Indirect and Cumulative Effects Assessment Technical Memo

SR 0030 Section A10

US 30 Corridor Improvements Project - Western Section
MPMS #32040, #110900, #117945

North Huntingdon Township, Westmoreland County
and North Versailles Township, Allegheny County

March 2024

Prepared for:

Engineering District 12-0
825 N. Gallatin Ave. Ext.
Uniontown, PA 15401

pennsylvania
DEPARTMENT OF TRANSPORTATION

U.S. Department of Transportation
Federal Highway Administration

Table of Contents

Figures ii
Tables ii
Project Description 1
Purpose and Need 1
Indirect and Cumulative Effects 1
Consideration and Evaluation of Indirect Effects 4
No-Build Alternative: 10
Build Alternative: 10
Aquatic Resources 10
Farmland Soils 12
Regional and Community Growth, Land Use/Land Cover, and Planned Development 12
Community Facilities and Services 13
Air Quality and Energy 13
Noise 13
Municipal, Industrial, and Hazardous Waste Facilities 14
Invasive Species / Vegetation 14
Local and Regional Economy 15
Indirect Traffic Impacts 15
Indirect Effects Summary 16
Consideration and Evaluation of Cumulative Effects 17
Resources to Consider and Study Area Boundary 17
Past 18
Present 21
Future 21
Growth Trends 21
Reasonably Foreseeable Future Actions (RFFAs) 22
Identify and Analyze Potential Cumulative Effects and Determine their Significance 23
No-Build Alternative 23
Build Alternative 23
Cumulative Effects Summary 23
References 28

Figures

Figure 1: Residential vacancy rates for the State, Pittsburgh, and N. Versailles Twp (2011-2014)..... 7
Figure 2: Residential vacancy rates for the State, Pittsburgh, and N. Huntingdon Twp (2011-2014)..... 8
Figure 3: US 30 Project Area of Influence for evaluating indirect and cumulative effects..... 18
Figure 4: Project area imagery 1938-1957 (source: USDA) 19
Figure 5: Project area imagery 1967-2021 (source: USDA) 20
Figure 6: Past population trends in North Versailles and North Huntingdon Townships (SPC 2019) 21

Tables

Table 1: Recent population trends in areas applicable to the project area 9
Table 2: Projected population trends in Allegheny and Westmoreland counties..... 9
Table 3: Reasonably Foreseeable Future Actions (RFFAs) 22
Table 4: Potential cumulative impacts of past, present, and reasonably-foreseeable future actions..... 24

Project Description

This project includes reconstruction work on Route 30 for intersection and corridor improvements between SR 48 in North Versailles, Allegheny County (to the west) to Carpenter Lane/Leger Road in North Huntingdon, Westmoreland County (to the east).

This project would consist of the full depth reconstruction of the Route 30 corridor, as well as improvements to PA 48 and Route 30 utilizing an innovative Restricted Crossing U-turn (RCUT) intersection treatment which would restrict through- and left-turning motorists approaching Route 30 to right-turns only. They would then complete a U-turn movement at a designated median opening before reconnecting with their intended route. The work throughout this corridor is expected to consist of safety improvements ranging from upgraded signing, pavement marking, and delineation to roadway realignment, roadway widening, and the addition of auxiliary lanes at the intersections. A jersey barrier would be put in place as an improved safety measure for the corridor. The jersey barrier would be installed between the west and east bound lanes to minimize left turns within the project limits. Left turns would only be possible at the signalized intersections. Some intersections would include jug-handles to allow for traffic to turn around. Jug-handles are proposed approximately every 0.7 miles to accommodate businesses and travelers throughout the corridor. The proposed median and jug handle intersection treatments would eliminate conflict points and potential conflicting maneuvers along this segment of Route 30, thereby improving overall traffic safety.

Pedestrian accommodations are also proposed at several signalized intersections to facilitate the movement of any pedestrians from one side of Route 30 to the other. These may include curb ramps, pedestrian signals, pedestrian push-buttons, or similar treatments as appropriate. Improvements to the existing roadway drainage network would also be implemented.

Purpose and Need

Purpose: The overall purpose of the project is to modernize the US 30 corridor infrastructure, thereby improving the safety, mobility, and economic vitality of the corridor. The US 30 corridor was initially constructed in 1937 and displays facility deficiencies that do not meet current PennDOT design standards.

The primary **purposes** of the project are to improve:

- Safety conditions for the traveling public.
- Operational deficiencies to enhance mobility through the corridor.
- Facility and infrastructure deficiencies to provide a reliable and sustainable facility.
- Community and economic development constraints that prevent the corridor from aligning with Westmoreland County's future economic development plans and local community interests, including providing and updating multimodal (pedestrian, bicycle, transit) infrastructure.

Need: The current US 30 Corridor being investigated as a part of this project was constructed in 1937 and displays numerous roadway features that need to be upgraded to comply with current PennDOT design standards. The project needs are summarized briefly below, however additional details may be reviewed in the Project Purpose and Need Statement Final Report (2017) (Appendix A).

- The latest (January 2018-December 2022) five-year PennDOT Pennsylvania Crash Information Tool data for the corridor identifies 179 total crashes with 4 pedestrian crashes (2 of which are also included in the fatal crash count) and no bicycle crashes.

- The corridor includes numerous stormwater ponding locations, excessive stormwater spread, open top inlets and exposed headwalls, and areas of stormwater erosion that have caused inlet and drainage pipes to become exposed.
- The Route 30 and SR 48 intersection was determined to operate at unacceptable levels for the Base Year 2015, with an LOS E during the AM and Saturday midday peaks and at a LOS F during the PM peak period.
- The Future No-Build (2045) traffic model simulation displayed a LOS degradation, and the Queuing Studies determined there are problems associated with queuing at the following project intersections:
    - The Route 30 and SR 48 intersection degraded to operate at an LOS F during each of the peak periods evaluated (AM Peak, PM Peak, and Saturday Midday Peak). Queuing problems occurred for all side-street and left-turn movements periodically throughout the day.
    - The Route 30 and Carpenter Lane/Leger Road intersection degraded to operate at a LOS F during the PM Peak period. Queuing problems occurred for westbound left movements during the PM peak period.
- The Route 30 Corridor is part of Corridor #89 identified by the Southwestern Pennsylvania Commission (SPC) Congestion Management Process. The CMP is a program that regional planning commissions, such as SPC, are required to maintain per federal transportation laws to address and manage traffic congestion. SPC data and reports for this corridor identify two "Nodes" within the project area, the US 30 and SR 48 intersection and the US 30 and Old Jacks Run Road intersection.
- Existing roadway shoulders observed within the corridor varied in width from non-existent to 10 feet; while existing lanes varied in width from 10 feet to 12 feet. Per recommended PennDOT criteria (Design Manual 2), roadway shoulder widths should be between 8 feet and 12 feet, and required lane widths should be 11 feet to 12 feet.
- Pavement issues observed within the corridor include cracking, spalling, potholes, and pitting. According to PennDOT's Pavement History website, the existing concrete base layer was installed in 1937. PennDOT's Pavement Policy Manual states that concrete pavement older than 55 years should be reconstructed. The existing concrete base layer has been in place for 79 years.
- Needs associated with other general roadway issues include:
    - There are numerous Clear Zone Concept concerns along the corridor (see Highway Deficiency and Design Criteria Report for details).
    - There are numerous driveway entrances and side road intersections that lack sufficient horizontal sight distance for entry to the roadway.
    - The Carpenter Lane/Leger Road intersection with Route 30 has a skewed geometry.
    - Falling rock has been observed within the corridor.
- Westmoreland County has identified an "Urban/Suburban Development Triangle" in the Westmoreland County Comprehensive Plan where growth within the county has been historically concentrated (WCBC 2005, updated in 2018). As described in the County Comprehensive Plan, the county aims to direct future development within this triangle. The Route 30 Corridor Project is centrally located within this triangle travelling in a general east – west direction.

  The County Comprehensive Plan includes a section on the transportation network in the county.

The County Comprehensive Plan identifies US 30 as a "transportation spine" for the county as it is a heavily travelled corridor which supports development as it is not a limited access highway. As described previously, this corridor is centrally located within the "Urban/Suburban Development Triangle" identified in the County Comprehensive Plan. It is further described that the US 30 corridor is the primary area of congestion in the county and is a major problem. The problem area for congestion on US 30 is described from the Allegheny County line east through Latrobe. This area includes the Route 30 Corridor project area. It is further described in the County Comprehensive Plan that the roadway layout combined with dense commercial development contributes to the congestion in the project corridor. It is also described that widening of the US 30 corridor may be problematic due to topographical constraints in the area along with existing developed properties in close proximity to the roadway. The final statement regarding congestion in the County Comprehensive Plan reads "If increasing the capacity of the road is not a feasible option, then reducing congestion must be the goal."

Indirect and Cumulative Effects

The National Environmental Policy Act process requires that, in addition to direct effects, agencies consider reasonably foreseeable indirect and cumulative impacts that may occur as a result of a given project. Indirect effects are those caused by the proposed action, but at a later time or removed in space. Cumulative effects are those resulting from a project when added to other past, present, and reasonably foreseeable future actions (regardless of who is sponsoring the projects). Evaluating such impacts helps decision makers fully understand the potential consequences of development of a given project beyond the direct impacts. An Indirect and Cumulative Effects analysis was conducted for the project following the procedures outlined in the Pennsylvania Department of Transportation's (PennDOT's) *Indirect and Cumulative Effects (ICE) Desk Reference* (2008) (Pub 640).

The timeframe used to evaluate the potential for indirect and/or cumulative effects was 1937 through 2043, which mark the year this section of the US 30 corridor was constructed and the project's design year. Resources evaluated for indirect and cumulative effects include those that are expected to be directly impacted by construction of the US 30 Corridor Improvements Project – Western Section, as listed below:

- Aquatic Resources (wetlands and streams),
- Farmland soils,
- Regional and Community Growth, Land Use/Land Cover, and Planned Development,
- Community Facilities and Services,
- Energy,
- Noise,
- Municipal, Industrial and Hazardous Waste Facilities,
- Invasive Species / vegetation,
- Local and Regional Economy, and
- Right of Way and Indirect Traffic Impacts.

A detailed analysis for indirect and/or cumulative impacts to geology, groundwater resources, floodplains and flood hazards, wildlife/wilderness areas, threatened and endangered species, historic resources,

archaeological resources, Section 4(f)/ Section 2002 resources, Section 6(f)/ Project 70/ Project 500 resources, water trails / navigable waterways, environmental justice communities, visual resources/aesthetics, and community cohesion was not completed due to a lack of direct or significant impacts to these resources that would result from the proposed build alternative.

Consideration and Evaluation of Indirect Effects

Indirect Effects are described in PennDOT's Pub 640 as those that are "*caused by a project, but unlike direct effects, occur later in time or are farther removed in distance. These effects are often called "but for" actions, because they would not or could not occur "but for" the implementation of the project*."

Indirect Effects can be growth-related or non-growth-related. Growth-related effects focus on impacts to the rate, type, location, or amount of growth and development that can be attributed to construction of the project. They are evaluated by comparing the growth that would reasonably occur if the project is constructed to the growth that would occur independently from the project. Non-growth-related impacts, on the other hand, are the consequence of the project at hand rather than from potential secondary development. Some examples provided in PennDOT's Pub 640 include downstream sedimentation, water quality impairment, and loss of habitat downstream due to changes in the hydrologic regime.

The proposed activities hold a moderate potential to change the amount, pace, location, pattern, and / or type of development that is already occurring within the project area and surrounding region based on the following:

- The project type is one that may increase roadway capacity due to widening, improved mobility, and lane additions in some areas.
- The project roadway is classified as an Urban Principal Arterial with a roadway typology of Suburban Corridor. The suburban setting of the project area holds potential for infill development and redevelopment.
- Growth pressure may be classified as moderate due to existing vacancy rates and a presence of infrastructure to support growth.

Improvements to US 30 are recommended across several state and local planning initiatives, suggesting the proposed project is desired at the local level, and would be constructed in response to existing facility deficiencies and safety issues (i.e., related to congestion and growth that has already occurred). Therefore, it can be assumed that any secondary growth that occurs after the construction of the project would be welcomed and/or anticipated. This assumption is also supported by the proposed project's consistency with local planning documents. For example, improvements to the US 30 corridor are recommended in the following:

- PennDOT's Pennsylvania's Statewide Transportation Improvement Program FFY 2019-2022 (August 2018)
- Smart Growth Partnership of Westmoreland County's *US 30 Master Plan* (2007) and other supporting documentation (http://www.route30plan.com/)
- Southwestern Pennsylvania Commission MPO's Transportation Improvement Program Highway & Bridge Projects List (February 2020) (Project ID #32040)
- *Reimagining our Westmoreland Comprehensive Plan* (2005; updated 2018)
- *North Huntingdon Township Comprehensive Plan* (2000)

Planning efforts for improvements to the US 30 corridor, including the project corridor as well as broader areas, have been underway for more than a decade, and the public and local officials have had opportunities to offer input to support project development. The proposed roadway improvement activities are intended to complement existing planned and desired growth in the area. The level of coordination that has occurred over the long life of the project has ensured that the project would be constructed in a way that is consistent with development regulations and ordinances that are in place, the existing local vision for the area, and future development plans.

The project segment of US 30 is in an area that has historically experienced growth and where growth continues to be targeted based on review of local planning documents and early coordination. According to the US Census Bureau, the population of North Huntingdon Township has experienced growth in recent years despite an overall decline in Westmoreland County (Table 1). According to the Center for Rural Pennsylvania's Pennsylvania Population Projections 2010-2040 (2014), Allegheny County is expected to experience a 4.4% growth rate, and Westmoreland County a 5.3% growth rate, between 2025 and 2040 (Table 2) (Behney et al. 2014). Through September of 2022, 59 new home residential building permits (major developments and off-site) have been issued in North Huntingdon Township. In 2021, 106 residential building permits were issued. These additional homes in the township may further add to congestion issues in the project area, and it is reasonable to assume that general growth trends in this area will continue in the future. Existing conditions show the greatest potential for additional commercial infill development in the northwest North Huntingdon region of the project corridor based on property vacancy rates and input received from the North Huntingdon planning official.

Generally, the project is in an area where growth has historically been concentrated and the intent is to continue targeting growth in this already-developed corridor. Local planning officials desire growth and economic development in this area and to remove any constraints that may inhibit the area's ability to further develop in the future. Overall, improvements to this segment of US 30 are acknowledged at the local level to be necessary to address existing safety and congestion issues which are projected to increase in the future based on latest traffic modeling and population growth trends.

Local and regional planning documents listed below identify land development controls, local development desires, and development pressures within jurisdictions overlapping with the project:

- Zoning ordinances and maps for:
    - North Versailles Township (2017)
    - North Huntingdon Township (2018)
- Subdivision and Land Development Ordinances for:
    - North Versailles Township (2007)
    - North Huntingdon Township (2000, amended 2019)
- *Reimagining our Westmoreland Comprehensive Plan* (2018)
- *Allegheny Places: The Allegheny County Comprehensive Plan* (2008)
- Smart Growth Partnership of Westmoreland County's *US 30 Master Plan* (2007) and other supporting documentation (http://www.route30plan.com/)

These planning initiatives demonstrate that if secondary growth does occur because of construction of the US 30 Corridor Improvements Project – Western Section, indirect effects associated with such growth

would be minimized by the land development controls, policies, regulations, and community development objectives outlined at the local level. There are active initiatives to manage future growth and development while protecting natural resources within the vicinity of the project, and local regulations and efforts are in place as well to assist with protecting surface waters from impairments due to development.

The proposed improvements would reduce congestion in an area where growth will continue to be encouraged based on local planning initiatives. The existing US 30 corridor and adjacent areas are currently experiencing growth and are specifically targeted for future growth, development, and / or land use change. This is evidenced by the following findings:

- This corridor travels through commercialized suburban and residential corridor through rolling terrain. According to the zoning maps for North Versailles Township (2017) and North Huntingdon Township (2018), existing land use surrounding the project roadway is primarily characterized as neighborhood commercial with limited areas of general retail, mixed use, planned economic development, residential, and mixed use. Areas zoned as planned economic development district are located within the project study area, just north of Magnus Lane, and approximately one mile south of the project.

- *Reimagining our Westmoreland Comprehensive Plan* (2018) highlights a region of US 30 within North Huntingdon Township outside of the project area as a development-ready area, where growth and investment will be targeted, and there is a desire to attract new companies and industries to the area. The plan also generally recommends focusing development and investments in already-concentrated areas and supporting mixed-use, in-fill development, and land use reconfigurations. The North Huntingdon area is highlighted in this section of the plan as one of the most densely-populated areas of the County. US 30 is identified as a priority corridor, a key roadway where congestion is high and where immediate implementation of Intelligent Transportation Systems is recommended to improve the overall transportation system. The plan recommends incorporation of adaptive technology into the transportation control system to reduce congestion, maximize traffic flow, support the movement of goods and commerce, increase access to job opportunities for commuters, and create the safest possible road system within this portion of the US 30 corridor.

- *Allegheny Places: The Allegheny County Comprehensive Plan* (2008) also identifies US 30 as an area where major corridor development is planned where public investment will be targeted through county development policies. The development of US 30 is one of the key projects to support the economic growth needed to sustain Allegheny County in the Allegheny Places Economic Development Plan. The Allegheny County Department of Economic Development identified the project-area region of North Versailles Township (Census Tract 5644) as a federal Qualified Opportunity Zone, which are designated to spur economic development and job creation in distressed areas. However, according to the most recent American Community Survey dataset for the percentage of the population below the poverty level (2016-2020), there is not a notable presence of low-income communities present in the block group overlapping with this area (as demonstrated by a lower rate compared to the overall percentage of Allegheny County's population below the poverty level). Further, the Council of Environmental Quality's Justice40 initiative mapper does not identify this area to be disadvantaged.

- The Allegheny County Future Land Use Map (https://arcg.is/1fO0vL) was created as part of the development of the *Allegheny Places: The Allegheny County Comprehensive Plan* (2008). The map identifies large areas where infill development will be encouraged within the project study area, and displays "Places," where major new development is encouraged. One of the Places identified is a village area just west of the project and west of McKee Road. This area is also identified as projected development (two 200-unit residential developments) in the 2025 Composite Scenario map (2008). The Allegheny Places 2025 Trend Scenario Map also displays a projected Employment Center (100 acre squares, including office and industrial development) north of US 30 and just west of SR 48.

- Residential vacancy rates for North Huntingdon Township were considerably lower than those of the State, Pittsburgh metro area, and North Versailles between 2011 and 2014 (USBLS 2014) (Figure 1 and Figure 2). It may be assumed that potential for growth is higher near the northwestern end of the project corridor. In addition, recently-approved new development building permits in North Huntingdon Township have primarily been for residential developments, suggesting population growth.

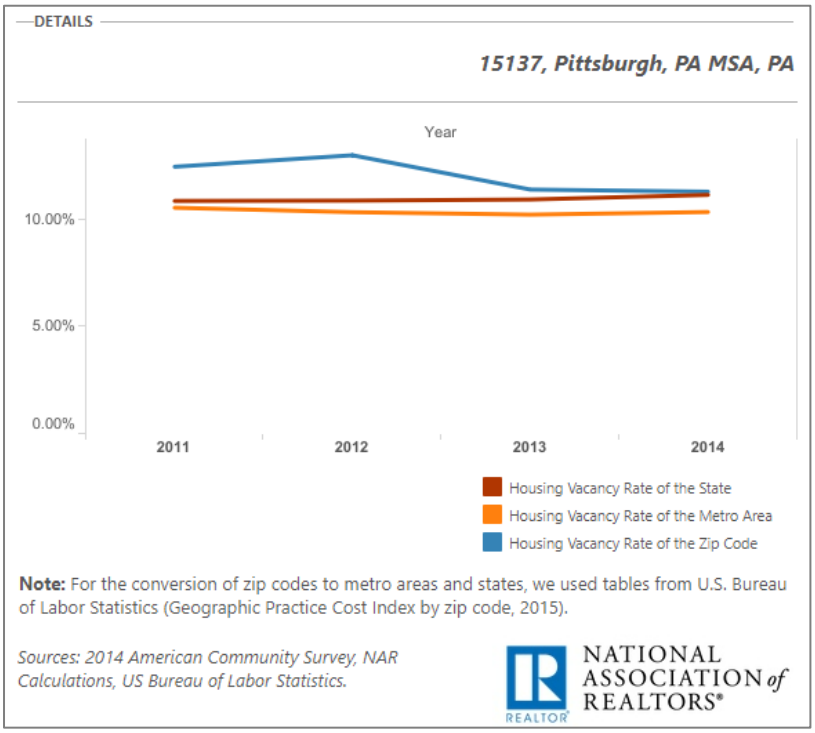


Figure 1: Residential vacancy rates for the State, Pittsburgh, and N. Versailles Twp (2011-2014)

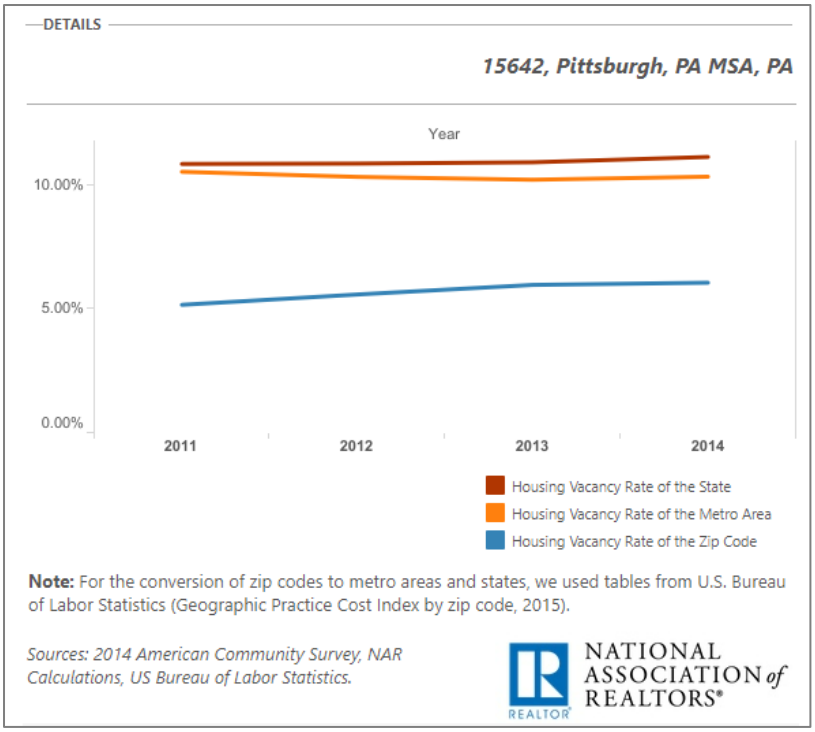


Figure 2: Residential vacancy rates for the State, Pittsburgh, and N. Huntingdon Twp (2011-2014)

While the US 30 corridor itself is well-developed with commercial, residential, and institutional land uses, some vacant, developable parcels do exist that hold potential to accommodate any future growth in the area. There are also already-developed vacant commercial properties currently for sale along the US 30 corridor within the project study area.

The areas with the greatest potential for growth effects are those that are currently the least developed in the study area. Ample forested or otherwise available land is present in the vicinity of the project. The project area is served by the Municipal Authority of the City of McKeesport, Municipal Authority of Westmoreland County, West Penn Power, Duquesne Light Electric, Peoples Natural Gas, Columbia Gas, Equitable Gas, Verizon, Comcast, Armstrong Cable, North Huntingdon Township Municipal Authority, and Western Westmoreland Municipal Authority. Since utility availability is primarily concentrated along the US 30 corridor, expansion to these areas is somewhat limited. The rolling terrain and topographical constraints in this region also limit expansion beyond the US 30 corridor to some degree, and as previously discussed, local planning initiatives intend to concentrate any growth and development as infill and redevelopment in areas that have already been established.

Areas where conservation is encouraged also overlap with the project area, according to *Allegheny Places: The Allegheny County Comprehensive Plan* (2008) Future Land Use Map. This includes a large tract in the southeast quadrant of the US 30 and Jacks Run Road intersection (along the Jacks Run riparian corridor and adjacent forested tracts, extending to Westmoreland County), as well as another in undeveloped areas northwest of the immediate project area, roughly bounded by US 30 and Route 48. These tracts are partially based on the *Allegheny Land Trust Green Print* (2014) that was developed to identify, prioritize,

and conserve lands that harbor biodiversity, manage water resources, and define the region's scenic character.

Overall, the benefits associated with the project (improved mobility and safety) could stimulate the local or regional economy to some degree, and if so, such a change would be welcomed at the local level based on input received from the township planning officials and published planning documents. Economic and community growth within and adjacent to the corridor is generally encouraged, and land use policies are in place to plan future growth with intention, which would avoid and/or minimize any indirect effects of such growth.

While secondary growth may be desirable, the proposed project would improve an existing facility along an already-developed commercial corridor where growth is already occurring to a degree, and congestion and operational deficiencies are problematic. Therefore, it is unlikely that any growth that may occur in the future would be significantly different from current conditions. Overall, it is unlikely that on their own, the proposed roadway improvements would induce land use change or growth that would not otherwise occur under the no-build scenario. Therefore, the potential for project-induced growth is relatively low and indirect effects that might occur from construction of the project would more likely be non-growth-related in nature.

Table 1: Recent population trends in areas applicable to the project area

Jurisdiction	Population Estimates		Percent Change
	2010	2020	2010-2020
Pennsylvania	12,702,379	13,002,700	2.4%
Allegheny County	1,223,348	1,250,578	2.2%
Westmoreland County	365,169	354,663	-2.9%
North Versailles Township	10,229	10,074	-1.5%
North Huntingdon Township	30,609	31,880	4.2%

Table 2: Projected population trends in Allegheny and Westmoreland counties

Year	Allegheny County Projected Population	Westmoreland County Projected Population
2025	1,286,990	473,236
2030	1,307,654	484,497
2035	1,326,558	492,731
2040	1,343,354	498,246
Estimated % Population Change (2025-2040)	4.38%	5.28%

Potential non-growth-related indirect effects to resources present in the vicinity of the project are described below. Discussions of growth-related indirect effects that might occur if the project does induce secondary growth are also noted, though as noted above, significant project-related growth is not anticipated.

No-Build Alternative:

Under the No Build Alternative, any existing residential or commercial development pressure on the existing developable land in the vicinity of the project would remain unchanged. Proposed housing and other permitted developments would be constructed. This would likely result in additional congestion within the corridor. The Traffic Report determined that the US 30 intersection with SR 48 is operating at unacceptable levels for the Base Year 2015: LOS E during the AM and Saturday midday peaks and at a LOS F during the PM peak period. This intersection was also modeled in the Future No-Build scenario (2045) to degrade to LOS F during each of the peak periods evaluated (AM Peak, PM Peak, and Saturday Midday Peak). The Route 30 and Carpenter Lane/Leger Road intersection was modeled in the Future No-Build scenario (2045) to degrade to operate at a LOS F during the PM Peak period.

This in turn may result in additional congestion concerns throughout the corridor. As a result, safety concerns along the corridor and intersecting cross streets would not be addressed. The existing operational deficiencies would not be addressed, and no direct or indirect impacts would occur to any of the project area resources.

Any development that occurs under the no-build scenario would be unrelated to the proposed project, and the communities may be affected by these "natural" development patterns, changes in property values, and / or traffic impacts. The natural development that may occur independently from the project may also benefit communities with improved access to housing, employment, and other community opportunities.

Build Alternative:

The proposed US 30 Corridor Improvements Project – Western Section would address existing operational deficiencies based on existing and projected levels of congestion, intersection failures, excessive queuing, and corridor travel and access concerns. Facility and infrastructure deficiencies including design, drainage, and pavement issues would be addressed, and existing community and economic development constraints may potentially improve due to the enhanced vehicular mobility along the corridor. Construction of this project would improve safety for all users of the US 30 corridor. Average time savings that would result from construction of the build alternative was projected to be approximately 1.7 and 1.0 minutes along the Route 30 eastbound and westbound lanes, respectively. Travel time reliability along US 30 could degrade substantially under 2045 No-Build conditions. The no-build scenario may result in worsening traffic and congestion scenario along this segment of roadway based on the latest traffic modeling. Potential for indirect effects and potential solutions or mitigation are discussed in the context of each resource below.

Aquatic Resources

The project area is located within the Jacks Run and Brush Creek watersheds. Jacks Run is classified in PA Code Title 25 Chapter 93 (Water Quality Standards - Drainage List V) as High Quality - Trout Stocking (HQ-TSF). Brush Creek is identified in PA Code Title 25 Chapter 93 as having a designated use of Trout Stocking (TSF). There are no streams within the project area that are identified by the Pennsylvania Fish and Boat Commission (PFBC) as Stocked Trout Waters or Wild Trout Waters.

A total of seven palustrine wetlands were identified and delineated within the project study area during an aquatic resources investigation that occurred in 2019 and 2023. All seven wetlands are classified as palustrine emergent (PEM) type wetlands.

Twelve (12) jurisdictional watercourses were identified and investigated within the project study area. Four (4) of these resources are classified as perennial, two (2) are classified as intermittent, and six (6) are classified as ephemeral.

The project design incorporates all practical measures to minimize direct and indirect wetland impacts. Special provisions would be included in the construction contract for fencing of wetlands to avoid unintentional impacts and to restore all temporarily impacted wetlands to original conditions. All temporarily impacted wetlands would be restored to original conditions after completion of the project. No other impacts to wetlands in the vicinity of the project are expected to occur.

Construction of the project would require widening in some areas of the US 30 corridor, consequently increasing the amount of impervious surface in the project area. This land use change would cause an increase in runoff, reduced groundwater recharge, and an overall flashier system with a quicker response rate to precipitation events (i.e., streams would demonstrate a more rapid rise in flow, and would likely reach a higher peak discharge as well, after the onset of a precipitation event). It would also return to baseflow conditions more quickly once the rainfall event ends compared to existing or more natural conditions. This holds the risk of higher discharge volumes, velocity, and energy, making stormwater runoff across the corridor more likely to erode adjacent soil, pick up pollutants, and carry them to receiving streams if not mitigated. If Jacks Run and Brush Creek experience higher peak flows and / or more frequent flood events due to the enhanced impermeable surface area along US 30, they would be more likely to erode and disconnect from their floodplains. This can exacerbate erosion issues and have cascading negative effects on channel geomorphology farther downstream.

Higher water quantities and sediment and pollutant loads within a stream can also adversely impact aquatic life that the system naturally supports in many ways. Along with the projected increases in future traffic, which would likely occur regardless of if the project is constructed or not, would also come increased potential for roadway contamination. This may include general roadway contamination such as heavy metals, oils, waste, and debris. Such impacts would be minimized to the extent practicable with the implementation of an Individual NPDES Permit and an Erosion and Sediment Control Plan and Post Construction Stormwater Management Plan. Measures taken to reduce excessive runoff associated with construction activities would also minimize pollutant loads.

Secondary development is not expected, as previously discussed. However, if it occurs, the growth would be encouraged and desired at the local level, and regulations are in place to guide development activities, encourage infill and redevelopment, and minimize any potential indirect effects of such growth to the natural and human environment. If secondary growth occurs, potential indirect impacts to valued resources in the vicinity would likely occur more extensively. There would be potential for indirect impacts to surface waters, aquifers, streams, and wetlands in the form of increased stormwater runoff, habitat fragmentation, and changes in hydrology.

Considering the project area is already developed and commercialized, it is unlikely that any project-induced degradation to the regional water resources and water quality would be significant. An Individual NPDES Permit and an Erosion and Sediment Control Plan and Post Construction Stormwater Management Plan would be implemented for this project to minimize these indirect impacts to aquatic resources in the Jacks Run and Brush Creek drainage basins, and similar measures would be required for other future secondary developments as well. As discussed previously, local zoning ordinances and planning initiatives are in place to help protect surface water resources. For example, there are total maximum daily loads

established for Jacks Run and numerous tributaries (for aluminum, iron, manganese, and acidity), which are impaired due to acid mine drainage according to the Sewickley Creek Assessment, Restoration, and Implementation Plan. In addition, as a High Quality Water, riparian buffers apply to protect Jacks Run against adverse impacts of development, as required under PA Code, Title 25, Chapter 102.14.

The project improvements are proposed to an existing facility in a well-developed corridor. Overall, construction of the project has a low potential to permanently disrupt or diminish hydrology that supports aquatic resources and habitat or otherwise result in significant indirect effects to aquatic resources.

Farmland Soils

According to the NRCS-Web Soil Survey for Westmoreland County and Allegheny County, agricultural soils are present in the project area and are expected to be permanently converted by the proposed project. These include four (4) Farmland of Statewide Importance soil types and one Soil Capability Class III soil. These soils are not currently being used for agricultural purposes, and non-growth-related indirect impacts to these soils are not anticipated.

There are no farms or agricultural resources within a reasonable distance of the project corridor where secondary development might potentially occur from construction of the project. Therefore, no significant growth-related indirect effects are anticipated.

Regional and Community Growth, Land Use/Land Cover, and Planned Development

As discussed in the Indirect Effects section, the project area is part of a region that historically has shown growth, and additional future growth in this area is desirable and part of the local planning vision. The overall population of North Huntingdon Township has increased over the past decade, despite a decline in the population of Westmoreland County over the same time period, and recently-approved new development permits for North Huntingdon Township have primarily been residential in nature. Construction of the project would complement any future development in the area by addressing congestion and safety issues along the corridor, but would not likely induce any additional development in the area that would not otherwise occur under the no-build alternative. The project proposes improvements to an existing transportation facility and is not likely to result in changes to the type, timing, location, or pattern of any planned or future developments.

The project area is well-developed with commercial and residential land use. The proposed project would result in minor direct impacts to the roadside vegetation located adjacent to the US 30 roadway and cross-streets within the project area. Vegetation that would be impacted includes deciduous shrubs and trees and mowed or landscaped land associated with roadside development in the vicinity of the project. The greatest impacts to vegetation would occur at the proposed jughandles at the US 30 intersections with Carpenters Lane/Leger Road, Old Jacks Run Road, and Ardara Road. All areas with impacts to vegetation would be re-vegetated with non-invasive species upon completion of the project. Non-growth-related indirect impacts to vegetation or land use and land cover in the region are expected to be insignificant.

While unanticipated, if secondary growth occurs due to the proposed roadway improvements, there is potential that land in the region may be indirectly impacted by changes in property values, clearing of forested area that would not have otherwise occurred under the no-build scenario, and / or increased intensity of development.

Community Facilities and Services

US 30 serves as a primary response route for Hartford Heights Volunteer Fire Company, located within the project limits in the southeast quadrant of US 30 and Magnus Lane, and for the North Versailles Volunteer Fire Department Station 213-1, located north of the project limits. In addition, the Port Authority and Westmoreland Transit Authority (WTA) have multiple bus stop locations along the US 30 corridor. Emergency apparatus and WTA bus operations may experience temporary delays during construction. Mountable curb would be installed in front of the Hartford Heights Fire Company station instead of median barrier so that operations are not restricted following completion of the project. No other non-growth-related indirect effects are expected to occur to these resources as a result of the project. While not anticipated, if the proposed roadway improvements induce secondary development, there is potential for these services to experience higher demand.

No other indirect effects to community facilities and services are expected to result from construction of the project.

Energy

The *Traffic Report for Base and No-Build Conditions* that was prepared for the project identifies existing Level of Service (LOS) failures that are expected to worsen in the future. The Route 30 and SR 48 intersection was determined to operate at an LOS E during the AM and Saturday midday peaks and at a LOS F during the PM peak period for the Base Year of 2015. Results of the analysis also determined the LOS of the SR 48 intersection (for all peak periods evaluated) and the Carpenter Lane/Leger Road intersection (for the PM peak period) could degrade to an LOS F between the Base Year 2015 and the Future Year 2045 under the No-Build scenario.

The transportation sector is responsible for approximately 27% of energy consumption according to the United States Energy Information Administration (USEIA 2022). Vehicles consume greater amounts of energy in congested conditions, as stop-and-go travel and idling at signals or in congestion is less efficient and uses more energy. A study published by Transportation Research Board (TRB), indicates a considerable increase in fuel consumption under congested traffic conditions compared with free-flow conditions (TRB 2015).

The project is intended to increase the efficiency of the transportation system by restricting access along select segments of the corridor with a median barrier and installing jug handle intersection treatments to eliminate left turn movements and improve overall mobility.

According to the on-line public survey conducted for the project one of the top three concerns in the project corridor included congestion/queuing (16% of all respondents). An analysis of traffic travel times through the project corridor was conducted as a part of the Traffic Report implementing the Base Year 2015 travel times and Future Year 2045 No-Build travel times. Average time savings that would result from construction of the build alternative was projected to be approximately 1.7 and 1.0 minutes along the Route 30 eastbound and westbound lanes, respectively. Travel time reliability along US 30 could degrade substantially under 2045 No-Build conditions. The no-build scenario may result in worsening traffic and congestion scenario along this segment of roadway based on the latest traffic modeling.

In addition, existing pavement issues along the corridor include cracking, spalling, potholes, and pitting. The project roadway also exhibits poor drainage conditions. Under the no build alternative, frequent

inspections, maintenance, and repairs associated with these issues could cause short-term lane closures and / or detours, which would result in higher energy usage.

The proposed improvements would involve additional pavement to maintain in the future, as well as short-term energy requirements during construction. However, development of the project would address existing operational deficiencies that have been identified along this segment of Route 30, including existing and projected levels of congestion, intersection failures, excessive queueing, and overall corridor travel concerns. This would result in an overall improved transportation facility with fewer idling vehicles and shorter travel times compared to the no-build scenario. Therefore, the proposed project is expected to create a more efficient roadway with more reliable travel times and have a long-term positive impact on energy consumption compared to the no-build scenario.

Noise

The proposed activities warranted noise abatement consideration, according to findings of the Highway Traffic Noise Impact Study Screening Analysis prepared for the US 30 Corridor Improvements Project – Western Section (June 2021). However, modeling results concluded that construction of noise barriers is not feasible. While there is not an overall perceptible anticipated noise impact to the majority of the properties along US 30, some areas may experience indirect noise impacts. In addition, temporary increases in noise levels would occur during construction. These impacts are expected to be minor and/or temporary, and would be offset by noise reduction measures (e.g., work hour limits, equipment muffler requirements, location of haul roads, elimination of "tail gate banging," reduction of backing up for equipment with alarms, community rapport, complaint mechanisms). Project benefits are expected to outweigh any permanent noise impacts along the corridor. No other indirect noise effects are anticipated to result from construction of the project.

Municipal, Industrial, and Hazardous Waste Facilities

Non-growth-related indirect impacts to existing hazardous waste or materials present in the project area are expected. If construction of the project induces additional growth, it is possible that secondary development may affect existing municipal, industrial, or hazardous waste sites. Traffic increases and area growth, while not expected but may occur, would create additional risk of hazardous material generation and / or transport, and the risk of potential spills would also increase. No other indirect effects to municipal, industrial, and/or hazardous waste facilities are expected to result from construction of the project.

Invasive Species / Vegetation

Significant direct or indirect impacts to vegetation are not expected to result from construction of the project, due to the proposed improvements being on an existing roadway facility that is already well-developed. However, if secondary development occurs, this may introduce additional invasive species to the study area or worsen the spread of existing invasive species issues within the project area. Appropriate Best Management Practices (BMPs) would be implemented during construction to minimize the opportunity for the spread of invasive species.

Local and Regional Economy

Employment changes would occur within the project study area due to the commercial displacements that would be necessary to construct the project.

Any adverse employment impacts are expected to be offset by the local planning initiatives to encourage infill growth and redevelopment in the region.

In addition, businesses along the project corridor that rely heavily on drive-by traffic, such as gas stations and convenience stores, may experience indirect impacts due to the installation of the median barrier. Motorists may be less likely to stop at these businesses if access is restricted to right-in / right-out only movements. However, alternative businesses that would not be impacted are located the vicinity of the project, and this effect is not expected to adversely impact the local economy overall. Motorists may also be more likely to stop at these businesses if they feel safer accessing them.

If the project results in secondary development, this could potentially alter socioeconomic conditions in the region due to changes in population and / or employment opportunities, and business sales and revenues may be positively impacted.

Right of Way and Indirect Traffic Impacts

Notable traffic-generating facilities along the corridor under existing conditions include:

- Big-box stores located at the SR 48 intersection, including Giant Eagle, The Home Depot, Tractor Supply Company, and Aldi
- Industrial facilities along the corridor
- Stewartsville Elementary School

Overall, construction of the project would relieve congestion and safety issues along this segment of the US 30 corridor, and mobility is expected to improve. However, if the project induces secondary growth, especially in large housing complexes and / or traffic-generating commercial or industrial properties, traffic volumes may continue to be high in future scenarios, and congestion may still occur or worsen from existing conditions, depending on the level of development that results.

The existing US 30 corridor is an unrestricted thoroughfare. The proposed addition of a raised median would restrict left turn movements along the project corridor thereby affecting access to nearly all properties along the US 30 corridor. In most cases motorists would be restricted to right-in and right-out movements and would be required to use the closest jughandle or U-turn median opening to access their destination. Median openings would be located at jughandles placed approximately every 0.7 miles along the US 30 corridor (the Carpenter Lane/Leger Road Old Jacks Run Road/Peterson Road and Ardara Road intersection). The Route 48 intersection with US 30 would be converted to a modified R-CUT intersection to allow the ability to make U-Turns. The access point at the Hartford Heights Volunteer Fire Department Station would remain unrestricted to allow immediate right/left access for EMS vehicles. Full control of access is proposed at all U-turn locations and no private driveway connections would be allowed at these locations.

Minor roadway realignments are also proposed to improve access. A portion of the Stewartsville Elementary School access road (Ward Drive) would be reconstructed so it aligns with the entrance to Sheetz and the Park-n-Ride. The north approach to the Leger Road/US 30 intersection would also be

realigned so it intersects US 30 at approximately a 90 degree angle to improve access and maneuverability for trucks to and from Leger Road.

Indirect Effects Summary

The project setting is along an already-developed commercial corridor where growth is anticipated and encouraged whether the project occurs or not. Overall, the proposed roadway improvements on their own are not expected to induce secondary growth, and although vacant parcels are available to accommodate any future expansion, local planning documents identify that growth in the form of infill or redevelopment is preferred and encouraged. Any growth that does occur in this area would be desired and consistent with planning initiatives at the local level. Land development and zoning ordinances, physical topographic constraints, existing locations of utilities and infrastructure, and the fact that the area is area is already well-developed would limit future development to primarily infill or redevelopment opportunities. Therefore, any growth and non-growth-related indirect effects that may occur as a result of the project are not expected to be significant.

Non-growth-related indirect effects to human and environmental resources may occur. However, the project design has been refined to avoid, minimize, and mitigate for anticipated impacts to the natural and human environment. The project is being developed in accordance with all applicable federal, state, and local regulations and permitting requirements to protect the surrounding environment, and public involvement and coordination with local officials have occurred early and often in the project development process to ensure all potential impacts have been considered. Project mitigation measures and special provisions (e.g., stormwater runoff would be contained and conveyed in an approved manner and best management practices from an approved Erosion and Sedimentation Control plan) that would be implemented to minimize any direct impacts would also minimize or avoid indirect effects associated with the project. Further, all adverse direct and indirect effects that may result from construction of the project are expected to be offset by anticipated project benefits, including positive impacts to access, accessibility, mobility, and safety throughout the project corridor.

Consideration and Evaluation of Cumulative Effects

Cumulative effects are described in PennDOT's Pub 640 as "*… the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions…" Cumulative Effects include the proposed project's direct and indirect effects in combination with the effects due to past, present, and reasonably foreseeable future activities or actions of Federal, non-federal, public, and private entities*." They are removed from time and space from impacts associated with the direct project.

Resources to Consider and Study Area Boundary

After review of the direct and indirect effects that are anticipated to be caused by the project, the resources and topics listed below were further reviewed for risks of cumulative effects. Each unique Resource Study Area (RSA) is also listed below (most of these areas are depicted in Figure 3):

- Aquatic Resources (wetlands and streams) – Jacks Run and Brush Creek watersheds, which are the overlapping subbasins where direct impacts are expected;
- Farmland Soils (active farms are absent) – The overlapping farmland soil unit boundaries, including those outside areas where direct impacts are expected to occur;
- Land Use/Land Cover, Vegetation, and Invasive Species – Property lines beyond the project area where potential secondary growth may reasonably be accommodated;
- Community Facilities and Services – Project area;
- Energy – Project area;
- Noise – the Noise Study Area established for the project;
- Municipal, Industrial and Hazardous Waste Facilities – Project area municipalities;
- Local and Regional Economy – Project area municipalities;
- Right of Way and Indirect Traffic Impacts – Project area municipalities, to account for potential actions and their implications beyond the immediate project area;

Resources and topics are not considered to be affected indirectly or directly by the proposed Build Alternative were not considered in the cumulative effects analysis.

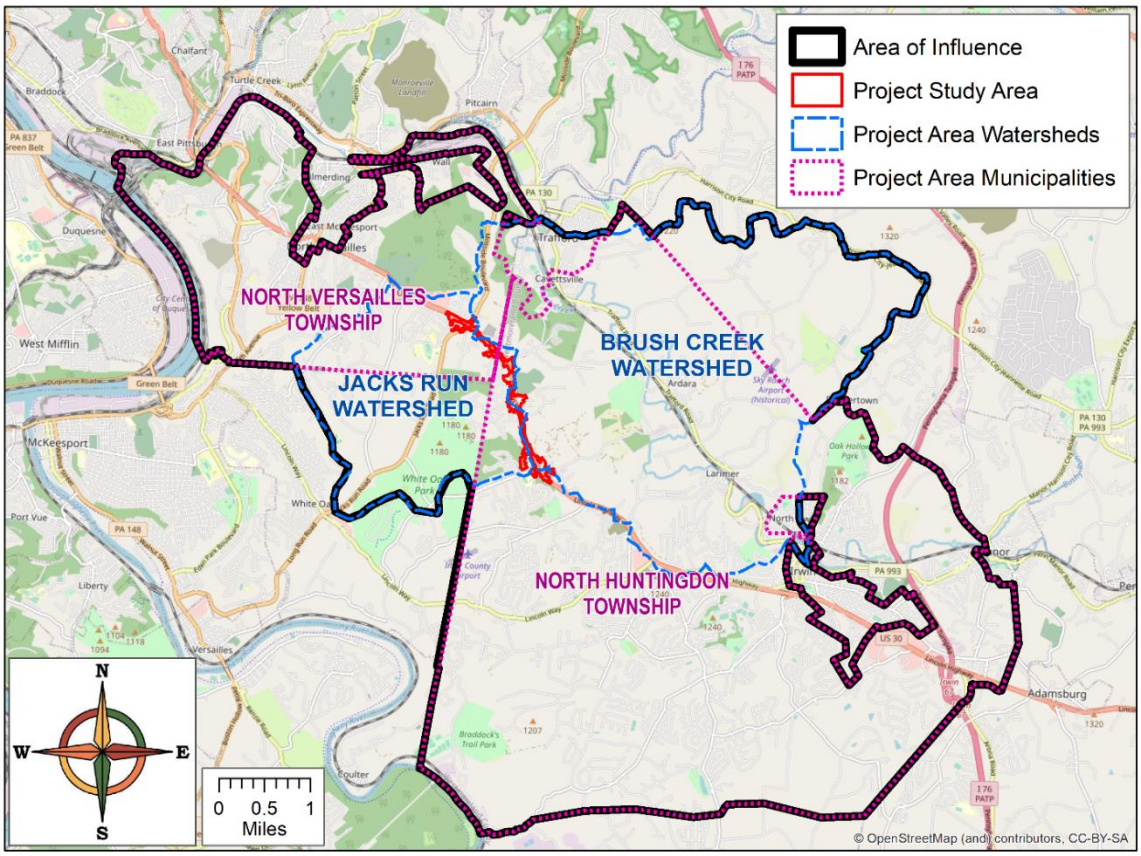


Figure 3: US 30 Project Area of Influence for evaluating indirect and cumulative effects.

Past

Refer to the following publications for detailed accounts of the history of the area:

- *The History of Westmoreland County, Volumes 1 and 2*
- *Old Westmoreland: A History of Western Pennsylvania During the Revolution*
- *Westmoreland County Comprehensive Plan* (2004, updated in 2018).
- *Old Versailles Township, Pennsylvania (Images of America)*
- *History of Allegheny County, Pennsylvania: Including Its Early Settlement and Progress to the Present Time*

Aerial photography from 1957-1967 shows that the project area was developed to a level comparable to today, but some developments have occurred since that time (Figure 4, Figure 5). For example, residential and commercial development surrounding the US 30 and Route 48 intersection in North Versailles Township have expanded, and new development is present in the vicinity of Magnus Lane and Carpenter Lane in North Huntingdon Township. New homes have also been built recently within established neighborhoods in the area, and the newest homes appear to be clustered south of the project limits and west of US 30. Generally, land use within the project area has remained consistent over the past 30 years, and the development that has occurred has been steady with the existing character of the local community.

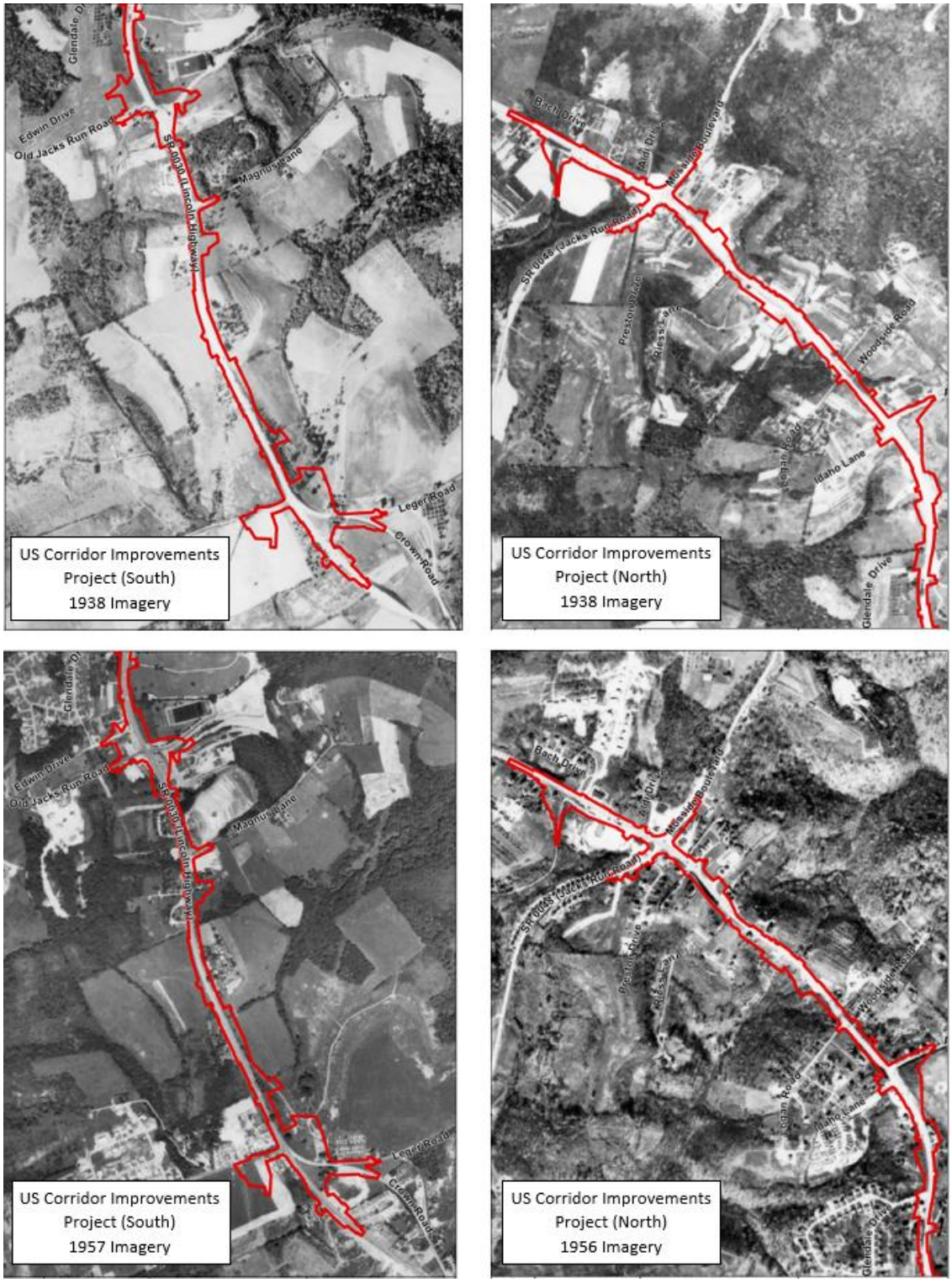


Figure 4: Project area imagery 1938-1957 (source: USDA)

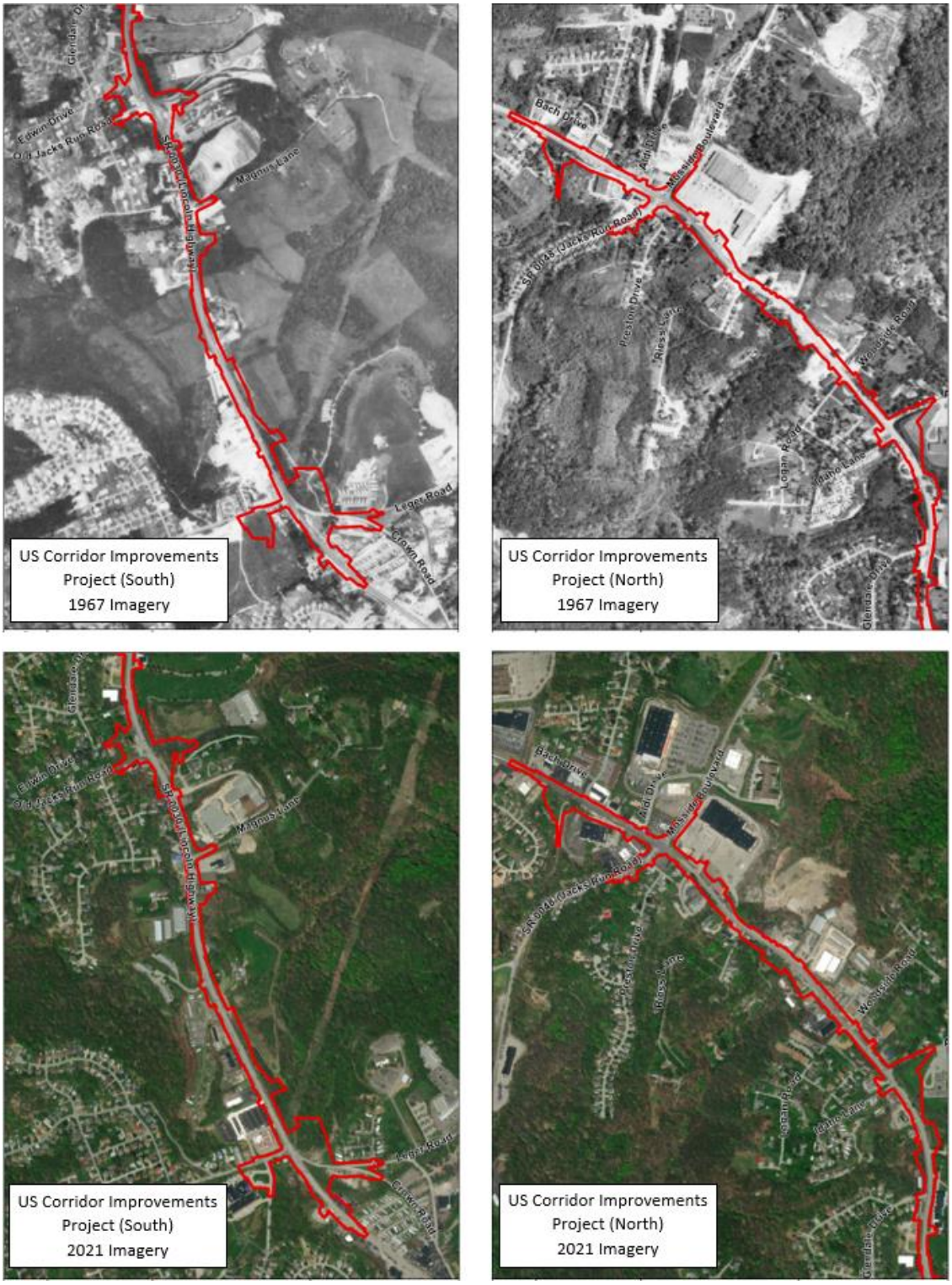
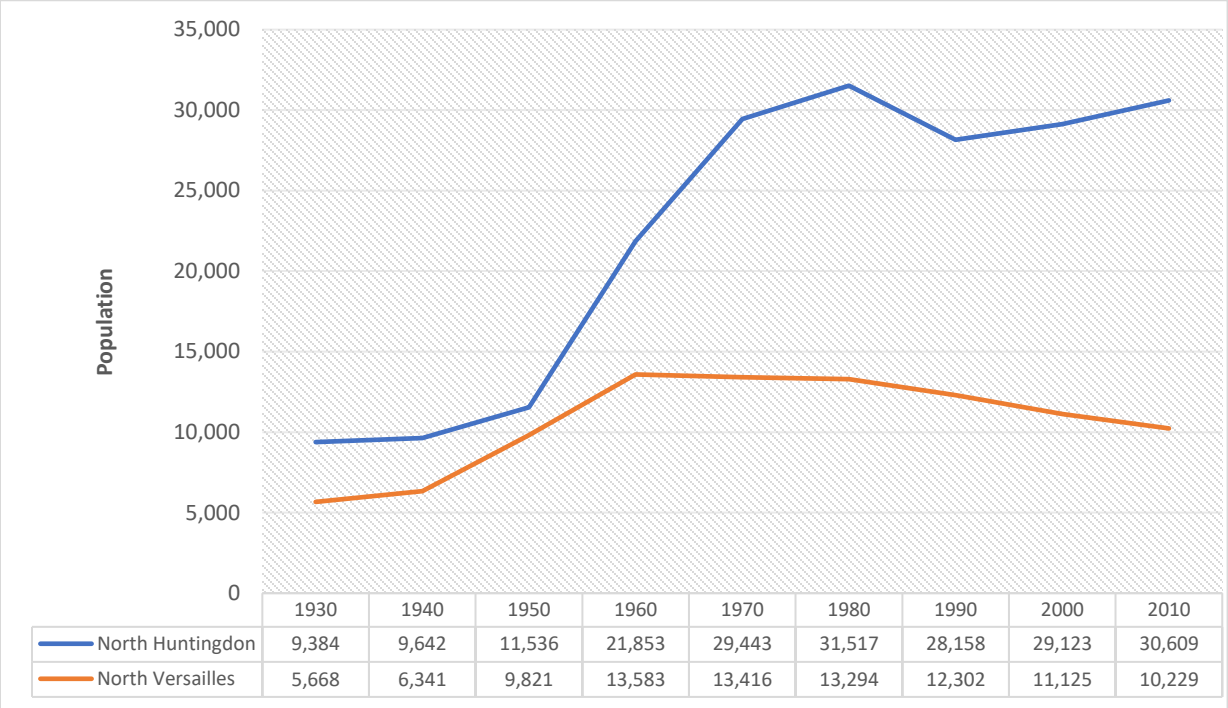


Figure 5: Project area imagery 1967-2021 (source: USDA)

The area experienced the steepest population growth beginning in the 1950s, and population in North Huntingdon Township continued to grow through the 1980s before leveling off (Figure 6) (SPC 2019). The population of North Versailles Township has been declining since the 1960s.



	1930	1940	1950	1960	1970	1980	1990	2000	2010
North Huntingdon	9,384	9,642	11,536	21,853	29,443	31,517	28,158	29,123	30,609
North Versailles	5,668	6,341	9,821	13,583	13,416	13,294	12,302	11,125	10,229

Figure 6: Past population trends in North Versailles and North Huntingdon Townships (SPC 2019)

Present

Notable resources that are present in the vicinity of project, as well as potential impacts to past, present, and future actions (refer to Table 3 for Reasonably Foreseeable Future Actions, or RFFAs), are documented in Table 4.

Future

Published planning documents were reviewed and coordination with local planning officials occurred to identify a list of RFFAs (Table 3). These actions, as well as past and present activities, were quantitatively and qualitatively evaluated to determine big-picture, combined effects to each individual resource.

Growth Trends

As previously discussed, the improvements would reduce congestion in an area where growth is already occurring, and where growth will continue to be encouraged based on local planning initiatives. The benefits associated with the project (improved mobility and safety) could stimulate the local or regional economy to some degree, but any change is not expected to be significantly different from current conditions. Overall, it is unlikely that on their own, the proposed roadway improvements would induce land use change or growth that would not otherwise occur under the no-build scenario. Therefore, the potential for project-induced growth is relatively low.

Reasonably Foreseeable Future Actions (RFFAs)

Transportation projects in the vicinity of the US 30 Corridor Improvements Project – Western Section that are programmed to be competed are listed below (Table 3). No other approved new development projects were identified within the project area based on recent Monthly Reports by North Huntingdon Township and coordination with planning officials from the local jurisdictions that occurred in February 2023. All other proposed projects within the study area for the foreseeable future are expected to be minor renovations or signage installations.

Table 3: Reasonably Foreseeable Future Actions (RFFAs) in the vicinity of the US 30 Corridor Improvements Project – Western Section.

Project ID	Name	Land Use	Description
100782	Mosside Blvd-PA 130	Roadway Resurface	Resurfacing on Mosside Boulevard from PA 130 to Haymaker Road in Monroeville Borough, Allegheny County.
100606	Jacks Run Rd over Branch of Jacks Run	Bridge Replacement	Bridge replacement on Jacks Run Road over branch of Jacks Run in White Oak Borough, Allegheny County.
117423	2026 Slide Repairs	Slide Repair	District Wide slide repair contract. Perform slide repairs on various state routes at various locations in various municipalities in Fayette, Greene, Washington and Westmoreland Counties
89066	SR 4019 over Brush Creek	Bridge Restoration	SR 4019 (Ardara Road) over Brush Creek North Huntingdon Township, Westmoreland County Bridge Improvements
1810 Hoffman Road	WetGo Development	Gas station	GetGo has purchased land and is in the process of developing a WetGo car wash on the property adjacent to the gas station.
1712 Lincoln Highway	Dollar General redevelopment	Vacant building	Vacant building that used to operate as a gym is being converted to a Dollar General. Access and landscaping changes may occur at this property
Naser Road/US 30 intersection	Future Sheetz	Vacant	The Sheetz would be where the existing Valley Pool & Spa is along the eastbound lanes of US 30. Part of this project would also likely involve realigning Naser Road and McKee Road to close the gap between those two intersections.
1001 Logan Rd	New storage/warehouse/office building	Vacant	New development
14680 US 30	Former Rivertown restaurant demolition	Restaurant	Building is scheduled to be demolished.
14179 US 30	Former Tangleview Stables	Former 28-acre farm	Preliminary inquiries about developing a 6-8 story senior living center on the property.

Identify and Analyze Potential Cumulative Effects and Determine their Significance

No-Build Alternative

Existing conditions would remain the same under the no-build alternative. If no action is taken, safety concerns along the corridor and intersecting cross streets would not be addressed. The existing operational deficiencies would not be addressed. Therefore, this alternative would not contribute to any cumulative effects when considered with past and future actions.

Build Alternative

Relatively few new developments have been constructed within the project area since the 1990s, therefore minimal impacts to project area resources have occurred in the recent past. The largest impacts associated with past actions have been to aquatic resources, and the majority of these likely occurred prior to the development of the project roadway (and prior to the beginning timeframe of our assessment) due to the draining and filling of wetlands and streams to facilitate development of agricultural land.

All of the proposed RFFAs listed in Table 3 above are planned independently from the proposed US 30 Corridor Improvements Project – Western Section, all are relatively minor projects in nature, and none are expected to require significant right-of-way or result in permanent adverse impacts that would notably add to the impacts resulting from construction of the US 30 Corridor Improvements Project – Western Section. As previously discussed, the proposed improvements would be to an existing facility on its current location, and indirect growth-related impacts are not expected to occur. As such, overall direct and indirect impacts would be relatively minor, or would otherwise effectively be mitigated for, and would not contribute significantly to cumulative impacts to past, present and future development activities.

Additional details related to potential cumulative effects for each resource are summarized in Table 4, below.

Cumulative Effects Summary

Overall, the combined effects when considering past, present, and RFFAs are considered to be minor for all categories and would not contribute to significant cumulative impacts to any resources affected by the project. Resources for which notable adverse impacts are expected have appropriate mitigation commitments to minimize and / or offset negative effects. In summary, cumulative effects resulting from this project together with past, present, and RFFAs are insignificant.

Table 4: Potential cumulative impacts of past, present, and reasonably-foreseeable future actions

Topic	Past Actions / Impacts	Present Condition / Proposed Direct and Indirect Impacts	RFFA Impacts	Summary
Streams	Streams in the area have previously been affected by the construction of project area roadways and expansion of commercial and residential areas in the recent past, however the extent is not possible to estimate due to a lack of data. The area was developed as agricultural land prior to construction of the roadway (and prior to the beginning timeframe of this assessment), which likely had a more drastic impact to streams. Past actions since that time are assumed to be 0 linear feet.	Under existing conditions, streams within the Jacks Run and Brush Creek drainage basins total to approximately 40 miles based on the National Hydrography Dataset, but additional streams may be present. Construction of the proposed project would result in permanent impacts to four streams within the project area, totaling approximately 392 linear feet. Five streams would be temporarily impacted due to construction activities.	All identified RFFAs are expected to have minimal direct and indirect impacts. Stream impacts, if any occur, would be minor and / or temporary and are not likely contribute to a significant cumulative impact in the study area. Any new construction would be subject to federal, state, and local regulations and permitting requirements to protect the surrounding environment. It can reasonably be anticipated that new development projects would be designed to avoid, minimize, and/or mitigate for impacts to aquatic resources. As a conservative estimate, the permanent stream impact total expected to result from the US 30 project are applied to the three RFFAs that would involve new developments (Naser Road/US 30 intersection future Sheetz, 1001 Logan Rd storage warehouse, and 14179 US 30 former Tangleview Stables) to approximately 1,200 linear feet.	Stream mitigation will occur in an effort to offset unavoidable stream impacts. Coordination will be conducted with the PADEP and the USACE during final design to discuss potential mitigation options in order to help offset the unavoidable stream impacts within the project area. These options could include the purchase of stream mitigation credits from an accredited mitigation bank, if applicable. Developers of existing and future projects must adhere to permitting requirements and regulations. BMPs will be incorporated into the projects Erosion and Sedimentation Control Plan and will be in place during construction to ensure protection of the water quality of the area's water resources. Cumulative impacts to streams total to approximately 1,600 linear feet and are insignificant. All impacts will be minimized and mitigated for, all applicable permitting requirements will be met, and the quality of streams in this already-disturbed area where these projects have occurred/ will occur is relatively low compared to other areas of the watershed. In addition, 1,600 feet of cumulative stream impact makes up less than one percent of the 40 miles of stream throughout the Brush Creek and Jacks Run drainage basins.
Wetlands	Wetlands in the area have previously been affected by the construction of project area roadways and expansion of commercial and residential areas in the recent past. The area was developed as agricultural land prior to construction of the roadway (and prior to the beginning timeframe of this assessment), which likely had a more drastic impact to wetlands. Past actions since that time are assumed to be 0 acres.	According to the National Wetlands Inventory, all potential wetland areas in the broad vicinity of the project are R5UBH (riverine) type wetlands and are associated with established streams. They total approximately 30 acres in the immediate area according to the inventory, however other wetland units may be present. Permanent impacts to wetlands due to the project would total 0.0027 acres. Approximately 0.0293 acres of temporary impacts would affect two wetlands within the project area as well.	All identified RFFAs are expected to have minimal direct and indirect impacts. Wetland impacts, if any occur, would be minor and / or temporary and are not likely contribute to a significant cumulative impact in the study area. Any new construction would be subject to federal, state, and local regulations and permitting requirements to protect the surrounding environment. It can reasonably be anticipated that new development projects would be designed to avoid, minimize, and/or mitigate for impacts to aquatic resources.	Wetland boundaries (wetlands not permanently impacted) will be plotted on the design plans, and special provisions will be included in the construction contract for fencing of wetlands to avoid unintentional impacts and to restore all temporarily impacted wetlands to original conditions. All temporarily impacted wetlands will be restored to original conditions after completion of the project. Wetland boundaries will be fenced prior to the start of construction and wetlands will be avoided during construction. All temporarily impacted wetlands will be restored to original conditions after completion of the project. Any current or future project that involves impacts to wetlands will need to be permitted and mitigated for to ensure no net loss. To minimize cumulative impacts, current and future projects should be designed to minimize the destruction, loss, or degradation of wetlands, and to preserve and enhance their natural and beneficial values.
Farmland Soils	Farmland soils and agricultural areas in the vicinity of the project have been converted to non-agricultural use in the past, but no major conversions have occurred in the recent past. Past actions from roadway and secondary development have resulted in approximately 120 acres of prime farmland soils or farmland soils of statewide importance to be converted to non-agricultural uses.	Agricultural resources are not present with the exception of four (4) Farmland of Statewide Importance soil types and one Soil Capability Class III soil. There is no active agricultural land, agricultural security areas, conservation easements, or land enrolled in Clean and Green located within the project study area. Therefore, there is no Prime Agricultural Land according to the Agricultural Land Preservation Policy. The proposed project would result in conversion of less than 1 acre of farmland soils (including four Farmland of Statewide Importance soil types and one Soil Capability Class III soil). However, the conversion does not correspond with active agricultural uses, and this area holds no potential to be developed as agricultural use in the future due to existing land uses and plans for commercial and/or residential development in the area.	All identified RFFAs are expected to have minimal direct and indirect impacts. Projects in this area would not result in impacts to agricultural resources due to a lack of active agricultural land. Any agricultural-related impacts would be limited to minor conversions of farmland soils to alternative uses. Of the RFFAs, only one project might result in conversion of farmland soil in an area that holds potential to be used for agricultural purposes: The Former Tangleview Stables project, where approximately 30 acres of a Farmland of statewide importance (Wharton silt loam, 8 to 15 percent slopes) is present.	The project, and other projects in the vicinity, meet an FPPA Exclusionary Condition outlined in Section IV.A of the Pennsylvania Department of Transportation's Agricultural Resources Evaluation Handbook, Publication No. 324 (2016). Overall, the project would not result in any impacts to active farmland or agricultural resources. The total cumulative impact to farmland soils is conservatively estimated to be approximately 151 acres. However, the project makes up a small fraction of this impact. In addition, considering the project is in an already-developed area where there is little potential for active agricultural use in the future, cumulative impacts to farmland soils are insignificant.

Topic	Past Actions / Impacts	Present Condition / Proposed Direct and Indirect Impacts	RFFA Impacts	Summary
Vegetation / Invasive Species	Previous development, the construction of project area roadways, and past commercial and residential expansions have removed existing vegetation and likely contributed to the spread of invasive species. It is estimated that approximately 150 acres of previously vegetated/forested/rural land has been converted to impervious surface in the immediate vicinity of the corridor.	The project area is well-developed with commercial and residential land use, and roadside vegetation is located adjacent to the Route 30 roadway and cross-streets within the project area. Vegetation that would be directly impacted includes deciduous shrubs and trees and mowed or landscaped land associated with roadside development in the vicinity of the project. This is expected to affect less than 10 acres of vegetated area. Since these land cover changes do not propose conversion of quality habitat and/or valued land uses (e.g., agriculture), changes to land use/land cover and vegetation associated with the project are not considered to be a significant impact.	The identified RFFAs are expected to have minimal direct and indirect impacts to vegetation. They are primarily expected to be redevelopment projects or projects improving existing facilities in areas where landcover is landscaped or lower-quality roadside vegetation. A conservative estimate is that the cumulative impact to vegetation from all RFFAs combined totals approximately 25 acres of vegetation converted to impervious surface.	For all projects in the present and future, it is reasonable to assume that all temporarily disturbed areas will be restored and reseeded as part of construction, as appropriate. The cumulative impact to vegetation is estimated to be approximately 185 acres. This impact is considered insignificant considering the quality of the vegetated areas that will be impacted in this already-developed area.
Regional and Community Growth, Land Use/Land Cover, and Planned Development	Past actions have resulted in a transition of primarily agricultural and undeveloped land use to a combination of residential, transportation, and commercial land uses. The population of North Huntingdon and North Versailles Townships were 9,384 and 5,668 in 1930, respectively. Population grew to 30,609 in North Huntingdon Township and 10,229 in North Versailles Township by 2010. It is estimated that approximately 150 acres of previously vegetated/forested/rural land has been converted to impervious surface in the immediate vicinity of the corridor. Public involvement activities and coordination with local officials have not identified a notable history of past actions impacting land development patterns in a way that is inconsistent with the local vision, and the immediate project area has been targeted for continued commercial and residential use for at least two decades. Growth and development patterns in the vicinity of the project have been guided by local municipal and county planning initiatives.	Any growth that does occur in this area would be desired and consistent with planning initiatives at the local level. Land development and zoning ordinances, physical topographic constraints, existing locations of utilities and infrastructure, and the fact that the area is area is already well-developed would limit future development to primarily infill or redevelopment opportunities. Therefore, any growth and non-growth-related indirect effects that may occur as a result of the project are expected to be minor.	RFFAs are expected to be designed and planned with consideration for local planning objectives. It can be assumed that future projects would engage appropriate stakeholders early and often through the planning process to ensure consistency with the local vision for the area.	No significant impacts to regional and community growth, land use/land cover, and planned development are anticipated. Individual past, present, and future projects are designed with consideration for local needs and planning objectives.
Community Facilities and Services	Community facilities and services are present for some of the past time period used for the purposes of this analysis. Public involvement activities and coordination with local officials have not identified a notable history of impacts to these resources. Present-day community facilities and services have not been significantly impacted by past development actions.	Stewartsville Elementary School and Adelphoi Village Academy are present within the project area. Route 30 serves as a primary response route for Hartford Heights Volunteer Fire Company, located within the project limits in the southeast quadrant of Route 30 and Magnus Lane, and for the North Versailles Volunteer Fire Department Station 213-1, located north of the project. In addition, the Port Authority and Westmoreland Transit Authority (WTA) have multiple bus stop locations along the Route 30 corridor. Emergency apparatus and WTA bus operations may experience temporary delays during construction. Special coordination provisions and access details to/from the site would be determined in final design. Minor, permanent right-of-way and temporary construction easements would be required from Stewartsville Elementary School, Adelphoi Village Academy, Miller United Methodist Church, and the Hartford Heights Volunteer Fire Company station, but adverse impacts to operations at these facilities are not anticipated. Appropriate stakeholders and local officials have been actively engaged in all public involvement activities. The project study area is densely developed, and permanent utility relocation would also be necessary (water, sanitary sewer, gas, electric and/or communications). Impacts associated with the present action are considered to be minor due to the fact that appropriate stakeholders have been engaged through the planning process, and the overall benefits of the project outweigh any negative impact to these facilities and services.	RFFAs are not anticipated to affect existing community facilities and services. It can be assumed that future projects would engage appropriate stakeholders early and often through the planning process to avoid and minimize any impacts to applicable community resources.	All impacts are expected to be minor and/or temporary. Special consideration of the design was given at the Hartford Heights Volunteer Fire Company to ensure emergency operations are not restricted by the proposed condition. This involves utilization of mountable curb in place of median barrier to allow unrestricted movements in the eastbound and westbound directions of Route 30. Project benefits would outweigh any adverse impacts to these resources and services. Therefore, no significant cumulative impacts to community facilities and services are anticipated.

Topic	Past Actions / Impacts	Present Condition / Proposed Direct and Indirect Impacts	RFFA Impacts	Summary
Energy	Vehicles consume greater amounts of energy in congested conditions, as stop-and-go travel and idling at signals or in congestion is less efficient and uses more energy. Past development activity that has created the commercial and transportation-oriented landscape in the vicinity of the project has had a negative impact on energy resources.	The proposed improvements would involve additional pavement to maintain in the future, as well as short-term energy requirements during construction. However, development of the project would address existing operational deficiencies that have been identified along this segment of Route 30, including existing and projected levels of congestion, intersection failures, excessive queueing, and overall corridor travel concerns. This would result in an overall improved transportation facility with fewer idling vehicles and shorter travel times compared to the no-build scenario. Therefore, the proposed project is expected to create a more efficient roadway with more reliable travel times and have a long-term positive impact on energy consumption compared to the no-build scenario.	RFFAs include minor roadway facility improvements, demolition, or redevelopments in this already-developed area. Any redevelopments that are planned to occur are not expected to generate new activity or induce additional land use change. Therefore, RFFAs would likely only result in a minor adverse impact to energy resources.	Cumulative impacts associated with energy are insignificant.
Noise	The original construction of the Route 30 and PA 48 corridors created added noise to the existing environment. Other more recent development activities have not had notable noise impacts to the community.	Ten Noise Receptor Units (NRUs) within eight noise study areas were identified to warrant noise abatement measures as a result of the project, but noise barriers were determined to be infeasible. The overall project area noise environment is not expected to be significantly affected by the development of the project. To reduce the noise impact associated with equipment, most construction activities would take place during permitted times dictated by local municipalities, which typically state that noise levels cannot exceed prescribed levels after 10:00 P.M. or before 7:00 A.M. In addition, the relocation of turning traffic creates positive influence on the future noise environment of several sensitive receptors.	The scopes of work associated with the RFFAs would not bring major changes to the existing noise environment in the future, and these developments are not anticipated to alter traffic volumes or patterns (which would cause an indirect noise impact).	Cumulative impacts associated with noise are insignificant.
Municipal, Industrial, and Hazardous Waste Facilities	Previous development activities may have involved facilities containing asbestos and/or lead paint.	Phase I ESA field reconnaissance activities occurred in 2019 and 2023, and 27 Phase I ESA sites within the project area. Phase II / Phase III Environmental Site Assessments and asbestos inspections were recommended. Lead based paint may also be encountered, and a lead paint inspection is recommended if any repairs or renovations are proposed to facilities that contain suspect lead paint. The Phase II/III ESA would occur in Final Design, and special provisions would ensure any impacts associated with hazardous or residual waste sites are minimal. Impacts to municipal, industrial, and hazardous waste facilities are expected to be insignificant.	RFFAs are not anticipated to significantly affect existing hazardous materials. It can be assumed that future projects would all comply with state, federal, and local environmental regulations and impacts would be minimized to the degree practicable. Based on the scopes of works of these projects, impacts would be minor. Only one of the ten RFFAs is known to involve a building demolition.	The area where the project would occur is well-developed, but special provisions will ensure any impacts associated with hazardous or residual waste sites are minimal. Project benefits would outweigh any adverse impacts. It can be assumed that all future projects will adhere to applicable state, federal, and local environmental regulations as well. Therefore, no significant cumulative impacts associated with municipal, industrial, and hazardous waste facilities are expected to occur.
Local and Regional Economy	Historically, coal and agriculture have been the chief industries driving the economy in the vicinity of the project. Population growth, the development of the Route 30 corridor, general development, and the transition of land use to commercial and denser residential uses have diversified the economy in the immediate area. Primary employment sectors also include healthcare, technology, retail, and manufacturing. Public involvement activities and coordination with local officials have not identified a notable history of past projects impacting the local economy in a way that is inconsistent with the local vision. The immediate project area has been targeted for commercial use for at least two decades. Economic growth in the vicinity of the project have been guided by local municipal and county planning initiatives.	Seven commercial property takes, which would affect eight potential business spaces (due to the presence of a commercial duplex), are necessary to construct the project. Employment impacts are not anticipated to result from these takes due to the presence of replacement commercial properties within five miles of the project area, as documented in the Conceptual Stage Survey Report (amended in 2024). Businesses along the project corridor that rely heavily on drive-by traffic may experience indirect impacts due to the installation of the median barrier. Motorists may be less likely to stop at these businesses if access is restricted to right-in / right-out only movements. Motorists may also be more likely to stop at these businesses if they feel safer accessing them. Existing community and economic development constraints may potentially improve due to the enhanced vehicular mobility along the corridor, and construction of this project would improve safety for all users of the Route 30 corridor. The Westmoreland County Comprehensive Plan identifies congestion as a major problem in areas where commercial growth is desired, including the project area. The Plan describes that “if increasing the capacity of the road is not a feasible option, then reducing congestion must be the goal.”	RFFAs are expected to be designed and planned with consideration for local planning objectives. It can be assumed that future projects would engage appropriate stakeholders early and often through the planning process to ensure consistency with the local vision and economic vitality of the area.	A net positive cumulative impact associated with the local and regional economy is expected. A desired outcome of the project is to improve economic vitality and support any future growth in the vicinity of the project. The project and all RFFAs will be planned in accordance with the local vision.

Topic	Past Actions / Impacts	Present Condition / Proposed Direct and Indirect Impacts	RFFA Impacts	Summary
Right-of-Way	The original construction of the Route 30 and PA 48 corridors required notable right-of-way acquisition. Construction of the roadways resulted in the acquisition of approximately 20 acres of right-of-way within the project area. No other past actions required extensive right-of-way.	Proposed improvements to Route 30 would be contained within the existing PennDOT right-of-way to the extent possible; however permanent right-of-way would be required from adjacent property owners in the form of strip-takes, temporary construction easements, and in some cases permanent displacements. 123 parcels would require either partial or total right-of-way acquisition. These requirements would result in 11 full property takes, including seven commercial property displacements (affecting eight independent business spaces due to the presence of a commercial duplex), three residential property displacements, and two full takes of roadside parcels that are currently vacant. One of the full parcel takes includes one residential unit and one commercial unit that are located in two separate buildings. The project limits of disturbance overlap with approximately 30 acres outside of the existing right-of-way.	RFFAs are expected to occur on privately-owned land with the exception of the roadway/bridge projects. These projects include roadway resurfacing, bridge replacement, bridge restoration, and slide repairs, and are relatively minor in nature. The projects together would likely require less than 10 acres of permanent right-of-way acquisition.	Right-of-way requirements associated with the proposed action have been minimized to the extent practicable, and affected property owners will be compensated fair market value for the sale of the land during the right-of-way acquisition process. Suitable replacement properties are available within five miles of the project area. Cumulative impacts associated with right-of-way acquisition are expected to be approximately 60 acres total, and landowners adjacent to the project will be offered fair market value as compensation for the acquisitions. Cumulative right-of-way impacts are expected to be insignificant.
Indirect Traffic Impacts	Construction of the Route 30 and PA 48 corridors had repercussions on local and regional scales. Residential housing growth in the area has contributed to traffic and congestion in the area. Other past actions that have occurred more recently have not resulted in notable impacts to project area traffic.	The existing US 30 corridor is an unrestricted thoroughfare. The proposed addition of a raised median would restrict left turn movements along the project corridor thereby affecting access to nearly all properties along the US 30 corridor. The proposed action would restrict access in some areas and improve overall mobility along the corridor, thereby improving safety. Traffic would be temporarily impacted during construction activities.	Traffic in the region may be temporarily delayed during construction of the RFFAs. It can be assumed that other transportation-related RFFAs are necessary and recommended to improve local mobility, access, and accessibility. Non-transportation-related RFFAs are not expected to induce significant changes in traffic volumes or patterns. RFFAs are not expected to result in significant cumulative impacts.	The proposed activities would require unavoidable temporary lane closures that may result in short-term increases in congestion. However, the proposed improvements are expected to improve mobility along the corridor, which outweighs any negative impact. Significant cumulative traffic impacts are not expected to result from past, present or RFFAs.

References

Allegheny County. (2008). *Allegheny Places: The Allegheny County Comprehensive Plan.* < alleghenyplaces.com/comprehensive_plan/comprehensive_plan.aspx>

Allegheny Land Trust. (2014). *The Allegheny Land Trust Green Print.* < https://alleghenylandtrust.org/wp-content/uploads/2014/10/20141027_finalgreenprint_fullmultipg.pdf>

Behney, M., S. Copella, J. Shultz, D. Bowalick, A. Koontz, L. Meyers, and M. Kotovsky. (2014). *The Center for Rural Pennsylvania, Pennsylvania Population Projections 2010-2040.* https://www.rural.pa.gov/download.cfm?file=Resources/PDFs/Population_Projections_Report.pdf

Boucher, J. (1906). Page(s) 515-518, *History of Westmoreland County, Volume I*. New York, The Lewis Publishing Company, 1906. https://www.pa-roots.com/westmoreland/historyproject/vol1/chapter38.html

Council on Environmental Quality. *Justice40 Tracts Map April 2022.* <https://www.arcgis.com/home/item.html?id=0687efe42c7c44eb803c23a47ed374fa>

FHWA's Regulations: 23 CFR 771 and 23 CFR 450 at http://www.fhwa.dot.gov/legsregs/directives/fapg/cfr0771.htm

FHWA's 2003 Interim Guidance: Questions and Answers Regarding Indirect and Cumulative Impact Considerations in the NEPA Process found at http://www.environment.fhwa.dot.gov/projdev/qaimpact.asp.

North Huntingdon Township Board of Commissioners. (2000). *North Huntingdon Township Comprehensive Plan.*

North Huntingdon Township. *(2022). Zoning Map.* < https://www.township.north-huntingdon.pa.us/DocumentCenter/View/1026/Zoning-Map>

North Versailles Township. *Code Book of Ordinances* (2017) < https://ecode360.com/NO2601 > < https://nvtpa.com/wp-content/uploads/2020/11/North-Versailles-Township-Zoning-Map-pdf.pdf>

Pennsylvania Department of Transportation. (2008). *Indirect & Cumulative Effects (ICE) Desk Reference: PUB 640 (03 - 08).* https://www.dot.state.pa.us/public/PubsForms/Publications/PUB%20640.pdf

Smart Growth Partnership of Westmoreland County. (2007). *US 30 Master Plan.* < https://smartgrowthpa.org/route-30-master-plan/>

Southwestern Pennsylvania Commission (2019a). *Total Population by Municipality in Allegheny County, 1930-2010.* https://www.spcregion.org/wp-content/uploads/2019/10/Census-munic-pop-decennial-1930-2010-Allegheny-County.pdf

Southwestern Pennsylvania Commission (2019b). *Total Population by Municipality in Westmoreland County, 1930-2010.* https://www.spcregion.org/wp-content/uploads/2019/10/Census-munic-pop-decennial-1930-2010-Westmoreland-County.pdf

Southwestern Pennsylvania Commission (2020). *Southwestern Pennsylvania Commission MPO's Transportation Improvement Program Highway & Bridge Projects List*

U.S. Census Bureau (V2021). *Total Resident Population Estimates.* Retrieved from https://www.census.gov/quickfacts/fact/table/US/PST045221.

U.S. Environmental Protection Agency. *EPA's Environmental Justice Screening and Mapping Tool (Version 2.11).* < https://ejscreen.epa.gov/mapper/>

Westmoreland County Board of Commissioners. (2018). *Reimagining our Westmoreland Comprehensive Plan. < https://www.co.westmoreland.pa.us/654/Comprehensive-Plan >*