes are noted in the Cambria County Natural Heritage Inventory.

Floodplains are lands adjacent to watercourses that are covered by water during times of flooding. Land is considered in the 100-year floodplain if it has a least a 1 percent chance of being flooded during any one year—a designation typically used for regulatory purposes. Due to the risk of flooding, floodplains should not be developed for human habitation or capital-intensive facilities. Development in the floodplain not only puts people and property at risk but also limits infiltration and reduces water storage capacity, resulting in increased flows

downstream. Properties that were developed prior to local regulation can be acquired by counties for conversion to open space through the Stafford Act and associated federal funds.

**Table 8-2 Hydrology (Wetland and Floodplain) Resources**

Wetlands and Floodplains	Acres
National Wetlands Inventory Wetlands	1,753; 0.4%
Hydric Soils	42,000
100-yr Floodplain	Not available
Municipalities with Regulated Floodplains	2
Stafford Act Properties	0

Source: 2011 Cambria County Comprehensive Plan

### Why Awareness Matters

Wetlands and floodplains perform critical functions in the water cycle and in natural communities. Displacement of wetlands and floodplains may increase flooding in other areas. Certain species rely on the seasonal variations in surface water conditions for their survival.

### Potential Impacts

Of the 85 projects surveyed, 27 project sites lie within 200 feet of NWI-wetlands; one additional project site lies within 1,000 feet of these resources.

Of the projects surveyed, 37 project sites lie within 200 feet of hydric soils; another 10 project sites lie within 1,000 feet of these resources.

Of the 85 projects surveyed, 1 is located within 200 feet of a locally regulated floodplain and another is located within 1,000 feet of a regulated floodplain.

No properties in the County have been acquired using Stafford Act funds, therefore no impacts are expected at this time. Properties could be acquired using such funds in the future, resulting in the potential for impacts from future transportation projects. .

### Avoidance and Mitigation

To minimize impacts to hydrology, the Johnstown Area Transportation Study (Cambria County) will conduct the following:

1. Field view upcoming project sites.
2. Where potential impacts are known, verify any locally regulated floodplain.
3. Update the Linking Planning and NEPA database with findings, data and/or GIS maps and notify District 9-0, Central Office, and the Pennsylvania Department of Environmental Protection.
4. If impacts to sites are unavoidable, mitigate through wetland banking sites.

## Biodiversity

Direct and indirect impacts to endangered, threatened, and species of special concern were considered in addition to the analysis of sensitive natural areas. The Johnstown Area Transportation Study (Cambria County) used the county natural heritage area inventory as a working reference. Custom searches using the Pennsylvania Natural Diversity Inventory Environmental Review Tool were deferred until project-level scoping.

**Table 8-3 Biological Resources**

Biological Resources	Count and Type
Natural Heritage Areas	31 Biological Diversity Areas 12 Landscape Conservation Areas
Species of Special Concern and their habitat sites	7 species 6 sites
Interior Forest Blocks 600 acres or more	40
Pennsylvania Natural Diversity Inventory search hits	Deferred to project-level scoping

Source: Cambria County Natural Heritage Area Inventory, 2007

## Why Awareness Matters

A decline in biodiversity reflects a decline in environmental health and resilience toward future natural and man-made pressures on species of concern.

A decline in biodiversity reflects a decline in environmental health and resilience.

## Avoidance and Mitigation

To minimize impacts to biodiversity, the Johnstown Area Transportation Study (Cambria County) will conduct the following:

1. Coordinate with District 9-0 to request PNDI searches for upcoming projects prior to TIP updates.
2. Based on results, coordinate with Districts to invite the Pennsylvania Game Commission, the Pennsylvania Fish and Boat Commission and/or U.S. Fish and Wildlife Service to project-scoping field views.
3. If impacts to habitat are unavoidable, explore on-site (or off-site) habitat mitigation options with the Pennsylvania Fish and Boat Commission, the Pennsylvania Game Commission and/or U.S. Fish and Wildlife Service.

## History

Because the County is rural and has not experienced extreme development pressure or significant redevelopment, many of its communities still reflect the architecture of their settlement. Among older structures, some are significant for their architecture or for the people and events they hosted. These include sites and structures have been listed on the National

Park Service’s National Register of Historic Places. Other sites and structures have been evaluated and await further application toward listing on the National Register, and still others have been surveyed but not evaluated.

Due in part to the County’s abundant waterways, 214 archeological sites have been documented. Additional sites may lie undisturbed, particularly along the river and stream banks. Due to a historic need to cross waterways, historic local bridges are 161 and counting.

Locally, historic preservation has been limited; only one local historic district has been designated and is regulated.

**Table 8-4 Historical and Archeological Resources**

Historic and Archeological Resources	Sites
Historic Sites in CRGIS	2,369
Listed on the National Register	36
Eligible for National Register Listing upon most recent review by the State Historic Preservation Office	96
Known Archeological Sites	214
Local Historic Districts	1
Historic Local Bridges	161
	3 Listed
	4 Eligible

Source: CRGIS

### Why Awareness Matters

Historic and archeological resources connect modern people to past events, culture, and technology. They may exemplify an era of architecture or culture, be integrally connected with the natural or built landscape in which they are sited, and are often irreplaceable.

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### Potential Impacts

Of the 85 projects surveyed, 55 project sites lie within 200 feet of historic resources; another 13 project sites lie within 1,000 feet of these resources. Only 3 project sites lie within 1,000 feet of any known archeological resources.

### Avoidance and Mitigation

To minimize impacts to farmland soils, the Johnstown Area Transportation Study (Cambria County) will conduct the following:

1. Field view upcoming project sites.
2. Where potential impacts are known, seek municipality’s perspective potential positive and negative impacts to the historic resource and verify any local evaluation or designation.

3. If impacts to sites are unavoidable, seek context sensitive design solutions at a scale appropriate to the facility the resource and consider relocation of movable features following required protocols.
4. If any archeological findings are made during field view(s) or construction, notify Pennsylvania Historical and Museum Commission.

## Public Open Space and Recreation

The County's scenic topography, water features, and heritage sites provide outstanding opportunities for outdoor recreation. For these reasons, numerous sites and waterways have been protected or designated as public lands by state and local agencies; many have been developed as recreation destinations.

**Table 8-5 Public Open Space and Recreation Resources**

Open Space/Recreation Resource	Number of Sites	Acres
Federal/National Park Service Sites	2	498
Statewide Greenways/Trails	1	Designation only
State Forests	1	~3,000
State Game Lands	10	Not available
State Parks	2	19,874
State Heritage Areas	1	Designation only
County Parks/Facilities	3	5,871
Municipal Parks	36	Not available
Local Trails	8	33 local trail miles (+16.5 miles under development)
Local Heritage Sites	13	Not available
Local Heritage Routes/Trails	8	On-road only
Water Trails	2	In-stream only

Source: 2011 Cambria County Comprehensive Plan, the Pennsylvania Department of Conservation And Natural Resources, Cambria County Conservation and Recreation Authority

## Why Awareness Matters

Public open space and recreation lands and waters were designated and/or protected in recognition of their natural qualities. Transportation projects should not reduce the availability of or access to these lands and waters unnecessarily.

## Potential Impacts

Of the 85 projects surveyed, 57 project sites lie within 200 feet of protected open space or recreation sites. Another 18 project sites lies within 1,000 feet of these resources. Among

Public open space lands and waters are designated in recognition of their natural qualities and for public access.

highway and bridge projects, 10 project sites lie within 200 feet of a water trail and 2 project sites lie within 200 feet of a Land and Water Conservation Fund-acquired property. No additional sites are within 1,000 feet of such resources.

### Avoidance and Mitigation

To minimize impacts to protected open space and recreation sites, the Johnstown Area Transportation Study (Cambria County) will conduct the following:

1. Field view upcoming project sites.
2. Where potential impacts are known, liaison with
  - a. County/local park management ,
  - b. County tourism offices, and
  - c. State agencies managing public lands: the Pennsylvania Fish and Boat Commission, the Pennsylvania Game Commission and the Pennsylvania Department of Conservation and Natural Resources, regarding project schedule, parks access and events, etc.
3. If impacts to sites are unavoidable, consider context-sensitive design solutions and enhancements along scenic rivers.

### Farmland

Three conditions contribute to the sensitivity of farmland to transportation projects: soils, use, and land preservation.

Fertile soils conducive to agriculture are found throughout the County, totaling more than 25 percent of the total area. Some of these soils are cultivated while others lie under forest cover or man-made development. The likelihood of converting either of these surface conditions to active agriculture is very low in the current economy.

The agricultural industry is active across 12 percent of the County. Farms are engaged in crop and livestock production. Farms of all sizes were present as of the 2012 Agricultural Census, however farm size in the County is trending smaller.

Farmland preservation is available through the sale of development rights or easement. Fourteen farms representing over 2,400 acres of farmland have been protected from development.

### Why Awareness Matters

Agriculture is one of Pennsylvania's top industries. Farm quality soils needed for livestock and crop production are non-renewable. The ultimate footprint of transportation projects and the lands needed to stage equipment and supplies could reduce the availability and quality of these soils for future production.

**Agriculture is one of Pennsylvania's top industries.**

**Table 8-6 Farmland Resources**

Farmland Resources	Acres	
Prime Farmland Soils	95,000 21.4%	Evenly dispersed with higher concentrations seemingly in the north and north western sections of Croyle and Summerhill Townships and through Cambria Township and also in Blacklick and Barr Townships.
Soils of Statewide Importance	109,000 24.5%	Evenly dispersed with higher concentrations seemingly trending North-South through the central municipalities in the County including Croyle, Summerhill, Munster, Allegheny, West Carroll, Clearfield and White Townships.
Land in active farm use, 2011	55,949.41 12.6%	
Protected Lands	40,695 2,438	In municipally-designated Agricultural Security Areas In Agricultural Conservation Easements (14 farms), primarily in the north central portion of the County

Source: 2011 Cambria County Comprehensive Plan, 2012 Ag Census

### Potential Impacts

Of the 85 projects surveyed, 84 project sites lie within 200 feet of farmland soils. Agricultural easements were not identified in the surveyed data.

Given the focus on system preservation projects in the long-range transportation plan, potential permanent impacts to farmland soils and agricultural easements are few; temporary impacts during construction are more likely but could be just as significant.

### Avoidance and Mitigation

To minimize impacts to farmland soils, the Johnstown Area Transportation Study (Cambria County) will conduct the following:

1. Field view upcoming project sites for actual use and proximity – many acres of farmland soils are covered by forest or man-made development
2. If there is real potential for impact, liaison with
  - a. Municipal and County Planning to determine if property is moving toward development
  - b. County Conservation District to assess if property is moving toward agricultural easement
3. Update the Linking Planning and NEPA database with findings, data and/or GIS maps and notify District 9-0, Central Office, and The Pennsylvania Department of Environmental Protection.
4. If permanent impacts to agricultural easements are unavoidable, explore options/funding for “replacement” agricultural easement.

## Waste Management Sites

Waste sites are sites that may contain pollutants that could be released if sites are inappropriately disturbed. They include contaminated sites such as Superfund sites overseen by the US EPA; sites with storage tanks used to hold large quantities of chemicals; sites that produce, handle, or dispose of hazardous waste; and municipal waste facilities. In Cambria County, these sites include manufacturing facilities, hospitals, fueling stations, and landfills, among others.

**Table 8-7 Waste Management Sites**

Sites by Type	Number
Waste Sites, e.g. Superfund, etc.	597
Storage Tank Locations	27
Land Recycling Cleanups	18
Captive Hazardous Waste Operations	5
Municipal Waste Operations	13 8 abandoned
Commercial Hazardous Waste Operations	0

Source: Pennsylvania Department of Environmental Protection eMapping Tool

## Why Awareness Matters

Transportation projects should neither interrupt waste management activities nor reduce safety needlessly. Advance communication between the waste site operator and transportation planners can identify potential conflicts and impacts and take steps to avoid unintended consequences, such as pollutant releases, delayed site inspections, etc.

## Potential Impacts

Of the 85 projects surveyed, 40 are located within 200 feet of a waste site and could have direct impacts on one or more waste sites; another 19 are located within 1,000 feet of one or more sites and could have indirect impacts.

To minimize impacts to waste management soils, the Johnstown Area Transportation Study (Cambria County) will conduct the following:

1. Field view upcoming project sites to verify the status of nearby waste sites as active or other (inactive or closed).
2. Update the Linking Planning and NEPA database with findings, data and/or GIS maps and notify District 9-0, Central Office, and the Pennsylvania Department of Environmental Protection.

Waste management sites require access and inspection to ensure the protection of lands and waters from hazardous pollutants.

3. Where potential impacts are known, offer to liaison with waste site operator, as needed, regarding actual location of waste storage, construction schedule and limits to/requirements for access, and other relevant site and project information.