# LONG-RANGE TRANSPORTATION PLAN 2020-2045

November 2023

*This document was completed by the Buckeye Hills Regional Council with assistance from the Regional Transportation Planning Organization (RTPO) Advisory Committee and the Ohio Department of Transportation.*

BUCKEYE HILLS regional council

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This document produced by Buckeye Hills Regional Council in partnership with the Ohio Department of Transportation.

**November 2023**

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# Introduction

Buckeye Hills Regional Council (BHRC) is a designated Ohio Regional Transportation Planning Organization (RTPO), in partnership with the Ohio Department of Transportation (ODOT). Ohio's RTPO Program is focused on providing transportation planning products and services to the non-metropolitan regions of Ohio. Each RTPO is charged with developing transportation expertise, regional transportation databases, a public engagement policy, and a comprehensive, long-range, multimodal transportation plan for their region. This plan must be developed, maintained, and updated on a 5-year cycle, for the region defined by the State of Ohio.

For an RTPO, the Long-Range Transportation Plan (LRTP) is an important statement of the direction the region will be taking in transportation system investments. The plan identifies the multimodal and intermodal transportation policies and facilities needed to meet the RTPO's travel demand for a minimum 20-year planning horizon, with update and revision required every 5 years. The LRTP includes both short and long-term strategies designed to result in an integrated transportation system that facilitates the efficient movement of people and goods. Approval of the LRTP does not come from the U.S. DOT. Rather, the RTPO board is the approving authority.

The intent of this LRTP document is to update and expand upon the elements of the original 2015 LRTP document and reflect the next 5-years of the program cycle. Public participation in the development of the LRTP is a critical importance to reflect the voices, needs, and priorities of the region. BHRC's stakeholder participation process can be found in the agency's Public Participation Plan, which can be found at https://buckeyehills.org/transportation-planning.

This report was funded in part through grant(s) from the Federal Highway Administration (and Federal Transit Administration), U.S. Department of Transportation and the Ohio Department of Transportation. The views and opinions of the authors (or agency) expressed herein do not necessarily state or reflect those of the U. S. Department of Transportation or the Ohio Department of Transportation.

## Executive Summary

Buckeye Hills participates in Ohio's Regional Transportation Planning Organization (RTPO) program, in partnership with the Ohio Department of Transportation (ODOT), and has been doing so since the pilot status in 2013. The transportation planning boundaries in which Buckeye Hills conducts transportation planning processes includes Athens, Hocking, Meigs, Morgan, Monroe, Noble, Perry, and Washington counties (except seven townships which are served by the WWW Interstate Planning Commission based in Parkersburg, WV).

RTPOs are required to complete a long-range regional transportation plan (LRTP) every five years, with a horizon year 20-25 years into the future, to inform federal and state transportation official and interested public about the conditions, needs and priorities for all modes of transportation. The Buckeye Hills LRTP is also intended to serve as a comprehensive resource for local officials to access transportation analysis, assessments, and resources to aid them in their transportation planning and decision making.

This second rendition of the LRTP represents a 5-year cyclical update and full re-write of the first version. The LRTP includes sections on the plan's goals and objectives, existing conditions and future conditions in the region, needs assessments, and general plan recommendations for all modes of transportation in the region. This plan was produced as a collaborative effort between Buckeye Hills Development leadership, RTPO and GIS staff, and in conjunction with the RTPO Advisory Committee. Public input was used to develop appropriate goals, strategies, needs, and priorities for the region. The goals and objectives of the LRTP are:

**Buckeye Hills RTPO LRTP Goals & Objectives**

| | GOAL | OBJECTIVES |
|---|---|---|
| #1 | Maintain & Preserve the Region's Transportation System | Identify deficiencies and recommend improvements to the region's transportation system; Develop and promote strategies to improve and maximize the life-cycle of regional transportation systems; Explore and advance countermeasures locally and/or with ODOT; Explore, devise and pilot methods and processes for two-way reporting of transportation network conditions between the public/stakeholders and the local government/ODOT |
| #2 | Strengthen the Region's Economic Vitality | Promote and support initiatives and projects that work to fortify and/or advance the region's global competitiveness, productivity, and efficiency; Identify and supoort the maintenance and/or improvement of core transportation systems that connect facilities, economic assets, and the varied transportation networks in Ohio and neighboring states of the region; Increase transportation education opportunities for public awareness including financing and improvement costs |
| #3 | Promote & Support Safety Improvements | Improve driver and transportation user awareness and education, and advocate for system enhancements that improve general user safety; Explore a systemic approach to system safety; Identify high-risk safety areas in the multi-modal transportation networks |
| #4 | Advance Mobility and Accessibility | Promote and advance additional options for moving people and goods from place to place, and increase access to available public transportation options; investigate the establishment of additional public transportation assets; Seek to strengthen intermodal links between bicycle and pedestrian facilities, public transportation, motorized transport, and recreation; Coordinate outreach and communications with all interested parties, including local governments, communities, organizations, and individuals to advance transportation safety and accessibility |

## MAJOR FINDINGS OF THE LRTP

### Top Regional Transportation Trends & Issues

The top transportation trends and issues in the region are: a lack of public transportation options; a lack of transportation funding for local transportation projects; a growing demand for non-motorized infrastructure; and a chronic underutilization of the Ohio River as a mode of transportation.

### Commuting Patterns

Each day, more residents are leaving the Buckeye Hills region for work than are coming in. Of the 94,224 workers who live in the region, nearly 51% commute out for employment. Overall, there is a daily deficit of 24,721 commuters leaving the region demonstrating that there are not enough jobs in the region for the resident population.

### Roadway Conditions

The roadway conditions in the region are positive with only 11-miles rated at a poor level of service, overall there is low traffic congestion, stable traffic volumes, negligible car and truck growth, and pavement ratings in overall good condition with only 12% of State roads and 24% of local roads rated with a pavement condition of fair-to-poor.

### Roadway Safety

In the past 5-years there was an 8.3% decrease in total crashes with a corresponding 10.9% decrease in total injury crashes. On average, there were 35 fatal crashes per year - roughly 3 fatal crashes every month. At 35% the most common type of crashes in the region are Fixed Object crashes. Of the 117 pedestrian crashes reported in the last 5-years, 94% resulted in an injury and 12 were fatal. In the last 5-years head-on collisions accounted for the second highest number of fatalities, with just over half of all head-on crashes resulting in fatality.

### Transit and Transportation Services

Greater access to public transportation options has been repeatedly identified as one of the greatest needs in the region as part of public engagement, community surveys, and stakeholder technical assistance committees and is projected to grow. The demand is driven by: people trying to retain or secure employment; people seeking connectivity to active transportation opportunities; low/fixed income citizens; substance abuse treatment/recovery; senior citizens who cannot drive for personal business, medical, and non-medical transportation; the developmentally or physically disabled.

### Active Transportation

When assessing the long-range posture of active transportation in the Buckeye Hills region, it is clear that the gaps, demand, economic forces, and safety needs will drive an overall increase in active transportation and the need for strategic, and fiscally-responsible comprehensive planning. As such, the greatest active transportation needs for the region are local community and governmental

adoption of Complete Streets policies and/or Active Transportation Plans and projects in alignment with the Walk.Bike.Ohio program goals and objectives.

### Truck, Rail, and Maritime Freight

In the region, growth to truck freight is largely being driven by the Oil & Gas industry, and that activity accounts for much of the existing truck traffic particularly on non-federal aid roads and corresponding roadway damage.

Though the region does not possess a dense network of active railroad lines, rail in the Buckeye Hills region nevertheless can be an important mode of freight transportation for the regional economic development. To support the Oil & Gas industry, Ohio River maritime freight, and economic competitiveness and growth the rail track capacity needs to be upgraded to handle 286,000-pound railcars along with the development of a regional coordinated freight plan.

A statistical port designation was awarded for the intended Mid-Ohio Valley Port District (MOVPD) on the last unrepresented segment of the Ohio River in 2021. With the new opportunity to gather freight activity data, justifications for additional trans-loading and public port facilities needed to increase maritime utilization, lock and dam deterioration remediation, and diversification of freight cargo can be developed. Without a regional freight plan, freight information is hard to derive but the statistical port data development will allow for a better understanding of freight entering the region by the Ohio River whether leaving the port by rail or truck.

### Conclusion

The Long-Range Transportation Plan is a living document and an ongoing process. The Buckeye Hills RTPO will continue to maintain and modify the LRTP as needed as part of a continuous, collaborative, and comprehensive planning program.

For this current rendition of the LRTP, key staff turnover and the COVID-19 pandemic had a great deal of impact on the construction of the plan, but moving forward such challenges should not be in play. For future renditions of the plan, data collection on local needs will commence 2-years in advance of the completion date, in addition to pursuing consultant assistance on particular tasks should the budget allow.

More information regarding Buckeye Hills Regional Council, the RTPO program, and the LRTP are available at: https://buckeyehills.org.

## SYSTEMS PERFORMANCE REPORT

In updates to this document and Transportation Improvement Plans developed by Buckeye Hills Regional Council, the following table will be used to track progress toward plan goals. This table describes the goals, objectives and tracking criteria that will be used for the duration of this plan.

# EXECUTIVE SUMMARY

| Goal | Objective | Tracking Criteria | Progress |
|---|---|---|---|
| **Maintain and Preserve the Region's Transportation System** | Identify deficiencies and recommend improvements to the region's transportation system. | Potential projects identified | |
| | Develop and promote strategies to improve and maximize the life-cycle of regional transportation systems. | Strategies identified or promoted | |
| | Explore, devise and pilot methods and processes for two-way reporting of transportation network conditions between the public/stakeholders and the local government/ODOT. | Methods and processes identified | |
| **Strengthen the Region's Economic Vitality** | Promote and support initiatives and projects that work to fortify and/or advance the region's global competitiveness, productivity, and efficiency. | Initiatives/projects promoted and/or supported | |
| | Identify and support the maintenance and/or improvement of core transportation systems that connect facilities, economic assets, and the varied transportation networks of Ohio and neighboring states of the region. | Projects identified and/or supported | |
| | Increase transportation education opportunities for public awareness including financing and improvements costs | Education opportunities supported | |
| **Promote & Support Safety Improvements** | Improve driver and transportation user awareness and education, and advocate for system enhancements that improve general user safety. | Education and system enhancements supported | |
| | Promote and advance additional options for moving people and goods from place to place, and increase access to available public transportation options. | Transportation options promoted | |
| | Identify high-risk safety areas in the multi-modal transportation networks, explore and advance countermeasures locally and/or with ODOT. | High-risk safety areas identified | |
| **Advance Mobility and Accessibility** | Investigate the establishment of additional public transportation assets. | Assets investigated | |
| | Strengthen intermodal links between bicycle and pedestrian facilities, public transportation, motorized transport, and recreation. | Intermodal links supported | |
| | Coordinate outreach and communications with all interested parties, including local governments, communities, organizations, and individuals to advance transportation safety and accessibility. | Outreach coordinated | |

# Summary of Regional Transportation Trends & Issues

Typically, when transportation priorities are decided, it is easy to focus only on roadway construction, maintenance, and improvement projects, as they are often the most visible issues. However, transportation is a far broader topic that includes the demographics of the region, socio-economic conditions and projections, travel patterns, and encompasses many modes of conveyance.

Several trends and issues have been recognized that affect overall planning for transportation in the region and are important to be aware of. By default, attention to the issue of user safety within the multi-modal transportation network is a pervasive element in this plan. Identifying safety concerns and working towards countermeasures in the region will remain a constant trend over the long-term, and as such is not specifically called out as a trend in this summary. It underlines many of the issues identified here.

Acknowledging that safety is an ever-present concern, the following is an overview of the top trends and issues observed and acknowledged in the BHRC region by rank of importance:

## 1. Lack of Public Transportation Options

With the population of the region in general shrinking, and the population that remains skewing ever older, the gaps in public transportation options and negative impacts to the regional community has accelerated, creating acute issues with the older population who are unable to drive and/or have disabilities. Additionally, the socio-economic trends in the region of low income, high unemployment, higher amounts of substance abuse, an aging population, and a growing disabled population have made vehicle ownership, upkeep costs, and maintaining legal status of a vehicle a distinct challenge and further drive the acute need for more public transportation options.

Further evidence of this need has been highlighted by the county-produced Mobility Management Coordinated Transportation Plans in the region. They have better defined this issue through direct public outreach, data gathering, and coordination with the transportation service providers. The activities of the Mobility Management programs have shown that there is a clear lack of public transportation services in the region that needs to be addressed with a sense of urgency. Events like the 2020 COVID-19 pandemic have exacerbated the issue by limiting the already inadequate transportation services and exposed the threat to the health and well-being of the region as large swaths of the community have been unable to secure reliable transportation to medical services, grocery, pharmacy, employment, and other life supporting activities that are taken for granted in areas of the state that have more robust public transportation options.

## 2. Lack of Transportation Funding for Local Transportation Projects

The single largest barrier to local governments submitting for and being awarded much needed transportation projects is their inability to produce and provide the local funding

match for the project award. Rural communities have limited tax base and budgets - replacing existing infrastructure repeatedly drains their coffers and defers maintenance on the remainder of the system. Expansion of transportation options is beyond their budgets, as maintenance needs are difficult to meet.

ODOT is enormously generous with transportation project funding, administrative assistance, training, design and support. However, ODOT's funding sources derived from gasoline tax have been eroded, forcing a modest yet impactful transfer of financial burden on local governments to produce the local funding match and requisite safety studies, traffic impact studies, signal warrant analysis, environmental impact, right-of-way acquisition, engineering design, and other preliminary action required to secure State funding award.

## 3. Growing Demand for Non-Motorized Infrastructure

There is a trend in the region of growing demand from communities for local non-motorized active transportation infrastructure. Active transportation describes all human-powered forms of travel, such as walking, cycling, in-line skating, skateboarding, skiing, canoeing, and more. Walking and cycling are among the most popular and can be combined with other modes, such as public transit. Such forms of active transportation are an effective way to conserve fuel, reduce vehicle emissions, improve human health, and improve overall transportation network safety by limiting pedestrian and cyclist exposure to vehicular traffic lowering crash and fatal incidents and more by lowering vehicle volume. Because of the varied benefits, such infrastructure development is being promoted and advanced by ODOT as well as the Federal Department of Transportation with grants, funding programs, planning technical assistance and training.

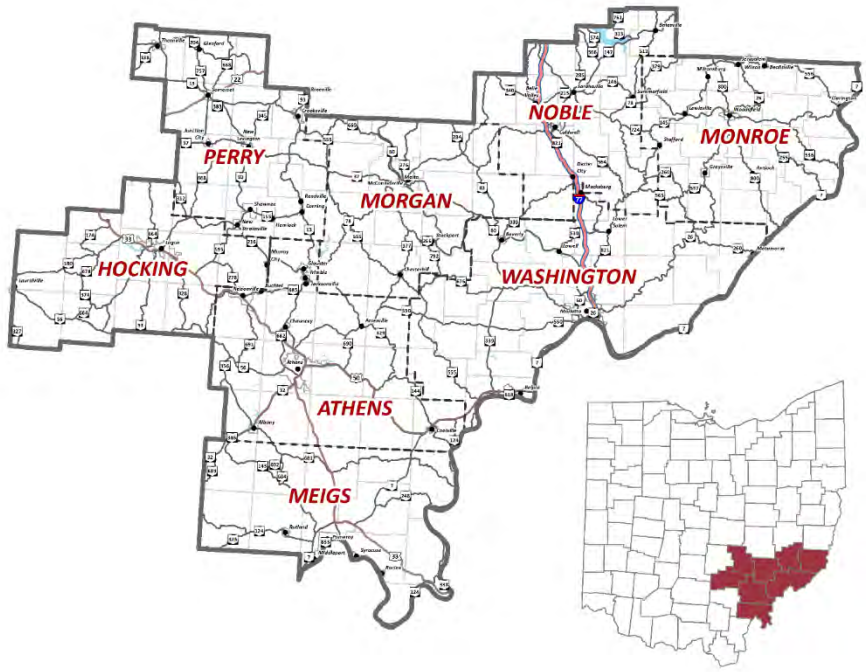
## 4. Chronic Underutilization of the Ohio River as a Mode of Transportation

In discussions with regional economic development partners in the past, questions have been raised about what is out on the Ohio River - what types of cargo, what tonnages of various commodities, what are the origins and destinations of that cargo, etc. Until the recently the only way to ascertain this data is via special data request, or by accessing individual vessel reports. Efforts have been under way with ODOT and the US Army Corps of Engineers to establish a statistical port on the 216-mile segment of the Ohio River from mile marker 40 to 257 (Columbiana County to Meigs County). This was the only remaining segment of the Ohio River in Ohio that lacks a statistical port to gather pertinent maritime information. Perhaps more importantly, should the need for bulk cargo transport significantly increase in the Mid-Ohio Valley, transporting this cargo by barge is more cost effective than doing additional highway buildouts or expansions that may be necessary to facilitate this cargo over land. Also, it is important to consider that significant funding to support such a major highway buildout should it be required, could be decades away.

# Background on The Buckeye Hills Region

Buckeye Hills Regional Council serves an eight-county region in southeastern Ohio. These include Athens, Hocking, Meigs, Monroe, Morgan, Noble, Perry, and Washington counties. BHRC member counties are predominantly rural in nature, containing six small cities, fifty-one villages, and 120 townships in total.

The Region is bounded on the south and east across the Ohio River by the state of West Virginia. There are four major highways serving the area: Interstate 77, U.S. Routes 33 and 50 and Ohio Route 7. US 50, as it passes through the region, follows the Appalachian Highway Corridor D. These highways provide connections to the Ohio metropolitan areas of Columbus, Cleveland and Cincinnati and the nation beyond.




The Buckeye Hills region is rich in history, academic institutions, and natural beauty. Marietta, in Washington County, was the first settlement of the Northwest Territory. Ohio University in Athens County is the first university north of the Ohio River and West of the Allegheny Mountains. Other colleges include Hocking College in Athens County, Marietta College and Washington State Community College in Washington County, and a branch campus of the University of Rio Grande in Meigs County.

Many tourists enjoy the region and its natural beauty throughout the year. The Ohio River brings boating enthusiasts to all of the counties bordering the river which includes Monroe, Washington, Athens, and Meigs counties. Hocking County's Hocking Hills offers miles of trails, waterfalls, and prehistoric caves. Noble County boasts the first oil well drilled in North America. Meigs County hosts the oldest standing courthouse in Ohio, in the community of Chester, and its current courthouse in Pomeroy is also among the oldest in the state. Many hunters enjoy Morgan County and its abundance of whitetail deer and wild turkey. Perry County celebrates the history of moonshine production in New Straitsville. Also, throughout the region, there are various historic sites of Native American origin. The region is also home to Wayne National Forest, and a number of related trails and campsites within it.

# Goal & Objectives of The Long-Range Transportation Plan

The goals and objectives described in the following section of this Long-Range Transportation Plan (LRTP) are designed to address the transportation concerns of the region, with regard to the socio-economic, demographic, mobility, and safety factors specific to it. These goals not only govern each five-year update cycle of the LRTP, but also provide a consistent long-term vision for the program well in the future. The plan's goals are supported by a series of objectives, strategies, and performance measures.

Consistent with the planning factors that need to be considered under the Fixing America's Surface Transportation Act (FAST Act) of 2015, BHRC in conjunction with the RTPO Advisory Committee have adopted the plan's revised goals and objectives. It is the belief of RTPO committee members that each goal and objective is equally important, and therefore they are not presented in a prioritized order but each is explored in detail.

These goals are also intended to align with Buckeye Hills Regional Council's Mission and Vision Statements.

**Mission Statement:**
Buckeye Hills will improve the socioeconomic conditions of the region by promoting the interests and needs of our constituents to persons and agencies empowered to create positive change.

**Vision:**
The effective utilization of public and private resources for an improved quality of life for our constituents.

Below are the goals and objectives of the Long-Range Transportation Plan:

## Maintain & Preserve The Region's Transportation System

Due to solvency issues with the National Highway Trust Fund and continuing decreases in the State of Ohio gas tax revenue, transportation system maintenance funding is becoming increasingly scarce, particularly in rural regions. Studies nationwide and BHRC regional stakeholder feedback reveal that the public feels it is a priority to target the maintenance and preservation of transportation infrastructure across all modes of transport by identifying deficiencies, developing strategies, focusing on safety, and improving network condition communication.

To address that regional sentiment and understood priority, the long-range objectives for maintaining and preserving the region's transportation system are as follows:

### Objectives

- Identify deficiencies and recommend improvements to the region's transportation system.
- Develop and promote strategies to improve and maximize the life-cycle of regional transportation systems.

- Explore, devise and pilot methods and processes for two-way reporting of transportation network conditions between the public/stakeholders and the local government/ODOT.

## Strengthen The Region's Economic Vitality

Historically, counties in the Buckeye Hills region have dealt with some of the most challenging economic factors in Ohio including higher unemployment rates, greater economic disparity, lower per capita income, and lower high school graduation rates. Such socio-economic conditions and lower population densities in rural regions like the Buckeye Hills member counties directly impact State and Federal funding distribution. This dynamic has led to County Engineers' offices having difficulty in improving or expanding local transportation network beyond basic maintenance.

However, there are historic, natural, private business and academic assets in the region that can advance economic vitality if leveraged carefully. Improving community access, mobility, and safety is a key component to attracting and sustaining economic activity regarding such assets. Leveraging transportation investments that improve the economic vitality of the region is a key focus of the long-range transportation plan. BHRC, ODOT District Offices, and local stakeholders must work together to develop transportation projects that leverage the local economic assets to foster/advance economic development.

Additionally, targeted support of investments in existing infrastructure – including roadway, rail, and maritime (i.e. the Ohio River) – could yield economic benefits by enabling transport of large freight cargo by barge and rail, and by trucks for last-mile delivery. These types of successful investments provide the infrastructure that encourages further development in the region. The following objectives are how BHRC plans to work toward this goal:

### Objectives

- Promote and support initiatives and projects that work to fortify and/or advance the region's global competitiveness, productivity, and efficiency.
- Identify and support the maintenance and/or improvement of core transportation systems that connect facilities, economic assets, and the varied transportation networks of Ohio and neighboring states of the region.
- Increase transportation education opportunities for public awareness including financing and improvements costs.

## Promote & Support Safety Improvements

Improving the safe use of the transportation system, is a high-level goal of the RTPO and the long-range transportation plan. BHRC is committed to identifying safety improvement, safety program funding, and safety education opportunities that assist in the realization of safe travel across all modes in the region. In addition, BHRC is committed to developing, administering, supporting and advancing programs that increase accessibility to mobility of all citizens in the region. The focus on that goal is reflected in the following objectives:

### Objectives

- Improve driver and transportation user awareness and education, and advocate for system enhancements that improve general user safety.
- Promote and advance additional options for moving people and goods from place to place, and increase access to available public transportation options.
- Identify high-risk safety areas in the multi-modal transportation networks, explore and advance countermeasures locally and/or with ODOT.

## Advance Mobility and Accessibility

Furthering the mobility of all citizens, and expanding accessibility to transportation in the community is woven throughout this document as well as the activities of BHRC. From supporting the region's Mobility Managers, including hosting two of them, to the efforts BHRC's Area Agency on Aging make to secure transportation for older populations, this goal is reflected in many actions made by the organization. The RTPO specifically will use the following strategies to work toward this goal:

### Objectives

- Investigate the establishment of additional public transportation assets.
- Strengthen intermodal links between bicycle and pedestrian facilities, public transportation, motorized transport, and recreation.
- Coordinate outreach and communications with all interested parties, including local governments, communities, organizations, and individuals to advance transportation safety and accessibility.

# State of the Region Summary: Existing Conditions & Projected Future Conditions

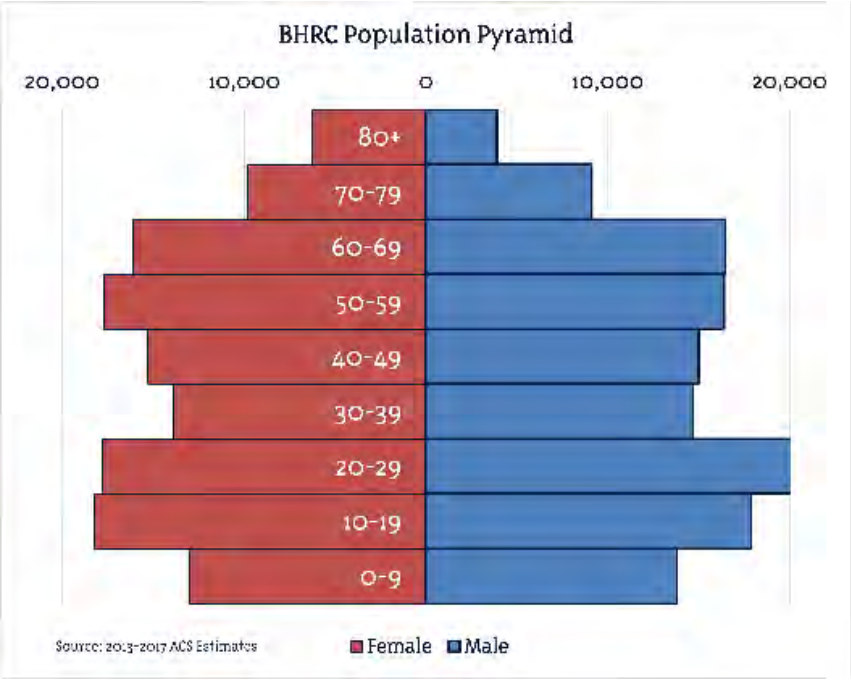
Buckeye Hills produces multiple plans and documents examining the demographic and economic conditions and trajectories of the region. The findings of Comprehensive Economic Development Strategy (CEDS, http://www.buckeyehills.org/ceds) and the Rural Economic Development Initiative (REDI, http://www.buckeyehills.org/redi) are summarized below.

## DEMOGRAPHICS

A key driver for transportation planning involves the current and projected regional population. For historical context, from 1970 to 2010 the Buckeye Hills region had been increasing at a modest rate. The increase in that 40-year time period was primarily due to internal population growth and international migration, but less migration from elsewhere in the country.

However, for the past 20 years the population in the region has been fairly steady with slight decreases caused mainly by deaths outpacing births and negative domestic migration out of the region. A result of that trend has been an overall aging of the region's population.

From a county-level perspective, all but two (2) counties: Noble and Perry, have experienced population decreases since 2015. However, it is important to note that those decreases are relatively minor with Monroe County seeing the highest decrease of 5.31%.




Regarding the distribution of age in the region's population, the generations of Baby Boomers (ages 56 to 74), Millennials (ages 24 to 39), and Generation Z (ages 8 to 23), are the three largest cohorts in the regional populace. Additionally, The ethnic population of the region is: 95% Caucasian and 5% Minority.

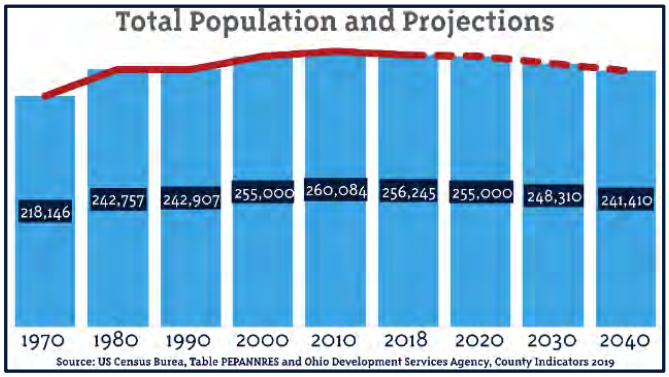
In terms of population density, the rural population is spread across the region, with only a few population centers. The five cities in the region make up the areas of highest population density are Athens and Nelsonville in Athens County, Logan in

Hocking County, and Belpre and Marietta in Washington County. The population of the region clusters in and around those centers as well as along major transportation routes including U.S. Route 33 in Athens and Hocking Counties, and Interstate 77 in Noble and Washington Counties.

Please refer to Appendix B for demographic maps and data relating to in the region.

The transportation system of the region is affected by the demographics of the people who use the system, the distribution and concentration of those people in the region, and the ways those people interact with society at-large.

What can be assumed from the population projections provided by the Ohio Department of Development is that the Buckeye Hills region will continue to experience a gradual decline in population for the next 20 years at minimum. The population of the region as a whole is projected to decline at an average of 7%, with Hocking, Monroe, and Washington county decreasing by more than 10%. It is also quite possible, if not likely, that the region's population will continue to decline beyond the 20-year forecast, unless economic conditions change within the region.




None of the counties in the Buckeye Hills region are projected to experience population growth, and only Athens County is forecast to remain static. Though it should be noted that the full negative impact of the COVID-19 pandemic on Athens County's primary economic driver, Ohio University, is still unknown and could very well negatively change the long-term population projection for that county as well.

As the regional population continues to decline, so will the local infrastructure funding from the loss of gas tax, property tax, income tax, and sales tax revenues that are apportioned locally and by the State of Ohio. Additionally, funding allocation from the Federal government will be negatively impacted, given that population is a factor in the apportionment calculation. The ultimate result is that as the region's population declines, so will transportation project funding and local match budgets.

| Projected Population Changes to 2040, by County (2019) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Census 2010 | 2015 | 2020 | 2025 | 2030 | 2035 | 2040 | Change | Percent Change |
| Ohio | 11,536,504 | 11,549,120 | 11,574,870 | 11,598,670 | 11,615,100 | 11,635,110 | 11,679,010 | 142,506 | 1.24% |
| BHRC* | 260,084 | 257,400 | 255,000 | 251,570 | 248,310 | 244,460 | 241,410 | -18,674 | -7.18% |
| Athens | 64,757 | 65,990 | 66,720 | 66,710 | 66,320 | 65,630 | 64,830 | 73 | 0.11% |
| Hocking | 29,380 | 28,470 | 27,550 | 26,600 | 26,020 | 25,260 | 24,680 | -4,700 | -16.00% |
| Meigs | 23,770 | 23,610 | 23,630 | 23,300 | 23,170 | 22,670 | 22,340 | -1,430 | -6.02% |
| Monroe | 14,642 | 14,420 | 14,160 | 13,900 | 13,590 | 13,290 | 13,120 | -1,522 | -10.39% |
| Morgan | 15,054 | 14,880 | 14,770 | 14,600 | 14,360 | 14,100 | 13,820 | -1,234 | -8.20% |
| Noble | 14,645 | 14,190 | 13,960 | 13,830 | 13,790 | 13,750 | 13,920 | -725 | -4.95% |
| Perry | 36,058 | 35,430 | 35,210 | 35,010 | 34,840 | 34,830 | 34,980 | -1,078 | -2.99% |
| Washington | 61,778 | 60,410 | 59,000 | 57,620 | 56,220 | 54,930 | 53,720 | -8,058 | -13.04% |

*BHRC value is a sum of the constituent counties

Source: Ohio Development Services Agency, Ohio County Indicators Published July 2020

Another big take-away from the demographic analysis is that nearly a third (31.9%) of the entire population of the Buckeye Hills region is over the age of 55, and 17% of the population is 65 years of age or over. The median age of the region is 42. It is expected that the proportion of older adults in the region will continue to grow through 2045.

| The Region's Aging Population | | | | |
|---|---|---|---|---|
| County | Pop 55-59 | Pop 60+ | Pop 55+ | 55+% |
| Athens | 3,749 | 11,465 | 15,214 | 23.1% |
| Hocking | 2,207 | 7,265 | 9,472 | 33.2% |
| Meigs | 1,817 | 6,117 | 7,934 | 34.3% |
| Monroe | 1,128 | 4,210 | 5,338 | 37.9% |
| Morgan | 1,089 | 4,157 | 5,246 | 35.7% |
| Noble | 1,571 | 5,015 | 6,586 | 45.6% |
| Perry | 2,367 | 8,424 | 10,791 | 30.0% |
| Washington | 4,885 | 16,635 | 21,520 | 35.5% |
| BHRC | 18,813 | 63,288 | 82,101 | 31.9% |

*Statistic calculated by Buckeye Hills  Data Source: US Census Bureau; ACS 2014-2018

**BHRC value is a sum or average of constituent counties, whatever is appropriate

As such, the region is experiencing a demographic trend that will have notable implications for the transportation system and delivery of services. The long-term trend towards an aging population is going to face needs and changes to the transportation system as a whole that address mobility, safety feature and asset visibility, Americans with Disabilities Act (ADA) compliant infrastructure, and medical/nutritional delivery. Moreover, planning for the transportation needs of the aging population will be more of a challenge for the region as it tries to meet those needs against implications of declining project funding.

Given that this age group is anticipated to have greater leisure time, it is likely that regional transportation planning efforts will see a greater demand for nonmotorized transportation, walkable communities, and access to more frequent public transportation services.

## SOCIO-ECONOMICS

In this section, the key metrics critical for understanding the socio-economic conditions in the Buckeye Hills region will be reviewed. This is only a snapshot of the data available to describe and analyze the Buckeye Hills region. For a more comprehensive list of statistics and indicators tracked by BHRC, please check out our Data Compendium, a document with a number of vital statistics and

descriptions included. Or you can check out the Data Center at http://www.buckeyehills.org/data-center. Much more information is available upon request by contacting Buckeye Hills.

NOTE: The data in this document was assembled and compiled prior to the 2020 COVID-19 pandemic and is not reflective of impacts resulting from the global health emergency.

The top five sectors of employment in the region by percent are **government**, **health care/social assistance**, **retail trade**, **accommodation and food services**, and **manufacturing**. The government sector is by far the largest employer, employing over 21,000 workers, nearly double of the next largest category.

The largest changes in sectors between 2003 and 2018 for the BHRC region have come in the 'management of companies and enterprises' which has increased by 442% (144 to 781); and manufacturing which has decreased by 34% (11,316 to 7,523). These trends are expected to continue, though not at the same rate. Recent efforts at local, state and national level to restore and increase manufacturing efforts are anticipated to impact this region. Given the existing manufacturing base, the region is poised to take advantage of those larger efforts.

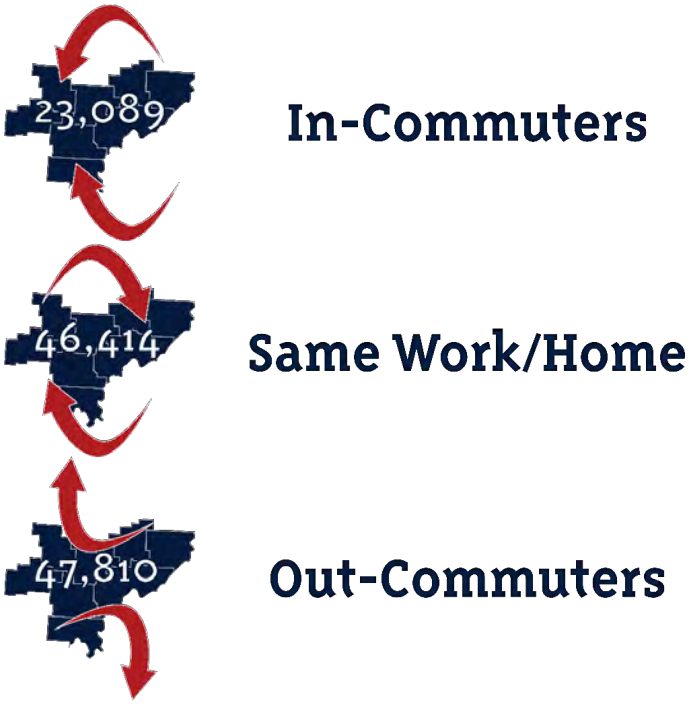
The region continues to be a center of agricultural activity. This industry is often overlooked in economic and community development discussions. People are increasingly considering the source of their food, and the environment in the BHRC region makes for fertile farmland. These factors could result in increased farming activity in the region.

The region is composed of over 2.3 million acres of land in total. As of 2017, over 949,000 of those acres were in farm use – representing approximately 41% of the region's land area. This value has increased by 1.5% since 2012. In 2017 there were 5,888 active farms operating in the region. In total these establishments produced over $278 million in products sold. While significant, value of products sold has decreased 9% since 2012.

The top agricultural products produced in the region by acreage are soybeans, forage, corn (grain), wheat, and corn (silage). These products are not expected to change significantly over the planning period.

Each day, more residents are leaving the Buckeye Hills region for work than are coming in. As of 2017 there were over 69,000 workers living in the region. Of those workers 46,000 were both working and living in the region; 23,000 were living in the region but working outside. Of the 94,000 workers employed (but not necessarily living) in the region – nearly 48,000 live outside the eight counties. Overall, there is a daily deficit of nearly 25,000 commuters leaving the region. This would indicate that the region is not a job center.

Ideally, a region would have at least as many in-commuters as out-commuters. One cannot expect everyone living in a region or county to work there, but a healthy economy would want to be able to employ everyone that lives there, and maybe some more. If there are not at least as many jobs as workers in the region, then those people must leave the area for work. This desire or need to leave is a contribution to declining populations.




Source: US Census Bureau - LEHD On The Map

These figures may improve as time goes on, but that could be because of population losses as much as job growth. As more residents age and retire, their positions still need filled, and those positions could be filled by local or in-commuting individuals. Preferably, and possibly, with the efforts described above regarding manufacturing in particular, the available jobs can be expanded, and more of the local workforce could be hired in the region. Until then, connections between the region and adjacent counties or the state and federal networks at large should be examined closely, as they may be what keeps residents of the BHRC region employed.

The region has historically experienced high levels of poverty in the eight-county region. Between 2001 and 2017 the regional poverty rate increased from 15.3% to 19%. A high of nearly 21% was experienced in 2009. In 2017 nearly 25% of all minors in the region were in poverty. It will take targeted development and the continuation reshoring manufacturing jobs to reverse this trend.

According to data from the ACS and the state of Ohio released in February 2019, Athens County had the highest poverty rate in the state from 2013 to 2017, coming in at 30%. This is likely at least partially due to the large population of students, in comparison to the normal city population. Overall, the Appalachian region of Ohio (32 counties) has a collective poverty rate of approximately 17%, three percent higher than the rest of the state combined.

## LAND USE

Integration of land use considerations into transportation planning can reduce the need for highway expansion, reduce major impacts to local road network, preserve environmental justice, and maintain the quality of the communities in the Buckeye Hills Region. As such it is important the local communities of the Buckeye Hills region consider land use in their transportation planning and project development – and in turn, consider transportation in land use plan development.

Unfortunately, many of the local governments in the Buckeye Hills region do not have the budgetary or staffing resources to actively conduct land use planning with the data and analyses required to factor into any transportation plans or project development. However, the Athens County and the City of Athens have both conducted rigorous and comprehensive land use planning to highlight for the Buckeye Hills local governments and stakeholders to model.

- The Athens County Comprehensive Land Use Plan can be found at: www.co.athensoh.org/departments/regional_county_planner.php
- The City of Athens Comprehensive Plan can be found at: https://www.ci.athens.oh.us/DocumentCenter

Given the lack of local resources and expertise to conduct land use planning or analysis for transportation planning and project development, Buckeye Hills Regional Council is committed to assisting our local member communities, stakeholders, and partners with land use data, mapping, analysis, and consultation to support their transportation planning or project development for the most effective outcomes while also preserving environmental justice. Please contact the Transportation Manager at Buckeye Hills Regional Council for any land use consideration assistance or general transportation planning consulting services.

## OIL & GAS

The counties making up BHRC's region have historically lent themselves to economic sectors of mining, natural resource extraction, and manufacturing. The Marcellus and Utica shale formations are some of the largest natural gas resources in the world and underlay the Shale Crescent USA region of Ohio, Pennsylvania, and West Virginia. From 2011 to 2015, the Buckeye Hills counties of Monroe, Morgan, Noble, and Washington experienced an oil and gas boom as a result of technology improvements like hydraulic fracturing (a.k.a. fracking) along with a better understanding of shale geology. IHS Markit forecasts that this region will supply 37% of the nation's natural gas production by 2040. This oil and gas activity and heavy vehicle volume have impacts to local road networks and local economy, currently and into the future, that will be reviewed in this section.


*Map Source: Ohio EPA*

Since that time the boom has lessened from a variety of geo-political reasons but the oil and gas activities are anticipated to continue at least until 2040 and potentially further into the future. In the Buckeye Hills region shale wells have been producing, have been drilled, are being drilled, or have been permitted in Monroe, Morgan, Noble, and Washington Counties.

One of the impacts from this shale oil and gas activity in the region is additional wear and tear to local roads. Ohio has mechanisms like Road Use Maintenance Agreements (RUMAs) and ODOT 's Local Roads Oil & Shale Program that seeks to repair or maintain sections of local roads or bridges that incur degradation from the additional heavy vehicle traffic.

Per the Ohio Oil & Gas Association's published 2017 Report of Ohio's Oil & Gas Industry Road Improvement Payments, Monroe County had 72 miles of road improvement at a cost of $41.7M; and Noble County had 14.92 miles of road improvement at a cost of $12.5M.

As previously noted, despite the lessening of the furious activity during the initial oil and gas boom, the activities in the eastern part of the Buckeye Hills region are anticipated to continue at least until 2040 and potentially further into the future – the exact amount however will be dependent on the national and international forces driving the industry.

Fortunately, the degrading impacts to the local road networks will be continue to be mitigated by Ohio's Road Use Maintenance Agreements (RUMAs) and ODOT 's Local Roads Oil & Shale Program. Buckeye Hills will continue to support our regional members with the Local Roads Oil & Shale Program with data collection, analysis, and mapping services as well as application assistance and planning consultation as was performed recently in 2020 for the Monroe County Engineers Office.

The long-term continued oil and gas activity in the region will also impact traffic and freight movements and will be discussed in later sections dealing with those modes of transportation.

To aid the member governments with planning around oil and gas impacts to the local road network, Buckeye Hills has developed an interactive web mapping application called Shale Well Activity. The purpose of this map is to display all of the horizontal well activity in the region. It includes activity that was reported between June 2009 to the present with regular updates, from both the Utica and Marcellus Shale regions of Eastern and Southeastern Ohio. The mapping application is also time-aware, meaning the user can view the locations and changes in well status (producing, drilled, drilling, and permitted) over time virtually as well as display any injection well locations. **The Shale Well Activity** mapping application can be found at: buckeyehills.maps.arcgis.com

The time-aware interactive map can be utilized by local members, partners, and the public to visualize where oil & gas, and injection wells are located that will need local township and county road access/usage, as well as state roadway assets, to support the increased heavy vehicle traffic.

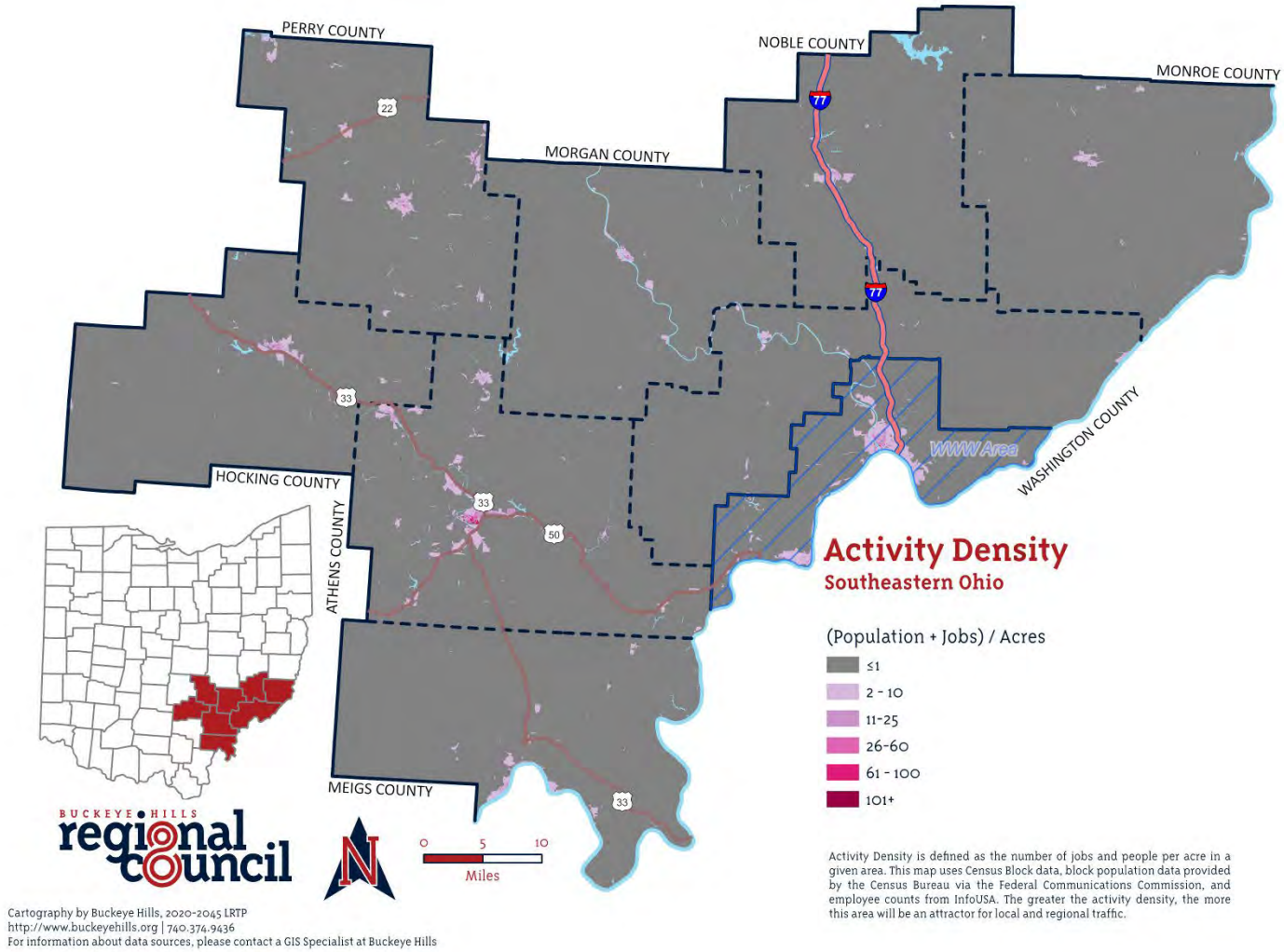
## TRAVEL DEMAND

Travel demand patterns help to illustrate how the population moves within the region as well as outside the region. There are several ways to demonstrate and identify the various demands on a transportation system, but BHRC primarily uses activity density, as it uses data available for the entire region with a high degree of granularity, and it does not rely on modeled outputs.

## Activity Density

Activity density is defined as the number of people and jobs per acre, in a given area. In the map below, the range of activity density can be visualized across the region. Not surprisingly, the highest activity densities correspond with the greatest population densities of cities and villages in the region with the priority network of the region corresponding with the federal aid-eligible interstates, US routes, and state routes that connect those activity density areas, as well as provide pathways for in-and-out of region commuting and roadway freight.

Travel demand ultimately impacts road conditions, traffic volumes and congestion, safety factors, and vehicle growth rates. Please refer to the sections dealing with the various modes of transportation for more detailed exploration of the impacts from travel demand.




As can be seen in the map above, much of the region has less than one job or person per acre, thoroughly displaying the rural its rural nature. There are pockets of relative density, seen most

strongly in the region's cities, particularly Athens and Marietta. Other pockets are also highlighted, such as the unincorporated area of The Plains north of the City of Athens, or the area near Caldwell, west of Interstate 77, where a state prison resides. Additionally, pockets of employment are highlighted. These areas may prove to be areas where coordinating with local transit can help workers without access to vehicles more easily get to work.

Additional information about activity density, as well as county-level maps, can be seen in Appendix B: Demographics

## Environmental Justice

The 1994 Executive order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations", requires all federally funded agencies, including Buckeye Hills Regional Council, to identify and address disproportionately high and adverse human health and environmental effects of their actions on minority and low-income populations. Buckeye Hills Regional Council's Long-Range Transportation Plan (LRTP) ensures the fair treatment and meaningful involvement of people of all races, cultures, and income with respect to development, implementation and enforcement of environmental laws, regulations, programs, and policies. The public involvement activities Buckeye Hills undertakes, as well as our committee and outreach efforts, are attempts to reach these concentrations, when possible.

There are three fundamental environmental justice principles:

1. Avoid, minimize, or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects, on minority populations and low-income populations.
2. Ensure the full and fair participation of all potentially affected communities in the transportation decision-making process.
3. Prevent denial of, reduction in, or significant delay in the receipt of benefits by minority and low-income populations.

Environmental Justice (EJ) is more than a set of legal and regulatory obligations. Properly implemented, EJ principles and procedures improve all levels of transportation decision-making by:

- Making better transportation decisions that meet the needs of all people.
- Designing transportation facilities that fit more harmoniously into communities.
- Enhancing the public involvement process and strengthening community-based partnerships.
- Improving data collection, monitoring, and analysis tools that assess the needs of minority and low-income populations.
- Avoiding disproportionately high and adverse impacts on minority and low-income populations.
- Minimizing or mitigating unavoidable impacts by identifying concerns or issues early in the planning process.

In order to help identify Environmental Justice factors and affected areas in the Buckeye Hills region, the following analysis was determined by using 2013-2017 ACS estimates provided by the US Census Bureau, Ohio County Indicators, published by the Ohio Development Services Agency in 2019, and the Centers for Disease Control's Social Vulnerability Index. Buckeye Hills identifies the required demographics of elderly, minority and in-poverty populations, as well as those individuals that are disabled and household without access to a personal vehicle. While these last two categories are not

statutorily required, it is the belief of this agency that these hindrances must be examined as well to support the intent and spirit of Environmental Justice.

- Minorities: The region's population is made up of only 6.0% minority populations, defined as all persons except those who defined themselves as white, non-Hispanic. The greatest concentrations of minority populations are in Athens and Morgan counties at 10.7% and 8.1% respectively.
- Elderly: Region residents over the age of 65 make up approximately 17.1% of the region's population. Noble County has the highest percentage at 25.1%.
- Poverty: Southeast Ohio has continually had one of state's highest rates of poverty. In ACS 2017 estimates, BHRC counties averaged 19.5% of individuals below the poverty level - significantly higher than the 14.9% experienced by the state at-large. Athens County comes in with the highest rate of 30.2%.
- Disability: Of the civilian noninstitutionalized population in the BHRC region, 18.6% are estimated to have a disability. Meigs has the highest percentage with 22.7% of the population estimated to have a disability.
- Zero-Car Households: In BHRC it is estimated that 6.8% of all households have no car available. Monroe and Athens were the counties with the highest percentage, at 8.5% and 8% respectively.

Specific statistics for each county can be found in the tables below:

**Minority Population**

| County | Total Population | % of Total | Minority Population |
|---|---|---|---|
| Athens | 65,103 | 10.1% | 6,580 |
| Hocking | 28,690 | 3.3% | 957 |
| Meigs | 23,345 | 3.1% | 720 |
| Monroe | 14,442 | 2.5% | 359 |
| Morgan | 14,857 | 7.5% | 1,119 |
| Noble | 14,429 | 8.6% | 1,234 |
| Perry | 35,947 | 3.0% | 1,088 |
| Washington* | 61,154 | 4.6% | 2,835 |
| Total | 257,967 | 5.8% | 14,892 |

*Washington count does include the WWW area.

**Population Aged 65+**

| County | Total Population | % of Total | Population 65+ |
|---|---|---|---|
| Athens | 65,103 | 11.4% | 7,392 |
| Hocking | 28,690 | 17.4% | 5,006 |
| Meigs | 23,345 | 17.7% | 4,138 |
| Monroe | 14,442 | 22.1% | 3,190 |
| Morgan | 14,857 | 19.3% | 2,860 |
| Noble | 14,429 | 23.5% | 3,397 |
| Perry | 35,947 | 15.0% | 5,408 |
| Washington* | 61,154 | 19.2% | 11,712 |
| Total | 257,967 | 16.7% | 43,103 |

*Washington count does include the WWW area.

# ENVIRONMENTAL JUSTICE

**Population in Poverty**

| County | Total Population | % of Total | Population in Poverty |
|---|---|---|---|
| Athens | 65,103 | 26.6% | 17,301 |
| Hocking | 28,690 | 16.2% | 4,655 |
| Meigs | 23,345 | 22.5% | 5,247 |
| Monroe | 14,442 | 18.6% | 2,679 |
| Morgan | 14,857 | 19.8% | 2,936 |
| Noble | 14,429 | 9.8% | 1,409 |
| Perry | 35,947 | 20.4% | 7,322 |
| Washington* | 61,154 | 15.2% | 9,275 |
| Total | 257,967 | 19.7% | 50,824 |

*Washington count does include the WWW area.

**Population with A Disability**

| County | Total Population | % of Total | Population w/Disability |
|---|---|---|---|
| Athens | 65,103 | 15.6% | 10,134 |
| Hocking | 28,690 | 17.0% | 4,867 |
| Meigs | 23,345 | 21.6% | 5,040 |
| Monroe | 14,442 | 19.6% | 2,829 |
| Morgan | 14,857 | 20.7% | 3,071 |
| Noble | 14,429 | 13.1% | 1,893 |
| Perry | 35,947 | 16.7% | 5,998 |
| Washington* | 61,154 | 19.6% | 12,007 |
| Total | 257,967 | 17.8% | 45,839 |

*Washington count does include the WWW area.

**Households without Access to A Vehicle**

| County | Total Households | % of Total | Households w/No Vehicle |
|---|---|---|---|
| Athens | 22,328 | 8.4% | 1,879 |
| Hocking | 11,326 | 5.7% | 651 |
| Meigs | 9,204 | 6.6% | 605 |
| Monroe | 5,986 | 7.5% | 448 |
| Morgan | 5,932 | 6.8% | 401 |
| Noble | 4,863 | 4.0% | 193 |
| Perry | 13,535 | 6.5% | 874 |
| Washington* | 25,306 | 6.1% | 1,538 |
| Total | 98,480 | 6.7% | 6,589 |

*Washington count does include the WWW area.

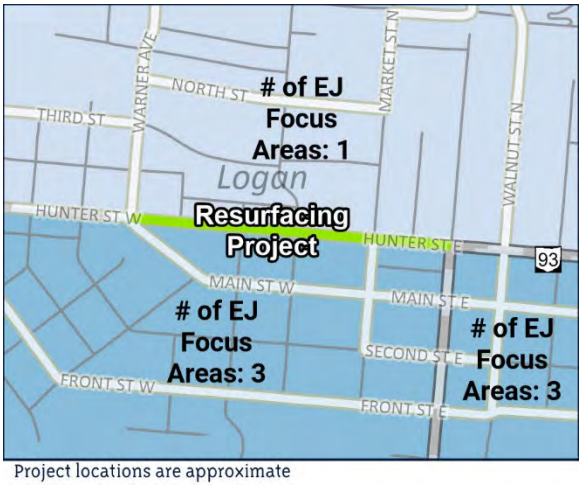
For the most part the Buckeye Hills region is evenly distributed for the Environmental Justice categories. However, to ensure that any type of transportation project complies with Environmental Justice, Buckeye Hills RTPO staff will examine ODOT's Regional Transportation Improvement Program (RTIP) projects and locally identified projects as a whole and assess if the projects preserve or advance social equity. For context, The RTIP is Ohio's four-year planning document as required by Title 23 and Title 49 of the United States Code. The RTIP identifies all state and local transportation federal highway or federal transit funded projects as well as state funded projects scheduled for some phase of implementation during the fiscal (July 1 to June 30) four-year period. Types of projects include highway, public transit, rail, freight, bicycle and pedestrian. Additionally, the assessment of the projects will seek to identify any negative impacts to the at-risk populations listed above and report any identified issues or concerns to ODOT district offices. Activities will include:

- Ensuring adequate public involvement of low-income and minority populations in regional transportation decision making.

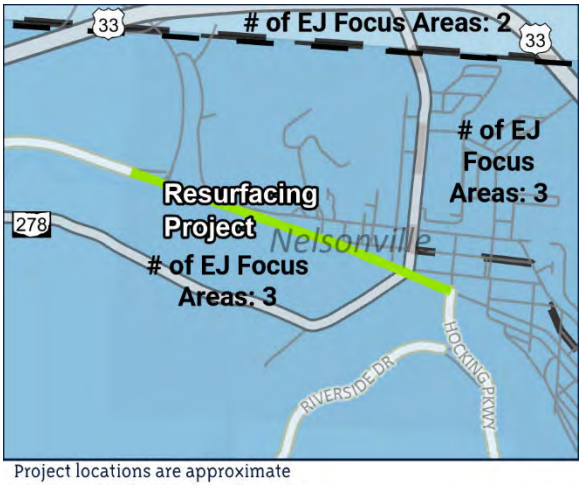
# ENVIRONMENTAL JUSTICE

- Assess whether there were disproportionately high and adverse impacts on low-income and minority populations resulting from federal programs
- Assure that the low-income and minority populations receive a proportionate share of benefits of federal transportation investments

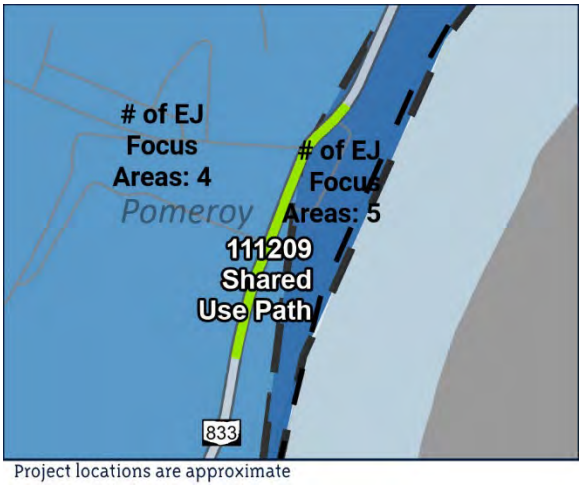
Fiscally Constrained Project Recommendations, found at the end of the plan, are examined with respect to the EJ populations, to ensure that no groups are unfairly targeted or ignored. Below you will see the fiscally constrained projects overlaid on all of the EJ factors BHRC tracks. Please contact Buckeye Hills with any questions about the specific populations impacted by these projects. Projects without a Project ID at the time of this writing will not have an ID number.



Project locations are approximate



Project locations are approximate



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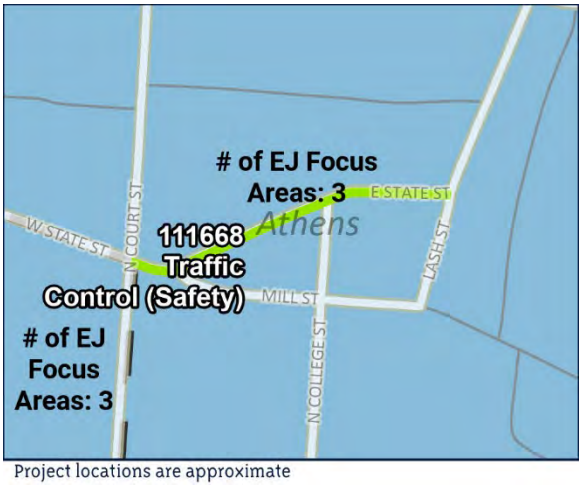
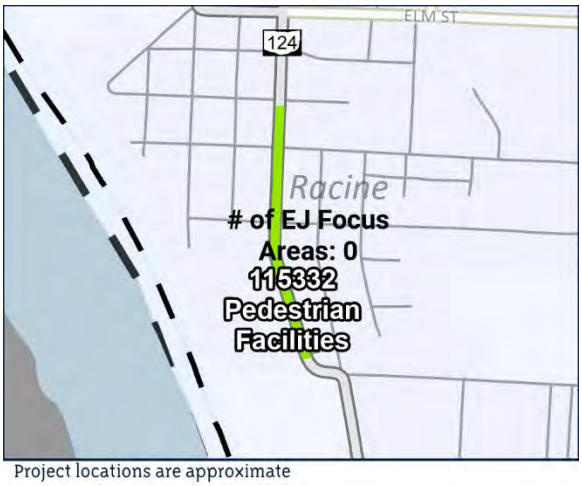


Project locations are approximate

# ENVIRONMENTAL JUSTICE




Project locations are approximate

Please refer to Appendix D for maps of the identified environmental justice population focus areas (Census Tracts in which a given population concentration was higher than the regional average).

# Regional Transportation Modes: Existing Conditions, Projected Future Conditions, and Needs Assessments

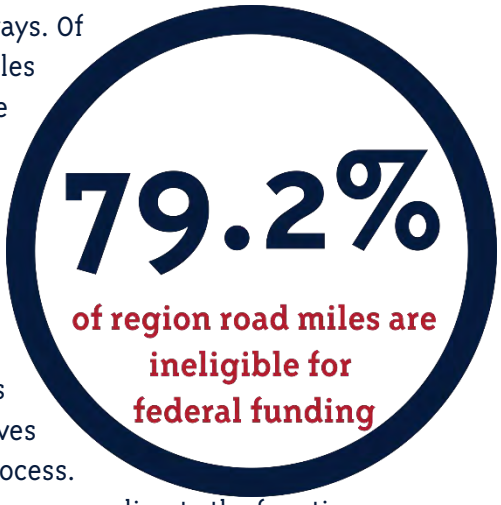
An inventory of transportation modes and facilities is a key element in maintaining, developing, and planning for a Regional Transportation System. The Buckeye Hills region has multiple modes of transportation actively contributing to the regional economy including roadways, public transit, active transportation, freight, rail, aviation, and maritime. This section of the Long-Range Transportation Plan (LRTP) will review the key elements of the region's transportation network and various modes of transportation with a summary of the existing conditions, the projected future conditions, and a needs assessment of each.

## ROADWAY NETWORK

This section will examine the roadway network that crisscrosses the Buckeye Hills RTPO region which includes principle arterial roads like interstates, highways and expressways; minor arterial roads like collector roads; and local roads.

### Existing Conditions – Roadway Network

The Buckeye Hills Region contains over 9,143 total linear miles of roadways. Of that roadway 1,901 miles (20.8%) are eligible for federal aid while 7,242 miles (79.2%) are not eligible for federal aid. This eligibility is described in the road's functional classification.




#### Functional Classifications

The Federal Highway Administration categorizes highways into functional classifications. This is the systematic grouping of highways by the character of service they provide and their physical attributes. It is an important tool used in comprehensive transportation planning. Its adoption by highway designers to categorize basic highway systems serves as an effective transition from the planning process to the design process. Under a functional classification system, standards and level of service vary according to the function of the highway facility. Traffic volumes are used to refine the standards for each class.

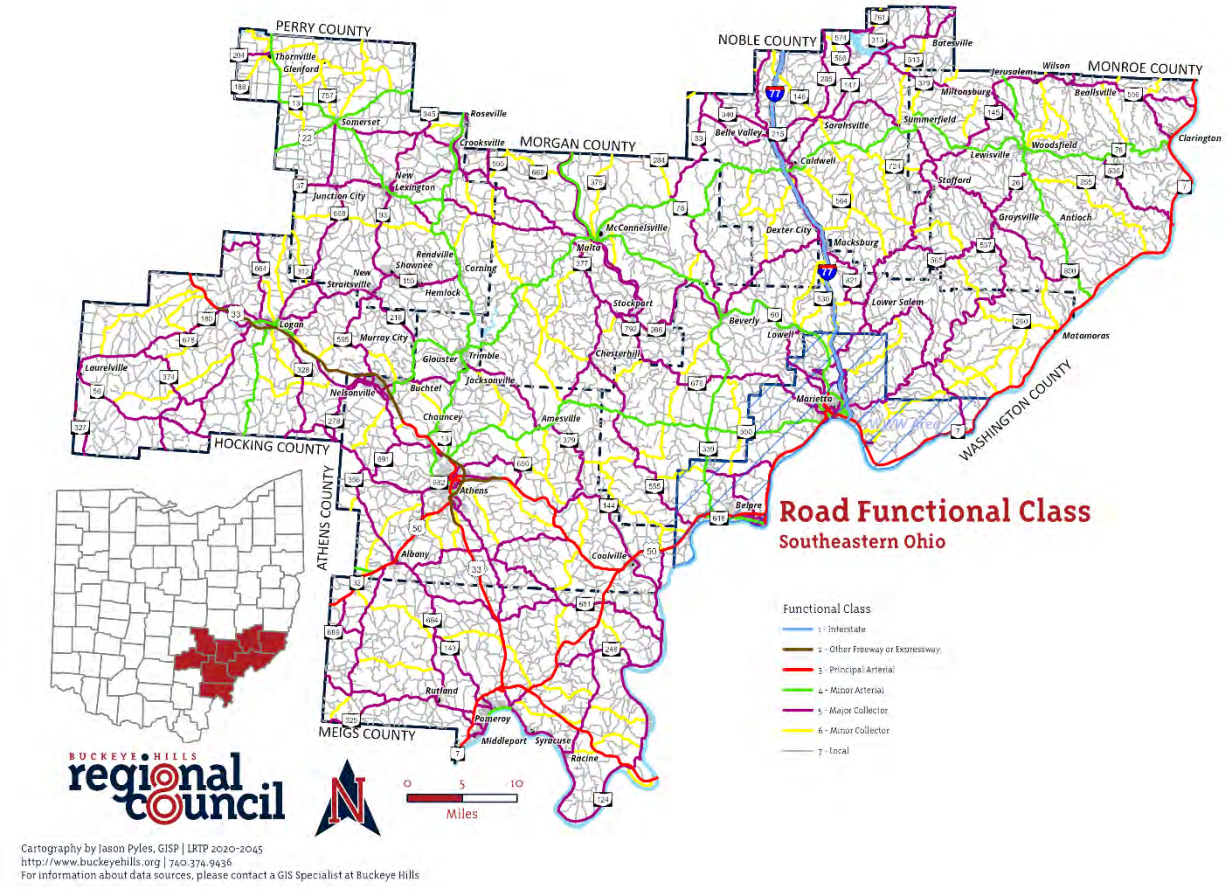
Highway functional classification is used to determine which roads, streets and highways are eligible for federal transportation funds. It is used to establish design criteria for various roadway features, and also serves as a management tool to measure a route's importance in project selection and program management. The major highway classifications are:

- Principle Arterial Roads (Interstates, Freeways/Expressways, and other)
- Minor Arterial Roads, Collector Roads (Major and Minor Collector)
- Local Roads

# REGIONAL TRANSPORTATION

The functional classification is directly tied to the Federal-aid Highway System and to eligibility for Federal transportation funding. Roads functionally classified as local streets are not part of the Federal-aid Highway System and are not normally eligible for federal transportation funds. Roads functionally classified as Minor Collectors that are located outside of the Urbanized Area also are not normally eligible for Federal transportation funds. Minor Collectors within the Urbanized Area and all Major Collectors, Arterials, Freeways/Expressways, and Interstates are eligible for Federal transportation funds.

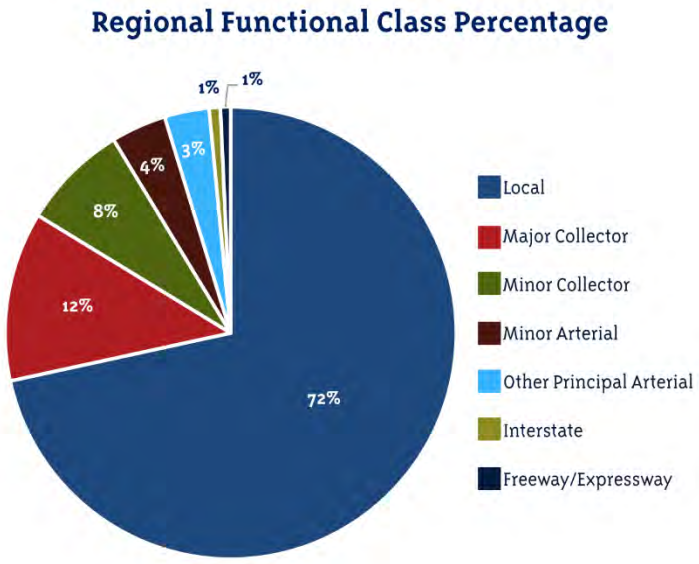
Below is a map of all the roads in the BHRC region identified by their functional class. After that is a table showing how many road miles of each class type are in each county. Maps of each county showing the functional class of their roads can be found in Appendix D.



| | Federal Aid Eligible (miles) | | | | | Federal Aid Ineligible (miles) | | |
|---|---|---|---|---|---|---|---|---|
| COUNTY | Interstate | Freeway & Expressway | Other Principal Arterial | Minor Arterial | Major Collector | Minor Collector | Local | Totals |
| Athens | 0 | 35 | 94 | 58 | 159 | 86 | 928 | 1,360 |
| Hocking | 0 | 31 | 9 | 22 | 146 | 77 | 675 | 960 |
| Meigs | 0 | 0 | 72 | 3 | 175 | 74 | 729 | 1,054 |
| Monroe | 0 | 0 | 31 | 58 | 118 | 71 | 862 | 1,142 |
| Morgan | 0 | 0 | 0 | 58 | 113 | 72 | 692 | 935 |
| Noble | 38 | 0 | 0 | 21 | 132 | 89 | 751 | 1,031 |
| Perry | 0 | 0 | 0 | 65 | 93 | 85 | 788 | 1,031 |
| Washington | 36 | 0 | 86 | 77 | 171 | 141 | 1,120 | 1,631 |
| **BHRC** | **74** | **66** | **292** | **361** | **1,107** | **696** | **6,546** | **9,143** |

**BHRC value is a sum of the constituent counties. Source: ODOT Transportation Mapping System (TIMS), 2020*

The following graph helps visualize the percentage of roads in the Buckeye Hills Region by Federal Classification:




A map of the road network functional classes in the region can be found in Appendix D.

## Roadway Volume & Congestion

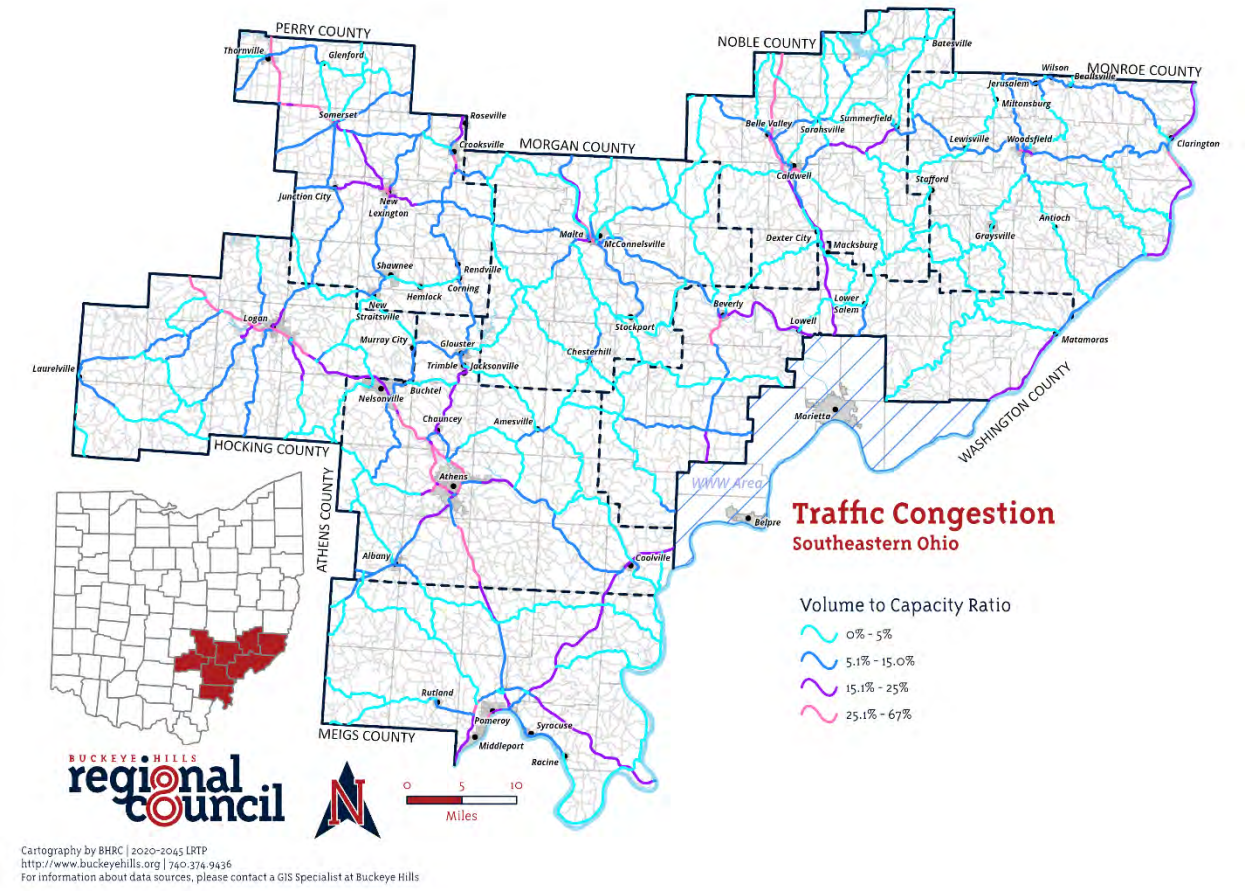
Capacity and the previously discussed level of service are two related concepts. Capacity analysis tries to give a clear understanding of how much traffic a given transportation facility can accommodate. Level of service tries to answer how well the given segment of transportation system serves a particular transportation mode. Thus, level of services attempts to give a qualitative measure of traffic, whereas Volume-to-Capacity analysis gives a quantitative measure of a facility. For the purposes of this plan,

BHRC has chosen to focus on Volume-to-Capacity, as that is provides quantitative results and gives a clearer course of action for high-lighted segments.

A Volume-to-Capacity (V/C) ratio is a simple, accurate, and universally recognized measure of road congestion. Values approaching 1.0 indicate a road segment that is at its capacity and is close to failing at the peak hours. From the U.S. Federal Highway Administration, Capacity is defined as the maximum rate at which vehicles can pass through a given point in an hour under prevailing conditions; it is often estimated based on assumed values for saturation flow. Capacity accounts for roadway conditions such as the number and width of lanes, grades, and lane use allocations, as well as signalization conditions.

The V/C ratio represents the sufficiency of a roadway to accommodate the vehicular demand. A V/C ratio less than 85% generally indicates that adequate capacity is available and vehicles are not expected to experience significant backups and delays. As the V/C ratio approaches 100%, traffic flow may become unstable, and delay and backup conditions may occur. Once demand exceeds the capacity (a V/C ratio greater than 100%), traffic flow is unstable and excessive delay and backups are expected. For transportation planning purposes, a V/C ratio between 85% and 95% generally is used for the peak hour of the horizon year – for this long-range plan, that horizon is 25 years out. Overdesigning for a roadway based solely on V/C should be avoided due to negative impacts to Active Transportation, the potential for speeding, land use impacts, and cost. The map below shows the V/C for selected roads in the BHRC region. Maps for each county can be found in Appendix D.

# REGIONAL TRANSPORTATION




| Road Miles Above 40% V/C Ratio | | | | |
|---|---|---|---|---|
| COUNTY | 40-49% | 50-59% | 60%-67% | Total |
| Athens | 0.04 | 0 | 0 | 0.04 |
| Hocking | 0.58 | 0.1 | 0.19 | 0.87 |
| Meigs | 0 | 0 | 0 | 0 |
| Morgan | 0.347 | 0 | 0 | 0.347 |
| Monroe | 0 | 0 | 0 | 0 |
| Noble | 0.49 | 0 | 0 | 0.49 |
| Perry | 1.45 | 0.31 | 0 | 1.76 |
| Washington | 0 | 0 | 0 | 0 |
| BHRC | 2.907 | 0.41 | 0.19 | 3.507 |

**BHRC value is a sum of the constituent counties.*

*Source: ODOT Transportation Mapping System (TIMS), 2020*

The table to the left illustrates the analysis of Volume-to-Capacity (V/C) ratio in the Buckeye Hills Region. It is important to note that this analysis was conducted on Federal Aid Eligible roadways only, and as such is a subset of the total roads in the region. Non-Federal Aid Eligible roadway, like local municipal roads, are not included. However, V/C ratio analysis can be conducted by Buckeye Hills RTPO for any local entity in the region upon request.

For the purpose of long-range transportation planning, only the V/C ratios above 40% are highlighted to indicate the amount of roadway in the region that are creeping into the higher percentage levels. The overall evaluation of the existing condition of congestion and roadway effectiveness in the Buckeye Hills Region is that for Federal Aid Eligible roadways, traffic congestion is not a pervasive issue in the region. Only 3.5 miles of federal-aid eligible roadway in the region is over 40% V/C ratio, and

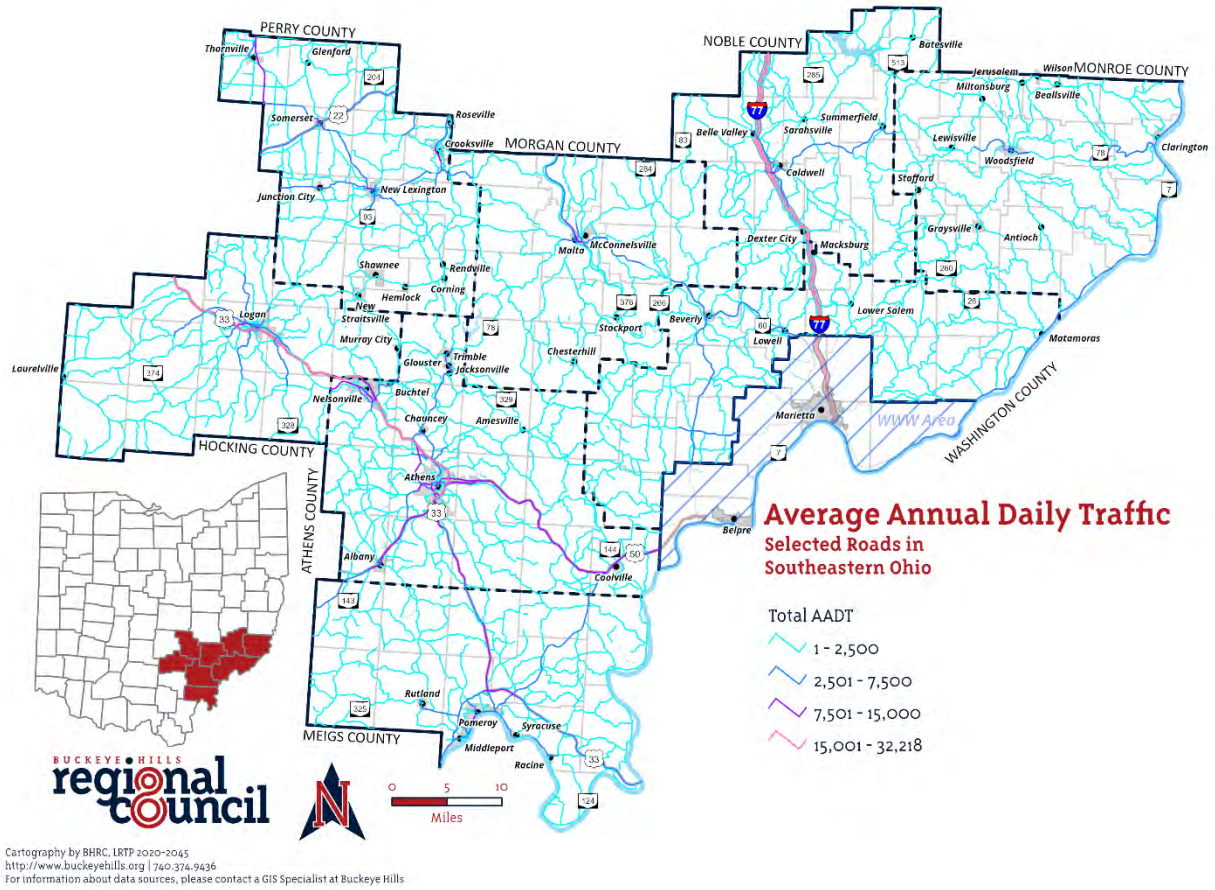
there are no miles of roadway in the region that exceed a V/C of 67%. As indicated earlier, roadway traffic flow at peak hour do not begin to become unstable until they reach a V/C of 85%.

Though some local municipal roads in the region may experience congestion at peak hour, in general the lack of traffic congestion in the region is likely due to the rural nature of the region, the general low and spread-out population density, and vehicle ownership rates in the region.

## Average Annual Daily Traffic

Critical to the comparison of volume and congestion is Average Annual Daily Traffic (AADT). AADT is the standard measurement for vehicle traffic load on a section of road, and the basis for most decisions regarding transport planning, or to the environmental hazards of pollution related to road transport. AADT is used primarily in transportation planning, transportation engineering and retail location selection. Traditionally, it is the total volume of vehicle traffic of a highway or road for a year divided by 365 days. AADT is a simple, but useful, measurement of how busy the road is.

A map of the roadway Average Annual Daily Traffic (AADT) analysis in the Buckeye Hills region can be found below. Maps highlighting each county can be found in Appendix D.



Referring to the map, the highest daily traffic in the Buckeye Hills region - as defined by any road segment above 15,000 average vehicles per day - are represented along the following roadways through:

- **Interstate 77** – starting from the northern boundary of Noble County and traversing south through Washington County and the cities/towns through Belle Valley, Dexter City, and Marietta. I-77 maintains that highest level of average daily traffic through the region. It is important to note that the jurisdiction of WWW Interstate Planning Commission encompasses a portion of Washington County including the City of Marietta. As a result, the AADT analysis and mapping does not represent I-77 through the WWW Interstate Planning Commission territory. However, it is highly likely that the AADT analysis in the Buckeye Hills RTPO territory would continue through the City of Marietta to the State of Ohio boundary at the Ohio River.
- **US 33** – beginning in the northwest corner of the region in Hocking County and continuing southeast in the region through Athens County and the cities/towns of Logan, Nelsonville, and Athens. US 33 maintains the highest level of average daily traffic throughout the aforementioned segment with that rate decreasing at the southern split with US 50. Beyond Athens and the split with US 50 in the southeast of the region, the average daily traffic on SR 33 drops to the second highest AADT level.

Furthermore, the second highest daily traffic group in the Buckeye Hills region – as represented by any road segment with AADT from 7,501 to 15,000 – are represented in the following roadways:

- **SR 13** near the Village of Thornville (Perry County). The higher volume roadway segment identified begins at the northern county and regional boundary of Perry County and Licking County, and continues south to the intersection with SR 256 at which point the daily average traffic drops to lower levels.
- **SR 13** in the Village of Somerset (Perry County). The higher volume roadway segment identified occurs only on the segment of SR 13 downtown-central business district of Somerset locally referred to as North/South Columbus St. The higher volume traffic does not occur beyond that downtown segment.
- **SR 13** in the Village of New Lexington (Perry County). The higher volume roadway segment identified occurs only on a segment of SR 13 on the northwest side of New Lexington where SR 13 merges with local road W. Broadway St for roughly half a mile.
- **SR 93/SR 669** in the Village of Crooksville (Perry County). The higher volume roadway segment identified occurs on the east side of Crooksville from the northern intersection of SR 93 and SR 669, and continues south of Crooksville along the merged of SR 93/SR 669 to where SR 669 breaks away at which point the higher daily average traffic drops to lower levels.
- **SR 60** (S. Main St) in the Village of McConnelsville (Morgan County). The higher volume roadway segment identified occurs on the west side of McConnelsville along the Muskingum River spanning from the intersection with Township Road 275 to the north to the intersection with SR 376 (N. Kennebec Ave) south of the town center.

- **W. Main St/Hunter St/SR 664** in the City of Logan (Hocking County). The higher volume roadway segment identified begins in the central business district in Logan as W. Main St, and continues west as Hunter St, and then continues southwest as SR 664 to the intersection with US 33 and the Walmart retail plaza where the higher volume traffic scenario ends.
- **W. Washington Rd/Haydenville Rd (CR 25)** in the City of Nelsonville (Athens County). The higher volume roadway segment identified begins in the central business district in Nelsonville as W. Washington Rd, and continues west out of town as Haydenville Rd where the daily average traffic drops at the Athens-Hocking County line.
- **SR 682** (North and South Plains Rd) connecting the City of Athens and the Village of The Plains (Athens County). The higher volume roadway segment identified begins in The Plains at the intersection of SR 682 (N. Plains Rd) and US 33, runs south through The Plains town center, around the west side of Athens, and to the intersection of SR 682 and US 50 on the south side of Athens.
- **US 50** from the western boundary of Athens County to the eastern boundary of Athens County. The higher volume roadway segment of US 50 identified is lengthy and runs from the western boundary of Athens County through Albany, southern Athens, Coolville, and the eastern boundary of Athens County. Beyond the eastern political boundary of Athens County and Washington County, US 50 enters Washington County and the transportation planning jurisdiction of the Wood-Washington-Wert (WWW) Interstate Planning Commission. As such further AADT analysis on US 50 in Washington County is not being reported in this LRTP. At need, the WWW Interstate Planning Commission can be contacted for that segment of US 50 in Washington County.
- **US 33** in central Athens and Meigs Counties. The higher volume roadway segment of US 33 identified is lengthy and runs from the south side of the City of Athens with the southern intersection of US 50, and runs southbound into Meigs County to the east side of the Village of Pomeroy at the intersection with SR 7 where the higher volume traffic scenario ends.

## Car & Truck Growth

Two other factors that impact the future volume and congestion on the roadways within the Buckeye Hills region are car and truck growth. The examinations in this section are based solely on the data sources collected, analyzed, and distributed by ODOT.

The car and truck growth analysis methods are not exactly the same due to differences in the purpose for what is being examined for each type of vehicle. For cars, the volume of cars versus how much capacity the roadways can accommodate is being examined. Therefore, for cars the available volume-to-capacity ratio (V/C), a tangible quantitative metric, compares peak hour volumes derived from traffic counts against the carrying capacity of the road. For that analysis, BHRC RTPO staff set a threshold of V/C at or above 40% and a growth rate of one (1) to identify roadway segments of interest with the highest potential for near-term future congestion issues.

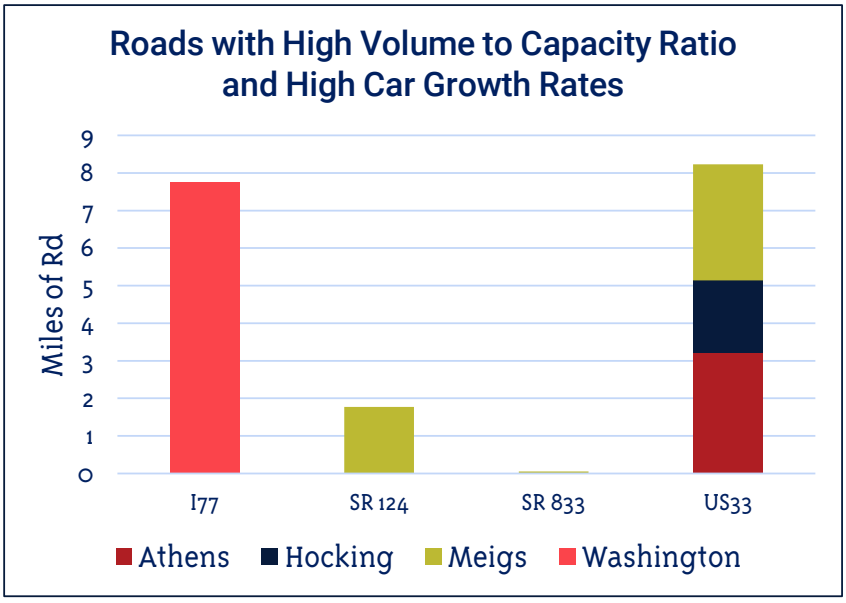
That distinction also explains why the truck analysis thresholds are set lower than car analysis thresholds because the more existing traffic volumes are made up of trucks, the more damage to the roadway is possible. For trucks, BHRC RTPO staff calculated the percentage of traffic that are trucks and then compared that against the truck growth rates provided in the ODOT Travel Demand Model (TDM) and Congestion Management System (CMS) data. The truck growth threshold for identification is set at 20% ratio of total trucks to vehicles (AADT), and then compared to a growth rate of one (1) or greater (CMS).

Those thresholds have been determined by BHRC RTPO staff to meaningfully represent car and truck growth relevant to the region's rural patterns and norms. A note to regional stakeholders - the purpose of this analysis is not to prescribe specific remediation, countermeasures, and/or additional roadway build-out recommendations. Rather, this analysis is intended for planning purposes by identifying particular roadway segments of interest that could be examined further to determine any issues and/or potential corrective/remediation action amid coordination with ODOT District offices (D5 or D10 in the Buckeye Hills Region), local governments, and the Buckeye Hills RTPO program.

With those road segments identified, local governments and stakeholders can then examine the areas in greater detail with traffic and safety studies to determine if road capacity or safety improvement projects are warranted. For local stakeholders, Buckeye Hills RTPO can be engaged to examine roadway segments of interest deeper and explore conclusions, potential solutions, or alternatives.

### Car Growth

The 17.82-total miles of road segments in the Buckeye Hills region that are experiencing the highest car growth rates in conjunction with high volume-to-capacity (V/C) are displayed in the chart to the right:




In the Buckeye Hills region, the analysis indicates that the highest car growth and V/C are focused mainly on four (4) roadways: Interstate 77, State Route 124, State Route 833, and US Route 33.

- **US 33**: of all the roadways in the Buckeye Hills region, analysis indicates that US 33 has experienced the highest car growth and V/C rates within 8-total miles of the roadway. The segments of US33 exhibiting the highest rates occur in the three (3) counties of:

- **Athens County** – a total of 3.2-miles with high-rate segments near the Village of The Plains, and the bypass merger with US 50 on the southern side of the City of Athens.
- **Hocking County** – a total of 2-miles with high-rate segments near the City of Logan.
- **Meigs County** – a total of 3.09-miles with a high-rate segment between the northern border of Meigs County and the intersection with SR 681.

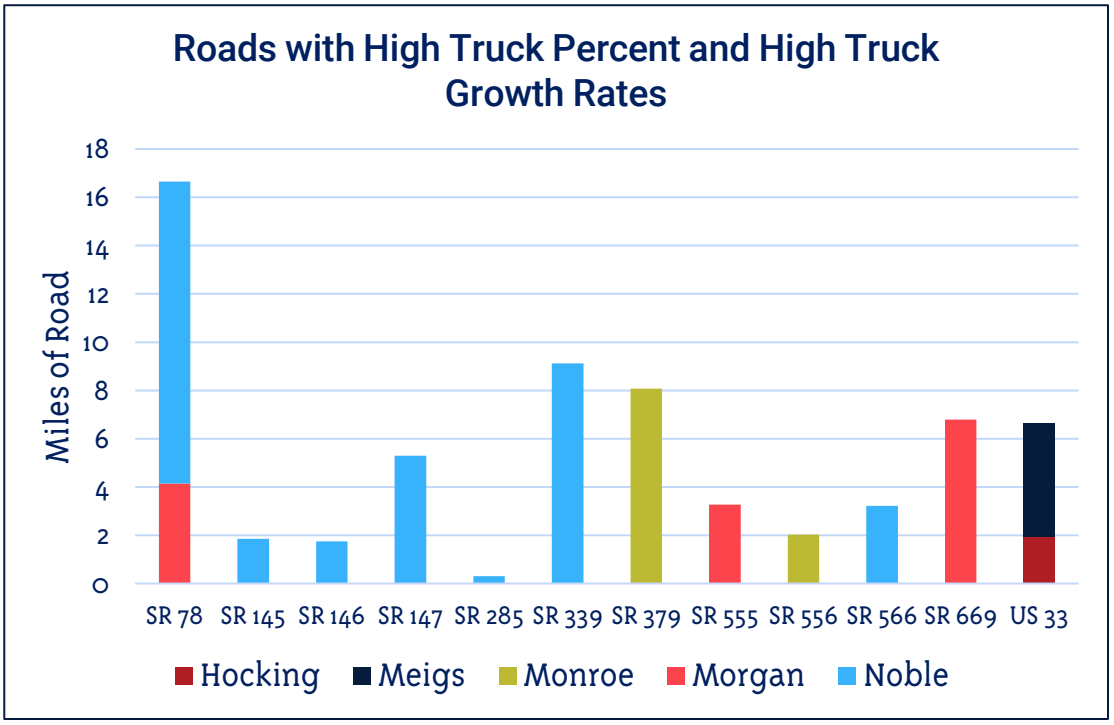
- **I-77**: the second largest mileage of the highest car growth and V/C rates identified in the region occurs on a 7.771-mile segment of I-77 within Washington County from the northern border of the County running south to the northern border of the City of Marietta and the WWW Interstate Planning Commission. It is important to note that the jurisdiction of WWW Interstate Planning Commission encompasses a portion of Washington County including the City of Marietta. As a result, the car growth analysis and mapping does not represent I-77 through the WWW Interstate Planning Commission territory. However, it is highly likely that the car growth analysis in the Buckeye Hills RTPO territory would continue through the City of Marietta to the State of Ohio boundary at the Ohio River.
- **SR 124**: the third largest mileage of the highest car growth and V/C rates identified in the region occurs on a 1.77-mile segment of SR 124 within Meigs County from the northern side of the Village of Pomeroy from the intersection with US 33/SR 7 running south to the intersection of SR 833 along the banks of the Ohio River.
- **SR 833**: the fourth largest mileage of the highest car growth and V/C rates identified in the region occurs on a 0.05-mile segment of SR 124 within Meigs County on the southern side of the Village of Pomeroy along the banks of the Ohio River.

The above identified roadway segments of interest are good opportunities to partner with ODOT and Buckeye Hills for further study to definitively determine if corrective action and project development is required. Please contact the Buckeye Hills RTPO department if the exploration of such roadway segments of interest is desired.

Additionally, the geographic distribution of car growth compared against volume-to-capacity for the region can be viewed in a map in Appendix D, as well as maps for each county.

### Truck Growth

The 65-total miles of road segments in the Buckeye Hills region that are experiencing the highest truck growth rates in conjunction with high volume-to-capacity (V/C) are displayed in the chart below:




In the Buckeye Hills region, the analysis indicates that the highest truck growth and V/C are focused mainly on twelve (12) roadways: State Route 78, State Route 145, State Route 146, State Route 147, State Route 285, State Route 339, State Route 379, State Route 555, State Route 556, State Route 566, State Route 669, and US Route 33. It is important to note the majority of truck growth in the region is on relatively small roadway State Route segments in very rural areas is likely due to Oil & Gas production activity.

- **SR 78**: of all the roadways in the Buckeye Hills region, analysis indicates that SR 78 has experienced the highest truck growth and V/C rates within 16.65-total miles of the roadway. The segments of SR 78 exhibiting the highest rates occur in the two (2) counties of:
  - **Morgan County** – a total of 4.14-miles with high-rate segments between the intersections with SR 284 and TWP RD 952 in Bristol Township. Truck growth on this rural segment is likely due to Oil & Gas production activity, which is also likely to negatively impact roadway condition. It is recommended that this segment be assessed for the ODOT Oil & Shale infrastructure repair funding program.
  - **Noble County** – a total of 12.51-miles with high-rate segments between the intersection through SR 147 (east of the Village of Caldwell and south of the Village of Sarahsville), through the Village Summerfield, and the border with Monroe County to the east. Truck growth on this rural segment is likely due to Oil & Gas production

activity, which is also likely to negatively impact roadway condition. It is recommended that this segment be assessed for the ODOT Oil & Shale infrastructure repair funding program.

- **SR 339**: the second largest mileage of the highest truck growth and V/C rates identified in the region occurs on a 9.12-mile segment of SR 339 within Noble County between the intersection of SR 821 (south of the Village of Dexter City) and the border with Morgan County to the west. Truck growth on this rural segment is likely due to Oil & Gas production activity, which is also likely to negatively impact roadway condition. It is recommended that this segment be assessed for the ODOT Oil & Shale infrastructure repair funding program.
- **SR 379**: the third largest mileage of the highest truck growth and V/C rates identified in the region occurs on an 8.07-mile segment of SR 379 within Monroe County between the intersection of TWP RD 728 at the northern county border with Belmont County and running southwest to the intersection with SR 78 near the county border with Noble County. Truck growth on this rural segment is likely due to Oil & Gas production activity, which is also likely to negatively impact roadway condition. It is recommended that this segment be assessed for the ODOT Oil & Shale infrastructure repair funding program.
- **SR 669**: the fourth largest mileage of the highest truck growth and V/C rates identified in the region occurs on a 6.69-mile segment of SR 669 within Morgan County between the intersection of TWP RD 56 just north of the Village of Malta and running north to the intersection of N. River Rd. NW near the unincorporated Rokeby Lock. Truck growth on this rural segment is likely due to Oil & Gas production activity, which is also likely to negatively impact roadway condition. It is recommended that this segment be assessed for the ODOT Oil & Shale infrastructure repair funding program.
- **US 33**: the fifth largest mileage of the highest truck growth and V/C rates identified in the region occurs on a 6.65-mile segment of US 33 within Hocking County between the intersection of SR 180 northwest of the City of Logan and the intersection with SR 374. It is unknown if this segment is related to Oil & Gas production given it is outside of the typical oil and gas production area of the region.
- **SR 147**: the sixth largest mileage of the highest truck growth and V/C rates identified in the region occurs on a 5.3-mile segment of SR 147 within Noble County between the intersection of SR 556 southwest of Senecaville Lake and SR 313 near the unincorporated Sue-Lin Acres. Truck growth on this rural segment is likely due to Oil & Gas production activity – and connected to the truck growth on SR 566 - which is also likely to negatively impact roadway condition. It is recommended that this segment be assessed for the ODOT Oil & Shale infrastructure repair funding program.
- **SR 555**: the seventh largest mileage of the highest truck growth and V/C rates identified in the region occurs on a 3.27-mile segment of SR 555 within Morgan County between the intersection of SR 377 in the Village of Chesterville and the border with Washington County to the southeast and intersection with SR 676. Truck growth on this rural segment is likely due to Oil & Gas production activity, which is also likely to negatively impact roadway condition. It is

recommended that this segment be assessed for the ODOT Oil & Shale infrastructure repair funding program.

- **SR 566**: the eighth largest mileage of the highest truck growth and V/C rates identified in the region occurs on a 3.21-mile segment of SR 566 within Noble County between the intersection of SR 574 southwest of Senecaville Lake and the intersection with SR 285. Truck growth on this rural segment is likely due to Oil & Gas production activity – and connected to the truck growth on SR 147 - which is also likely to negatively impact roadway condition. It is recommended that this segment be assessed for the ODOT Oil & Shale infrastructure repair funding program.
- **SR 556**: the ninth largest mileage of the highest truck growth and V/C rates identified in the region occurs on a 2.02-mile segment of SR 556 within Monroe County between the intersection of SR 7 north of the Village of Clarington on the Ohio River and the intersection with TWP RD 230 to the northwest. Truck growth on this rural segment is likely due to Oil & Gas production activity, which is also likely to negatively impact roadway condition. It is recommended that this segment be assessed for the ODOT Oil & Shale infrastructure repair funding program.
- **SR 145**: the tenth largest mileage of the highest truck growth and V/C rates identified in the region occurs on a 1.85-mile segment of SR 145 within Noble County where SR 145 and SR 260 merge in Elk Township in the southeast corner of the county. Truck growth on this rural segment is likely due the merger of two minor arterial roads and Oil & Gas production activity, which is also likely to negatively impact roadway condition. It is recommended that this segment be assessed for the ODOT Oil & Shale infrastructure repair funding program.
- **SR 146**: the eleventh largest mileage of the highest truck growth and V/C rates identified in the region occurs on a 1.75-mile segment of SR 146 within Noble County between the intersection of SR 513 in the Village of Summerfield and to an unknown point just northeast of Summerfield in Marion Township.
- **SR 285**: the twelth largest mileage of the highest truck growth and V/C rates identified in the region occurs on a 0.30-mile segment of SR 146 within Noble County in the town center of the Village of Sarahsville where SR 285 merges with SR 146 and SR 147. This very small segment of roadway likely has truck growth due merger of multiple roads and Oil & Gas production in the general area.

The above identified roadway segments of interest are good opportunities to partner with ODOT and Buckeye Hills for further study to definitively determine if corrective action and project development is required. Please contact the Buckeye Hills RTPO department if the exploration of such roadway segments of interest is desired.

Additionally, the geographic distribution of truck growth compared against truck volume percent in the region can be viewed in a map in Appendix D, as well as for each county.

### Needs Assessment - Vehicle Growth

From the analysis of car and truck growth in the region, it is clear that the region is not experiencing vehicle growth on the roadways to any large degree and it is occurring in modest amounts on relatively small mileage segments. This is most likely due to the rural nature of the region and its rather stagnant

economic and population growth where the current roadway capacity build-outs are demonstrating longevity for the needs of the region. Minor car growth is taking place near population centers or on connectors between population centers; whereas one of the primary economic drivers in the region, Oil & Gas production, is generating truck growth on specific minor rural arterial or collector roads.

## Pavement Conditions

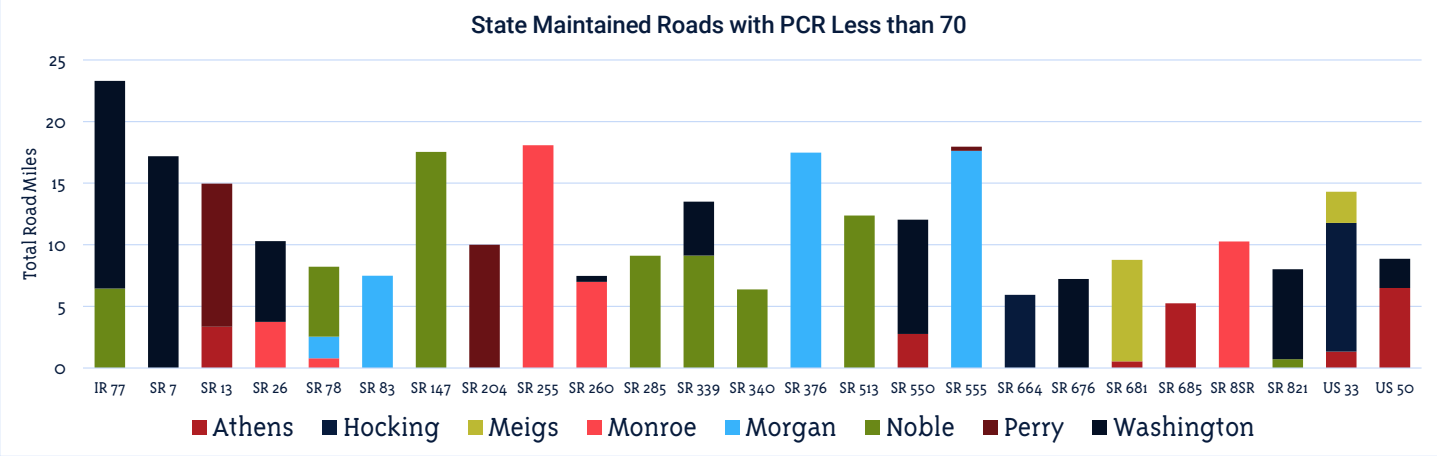
Pavement conditions on highways and roads are evaluated every year to determine surface wear. This is to encourage the appropriate level of investment in preserving the highway system and also contributes to funding distribution decisions for state-owned roadways.

The Ohio Department of Transportation (ODOT) provides a uniform measure of condition. This scale has a range from 0 to 100 with a Pavement Condition Rating (PCR) of 100 representing a perfect pavement condition with no observable distress, while a PCR of 0 (zero) represents a pavement condition with all distresses present at "High" levels of severity.

- PCRs of 90 and above are classified as 'Very Good'
- PCRs of 75 - 89 are classified as 'Good'
- PCRs of 65 - 74 are classified as 'Fair'
- PCRs of 55 - 64 are classified as 'Fair to Poor'
- Any PCR below 55 is classified as 'Poor'

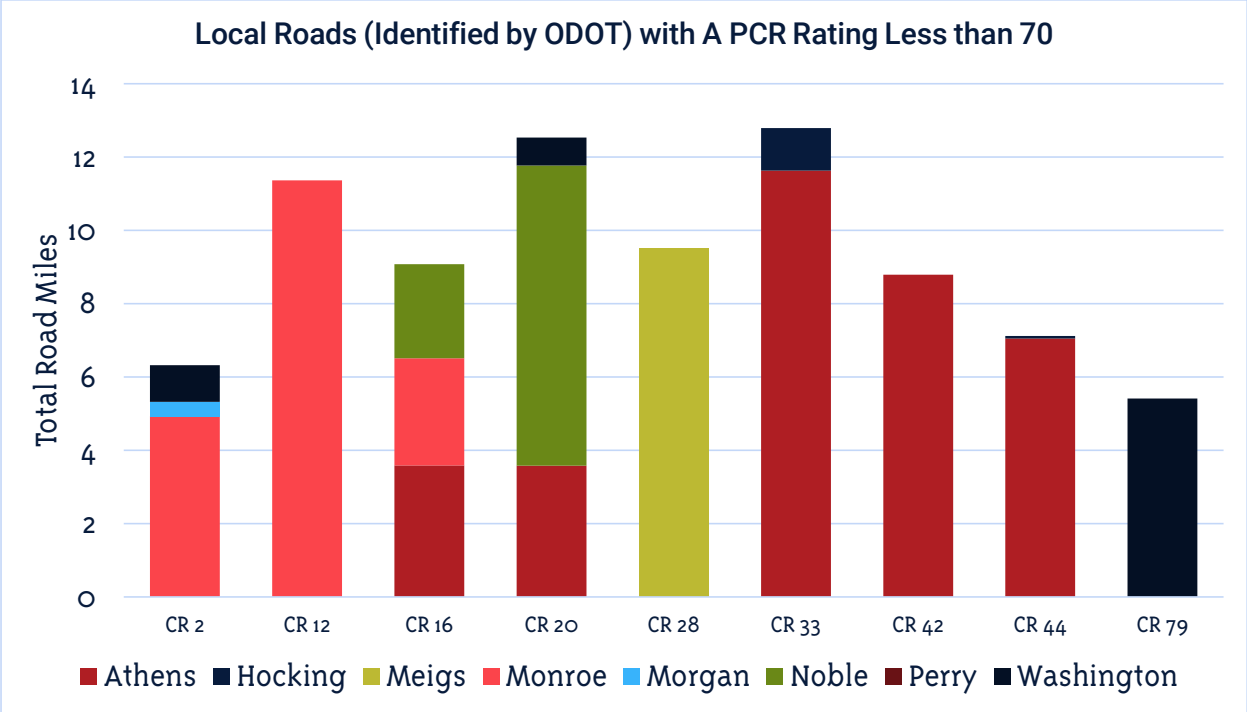
Depending on the level, the remediation actions may be simple maintenance, a preservation treatment (asphalt overlay), or full rehabilitation or reconstruction. The threshold for rehabilitation or reconstruction is often used to separate acceptable from non-acceptable pavement conditions. This system is primarily used on the state-maintained system to assist in determining where preservation efforts will be targeted in the upcoming work program years.

The chart below identifies the State-owned roadways in the Buckeye Hills region and mileage of PCR less than 70:



In total, the 8-county Buckeye Hills region has 291.98 miles of State-owned roadway with a PCR of less than 70, which classify those segments within the lower condition range of 'Fair' to 'Poor'.

Additionally, the chart below shows the Local-owned roadways (as identified by ODOT) in the Buckeye Hills region and mileage of PCR less than 70:




In total, the 8-county Buckeye Hills region has 82.90 miles of Local-owned roadway with a Pavement Condition Rating (PCR) of less than 70, which classify those segments as the lower end of 'Fair' to 'Poor'.

The above data, combined with the map of State and Local-owned PCRs, can provide a reference for local officials to identify roadway segments to confirm PCR and coordinate with ODOT, as well as plan and budget for restoration activities on Local-owned roadways with low PCR. Local county and municipal officials also have the opportunity to view the PCR of federal-aid eligible roads in their jurisdiction within the on-line ODOT TIMS system, or contact the Buckeye Hills RTPO for local road PCR analysis services.

A map of the Pavement Condition Ratings of State and Local roads within the Buckeye Hills region can be found in Appendix D.

### Needs Assessment - Pavement Condition Rating (PCR)

Pavement Condition Rating (PCR) at the locally-owned level is dependent on county and municipal governments on doing two things: dedicating limited capital budget towards roadway maintenance projects, and conducting the PCR assessments of all locally-owned roads and regular reporting of the PCR data to ODOT. As such, at the local level the number of locally-owned roadways assessed, the timeframes of those assessments, and the amount of reporting is disparate and not uniform.

Therefore, the locally-owned roadway PCR data noted in the above table and in the accompanying map is likely not a complete and comprehensive inventory.

Regardless, the majority of the region's pavement that is known to both ODOT and the Buckeye Hills RTPO is in good condition. Only 16.2% of the State roads in the region have a PCR classification within the lower condition range of 'Fair' to 'Poor'. And just 23.9% of the Local roads with known PCR ratings have a PCR classification within the lower condition range of 'Fair' to 'Poor'. If not already done, local county and municipal governments will need to conduct a comprehensive assessment of their locally-owned roadways to generate a definitive understanding of PCR conditions in their jurisdictions.

BHRC is committed to helping local partners better understand both their pavement condition as well as the factors that lead to its degradation. BHRC can help local authorities catalog truck traffic on their local roads to find areas that may experience greater wear. Trucks inherently cause significantly more roadway condition damage than cars, so knowing their presence on the local roads can go a long way to identifying problem areas before them become serious issues.

## ROADWAY SAFETY

Promoting and supporting safety within the region's modes of transportation is a primary concern of any transportation planning endeavor. Transportation engineers and designers, transit officials, automakers and the public all share the same perspective that devoting time and resources to system safety is the number one priority for any mode of transportation – transportation planning shares that same priority.

With regards to roadway safety, it is a primary goal of BHRC and this LRTP to continually influence and advance where possible the reduction in traffic fatalities and serious injuries across the Buckeye Hills region.

### Existing Conditions – Roadway Safety

Roadway safety is a high priority for the Buckeye Hills region and analysis of the crash statistics has been conducted for this plan to demonstrate the existing roadway safety conditions.

In the 5-years between January 1, 2015 and December 31, 2019, there were 23,232 crashes total logged on Buckeye Hills RTPO roadways, with an annual average 4,646 crashes. In the past 5-years, there was a slight 8.3% decrease in total crashes with a corresponding 10.9% decrease in total injury crashes. However, in the past 5-years fatal crashes have increased by 15.2%, with an annual average of 35 which roughly equates to 3 fatal crashes per month.

The details of the regional crash statistics for the past 5-years are represented in the table below:

| YEAR | CRASH STATISTICS | | | | OCCUPANT STATISTICS | | | SAFETY METRICS | |
|---|---|---|---|---|---|---|---|---|---|
| | Fatal Crashes | Injury Crashes | Property Damage Crashes | Total Crashes | Fatalities | Serious Injuries | Minor Injuries | Injury Rate | Severity Index |
| 2015 | 33 | 1,332 | 3,359 | 4,724 | 36 | 205 | 942 | 28.9% | 1.64 |
| 2016 | 34 | 1,324 | 3,332 | 4,690 | 38 | 251 | 906 | 29.0% | 1.64 |
| 2017 | 30 | 1,315 | 3,371 | 4,716 | 33 | 274 | 892 | 28.5% | 1.63 |
| 2018 | 40 | 1,239 | 3,490 | 4,769 | 43 | 246 | 796 | 26.8% | 1.61 |
| 2019 | 38 | 1,187 | 3,108 | 4,333 | 44 | 207 | 933 | 28.3% | 1.64 |
| 5-Year Total | 175 | 6,397 | 16,660 | 23,232 | 194 | 1,183 | 4,469 | | |
| Annual Average | 35 | 1,279 | 3,332 | 4,646 | 39 | 237 | 894 | 28.30% | 1.63 |
| % Change '15-'19 | 15.20% | -10.90% | -7.50% | -8.30% | 22.20% | 1.00% | -1.00% | -2.20% | 0.20% |

Table Notes:

- Cells with red text indicate the year with the highest value for each respective column
- The Severity Index is calculated by the following formula: [(12 x #FatalCrashes) + (3 x #InjuryCrashes) + #NoInjuryCrashes] / #TotalCrashes

Additionally, analysis was conducted on the types of crashes experienced on the Buckeye Hills RTPO roadways along with the frequency and severity of those crashes.

The details of the regional crash type analysis for the past 5-years are represented in the table below:

| % of Crashes | CRASH TYPE | PDO | Injury Crash | Fatal Crash | Fatal and Injury % |
|---|---|---|---|---|---|
| 35.10% | Fixed Object | 5,342 | 2,736 | 75 | 34.48% |
| 14.10% | Rear End | 2,295 | 969 | 7 | 29.84% |
| 13.10% | Animal | 2,835 | 209 | 4 | 6.99% |
| 9.00% | Angle | 1,380 | 703 | 10 | 34.07% |
| 6.50% | Sideswipe - Passing | 1,242 | 268 | 3 | 17.91% |
| 5.20% | Left Turn | 793 | 408 | 3 | 34.14% |
| 3.20% | Parked Vehicle | 640 | 97 | 2 | 13.40% |
| 3.10% | Backing | 691 | 31 | 1 | 4.38% |
| 3.00% | Overturning | 297 | 385 | 9 | 57.02% |
| 2.60% | Head On | 288 | 289 | 37 | 53.09% |
| 1.60% | Other Non-Collision | 329 | 53 | 1 | 14.10% |
| 1.60% | Right Turn | 304 | 76 | 1 | 20.21% |
| 0.70% | Other Object | 152 | 12 | 0 | 7.32% |
| 0.50% | Pedestrian | 7 | 98 | 12 | 94.02% |
| 0.20% | Pedalcycles | 6 | 44 | 1 | 88.24% |
| 0.20% | Unknown | 40 | 3 | 0 | 6.98% |
| 0.10% | Sideswipe - Meeting | 18 | 9 | 7 | 47.06% |
| 0.00% | Train | 1 | 0 | 1 | 50.00% |
| 0.00% | Falling From Or In Vehicle | 0 | 0 | 1 | 100.00% |

**PDO stands for Property Damage-Only Crash*

Some notable results of the analysis are that between 2015 and 2019, there were 8,153 Fixed Object crashes (35.1% of total crashes), making this the most common crash type overall and also accounts for the largest number of fatalities in the region.

Of the 117 pedestrian crashes reported in the last 5-years, 94% resulted in an injury and 12 were fatal.

Between 2015 and 2019, head-on collisions accounted for the second highest number of fatalities, with just over half of all head-on crashes resulting in fatality.

Finally, Rear End and Animal involved crashes are the next most numerous types of crashes in the region over the past 5-years, but only account for 14.1% and 13.1% respectively (27.2% combined) of the total crashes.

To review the best and most condensed sources of roadway safety data with visual reference, please refer to the Regional and County-specific Crash Fact Sheets produced by BHRC in Appendix E.

### *Top Crash Intersections*

In the Buckeye Hills region, the intersections where vehicular crash incidents took place were analyzed to determine which intersections had the highest incidents. The timeframe of the analysis was from 2015-2019. Of those intersections, the total number of crashes and the type of severity was weighed to formulate a ranking of the top crash intersections. Due to the wide spectrum of crash totals, it was determined that to effectively rank and communicate the top crash intersections, a minimum threshold of 11 crashes per 5-years had to be met to be listed. The resultant list itemizes the top 40 crash intersections in the Buckeye Hills region.

It is important to note that for the purposes of this analysis, crash intersections in the City of Marietta are not included due to that jurisdiction falling within the WWW Interstate Planning Commission authority.

The following table of the top crash intersections should be used by local officials to guide their knowledge of roadway safety risks in local areas, as well as guide any regional safety improvement planning and project development.

| Top 40 Crash Intersections in the Buckeye Hills Region, 2015-2019 | | | | | |
|---|---|---|---|---|---|
| Rank | Crashes | Highest Severity | Roadways Involved | County | Jurisdiction |
| 1 | 90 | Minor Injury Suspected | SR 682/Richland Ave (roundabout) | Athens | Athens City |
| 2 | 77 | Serious Injury Suspected | US 33/E State St (interchange) | Athens | Athens City |
| 3 | 59 | Minor Injury Suspected | SR 664/US 33 (roundabout interchange) | Hocking | Logan City |
| 4 | 37 | Minor Injury Suspected | SR 664/Chieftain Dr/Hunter St | Hocking | Logan City |
| 5 | 32 | Serious Injury Suspected | SR 682/W Union St | Athens | Athens City |
| 6 | 30 | Minor Injury Suspected | US 33/Mulberry St S | Hocking | Logan City |
| 7 | 30 | Injury Possible | E State St/Charles St/Community Center Dr | Athens | Athens City |
| 8 | 29 | Serious Injury Suspected | Front St/Mulberry St S | Hocking | Logan City |
| 9 | 29 | Minor Injury Suspected | SR 664 S/Primmer Rd/Private Dr | Hocking | Logan City |
| 10 | 28 | Serious Injury Suspected | Front St/West St/Hunter St W/Miller Pl/Lincoln Ave/Short St | Hocking | Logan City |
| 11 | 26 | Serious Injury Suspected | Plains Rd(from E Third St to Connett Rd) | Athens | Athens Twp |
| 12 | 22 | Serious Injury Suspected | E State St/E Carpenter St/W Stimson Ave/Kern St | Athens | Athens City |
| 13 | 21 | Minor Injury Suspected | Culver St N/Hunter St E/Zainesville Ave/East St | Hocking | Logan City |
| 14 | 20 | Serious Injury Suspected | US 50/Brimstone Rd/Cemetery St | Athens | Coolville Village |
| 15 | 20 | Minor Injury Suspected | US 33/Clear Creek Rd | Hocking | Good Hope Twp |
| 16 | 19 | Fatal | US 33/Albany Rd/Richland Ave/Pomeroy Rd | Athens | Athens City |
| 17 | 19 | Serious Injury Suspected | E State St/Eden Pl | Athens | Athens City |
| 18 | 19 | Minor Injury Suspected | Radford Rd/US 50 | Athens | Alexander Twp |
| 19 | 19 | Minor Injury Suspected | State St/N Court St | Athens | Athens City |
| 20 | 19 | Minor Injury Suspected | Carroll St/Mill Ln/Broadway St | Perry | New Lexinton Village |
| 21 | 18 | Minor Injury Suspected | Richland Ave/S Shafer St/S Green Dr | Athens | Athens City |
| 22 | 17 | Serious Injury Suspected | E State St/Euclid Dr | Athens | Athens City |
| 23 | 17 | Minor Injury Suspected | W State St/N Congress St/Rose Ave | Athens | Athens City |
| 24 | 17 | Minor Injury Suspected | Brown St/Main St | Perry | New Lexinton Village |
| 25 | 16 | Serious Injury Suspected | Second St E/Mulberry St S | Hocking | Logan City |
| 26 | 16 | Injury Possible | E State St/Avon Pl | Athens | Athens City |
| 27 | 15 | Fatal | S Shafer St/W Union St | Athens | Athens City |
| 28 | 14 | Minor Injury Suspected | Court St/Main St | Monroe | Woodsfield Village |
| 29 | 14 | Injury Possible | Main St E/Mulberry St | Hocking | Logan City |
| 30 | 14 | Injury Possible | E Main St/7th St | Morgan | McConnelsville Village |
| 31 | 14 | Injury Possible | N Main St/7th St | Morgan | Malta Village |
| 32 | 14 | PDO/No Injury | Main St W/Spring St | Hocking | Logan City |
| 33 | 13 | Serious Injury Suspected | SR 664 S/Lake Logan Rd | Hocking | Logan City |
| 34 | 12 | Serious Injury Suspected | Blackbrun Rd/US 50/Kimes Ln | Athens | Athens City |
| 35 | 12 | Minor Injury Suspected | W Washington St/Congress St | Athens | Athens City |
| 36 | 12 | Minor Injury Suspected | Carpenter St/Armory St/N Court St | Athens | Athens City |
| 37 | 12 | Injury Possible | E State St/Harris Dr/Home St | Athens | Athens City |
| 38 | 11 | Serious Injury Suspected | Stewart St/Playground Dr/Coss St/Mill St/Palmer St/Hocking St | Athens | Athens City |
| 39 | 11 | Serious Injury Suspected | Tunnel Hill Rd NE/Hunter Dr/Lovers Ln | Perry | Pike Twp |
| 40 | 11 | Serious Injury Suspected | SR 13 NW/Blackbird LN NW/Zion Rd NW/Honey Creek RD NW | Perry | Thorn Twp |

**The Top Crash Intersection data does not include the WWW jurisdiction that includes the City of Marietta (Washington Co.)*

*Source: ODOT GIS Crash Analysis Tool (GCAT) & Crash Analysis Module (CAM) Tool*

***Denotes a non-municipal intersection***

## Future Conditions – Roadway Safety

Based on annual and historical traffic volume, congestion and population data analysis, the roadway safety conditions in the Buckeye Hills region has traditionally led to relatively low crash numbers and has not changed dramatically in the last 5-years. Therefore, regarding the future condition of roadway safety in the region, there is not an expectation that the roadways will see any notable increase in safety issues, but the Buckeye Hills RTPO will continue to monitor the situation. Based on the current analysis, attention to distracted/impaired driving and a regionally coordinated approach to identify, prioritize, and develop safety projects through the development of a Regional Safety Plan can move the needle on future roadway safety conditions.

## Needs Assessment – Roadway Safety

The high incidents of Fixed Object crashes are likely due to a combination of things:

- Distracted and/or impaired driving.
- Visibility and restricted line-of-sight on hilly, forested and winding rural roads.
- Insufficient safety signage of hazardous areas.
- Vehicle control difficulties amidst hilly and winding rural roads.
- The simple fact that low traffic volume/congestion in the region limits the presence of other vehicles on the road at the time of crash/loss of control elevating the incidents of fixed object crashes.

As previously stated, one of the RTPO goals is to: Promote & Support Safety Improvements with a defined objective of "Improve driver and transportation user awareness and education", and "Advocate for system enhancements that improve general user safety" that includes strategies/activities that seek ways and avenues to promote, coordinate or conduct public vehicle operator awareness education that focuses on distracted driving, winter/inclement weather driving, bicycle/pedestrian alertness, motorcycle awareness, and construction work zone vigilance. The roadway safety analysis further justifies the need for such actions.

### Top Municipal & Non-Municipal Intersection Assessments

The top* 5 municipal intersection crashes occur in either Athens or Hocking Counties:

**top consideration cut-off at above 30 crashes in the last 5-year period*

#### Athens County – Municipal Intersections

- **SR 682/Richland Avenue**: between 2015 and 2019, there were 90 crashes recorded at this intersection. This municipal intersection has consistently been the top generator of crashes in Athens County as a well as the entire Buckeye Hills region since at least 2009, and likely much longer. This is due to 3 reasons: 1) the intersection is the primary point of traffic flow from US 33/SR 50 into the City of Athens and Ohio University; 2) the City of Athens and Ohio University are the two greatest concentrations of population in the region (e.g. greater population generates higher traffic volumes and thus vehicular/pedestrian crashes); and 3) the intersection regularly experiences a high frequency of high traffic volume periods as a result of sporting/social/community events, as well as student move-in/move-out periods in the academic calendar which utilize the intersection for primary local access to stadiums, student housing, academic buildings, and local businesses. In 2010 the original signal-controlled intersection was rebuilt and replaced with a two-by-one roundabout to minimize the severity of crash outcomes by mitigating against head-on, broadside, and rear-end collisions while also slowing/calming traffic speeds and improving flow of traffic.

  Despite the continued high number of crash incidents at this roundabout intersection due to annual traffic volume, the highest injury severity recorded was only a minor injury and zero

fatalities which indicate that the safety countermeasure of a roundabout has been quite successful in lowering crash and injury severity.

With the permanent roundabout countermeasure infrastructure in place, the options to further reduce crashes at the intersection are limited. Pedestrian traffic volume has already been significantly reduced by the completion of two (2) pedestrian tunnels that separate heavy academic/event pedestrian traffic from the roadway and roadway crossings that impact the intersection. The frequency of crashes could potentially be further reduced by attempting to lower the annual traffic volume flowing through that specific intersection. Options could be improving the other intersections with US 33/SR 50 (E. State St. and Stimpson Ave.) that also provide access to the City of Athens and Ohio University. The Stimpson Ave. exit and municipal access has already been improved in 2017 with a roundabout installation as well as roadway improvement that is under construction at the time of this plan development. The US33/E. State St. intersection/exit has limited options for improvement and will be examined in the next itemized intersection.

The leadership, officials, and staff of the City of Athens and Athens County deserve recognition and commendation for the attention, perseverance, and improvements to safety, traffic flow, and contributing factors at this intersection.

- **US33/East State Street**: between 2015 and 2019, 77 crashes were recorded at this municipal intersection, and has the second highest number of crashes in the region. This intersection is one of the three major access points to the City of Athens from US 33 and the primary access point from Us 33 to the high traffic volume area of the E. State St. business corridor. In its current configuration, improvement design options to the intersection are restricted by the local space available and would likely require a major rebuild and disruption to make notable changes. At this time, there are not any good safety improvement options to recommend other than conducting an intersection safety study at the intersection to identify the top safety concerns and provide countermeasure recommendations.

- **SR 682/W. Union Street**: between 2015 and 2019, 32 crashes were recorded at this municipal intersection. Having the most traffic volume on the west-side of the City of Athens, the intersection connects the road classification change from SR 56 to W. Union St. and SR 682. The traffic volume is due to west-side in-and-out-bound traffic for the City of Athens on both State Routes as well as servicing a commercial corridor on W. Union St. and the County Fairgrounds, and access to The Village of The Plains to the north. Despite having the third largest total incidents of crashes in Athens County, 32 crashes over the process of 5-years is not generally considered a grave situation. However, an intersection safety study is recommended to identify the top safety concerns and provide countermeasure recommendations.

### Hocking County – Municipal Intersections

- **SR 664/US 33**: between 2015 and 2019, 59 crashes were recorded at this municipal intersection which is also the intersection with the third largest recorded crashes in the region. This

interchange has long been regarded as an important gateway to a local commercial retail zone, Logan's historic downtown district, as well as the Hocking Hills State Park environs. In 2013, the first-ever double roundabout in Ohio was officially opened to traffic at the interchange of SR 664 and U.S. Route 33 in the City of Logan.

Despite the continued high number of crash incidents at this double roundabout intersection due to annual traffic volume, the highest injury severity recorded was only a minor injury and zero fatalities which indicate that the safety countermeasure of a roundabout has been quite successful in lowering crash and injury severity. At this time, there are not any safety improvement options to recommend other than conducting an intersection safety study at the intersection to identify the top safety concerns and provide any countermeasure recommendations.

- **SR 664/Chieftain Dr/Hunter St**: between 2015 and 20219, 37 crashes were recorded at this municipal intersection, but the highest injury severity recorded was only a minor injury and zero fatalities. This intersection occurs near a commercial retail area in the City of Logan where Hunter St. changes name to Chieftain Dr. The commercial retail, proximity to Hocking Valley Community Hospital, and SR 664 which is one of the primary feeders to US33 generate higher annual traffic volume and congestion which results in more crashes. The intersection is currently fully built-out, so to reduce the crash rate an intersection safety study at the intersection to identify the top safety concerns and provide any countermeasure recommendations like additional turn-lanes, signal turn arrows, etc.

The top* 2 non-municipal intersection crashes also occur in either Athens or Hocking Counties:

**top consideration cut-off at 20 or more crashes in the last 5-year period*

### Athens County – Non-Municipal Intersections

- **S. Plains Rd/SR 682 (Athens Township)**: between 2015 and 2019, 26 crashes were recorded at the non-municipal intersection, with the highest injury severity recorded was a suspected serious injury. This intersection occurs on S. Plains Rd./SR 682 between E. Third St. to Connett Rd. near the center of The Plains. Even though The Plains is a notable community on par with a village-level of population and area size, the community is unincorporated and merely defined as a 'census designated place' (CDP). Therefore, this intersection technically falls within the non-municipal category but exhibits the characteristics of a municipal intersection. S. Plains Rd/SR682 is the main thoroughfare in The Plains servicing predominantly residential areas intermixed with commercial businesses. As such there is regular traffic volume and congestion that can increase the frequency of crash incidents during peak times of the day/week. This plan's roadway safety analysis of this area is limited, and in order to accurately assess the discrete location, patterns contributing to the crash frequency, and potential countermeasures an intersection safety study is recommended. Due to the unincorporated nature of The Plains, Athens Township or Athens County would be the entity leading any study.

### Hocking County – Non-Municipal Intersections

- **US33/Clear Creek Rd (Good Hope Township)**: between 2015 and 2020, 20 crashes were recorded at the non-municipal intersection, with the highest injury severity recorded was a suspected minor injury. This intersection occurs in a rural area in Good Hope Township near the northern boundary of Hocking County. The frequency of crashes at this intersection is likely due to being a rural access/turnoff to major 4-lane divided US route highway. The significant speed transition on and off US33, along with the regular higher traffic volume at high speed on US33, and cross-highway turns contribute to the potential for crash incidents. There are also two business on Clear Creek Rd (gas station and sandwich restaurant) that generate additional traffic on and off US33 at the intersection. A right turn lane from southbound US33 onto Clear Creek Rd, as well as a right-turn merge lane from Clear Creek Rd onto southbound US33 are potential countermeasures that could reduce the frequency of crash incidents at the intersection.

## Other Roadway Safety Recommendations & Considerations

It is important to note for all local municipal, township, and county officials that critical data and analysis of roadways and intersections with safety issues elevate the priority for any funding application approval and project schedule programming with ODOT. Therefore, it is strongly recommended for local officials to conduct current safety studies and/or analysis of problematic areas prior to applying for funding programs, and highlight those results in the application. If local expertise and resources are unavailable for such activities, local officials are encouraged to contact the ODOT District office (in the Buckeye Hills Region, Districts 5 or 10) and/or Buckeye Hills RTPO staff for assistance.

Additionally, as noted in the LRTP's Short-Range Recommendations section, the development of a Regional Safety Project Plan is recommended to develop a regional approach to roadway safety and have direct coordination with the counties and municipalities of the region to identify, prioritize, and develop key safety projects. The Regional Safety Plan is a relatively new concept in the state with some pilot plans being recently conducted by sister RTPOs. It is the intent of the Buckeye Hills RTPO to engage with ODOT Central Office in 2022 to being the coordination for the development of a Buckeye Hills Regional Safety Plan.

Finally, it is also important to note for all local municipal, township, and county officials the funding mechanisms that can be applied for and leveraged to address safety concerns, develop projects and build countermeasures depending on the type of project: the ODOT Highway Safety Improvement Plan (HSIP) Safety funding program; the ODOT Small Cities program; the County Engineers Association of Ohio (CEAO) Highway Safety Improvement Program; the Ohio State Infrastructure Bank (SIB); the ODOT Transportation Improvement District (TID) program; ODOT Safe Routes to School (SRTS) program; the ODOT Transportation Alternatives Program (TAP).

## BRIDGE CONDITIONS

### Existing Conditions - Bridges

Currently there are a total of 2,865 bridges in the 8-county Buckeye Hills region. Additionally, there are roughly 927 bridges in region that are 70-years or older.

It is important to note that the jurisdiction of WWW Interstate Planning Commission encompasses a portion of Washington County including the City of Marietta. As a result, the inventory reporting and analysis of bridges does not represent the WWW Interstate Planning Commission territory.

**Deficient Bridges**

| County | Deficient | % of Total | Total |
|---|---|---|---|
| Athens | 64 | 11.6% | 553 |
| Hocking | 4 | 1.0% | 412 |
| Meigs | 31 | 7.1% | 439 |
| Monroe | 24 | 8.9% | 270 |
| Morgan | 11 | 4.2% | 263 |
| Noble | 14 | 4.4% | 315 |
| Perry | 11 | 3.8% | 290 |
| Washington* | 11 | 3.4% | 323 |
| Total | 170 | 5.9% | 2865 |

**The Washington Co. count does not include the WWW area.*
*Source: ODOT Transportation Mapping System (TIMS), 2020*

Bridge inventory and condition rating data is collected by both ODOT and county engineers, and is accessible to local and regional operations and planning officials in the state. The ODOT bridge inventory data sources rate bridge conditions in alignment with the National Bridge Inventory (NBI) condition rating specifications based on a structural evaluation of deck, superstructure, substructure, and culvert on a 0-9 scale, with 9 being the best and 0 being the worst. The condition scale is coded as: N – Not Applicable; 9 – Excellent Condition; 8 – Very Good Condition; 7 – Good Condition; 6 – Satisfactory Condition; 5 – Fair Condition; 4 – Poor Condition; 3 – Serious Condition; 2 – Critical Condition; 1 – Imminent Failure Condition (closed); 0 – Failed Condition (out of service).

ODOT then further classifies that condition scale to group ratings of 6-9 as 'Good'; ratings of 5-6 as 'Fair'; and ratings of 0-4 as 'Poor'. Buckeye Hills RTPO staff analyzed the bridge condition data and define any 'Poor' ratings as deficient bridge conditions.

In the table above: the total number of bridges, the total number of deficient bridges, and the percentage of deficient bridges are presented for each county within the Buckeye Hills region. There is a total of 170 bridges in the region classified as deficient, which equates to 5.9%. This is fairly low number indicating that in general, the bridges in the 8-county region are in satisfactory condition.

Should any local governmental officials in the region desire any further deficient bridge analysis/locations for their particular jurisdiction, please contact Buckeye Hills Regional Council.

Maps of bridges and their classified condition within the Buckeye Hills region and its counties can be found in Appendix F.

### Future Conditions - Bridges

By 2045, it is projected that roughly 1,598 bridges in region will be 70-years or older. Over the next 25 years it is expected that many bridges, particularly those currently with a 'deficient' condition rating

will be approaching or at the end of their useful and intended lifespan and may require significant upkeep to prevent further deterioration, closure, or becoming out of service. Bridges with a deficient condition rating and those of advanced age will need to be monitored closely over the next 25 years. The Buckeye Hills RTPO program will continue to review bridge data and update inventory information as bridges are rehabilitated.

Additionally, future local government engagement efforts – particularly for the 5-year cyclical LTRP updates – will identify the bridges rated as deficient and those of advanced age to help local officials prioritize maintenance, rehabilitation, and/or rebuild and funding planning efforts.

### Needs Assessment - Bridges

The following are potential bridge needs identified in the Buckeye Hills region:

- As a matter of total percentage:
  - Athens County has the highest number of deficient bridges with 64, equating to 11.6%.
  - Monroe County has the second highest with 24, equating to 8.9%.
  - Meigs County with the third highest with 31, equating to 7.1%.
- It is recommended that ODOT and those three (3) county governments institute an assessment program for those specific bridges to plan and prioritize short-to-mid-term rehabilitation and/or rebuild budget and efforts.
- It is also recommended that all bridges in the region that are of advanced age are prioritized for monitoring programs.

Should any local governmental officials in the region desire any further deficient bridge analysis/locations for their particular jurisdiction, please contact Buckeye Hills Regional Council.

## TRANSIT & TRANSPORTATION SERVICES

In the Buckeye Hills region there are nine (9) total transit agencies with three (3) total fixed route transit systems. In addition, there are *at minimum* one-hundred and two (102*) individual transportation service providers.

### Existing Conditions – Transit & Transportation Services

With regards to public transit and transportation services in the Buckeye Hills region, county-based Coordinated Transportation Plans are uniquely the best source of information regarding the existing conditions – including a comprehensive inventory of transit, mobility, and transportation services in the county. The plans also lay out the goals and strategies for improving transportation coordination at the local county level, conducts research and engages with the local community to identify service needs and gaps, and guides actions to develop and implement solutions and improvements to transit, mobility and transportation services locally. Buckeye Hills RTPO staff interact and work with the local staff (typically mobility managers) and stakeholder advisory committees throughout the region who develop, implement, and update coordinated transit plans, and as such has access to each. Please feel

free to contact the Mobility Manager of a county in the Buckeye Hills region, Buckeye Hills Regional Council Transportation Manager or Mobility Mangers if you would like a copy of a coordinated transit plan.

The Ohio Department of Transportation (ODOT) and the Federal Transit Administration (FTA) describe that the purpose of locally developed, coordinated public transit-human services transportation plans (coordinated transportation plans) is to identify community resources for transportation and mobility, understand the gaps and unmet needs within those resources, and to determine the approach to addressing those gaps and unmet needs. Federal law requires these plans to be developed and approved through a process that includes participation by seniors, individuals with disabilities, representatives of public, private, and nonprofit transportation and human services providers and other members of the public.

You can find all available coordinated transit plans on ODOT's Transit Page at the link below:

https://www.transportation.ohio.gov/programs/transit/transit-coordination-resources/list-coordinated-plans.


- **Athens City & County**: The Athens City-County area contains two (2) fixed route public transit agencies, and forty-four (44) individual mobility and transportation services including local schools. The inventory of the transit, mobility, and transportation services in Athens County are itemized in the county plan.
- **Hocking County**: The Hocking County area contains two (2) public transit agencies (neither are fixed route), and fourteen (14) individual mobility and transportation services including local schools. The inventory of the transit, mobility, and transportation services in Hocking County are itemized can be viewed in the county plan.
- **Meigs County**: The Meigs County area does have a public transit agency, started in 2022. The area also has twenty-eight (28) individual mobility and transportation services including local schools. The inventory of the transit, mobility, and transportation services in Meigs County are itemized can be viewed in the county plan.
- **Monroe County**: Monroe County has developed a Coordinated Transportation Plan completed in 2022. Local officials have provided the core transit/transportation service information. The area has the Monroe County Public Transit agency (MCPT) with 2 handicap accessible buses, 4 high-top handicap accessible vans, and 10 modified mini-vans.
- **Morgan County**: Morgan County developed a Coordinated Transportation Plan in 2021. Morgan County Mobility Manager has provided the core transit/transportation service information. The area does have a fairly robust public transit agency with 15 modified mini-vans, and 5 light transit buses. In addition, one other non-emergency medical transportation

service has been identified. The abbreviated inventory of the transit, mobility, and transportation services in Morgan County can be viewed in the county plan.

- **Noble County**: Noble County has developed a Coordinated Transportation Plan, with the Buckeye Hills Mobility Management as the facilitator and supported by the RTPO program. Local officials provided the core transit/transportation service information. The area has the Southeast Area Transit agency (SEAT) serving Noble County with 28 vehicles with curb-to-curb and door-to-door service. The inventory of the mobility and transportation services in Noble County are itemized can be viewed in the county plan.


- **Perry County**: The Perry County area contains one (1) public transit agency that is not fixed route but curb-to-curb demand response shared ride (first come, first serve) transportation services, and eight (8) individual mobility and transportation services (not including local schools). The inventory of the transit, mobility, and transportation services in Perry County are itemized can be viewed in the county plan.
- **Washington County**: The Washington County area contains one (1) public transit agency, CABL that is fixed route with additional on-demand response service, and seven (7) individual mobility and transportation services (not including local schools). CABL has 4 MMVs and 6 light transit buses in the vehicle inventory. The inventory of the transit, mobility, and transportation services in Washington County are itemized can be viewed in the county plan.

For a detailed list of available services by county, please refer to Appendix G.

### *Regional Community Demand*

In the rural Buckeye Hills RTPO region, greater access to public transportation options has been repeatedly identified as one of the greatest needs in the region as part of public engagement, community surveys, and stakeholder technical assistance committees conducted as part of coordinated public transit-human services transportation plans (coordinated transportation plans) or as part of regular RTPO stakeholder engagement. The demand for greater access to public transportation has been particularly communicated by groups in the community including but limited to:

- People trying to retain or secure employment.
- People seeking connectivity to trails or other active transportation facilities.
- Low/Fixed income citizens.
- Substance abuse treatment/recovery.
- Senior citizens who cannot drive for personal, business, medical, and non-medical transportation.
- The developmentally or physically disabled.

## Future Conditions – Transit & Transportation Services

Due to the economic and demographic projections discussed earlier in this plan, the aforementioned demand for greater access to public transportation services is not likely to abate but rather grow with time. However, the economic conditions, rural nature, and spread-out distribution of the population in the Buckeye Hills region present unique challenges that make comprehensive public transportation difficult to grow and implement. Those unique challenges mainly include:

- Comprehensive transportation service geographic coverage
- Operational service hours that better align with the employment and personal business needs
- Lack of funding sources for local transit agencies

Each of those challenges prohibit the economic and operational feasibility to create or expand public transportation options and access. Solutions to those three challenges will need to be found and implemented. On-demand services, developing innovative transportation solutions for targeted groups, and expansion of service hours would be effective solutions to meet the demand and close gaps in the public transportation service options. However, all of those solutions are completely dependent on increased and *sustained* federal, state, and local funding. At the time of this plan's writing, the State of Ohio's transportation budget had been significantly impacted by the COVID-19 pandemic and lower gas tax revenues. As a result, the State's transit funding is expected to decrease for at least a few years until full economic recovery. State decision making will also have to make rural transportation a priority and reflect that policy with funding distribution. Local budgets have also been significantly impacted by the COVID-19 pandemic, and until economic recovery and local decision making focusing on local transportation, funding is not likely to increase to facilitate solution implementation and meet demand. The State and local political will and budget situations will play a great part in whether or not transit and transportation service solutions in the region are funded.

On a brighter note, for at least the next four years of the current Federal administration there appears to be a recognition of the inequality of transportation options in rural America and the Federal Department of Transportation is expected to make policy decisions and funding distribution to the States that benefit rural transit and transportation options and access. However, one-off funding increases or short-term grant opportunities can move the needle on some issues in some respects, but long-term sustained budgetary support from Federal, State, and Local levels will be necessary for the transit and transportation needs of the Buckeye Hills region to be realized and move permanently beyond the current state.

Another future condition to note is that it is possible that coordinated transportation plans, as a concept, could evolve to a regional level given that many rural communities have populations that need to travel beyond their home county boundaries in order to seek/obtain medical services, support employment, or conduct personal business not available in their home locale. Discussions of this nature are currently being had in the Buckeye Hills region as well as at the ODOT central office.

## Needs Assessment – Transit & Transportation Services

Should requisite Federal, State, and Local funding distribution increases manifest and/or grant opportunities secured, the following are the assessment of needs and recommended solutions to transit and transportation services are recommended in the Buckeye Hills region:

- Developing and implementing and/or expanding on-demand, door-to-door service options.
- Developing innovative transportation solutions for targeted at-risk groups who have specific needs.
- Expansion of service hours and service coverage.
- Improve fleet vehicle specifications for wheelchair accessibility and bicycle racks.
- Plan transit sites in conjunction with other ride-share or transportation services staging areas and/or Active Transportation facilities to promote connectivity between modes
- Increase marketing, advertising, and engagement to increase public awareness of the improved service options.
- Increase bus shelter facility development regionally to increase user comfort and experience.

# ACTIVE TRANSPORTATION

Active transportation is human-powered transportation that engages people in healthy physical activity while they travel from place to place. People walking, jogging, bicycling, using strollers, wheelchairs/mobility devices, skateboarding, and rollerblading are all engaged in active transportation. Active transportation tends to support transit use, since many people reach transit stops using active travel modes.

Ohio and Buckeye Hills communities of all sizes are making investments in active transportation. Types of transportation projects that support active transportation include:

- **Construction of new sidewalks and curb ramps** — provide spaces for neighborhood interaction and enhance property values.
- **Implementation of bicycle lanes, cycle tracks, trails and pathways** — in cities big and small, new facilities are popping up throughout much of the State in response to the need for more comfortable facilities to ride bicycles.
- **Implementation of bike share programs** — new active transportation alternatives that expand transit options and are now being planned in cities around Ohio.

Transportation systems that support active modes of travel like walking and bicycling can bring many benefits to counties and cities, including:

- **Greater economic prosperity**, because workers, tourists and businesses are attracted to locations with high-quality, multimodal transportation systems.
- **Better transportation choices for residents**, making it easier for people of all ages and abilities to get around.

- **Improved access to transit stops**, local businesses and other services connecting residents to activity centers and jobs.
- **Healthier communities** where physical activity is a valued part of people's daily lifestyles.
- **Cleaner air and water** due to reduced greenhouse gas emissions and stormwater contamination.
- **Improved social equity** created by low-cost transportation options that are available to all people, regardless of income or background.

For regions, counties, and cities that are planning for the future of their transportation systems, engaging in developing an Active Transportation Plan provides a "road map" for incorporating active transportation into the planning process and ensuring that today's transportation investments help support and sustain healthy communities of the future.

An Active Transportation Plan (ATP) outlines the vision, goals and strategies needed to support increased walking, bicycling and other active modes of transportation. An ATP may be developed by a state, regional or local agency. It should identify a combination of programs, policies and physical improvements (such as new sidewalks or bicycle paths) that are needed to ensure the safety, comfort and convenience of active travel modes. The ATP might be one element of a broader planning process, such as a regional long-range transportation plan, or it might be a stand-alone document (sometimes also called a Bicycle/Pedestrian or Complete Streets Plan).

Should Buckeye Hills region elected officials and/or other policy makers, citizens and community organizations, local municipalities, transportation and health professionals working for city, and county and regional agencies wish to explore the development of an Active Transportation Plan or individual Active Transportation projects please be aware that Buckeye Hills Regional Council and the Ohio Department of Transportation (ODOT) are here to provide guidance and participate in the development process. Please contact Buckeye Hills Regional Council for any Active Transportation planning or development assistance or consulting services.

## Existing Conditions – Active Transportation

The following are the identified existing conditions of the Active Transportation conditions in the Buckeye Hills region:

### State & U.S. Bike Route System

Ohio is currently establishing a network of State and U.S. bicycle routes which will provide bicyclists with safe and convenient connections through and to population centers and destinations in Ohio. The system will serve as a strong backbone that local and regional bike networks can build on and connect to across the state.

Unfortunately, the Buckeye Hills region does not include any of the U.S. Bicycle Route System (USBRS) routes but does include a number of State of Ohio Bicycle Route System (OBRS) routes. The state bike routes in the Buckeye Hills region can be viewed in a map in the Active Transportation Appendix I. The State Bicycle Routes (SBR) in the Buckeye Hills region are: SBR 20, SBR 65, and SBR 85.

- **SBR85:** occurs in portions of Noble and Washington counties.
- **SBR20:** occurs in portions of Athens, Morgan, and Washington counties.
- **SBR65:** occurs in portions of Athens, Hocking, and Meigs counties.

A map of state bike routes in the BHRC region can be found in Appendix H.

## Active Transportation Trails in the Region

The Buckeye Hills region possesses a number of active transportation trails that allow communities and tourists to enjoy the spectacular natural beauty of the region. The following are the existing trails in the region:

**Athens County — Hockhocking Adena Bikeway**: connecting the City of Athens and the City of Nelsonville for 20 miles of trail; Trail End Points: Myers St., 0.1 mile west of Monroe St. (Nelsonville) and E. State St. at US 50/OH 32 (Athens); Trail Surface(s): Asphalt.

*Marietta River Trail*

**Washington County — Marietta River Trail**: in the City of Marietta the trail runs for more than 3 miles along the Muskingum River through the city situated just across the Ohio River from West Virginia. Trail End Points: Indian Acres Park off Linwood Ave. and Jefferson St. and E. 8th St.; Trail Surface(s): Asphalt.

**Athens/Washington County — Athens-Belpre Rail Trail**: currently with 8.6 miles of open segments in operation in Athens County with 34-miles planned in total spanning both Athens and Washington Counties. There are 3 trail heads currently operational: North Torch Road trailhead is located on North Torch Road, about 0.1 mile north of Torch Road (Torch); the Ireland Road trailhead is located 0.75 miles north of US 50, east of Coolville, OH; the Frost Road Trailhead is in Frost, across the Hocking River from State Route 144. Trail Surface(s): Ballast, Dirt, and Grass.

**Hocking County — Old Town Creek Trail**: a short 1-mile but scenic pathway in Logan linking the county fairgrounds to Aqueduct Park along Front Street. Trail End Points: Hocking County Fairgrounds on California Ave. and Aqueduct Park on E. Front St.; Trail Surface(s): Asphalt and Crushed Stone.

## Active Transportation Plans in the Region

The Buckeye Hills region includes local governments that have developed active transportation plans that outline the vision, goals and strategies needed to support increased walking, bicycling and other active modes of transportation. The following are the identified existing active transportation plans in the region:

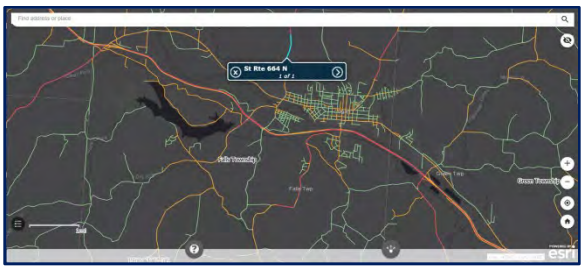
- **Athens City & County**: there are two renditions of active transportation plans. In 2010, the City of Athens created a Bicycle and Pedestrian Plan that can be found at: https://www.ci.athens.oh.us/DocumentCenter/View/4192/Athens-Bicycle-and-Pedestrian-Plan-2010?bidId=. Additionally, in 2018 the City of Athens developed an Uptown Athens Active Transportation Plan in collaboration with the Ohio Action Institute and ODOT that can be found at: https://www.ci.athens.oh.us/DocumentCenter/View/5596/Uptown-Athens-Active-Transportation-Plan-2018?bidId=. Buckeye Hills was a member of the plan development stakeholder group.
- **Meigs County**: published in December of 2018, Meigs County completed an Active Transportation Plan that can be found at: https://www.meigs-health.com/public-health/creating-healthy-communities. Additionally, the Meigs County Health Department's Creating Healthy Communities Program launched the Meigs County Active Transportation Wikimap. Wikimapping is an interactive, online data collection system where residents can plot walking and biking routes throughout the County and provide feedback about areas in need of improvement. The information collected will be used to guide planning for safety and education campaigns, as well as, potential infrastructure improvement projects. https://wikimapping.com/wikimap/Meigs-County-Active-Transportation-Plan.html
- **Perry County:** In December of 2019, Perry County Commissioners adopted an Active Transportation Plan for Perry County that can be found at: https://www.perryjfs.org/pdf/ATP-Plan.pdf.
- **Washington County – Village of New Beverly**: the Washington County Creative Healthy Communities Coalition in partnership with the Ohio Action Institute is leading efforts to develop an Active Transportation Plan for the Village of New Beverly. Public Participation on the concept began in May of 2020 with notable attendance and support from the community and stakeholders. Plan development efforts are continuing in 2021 with Village approval anticipated in 2021 or 2022 with support from Buckeye Hills RTPO and Mobility Management. More information can be found at: https://www.washingtongov.org/845/Active-Living.

### Buckeye Hills Resources for Active Transportation Existing Conditions

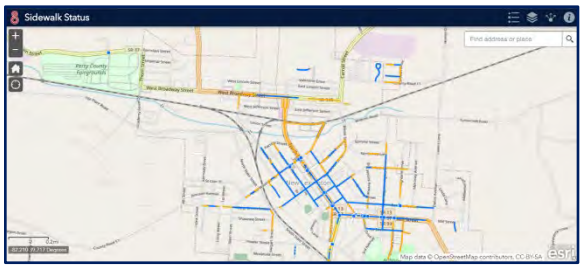
As part of the Buckeye Hills Long-Range Transportation Plan Goals & Objectives, one of the strategies is to continue to develop regional and publicly accessible resources that can be of value to member agencies, stakeholders, and the public for exploring intermodal links and promote active transportation and mobility options. Below are Buckeye Hills resources interested parties can use to derive the existing conditions for active transportation facilities in the region:

Buckeye Hills interactive map galleries can be found at
https://buckeyehills.maps.arcgis.com/home/gallery.html

- **Bike Comfort Map**: the road comfort for cycling map and interactive mapping application attempts to depict the likely comfort a cyclist would experience while riding on the roads in the Buckeye Hills region. The data utilized for the map and interactive mapping application is provided by the Ohio Department of Transportation (ODOT) and by the regional counties. The number of lanes, the posted speed limit, and annual average daily traffic counts, when available, were used. When such data was not available, assumptions were made about the road based on neighboring roads and its functional class. The values are assumptions from data and do not take into account real-world experience at this stage of deployment. However, over time new data sources and user experience feedback will be incorporated as they manifest and continue to evolve and improve the Road Comfort for Cycling representations.



- **Sidewalk Status Map**: this Sidewalk Status map and interactive mapping application depicts the presence or absence of sidewalk along road centerlines in the Buckeye Hills region. Aerial photos flown in 2014 were used to determine whether there was sidewalk on one or both sides, or none at all. Crosswalks were also identified. The sidewalk infrastructure information can be utilized to develop an Active Transportation Plan or individual active transportation project development to identify where sidewalk exists or does not exist, and what level of connectivity the existing sidewalk infrastructure has.




- **Activity Density Map**: the Activity Density map and interactive mapping application depicts activity density, or job and population per acre, in census blocks. Population data comes from the US Census Bureau's 2013 population estimates. The jobs information is from the Census Bureau's LEHD On the Map application, from 2011. These values were combined and divided by the acreage of the containing block. Due to some quirks of the LEHD data, some jobs are overly combined into a single block. This leads to blocks that can appear overly dense. It is best to consider the overall density of an area. The activity density information can be used to assess the amount of human activity in an area to determine active transportation infrastructure needs and/or gaps, and support active transportation plans or individual active transportation project development.

## Future Conditions – Active Transportation

As previously analyzed in this document, the generations of Baby Boomers (ages 56 to 74), Millennials (ages 24 to 39), and Generation Z (ages 8 to 23) are the three largest population cohorts in the regional populace. Even though the region as a whole will experience modest population decline in the future, those generational age groups are projected to grow as a percentage of the population over the next 25 years. As such, the active transportation assets and infrastructure of the region will be pressed to address the mobility needs and demands of those groups.

Regarding the long-term trend towards an aging Baby Boomer population (ages 56 to 74), the Buckeye Hills region is going to face needs and changes to active transportation assets and infrastructure that address the mobility of that population, safety features and asset visibility, and Americans with Disabilities Act (ADA) compliant infrastructure. Given that this age group is anticipated to have greater leisure time, it is also likely that regional transportation planning efforts will see a greater demand for walkable/ridable communities. Additionally, as eye-sight and other physical impairments negatively impact the ability of aged individuals to operate personal vehicles over time, this age group is projected to transition from personal vehicle operation to transit and non-medical transportation services for regular personal or business travel. As such, the connectivity of sidewalks and walking/bike paths and trails to transit/transportation assets and services is going to grow in demand and need.

Concerning the younger Generation Z (ages 8 to 23) population, reduced local funding for school bus services and the rates of childhood obesity in the region's youth are prompting families and school systems to adopt more healthy options with active mobility being a primary solution. This trend, and the subsequent demand, is encouraging local communities and school systems in the region to adopt and develop Safe Routes to School plans and projects – individually or as part of a more comprehensive Active Transportation Plan - that encourage and enable students in grades K-to-8 to walk or ride their bicycle to school in safety from vehicular road traffic.

With regards to the Millennial (ages 24 to 39) - and that of the less populous Generation X (ages 40 to 55) age groups - there is a societal trend of demand for more healthy activity options. This is particularly acute in the Buckeye Hills region where enjoyment of the natural outdoor assets is one of the prime drivers of why people in those age groups choose to stay residents or migrate to the region. The demand of such age groups for more active transportation assets and infrastructure - coupled with the fact that as the parents/caregivers of the region's youth who need more active transportation options as previously mentioned -

make it likely that those groups are going to be strong and vocal advocates of active transportation in their communities in the short and long-term future.

*Old Man's Cave – Hocking Hills*

Another source of demand for more active transportation planning, assets, and infrastructure is likely to come from the eco-tourists visiting the region to enjoy the natural beauty/assets/attractions, vacation cabins, and local businesses that cater to those tourists. As previously examined in the socio-economic section of this plan, eco-tourism is an economic force in the region that is projected to grow unabated. Such tourism visitors to the region want bike and walking paths to local attractions and businesses as well as connectivity to transit options. Local communities and decision makers are realizing the importance of such active transportation infrastructure to maintain, attract, and grow tourists to their communities to support the overall economic benefits. As such, local communities in the region will likely feel pressure from those tourists as well as local business owners to plan and improve their active transportation assets and infrastructure.

Beyond the economic benefits of just tourism, local municipal economic development efforts will also need improved active transportation assets and infrastructure to connect local business districts to pedestrian and bicycle traffic as well as connect those shoppers to transit options.

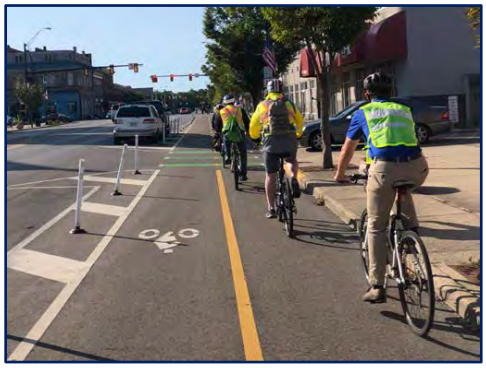
Finally, ODOT has put a lot of great attention, energy and program development into supporting local Active Transportation Plan (ATP) development with resources, guides, workshops, consultation, and regional outreach as part of the Walk.Bike.Ohio program. Walk.Bike.Ohio is ODOT's first plan to focus on walking and biking policies and programs around the state. This is the guide for Ohio's bike and pedestrian transportation policies and investments in infrastructure and programs. These centralized actions will have successful impact on helping local communities develop and implement their own plans.

The Walk.Bike.Ohio Statewide Bike & Pedestrian plan will advance six (6) goals with performance measures and targets:

- **Equity**: ensure the system accommodates users of all ages, abilities and incomes. Provide opportunities for all Ohioans in urban, suburban and rural areas to have access to connected walkways and bikeways.
- **Network Utilization**: increase walking and biking usage. Work to increase active transportation for all ages and abilities.
- **Network Connectivity**: Promote comfortable and continuous bicycle and pedestrian facilities that connect people to destinations. Expand the active transportation network to include connected, separated and accessible walkways and bikeways.

- **Safety**: Reduce bicyclist/pedestrian injuries and fatalities. Work actively and collaboratively with federal, state, regional, local and private partners to make Ohio safer for people who walk and bike.
- **Livability**: Improve the quality of life for all Ohioans. Provide active living environments with safe, connected, accessible facilities along with programs that influence public health and the environment by encouraging walking and bicycling.
- **Preservation**: Ensure critical existing infrastructure is in a state of good repair.

Specific to the Buckeye Hills RTPO program as a key partner for implementation, the Walk.Bike.Ohio Statewide Bike & Pedestrian plan charges RTPOs with the actions of: develop long-range regional plans; identify regional priorities; encourage active transportation; optimize funding; collaborate with partners; and monitor system performance.



Additionally, the Walk.Bike.Ohio Statewide Bike & Pedestrian plan advances five (5) Themes and respective Strategies to meet the aforementioned goals:

- Planning and Guidance
  - Develop and adopt multimodal planning, design, implementation and guidance.
  - Seek opportunities to support bicycle and pedestrian facility maintenance.
  - Develop clear, consistent and meaningful evaluation metrics and monitor performance.
- Education and Promotion
  - Develop educational materials for roadway users on rights and responsibilities impacting people walking and biking.
  - Educate elected officials at all levels about the importance of a more walkable and bikeable Ohio.
  - Provide technical assistance and education to practitioners, including planners, engineers, law enforcement and their partners.
  - Promote walking and biking as a transportation option.
- Implementation
  - Assist local communities in project development and implementation.
  - Implement State and U.S. Bike Route System.
  - Support regional, cross-jurisdictional active transportation project implementation.
- Data
  - Develop statewide active transportation asset inventory.
  - Establish active transportation monitoring program.
  - Expand active transportation safety data collection and analysis.

- Collaborative
  - Strengthen ongoing collaboration between ODOT and other state agencies.
  - Strengthen ongoing coordination and collaboration between ODOT and its local partners.

The Walk.Bike.Ohio Statewide Bike & Pedestrian plan can be found online at:

https://www.transportation.ohio.gov/programs/walkbikeohio/public-partner-involvement/01-plan

Finally, the Buckeye Hills region has already been engaged by ODOT for advancing Active Transportation planning with Perry County being a best practice model for public engagement, ATP development, Complete Streets Policy adoption, and ATP implementation. Buckeye Hills will continue to liaise and partner with ODOT to help local communities in the region explore, advance, and develop ATPs and Complete Streets Policy adoptions.

## Needs Assessment – Active Transportation

Active and public transportation demand is often expressed as where people live, work, play, take transit and learn. Concentrations of vulnerable populations in areas with limited transportation infrastructure can contribute to longer travel times, more expensive commutes, and unsafe travel conditions. Building bicycling and walking facilities in these areas can help provide multiple transportation options and decrease some of the economic and health burdens experienced by residents.

### *Walk.Bike.Ohio 2020 Active Transportation Needs Analysis*

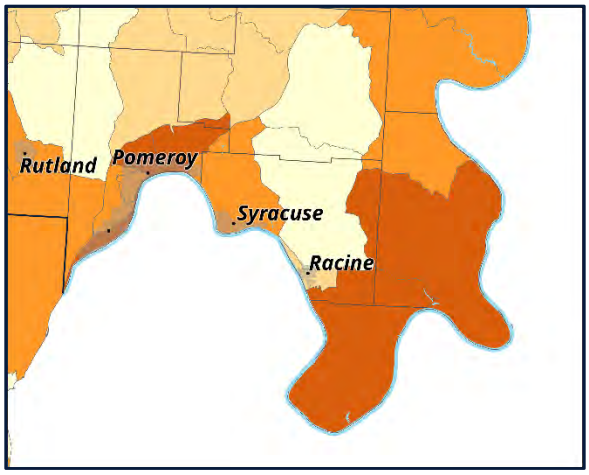
From the ODOT Walk.Bike.Ohio 2020 Needs Analysis document, transportation facilities are essential components in helping to create opportunities for Ohioans and to reduce the disproportionate economic and health burdens experienced by its most vulnerable residents. Often, traditionally vulnerable populations, such as minority groups, youths, older adults, people living in poverty, adults with no high school education, residents with limited English proficiency, and households with no access to a motor vehicle, may rely heavily on bicycling, walking, and transit. Concentrations of these vulnerable populations in areas with limited transportation infrastructure can contribute to longer travel times, more expensive commutes, and unsafe travel conditions. Building bicycling and walking facilities in these areas can help provide multiple transportation options and decrease some of the economic and health burdens experienced by residents.

The following list of historically disadvantaged and vulnerable populations were identified as indicators of potential equity concerns:

- Minority Groups
- Youth
- Older Adults
- Poverty
- No High School Diploma

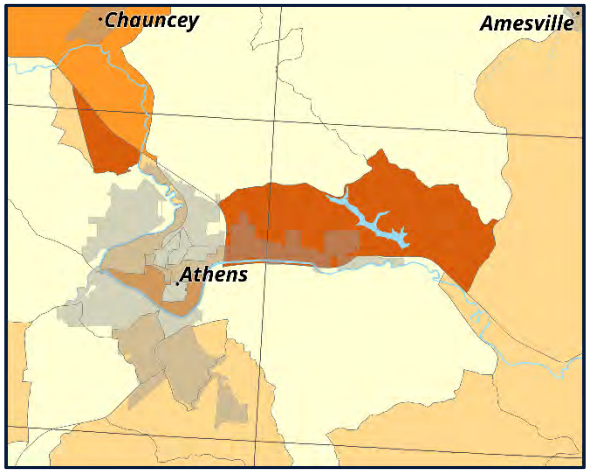
- Limited English Proficiency
- No Access to a Motor Vehicle

Data for each indicator was obtained from the 2013-2017 American Community Survey (ACS) Block Group level estimates from the U.S. Census Bureau. From that, a composite need analysis was generated by assigning an equal weighting to the seven need indicators. High concentration clusters (*highlighted in red on the map insets below*) of the Composite Need Score in each ODOT district represented in the Buckeye Hills region include:

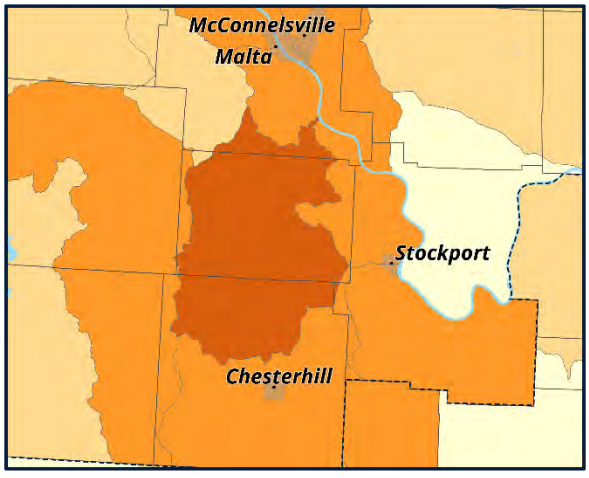



## ODOT District 10

- Village of Pomeroy and areas to the east (Meigs County) – impacting an approximate population of 6,200

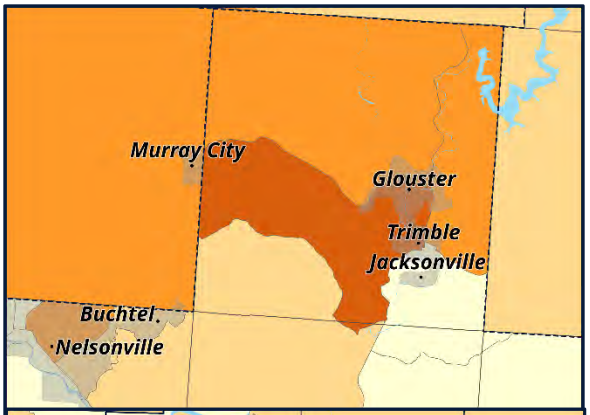



- City of Athens – impacting an approximate population of 11,000

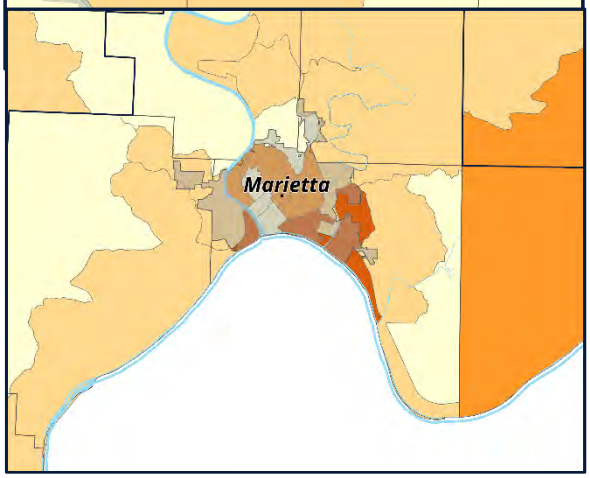



- Villages of Chesterhill-McConnelsville and surrounding areas (Morgan County) – impacting an approximate population of 7,200

- Village of Glouster (Athens County) – impacting an approximate population of 3,200



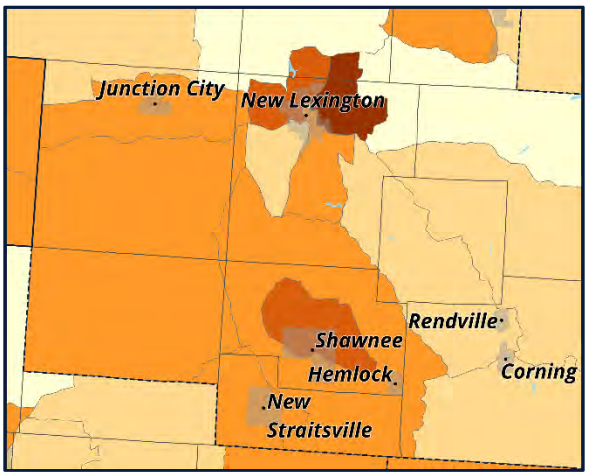

- City of Marietta (Washington County) – impacting an approximate population of 6,800




## ODOT District 5

*Note*: The Buckeye Hills region only includes Perry County from ODOT District 5.

- Shawnee-New Lexington and surrounding area, impacting an approximate population of 5,000;



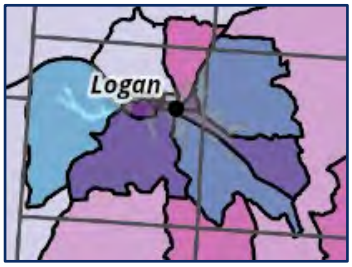

For a full viewing of the mapped Composite Need Score from the Walk.Bike.Ohio Needs Analysis document for District 5 & 10 of the Buckeye Hills region can be viewed in Appendix H.

# REGIONAL TRANSPORTATION

In addition to the ODOT Walk.Bike.Ohio Active Transportation Needs Analysis, ODOT has also conducted an analysis combining need and demand for active transportation in the region. That analysis identified need versus demand in a few additional areas:

## ODOT District 10

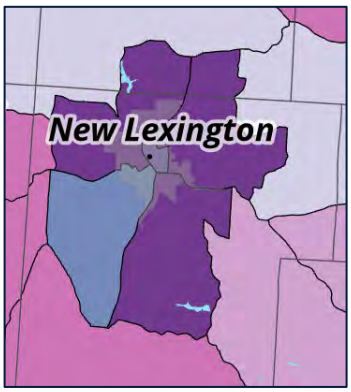
- City of Logan (Hocking County) – high demand/high need (represented by **dark purple**) in the Hocking Hills tourist region south of Logan, and to the southeast along the SR 33 corridor.




- Village of Chauncey (Athens County) - high demand/high need (represented by **dark purple**) in and around the Village of Chauncey.


## ODOT District 5

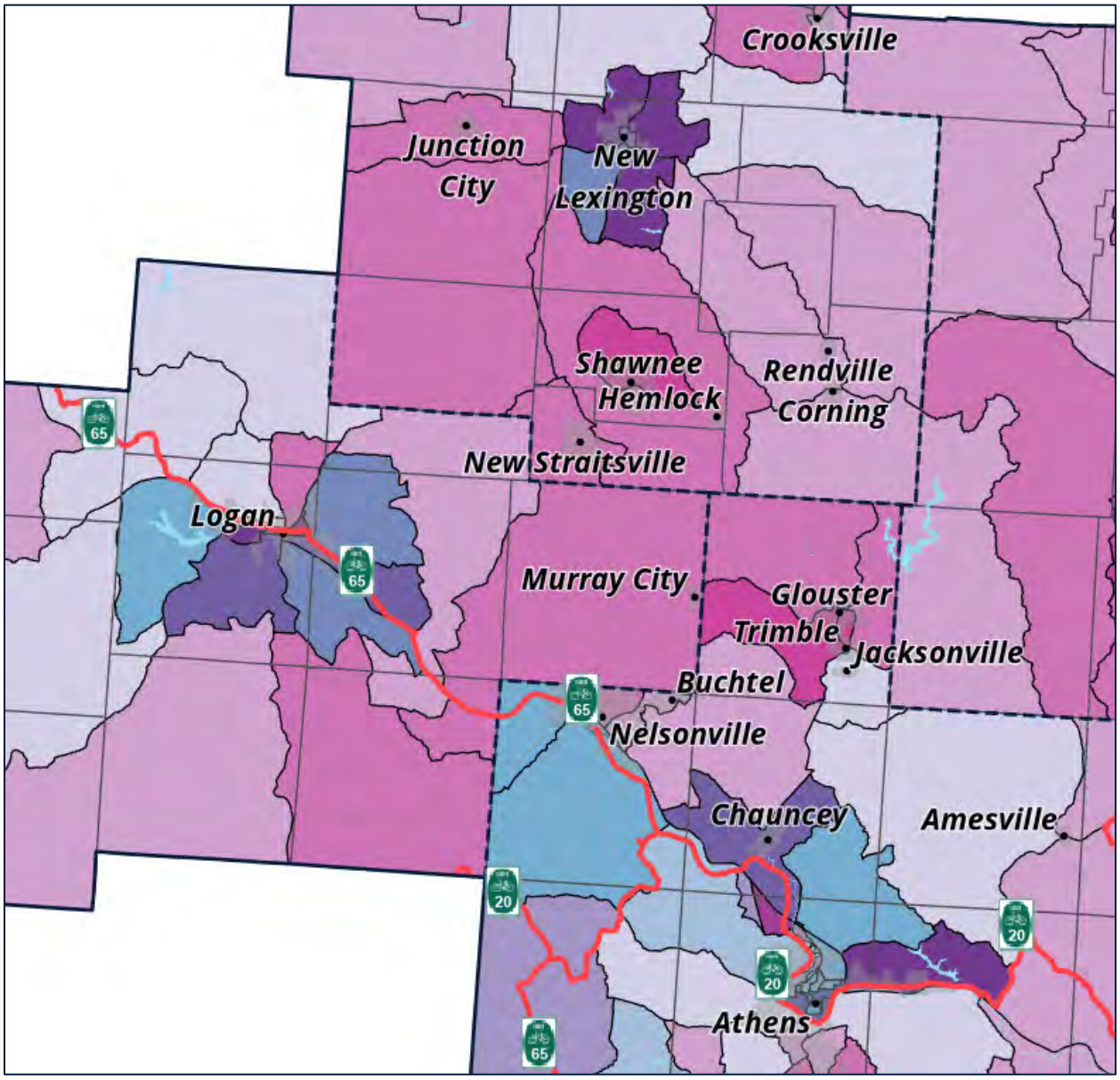
- Village of New Lexington (Perry County) — high demand/high need (represented by **dark purple**) in and around the Village of New Lexington.




To view the Buckeye Hills Active Transportation Demand & Need map, please refer to Appendix H.

### New State Bike Route north from Nelsonville to Perry County

Combining the information above, another need is revealed. While there are State Bike Routes going through or near the identified areas in Athens and Hocking County, there is not one connecting the area around New Lexington to the system. Additionally, as can be seen in the detail map below, there are areas in bright pink highlighting areas of high need, but less demand indicators. There is potential for a State Bike Route coming done from northern Perry County, through New Lexington and connecting somewhere along SBR 65 or SBR 20.




### Other Considerations

When assessing the long-range posture of active transportation in the Buckeye Hills region, it is clear that the gaps, demand, economic forces, and safety needs will drive an overall increase in active

transportation and the need for strategic, and fiscally-responsible comprehensive planning. As such, the greatest active transportation needs for the region are local community and governmental adoption of Complete Streets policies and/or Active Transportation Plans and projects.

For reader reference, Complete Streets are streets designed and built for all travelers. When streets are designed for all modes, they are safer, more comfortable, and more convenient for people of all ages and abilities to walk, bicycle, take public transit, or drive a motor vehicle. A Complete Streets policy establishes the foundation for ensuring that all streets in a community serve all users, either through new construction or redesign of existing streets.

The term "Complete Streets" refers to a systematic policy to improve all public streets, through design, construction, operations, and/or maintenance, so that the right-of-way can serve everyone; whereas active transportation projects and plans focus on improving specific streets or network areas so that modes of active transportation are safe and comfortable. Complete Streets projects do more than just make active transportation improvements. They ensure that a street is able to serve all modes of transportation, as well as those who want to use the street for non-transportation purposes, such as sitting, reading, and socializing. A Complete Streets policy assumes that facilities for people to walk, bicycle, and use public transit are needed rather than requiring planners and engineers to prove the need, as is the case with individual active transportation project development.

In the Buckeye Hills region, the Complete Streets policy concept is gaining awareness with a few communities going so far as to formally adopt and implement the policy:

- The City of Nelsonville (Athens County) has adopted a Complete Streets policy.
- The City of Athens (Athens County) is working toward building community and governmental support of a Complete Streets policy and has a community advocacy organization (Complete Streets Athens) working to ensure safe, equitable, and accessible transportation choices: https://www.facebook.com/Complete-Streets-Athens-399821890162444.
- The Village of Somerset (Perry County) has adopted a Complete Streets policy that supports and augments the County's Active Transportation Plan.
- The Village of Beverly (Washington County) has adopted a Complete Streets policy ordinance in 2021 to guide the development a safe, reliable, efficient, integrated, and connected multimodal transportation system that promotes access, mobility, and healthy behaviors for all users.

Starting in 2021, the Complete Streets concept will be a regular subject of discussion for the Buckeye Hills RTPO Advisory Committee with the goals of:

- Developing enough regional consensus and public/stakeholder support to justify the adoption of an agency resolution to encourage local governments in the Buckeye Hills region to examine and adopt such a policy in their communities.
- Grow the adoption of Complete Streets policies at the local level to build a regional paradigm over time.

Outside of any Complete Streets policy adoption, the Buckeye Hills regional communities will need to continue to explore and adopt more Active Transportation Plans or implement individual active transportation projects in order to fill the gaps in local infrastructure over time, meet the demand of the particular population groups, foster greater economic development, and improve non-motorized user safety.

## RAIL

Per the State of Ohio's 2019 Rail Plan, Ohio's network of active rail lines is the fourth most extensive in the nation, behind that of Texas, Illinois, and California with 5,188 total miles of rail line. Most of Ohio's rail network is owned by private freight railroad companies, but the following is a summary of who owns Ohio's rail network:

- Freight railroads owns 4,589 miles.
- The State of Ohio owns 210 miles.
- County/Municipal governments or Port Authorities own 282 miles.
- The U.S. Federal government owns 77 miles.
- Tourist Railroads own 30 miles.

Nearly all the active rail line segments owned by the state or local governments are operated by freight railroads. In addition to the active rail lines above, the State of Ohio and local governments own several segments of inactive rail line being held for future use – regarding the Buckeye Hills region, that includes 15 miles owned by ORDC in Perry and Muskingum Counties.

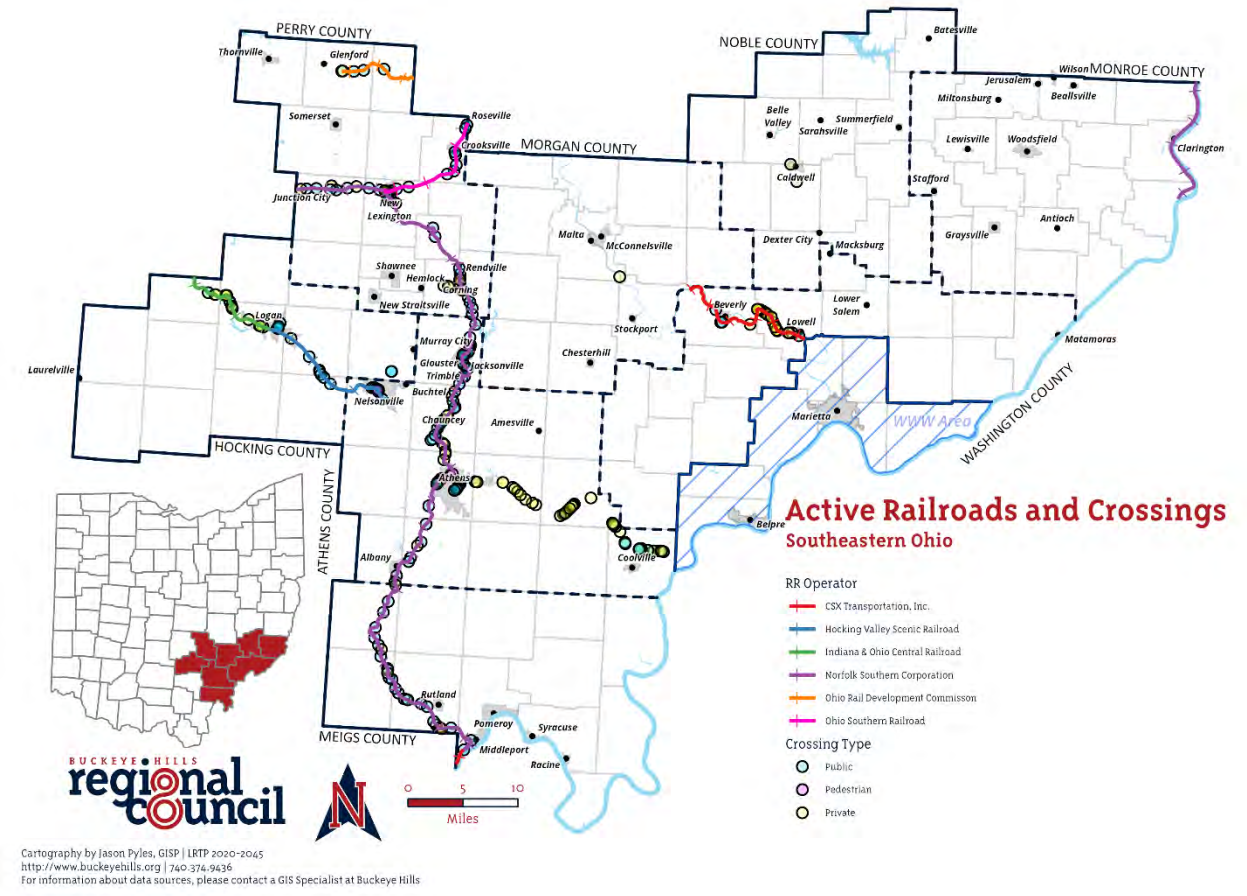
Freight railroads are categorized by U.S. Surface Transportation Board (STB) based on revenue thresholds. The thresholds are adjusted each year to account for inflation using 1991 as a base year. Adjusting for inflation, the following are the 2018 thresholds:

- **Class I Railroads**: annual operating revenue in excess of $447.6 million
- **Class II Railroads**: annual operating revenue between $35.8 million and $447.6 million
- **Class III Railroads**: annual operating revenue less than $35.8 million

### Existing Conditions - Rail

Though the region does not possess a dense network of active railroad lines, rail in the Buckeye Hills region is nevertheless an important mode of freight transportation for the regional economy with 213 miles of railway line. Four (4) railroad lines operate in the Buckeye Hills region: CSX Transportation, Ohio Southern Railroad, Kanawha River Railroad, and Indiana & Ohio Railway – though much of the trackage rights are owned by Norfolk Southern. Additionally, the Buckeye Hills region has a total of 214 active railroad crossings.

# REGIONAL TRANSPORTATION




In addition to the commercial freight rail lines in the region, there is also a small 13-mile private line owned by Carload Express and named the Ohio Terminal Railway, that runs along the Ohio River in Monroe County, Ohio from Powhatan Point south to Hannibal, where it serves the Hannibal Industrial Park. Other private rail exists with the Hocking Valley Scenic Railway in Athens and Hocking counties and the Mt. Perry Scenic Rail in Perry County that are used primarily for tourism purposes. The three (3) counties of Monroe, Morgan, and Noble do not have any active commercial rail presence, only abandoned line.


*The Hocking Valley Scenic Railway Station in Nelsonville (Athens County)*

The following is a summary of the rail infrastructure in the Buckeye Hills region:

- Marietta CSX Subdivision (Washington County):
  - Total Miles: 38
  - Number of Tracks: 1
  - Classification: 75% Class I, 25% Class II

- Trackage Rights: None
- Height/Weight Restrictions: no double-stacks allowed, no weight restrictions
- In 2020 a lease transaction occurred transferring line operation to owner Cathcart Rail, and its subsidiary Belpre Industrial Parkersburg Railroad (BIPR).

- Pomeroy CSX Subdivision (Meigs County):
  - Total Miles: 9
  - Number of Tracks: 1
  - Classification: 100% Class II
  - Trackage Rights: Kanawha River Railroad (KNWA)
  - Height/Weight Restrictions: no double-stacks allowed, not approved for 286K cars.
- Ohio Southern Railroad (Perry County):
  - Short line/Regional railroad track running through Perry County from New Lexington to Zanesville, and trackage rights from New Lexington to South Glouster into Athens County.
  - Total Miles: 20 active; 28 additional trackage rights
  - Number of Tracks: 1
  - Classification: Not Reported
  - Trackage Rights: Not Reported
  - Height/Weight Restrictions: None
- Kanawha River Railroad (Perry, Athens, Meigs counties):
  - Freight line running from Columbus to Gallipolis through Perry, Athens, and Meigs counties. The line is also known as West Virginia Secondary.
  - Total Miles: 116
  - Number of Tracks: 1
  - Classification: Class III
  - Trackage Rights: Norfolk Southern
  - Height/Weight Restrictions: Not Reported
- Indiana & Ohio Railway (Hocking County):
  - Freight line running from Columbus to Logan through Hocking County.
  - Total Miles: roughly 50 miles
  - Classification: Class III
  - Number of Tracks: 1
  - Trackage Rights: Not Reported
  - Height/Weight Restrictions: 263k

Additionally, the following are other notable elements of the existing conditions of the rail network present in the Buckeye Hills region:

- The Buckeye Hills region does not contain any Amtrak passenger rail line.
- The Buckeye Hills region does not contain any Strategic Rail Corridor Network (STRASNET) lines as defined by the U.S. Department of Defense.
- The Buckeye Hills region does not contain any Intermodal Terminals.
- There are 3 maritime facilities in the Buckeye Hills region served by Ohio rail, all in Washington County.

## Future Conditions - Rail

The growth of freight and passenger rail in Ohio will be driven by economic and demographic factors, including increases in gross state product, personal income, population, and employment, as well as industry composition. A well-performing rail transportation system in Ohio can improve the competitiveness of key industries in the state and increase the state's attractiveness to both businesses and residents, driving future economic and population growth.

Given the light presence of rail in the Buckeye Hills region, the demand in the region for additional rail access and connectivity is not particularly strong. Nevertheless, there are factors that could impact demand and the rail networks overall in the Buckeye Hills region in the future:

- **Oil & Gas:** one factor that could impact future rail use, access, connectivity, maintenance, and improvement in the Buckeye Hills region is the Oil & Gas industry. With improvements in gas drilling technology, natural gas extraction in the Appalachian Buckeye Hills region has increased dramatically over the last decade. Natural gas (methane) is generally transported by pipeline, but the inputs to natural gas extraction are often shipped by rail. Typically, a shale well requires 30 rail carloads of inbound well-service materials (e.g., pipe, sand, aggregates and lubricants) and can produce more than 20 rail carloads of outbound materials (e.g., drill cuttings, brine water, natural gas liquids, and crude). Furthermore, much of the gas extracted in Ohio is "wet gas," which includes natural gas liquids such as ethane and butane that may be shipped by rail. It is difficult to forecast the long-term impact of the Oil & Gas industry on the rail network in the Buckeye Hills region, but oil and gas production in the region is anticipated to continue until 2040 (*please refer to Oil & Gas section of this document for additional information*). In the future, other dynamics could change the behavior of freight markets for oil and gas production and products. For example, if concerns over global warming increase, this could further decrease expected shipments related to natural gas exploration and production.

- **Ohio River Maritime Freight Expansion**: Another factor that could impact the future rail use, access, connectivity, maintenance, and improvement in the Buckeye Hills region is multi-model maritime freight support. Near Marietta in Washington County there are currently four (4) maritime facilities served by rail.

  Please refer to the Maritime section of this document for greater detail, but in 2020 a group of local governments, political leaders, state DOT's, and private sector stakeholders in Ohio and

West Virginia approved a resolution to name a statistical port district along the Ohio River extend from Columbiana County to Meigs County, Ohio and will be titled the Mid-Ohio Valley Port District (MOVPD).

A statistical port is a designation that allows for data on maritime cargo movements to be developed and aggregated for an area. This data is extremely important in the efforts of economic development on both sides of the Ohio River. Data provided would include types of cargo shipped, tons of cargo, origins, destinations, as well as monetary value of that cargo. With such data gathered and available, the MOVPD can then go about planning for and developing increased maritime freight activity in that district – of which will need multi-model support, potentially including rail improvement and/or expansion.

Additionally, when forecasting the future conditions of the rail network in the Buckeye Hills region, the State of Ohio 2019 Rail Plan identifies some challenges to local railroads to highlight as those challenges could be realized in the Buckeye Hills region:

A challenge for many of the regional and local railroads in Ohio and the Buckeye Hills region is to maintain their infrastructure in a state of good repair. Local railroads have fewer financial resources than Class I railroads. Data published by the Association of American Railroads suggests that the average revenue per route mile operated by a local or regional railroad is about one-eighth that of a Class I railroad. Bridges are also an issue as some bridges have reached or are nearing the end of their useful life or cannot accommodate industry standard 286,000-pound capacity rail cars. Several local railroads in Ohio have warned that bridges on their lines are approaching the ends of their useful lives, and that they are in danger of closing lines unless bridges can be rehabilitated.

In addition, many local railroads cannot accommodate industry standard 286,000-pound capacity railcars, as is the case with the Pomeroy CSX Subdivision in Meigs County. Some of these local miles of track are among the 244 miles of FRA Class Excepted track, but others are FRA Class 1 track or better, which are nevertheless unable to accommodate 286,000-pound railcars. In addition to track, bridges can also limit the capacity of railcars that a rail line can accommodate. The inability to handle heavier rail cars places shippers on these lines at a disadvantage. The rates that shippers pay per railcar are often the same regardless of railcar size. Because 263,000-pound railcars typically hold around 10 percent less freight than 286,000-pound railcars, shippers pay the same amount but are restricted to ship less per railcar. The limitation affects not only the portion of the rail move on the local railroad's line, but the entire rail move. Thus, the local railroad becomes a bottleneck. The problem will worsen as smaller capacity railcars are retired, and shippers must pay extra for high-capacity railcars that cannot be fully loaded due to weight restrictions.

Some local railroads in Ohio operate over rail lines owned by others, such as Class I railroads, local governments, or the State of Ohio. The dynamics of who decides or who has the incentive to upgrade a line will depend upon the terms of a lease agreement.

Another issue for local railroads in Ohio is the federal requirement to install positive train control (PTC). Local railroads are generally exempt from the requirement to install PTC on their own rail lines. However, in some cases, these railroads must operate over Class I rail lines for efficient interchange that will be equipped with PTC. The Class I host railroad may require that a short line accessing their track have locomotives equipped with PTC. The difficulty with PTC implementation for local railroads is twofold. First, local railroads' locomotives are often at least 25 years old and not designed to accommodate modern electronics such as for PTC. Second, companies must also have the relevant "back office" infrastructure to communicate with Class I PTC systems. Given the small operating budgets of local railroads, these costs can be prohibitive. Several local railroads have expressed significant concern over the impact of PTC, indicating that the requirement may force them to curtail operations.

The needs particular to the Buckeye Hills region are included in the Needs Assessment below.

## Needs Assessment - Rail

The following are potential rail needs identified in the Buckeye Hills region:

- Long-term implementation of 286,000-pound railroad track capability in the region to facilitate rail freight growth.
- Development of a regional coordinated freight plan to enhance the mobility of people and goods, encourage economic development, and mitigate adverse environmental impacts along with safety and security risks.
- The Mid-Ohio Valley Port District (MOVPD) designation came to fruition, Buckeye Hills worked with the local stakeholders to begin gathering maritime freight data and seek opportunities to expand maritime freight activity in the region. As such, improved and/or expanded rail service in that port district is likely to be needed. On November 22, 2021 the Army Corps of Engineers released the 2020 Transportation Facts & Information for The U.S. Coastal & Inland Navigation System (see attached document). The Mid-Ohio Valley Port, OH and WV is ranked #17 among the Leading U.S. Ports in 2020 (see page 5 of the report). The Mid-Ohio Port is the #1 Inland Port in the United States.
- In the Ohio State 2019 Rail Plan, Stakeholder Identified Rail Needs section includes a project sponsored by the Ohio Mid-Eastern Governments Association (OMEGA) – a sister Ohio Regional Transportation Planning Organization bordering the Buckeye Hills region to the north – for Noble County to provide rail service to the proposed MAGNAM Innovation Park in Noble County to support economic development, and additional usage of rail.
- In the Ohio State 2019 Rail Plan, Stakeholder Identified Rail Needs section includes a rail rehabilitation project for the Hocking Valley Scenic Railway regarding rehabilitation of the Logan Subdivision and rail replacement in Hocking County sponsored by Indiana & Ohio

Railway Company, the owner of the Hocking Valley Scenic Railway. The project would rehabilitate the 10 track miles restoring the line to FRA Class 2, which would reduce the number of geometries, surface and tie defects in addition to rail replacement to remediate defects on the line. The estimated cost would be $897,000, and the rail improvements would allow for more fluid, timely service to local customers.

- In the Ohio State 2019 Rail Plan, Stakeholder Identified Rail Needs section includes a transload expansion of a Middleport Terminal project in Meigs County sponsored by the owner, Kanawha River Railroad, LLC. The project would expand the Middleport Terminal to facilitate transload opportunities. The estimated cost would be $500,000, and the rail improvements would allow for local service and help to reduce freight trucks from area and regional roads.

The Hocking Valley Scenic Railway rehabilitation project and the Middleport Terminal transload expansion project are both listed in the Ohio State 2019 Rail Plan as candidates to be considered for sponsorship for Federal Grant Application.

## AVIATION

### Existing Conditions - Aviation

Although mainly rural, aviation does have a presence in the Buckeye Hills region with a regional and/or general aviation airport located in nearly every county. Hocking, Meigs, and Washington are the only counties without an airport, though it should be noted that Meigs County is served by a joint airport with Gallia County.

There are no commercial airports or commercial passenger flights within the region. Just outside of the Buckeye Hills regional border in Wood County West Virginia, the Mid-Ohio Valley Regional Airport provides regional passenger commercial flights to connecting destinations in Charlotte, North Carolina. Outside of the Mid-Ohio Valley Regional Airport, the citizens of the Buckeye Hills region must commute to Columbus (John Glenn Columbus International Airport or Rickenbacker International Airport), Cincinnati (Cincinnati/Northern Kentucky International Airport), or Charleston, West Virginia (Yeager Airport) to secure commercial passenger air travel.

The Ohio Department of Transportation (ODOT) classifies airports based on the types of aircraft that can use the airport. The four airport classifications are described as:

Level 1: These airports are intended to meet nearly all of the needs of general aviation turbine powered aircraft and their users. These airports should be able to provide nearly all of the services necessary to support corporate jet aircraft. This facility classification can also support recreational general aviation activities and flight training.

Level 2: These airports are intended to support smaller corporate aircraft, such as small jets and turboprop aircraft, and meet many, but not necessarily all, of their needs. This airport classification is intended to support a variety of uses (business, pleasure, and training).

Level 3: This classification of airports serves light, twin-engine and single-engine aircraft flying for business, pleasure, and training. Its purpose is to fulfill nearly all of the needs of piston-powered aircraft. Turbine powered aircraft may use these airports, but the primary focus is on meeting the facilities and services that support piston-powered aircraft.

Level 4: These airports include facilities that are needed for the flight operations of small general aviation aircraft but do not necessarily provide all of the support services, such as maintenance. Single-engine aircraft represent the primary aircraft type; however, many light twin-engine aircraft may also be accommodated. This airport classification supports private pilots that may be flying for business or pleasure and require minimal support facilities and services.

The following is a summary of the existing airport classification levels in the Buckeye Hills region:

- Level 1: the Buckeye Hills region does not contain any Level 1 airports.
- Level 2: the Ohio University Airport (Gordon K. Bush Airport) in Athens County.
- Level 3: the Gallia-Meigs Regional Airport in Gallia County.
- Level 4: the Monroe County Airport, the Morgan County Airport, the Noble County Airport, and the Perry County Airport.

*Ohio University – Bush Airport*


The region's airports and associated aviation activity accounts for nearly $26 million of economic impact. There are no identified commercial aviation/aeronautical craft or parts manufacturers in the Buckeye Hills region.

## Future Conditions - Aviation

As previously noted in the Existing Conditions of this Plan, Buckeye Hills does not have any Level 1 airports and the nearest commercial airport is just outside of the region, in West Virginia.

The Mid-Ohio Valley Airport, in Parkersburg, West Virginia, was at the time of this report, preparing its capital plans for approval by the Federal Aviation Administration. Once approved, it will be included in this section.

When looking at the Ohio Airport Capital Improvement Program (ACIP), the majority of projects are maintaining and preserving runways and rehabilitating building terminals. Of the Buckeye Hills region's airports, the following have improvement projects planned for the future:

- The Ohio University Airport plans for $10.6M in rehabilitation projects and corporate hangar development for 2020-2026. In 2019, the airport was awarded a $1.5 million grant from the Federal Aviation Administration to rehabilitate the parallel taxiway and connectors.
- The Gallia-Meigs Regional Airport plans for $3.6M in runway improvement, wildlife study, and ALP master plan updates for 2020-2027.

- The Monroe County Airport plans for $3.8M in construction/grading, runway extension, land acquisition, wildlife and environmental assessment, and road relocation projects for 2020-2027.
- The Morgan County Airport has applied for $566,056.00 as part of the Ohio Airport Grant Program to fund a project to rehabilitate Runway 12-3. The existing pavement on Runway 12-30, apron, and taxiway is due for routine maintenance/rehabilitation. This project will provide will keep the runway in a safe condition for aircraft use and will extend the life of the pavement.

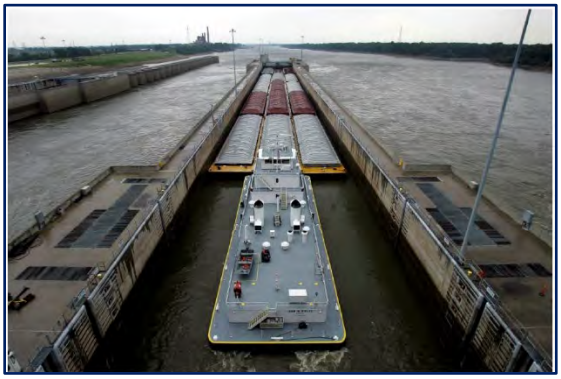
Beyond maintenance, rehabilitation, runway extension projects, no major capital airport growth or new airport construction is anticipated in the next 20 years.

### Needs Assessment - Aviation

Discussed earlier in this document, the population and economic projections of the Buckeye Hills region over the next 25 years do not justify major capital investment in aviation. The current status quo and maintenance/rehabilitation plans will likely suffice for aviation demand in the region. The only outlier to this assessment may be the Ohio University Airport. Ohio University's Avionics Engineering Center is the only facility of its kind in the United States and specializes in the research, development, and evaluation of electronic navigation and communication. Also located in the county with the largest economic driver in the region (Ohio University), in the next 25 years there is a potential for that airport to need additional capital development to support expanded training/instruction capacity as well as executive services for officials, corporate representatives, and dignitaries visiting the university.

## MARITIME

The southeastern boundary of the Buckeye Hills region is bordered by the Ohio River with river frontage in the counties of Athens, Meigs, Monroe, and Washington. The Ohio River offers possibly the most cost-effective and efficient way to move goods from this region to many access points both North and South. A standard jumbo barge (195-feet long x 35-feet wide) carries the equivalent of 15 to 20 railroad cars or 50 to 60 trucks, depending on the density of the cargo or commodity. A single fifteen-barge tow carries the equivalent of 216 railroad cars pulled by 6 locomotives, or 1,050 large trucks.



*15-Barge Tow in a 1,200-Ft. Lock*

In comparison, trucks move 2000 pounds of cargo on 155 miles/gallons of fuel. Rail cars can move the same on 413 miles/gallons of fuel. River barges exceed both by being able to move 2000 pounds of cargo on 576 miles/gallons of fuel.

## Existing Conditions - Maritime

The Buckeye Hills region has 147 miles of Ohio River frontage in the counties of Athens, Meigs, Monroe, and Washington. That Ohio River frontage falls within the governing U.S. Army Corps of Engineers (USACE) Huntington District.

### Inland Marine Terminals

An inland marine terminal is a place on a river where loading and unloading of people or goods takes place like, for example, a bus terminal or a train terminal. In simple terms it can be said that marine terminals are stops or stations for ships and boats. However, it has to be noted that a marine terminal is not a distinct station for the ships. Marine terminals form a discrete part of the port where goods and cargo can be loaded into a ship and unloaded while still allowing shipping traffic to flow. Marine terminals are very popular and form an important necessity when it comes to the cargo aspect of maritime freight.

From the 2020 Ohio Maritime Study of the Maritime Transportation System, the segment of the Ohio River from Monroe County through Meigs County has 24 Ohio River terminals, all of which are privately owned.

It is valuable to understand that the total number of terminals is not the only important factor, but also the characterization of the general-purpose terminals that support local industries by providing access to economical waterways transportation. Typically, the industries which use general purpose terminals do so because they need the economy provided by waterborne transportation availability, but lack the volume or location to construct their own private special purpose terminal.

**Buckeye Hills Region: Ohio River Terminals**

| Ohio River Frontage Counties | # of Terminals | General Purpose Terminals | Special Purpose Terminals | Tonnage Transported (in millions) |
|---|---|---|---|---|
| Athens | 0 | 0 | 0 | 0M |
| Meigs | 5 | 0 | 5 | 0.9M |
| Monroe | 5 | 0 | 5 | 4.4M |
| Washington | 14 | 2 | 12 | 2.0M |
| BHRC | 24 | 2 | 22 | 7.3M |

**BHRC value is a sum of the constituent counties.*

*Source: 2020 Ohio Maritime Study, the U.S. Army Corps of Engineers (USACE)*

General purpose terminals are relevant to sustaining existing industries as well as providing support for future economic development. However, sites available for industries which require riverfront locations and their own private, special purpose terminals are also important. Key industries in Ohio such as power generation, steel and other metals production, agriculture, road builders, polymers and other chemical production rely on the availability of water transportation, and many of these types of employers are sustained by private, special purpose terminals. Both general purpose terminals and

special purpose terminals are important nodes in Ohio's freight transportation network. Understanding the locations and business volumes of these terminals by river segment, and the clusters of terminals within those river segments, helps in understanding the overall relevance of waterborne commerce data in the region.

The data from the Ohio River segment from Monroe through Meigs County shows the largest cluster of river terminals in Washington County, but the largest reported tonnage is in Monroe County, where Center Point terminals has developed a new terminal complex at the renovated Ormet Aluminum facility.

**Buckeye Hills Region: Ohio River Terminals**

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| BHRC | 24 | 2 | 22 | 7.3M |

**BHRC value is a sum of the constituent counties.*

*Source: 2020 Ohio Maritime Study, the U.S. Army Corps of Engineers (USACE)*

## Maritime Locks & Dams

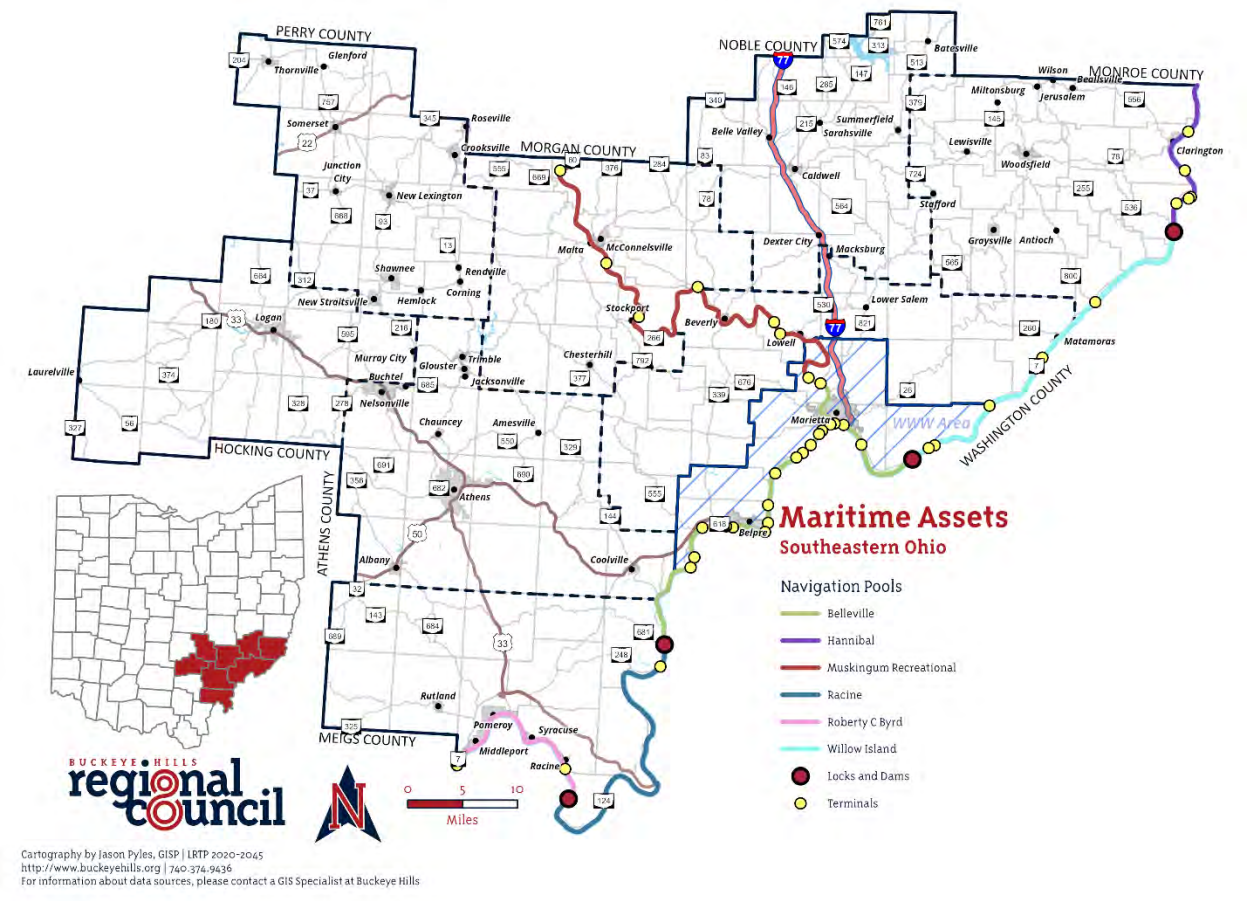
The Ohio River frontage in the Buckeye Hills region contains four (4) maritime locks and dams on the Ohio River:

- Meigs County - Belleville Lock & Dam (Leedsville, Ohio)
- Meigs County - Racine Locks & Dam (near Racine, Ohio)
- Monroe County - Hannibal Lock & Dam (Hannibal, Ohio)
- Washington County - Willow Island Locks & Dam (Newport Township, Ohio)

*Hannibal Lock & Dam*

# REGIONAL TRANSPORTATION

A map of the Ohio River terminals and locks within the Buckeye Hills region can be found below.




## Statistical Port Designation Development Efforts

Beginning in late 2017 Buckeye Hills, in conjunction with other regional councils along the Ohio River in Ohio and West Virginia began coordinating with the Ohio Department of Transportation and the U.S. Army Corp of Engineers to create a statistical port district for areas not currently represented by the Pittsburgh or Huntington Army Corp Districts. The Ohio counties affected are Meigs, Athens, Washington, Monroe in the Buckeye Hills region, and then Belmont, Jefferson, and Columbiana counties in addition. The West Virginia counties impacted are Jackson, Wood, Pleasants, Tyler, Wetzel, Marshall, Ohio, Brook, and Hancock.

A statistical port is a designation in name only that allows information on maritime cargo movements to be developed and aggregated for an area that is not already captured in a U.S. Army Corp District. This data is extremely important in the efforts of economic development on both sides of the Ohio River. Data provided would include types of cargo shipped, tons of cargo, origins, destinations, as well as monetary value of that cargo. The Port of Cincinnati was able to create a similar statistical port for Cincinnati and Northern Kentucky in 2014 and received designated in 2015.

This designated area extends from Columbiana County to Meigs County, Ohio and is titled the Mid-Ohio Valley Port District (MOVPD). Prior to 2021, these areas were not represented in a port district. This is approximately 216 miles of river frontage, ranging from Ohio River mile marker 40 to mile marker 257.

Local approval of the statistical port designation only requires an indication of interest and participation by affected counties. The activity does not require construction or rehabilitation of any existing facilities. The action does not establish any additional administrative commissions, does not create or delegate any authority, and does not give jurisdiction to any ruling agency regarding future development activities. County development activities within the affected area will be unimpeded by the designation.

In 2020, letters and/or resolutions from all OH and WV counties, 4 US Senators, 2 US Congressmen, both OH and WV DOT directors were approved with robust support from many other state and local officials, and from the private sector. The completed request for designation of the new MOVPD was submitted to USACE in July, 2020 and official approval by the U.S. Army Corps of Engineers was awarded in 2021.

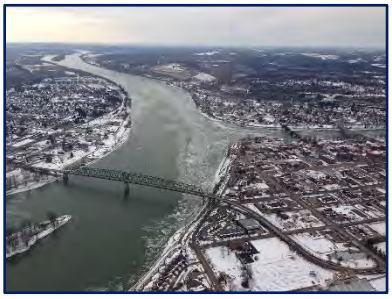
This successful effort received favorable backing and support from the U.S. Army Corps of Engineers, and the partners engaged in this effort include Buckeye Hills Regional Council, Belomar Regional Council, Brooke Hancock Jefferson Metropolitan Planning Commission, Mid-Ohio Valley Regional Council, Ohio Mid-Eastern Governments Association, Wood Washington Wirt Interstate Planning Commission, OhioSE Economic Development, Columbiana Port Authority, Jefferson County Port Authority, Southeastern Ohio Port Authority, Wood County WV EDA, Ohio Department of Transportation – Office of Maritime.

For the second year in a row the Mid-Ohio Valley Port District was ranked #1 inland port district out of 133 in the United States (by tonnage). The district impacts 9 counties in WV and 7 in Ohio counties, with Washington County, Ohio offering more miles of river access than any other county in the district.

## Future Conditions - Maritime

While no plans for future maritime freight or passenger travel projects have been identified in the region at the time of this long-range transportation plan, the potential for expanding/improving current Ohio River ports, building new terminals, or other periphery multi-modal infrastructure (i.e. rail or roadway improvement) exists. The aforementioned statistical port designation for Mid-Ohio Valley Port District (MOVPD) was successfully accomplished as expected in 2021, allowing for data to be gathered justifying future maritime infrastructure development/improvement to expand freight or passenger service along the Ohio river segments in the Buckeye Hills region.

## Muskingum River Development



*Confluence of the Ohio & Muskingum River in Marietta*

Additionally, as part of local stakeholder participation, the RTPO Advisory Committee has identified the Muskingum River as an attractive potential candidate for increased maritime freight development to increase economic development in the region as well as support multi-modal growth potential for the Mid-Ohio Valley Port District (MOVPD). In the Buckeye Hills region, the Muskingum River flows through Morgan and Washington Counties to its confluence with the Ohio River in the City of Marietta. Given the far-reaching regional nature of river systems, development of the Muskingum River for economic purposes will require more stakeholder engagement than just the local officials in the Buckeye Hills region. As such, Buckeye Hills RTPO will seek public and private partnerships in-and-outside of the Buckeye Hills region to explore the development opportunities for the Muskingum River with the State of Ohio, as well as represent Morgan and Washington County interests in such development efforts.

Finally, Buckeye Hills RTPO has also engaged with the regional Mayors' Partnership for Progress as a regional stakeholder to support and advance a Scenic River designation of the Muskingum River with the Ohio Department of Natural Resources (ODNR). The mission of the Ohio Scenic Rivers Program is to work cooperatively with local governments, businesses, landowners, non-profit organizations and other state and federal agencies to protect the aquatic resources and terrestrial communities dependent on healthy riparian habitats. A scenic river designation represents a waterway that retains much of its natural character for the majority of its length. Shorelines are, for the most part, undeveloped, but the river may exhibit signs of disturbance by human activities. The adjacent corridor must be forested to a minimum depth of 300 feet for 25 percent of the stream's length.

At face value, the desires of the different stakeholder groups to develop the Muskingum River for economic, freight, and multi-modal growth in the region, as well as designate the river (or specific segments of the river) as Scenic at the same time may seem to be at cross-purposes. However, with due diligence and proper coordination with all stakeholders and state officials a balance between economic development and scenic preservation interests can co-exist by identifying discrete river areas that can be developed for economic purposes while also identifying and sequestering larger segments of the river that can be preserved for Scenic designation.

It is also important to note that a Scenic designation can also be an economic development asset as the preserved natural character of the river can be leveraged to promote tourism activities that also bring new or increased economic activity to local retail, lodging, restaurants, and recreational boating/fishing businesses.

## Needs Assessment - Maritime

### Development of Maritime Freight Data as an Ohio River Statistical Port Designation

In the process of discussions with regional economic development clients and partners in the past five years, questions have been raised about what freight activity is out on the Ohio River in the Buckeye Hills region - what types of cargo, what tonnages of various commodities, what are the origins and destinations of that cargo, etc. Previously the only way to ascertain this data is via special data request, or by accessing individual vessel reports. As mentioned previously, efforts have been successful with ODOT and the US Army Corps of Engineers to establish a statistical port on the 216-mile segment of the Ohio River from mile marker 40 to 257 (Columbiana County to Meigs County). This is the only remaining segment of the Ohio River in Ohio that has lacked a statistical port to gather pertinent maritime information. Perhaps more importantly, should the need for bulk cargo transport significantly increase in the Buckeye Hills region, transporting such cargo by water barge is far more cost effective than doing additional highway buildouts or expansions that may be necessary to facilitate the increase in overland freight. Finally, it is important to consider that significant funding to support such a major highway buildout should it be required, could be decades away.

### Other Maritime Needs Assessments

With the aforementioned statistical port designation for the Mid-Ohio Valley Port District (MOVPD) successfully approved in 2021, there will be an opportunity to gather the data needed to justify any future maritime infrastructure development/improvement to expand freight or passenger service along the river segments in the Buckeye Hills region. Once that data is able to be collected and analyzed, the following are maritime needs that can be addressed:

- Additional trans-loading and public port facilities needed to increase maritime utilization.
- Locks and dams are deteriorating and cannot facilitate large freight movement.
    - The 2020 Ohio Maritime Study echoes this assessment by identifying the Bellville Lock chamber in Meigs County as needing major repairs; and the Racine Lock in Meigs County needing repair.
- Diversification of freight cargo to foster an increase Ohio River utilization due to current barge traffic is significantly single use, and predominately coal.
- Continue to support and advance the Mid-Ohio Valley Port District (MOVPD) designation and subsequent regional Ohio River maritime activity development.
- Continue to support the maritime activity development and Scenic designation for the Muskingum River.

# Fiscal Constraint

The Buckeye Hills RTPO can recommend, promote, advance, and coordinate capital improvement projects with ODOT, and only limited capability to approve funding for a project or provide funding for the local match obligations of a grant award.

Noted in greater detail in the Goals & Objectives section of this plan, in 2020, the Ohio RTPO Council began conversations with ODOT leadership on potential program policy change ideas as a natural evolution of the program which included, among other things, the concept of modest RTPO capital funding to assist local stakeholders meet the local match obligations for projects that are determined to be important to support the Access Ohio 2045 statewide transportation plan or unfunded projects in the Regional Transportation Improvement Plan (RTIP)/State Transportation Improvement Plan (STIP). Starting in Fiscal Year 2022, BHRC had the was granted $814,524 in capital funds to grant out over Fiscal Years 2022 and 2023, $407,262 per year. These funds could be spent on federal aid roads for a variety of projects, or on alternative transportation modes. It was decided by the Advisory Committee to limit funds in the first round to be spent on engineering/design phases for Transportation Alternative Program (TAP) and Small City project already approved by ODOT Districts 5 and 10.

### Transportation Projects

Potential projects, study plans, or recommended roadway segments of interest contained in this plan are not fiscally constrained, as many projects are in initial development, and have not had a detailed cost estimates derived. As a project in the region moves forward, project development activities detail costs, identify eligible funding sources, and funding application is pursued. Buckeye Hills RTPO then ensures that projects are properly balanced between federal, state, and/or local shares. If a project, study, plan, or recommendation ultimately receives funding and is programmed by ODOT for completion, it will be removed from this plan and added to the current Regional Transportation Improvement Plan (RTIP).

Per Federal regulations, for a project to be included in the RTIP and therefore included in the Statewide Transportation Improvement Plan (STIP) reasonable fiscal constraint must be maintained. Fiscal constraint is maintained by keeping estimated transportation improvements within identified budgets. The ODOT STIP directly addresses fiscal constraint for such projects. During the writing of this plan, ODOT introduced RTPO capital funding. As Buckeye Hills identifies projects for that program, they will be added to this plan, and all their funding described

#### Projects with Federal, State, or Local Funding Sources

Buckeye Hills RTPO assists with grant writing services for communities to pursue various federal, state, regional, and local/private funding sources. As a part of this service, Buckeye Hills RPTO ensures that adequate matching funds are secured for the funding opportunity in order to construct, operate, and maintain the proposed infrastructure, equipment, program, or other improvements.

## Other Funding Mechanisms & Sources

The Appalachian Regional Commission (ARC), the Governor's Office of Appalachia (GOA), and other local infrastructure programs often offer funding opportunities that can include township road, access road, and bridge aspects of infrastructure projects.

Buckeye Hills Economic Development staff annually solicits pre-applications for projects seeking ARC, GOA, or other funding for infrastructure projects. ARC and GOA funding is designed to be "gap" financing, or the last funding needed to complete a project. To qualify, Buckeye Hills Economic Development staff verifies the information on the pre-applications to determine that all other funding is or will be committed to the project when the complete application is submitted. The projects are scored against established rating criteria and presented to the Buckeye Hills Executive Board for approval. The rating criteria is adjusted as elements, goals, or objectives of the criteria are changed or modified. Once approved, Buckeye Hills Economic Development staff assist applicants to complete the full funding application for submission to ARC and GOA.

Buckeye Hills is available for consultation and assistance. As opposed to a stakeholder approaching BHRC to apply for a specific grant, the best and most effective practice is to contact Buckeye Hills Economic Development and/or RTPO departments, provide details on the infrastructure issue at hand and objective(s) to accomplish, and then BHRC staff will work through and investigate the best-fit funding options, and/or potential concurrent projects, and make a match with eligibility requirements to meet that local infrastructure need.

# Plan Recommendations

Based on the analysis of existing and future conditions, regional trends, and identified recommendations of the transportation modes and socio-economic factors of the Buckeye Hills region, a series of overall plan recommendations are offered.

It is important to note that the recommendations also align with the 2021-2024 Regional Transportation Improvement (RTIP) program plan developed to reflect the investment priorities of the Statewide Transportation Improvement Program (STIP) for the Buckeye Hills' region and maintain a balance of local and regional needs and includes projects from all modes of transportation including highways, transit, rail, maritime, and active transportation.

Short term recommendations align with the Long-Range Transportation Plan (LRTP) 5-year update cycle. Long term recommendations align with the 25-year planning horizon. A summary of those recommendations is as follows:

## SHORT TERM RECOMMENDATIONS (WITHIN THE NEXT FIVE YEARS)

- Continue to educate government representatives and agencies on the need for regional transportation system planning.
- Create a comprehensive regional transportation resource for stakeholders.
- Develop and implement criteria and a prioritization process for funding future projects.
- Seek to design and implement Projected Future Local Trends Survey.
- Develop and maintain databases and identify data gaps.
- Pursue at least four (4) safety studies for further consideration of ODOT safety funds.
- Develop a four-year Transportation Improvement Plan (TIP).
- Develop and conduct Driver Awareness Campaigns/Events.
- Advocate for a regional approach to the Mobility Management program.
- Develop a Coordinated Transit Plan for Monroe and Noble counties.
- Develop a Regional Coordinated Transit Plan.
- Coordinate transit stops near or around multi-use paths and Active Transportation facilities.
- Engage with ODOT and develop a Regional Safety Projects Plan

## LONG TERM RECOMMENDATIONS (UP TO 2045)

- Address the Top 25 safety locations and projects in the region.
- Replace the majority of bridges over 100 years old.
- Replace structurally deficient bridges near activity centers.
- Implementation of 286,000-pound railroad track capability.

# PLAN RECOMMENDATIONS

- Pursue the development of a public port within the region.
- Engage Federal officials on the advantage of upgrading locks and dams in the regions' areas on the Ohio River to further economic development.
- Create a Regional Coordinated Freight Plan.
- Establish a fully regional coordinated transportation plan, and increase operations.
- Connect multi-use trails across the region.

## FISCALLY CONSTRAINED PROJECT RECOMMENDATIONS

Below is a table of projects that have been planned and therefore are fiscally constrained. The LRTP goal they work toward is listed as well as the ODOT District, the project name and description, and what the funding sources are.

| PID | ODOT District | Project Sponsor | Contact Name | Project Name | Project Description | Construction Contract/Engineering Award Funding | STBG SFY 2022 | CC/CE Funding Source | GOAL |
|---|---|---|---|---|---|---|---|---|---|
| 115332 | 10 | Village of Racine | Mayor Scott Hill | MEG Street Walk/Ride Ph. 4-5-8 | Construction of sidewalk and curbs in the Village of Racine. TAP funded project. | $500,000 | $82,080 | TAP | PROMOTE & SUPPORT SAFETY IMPROVEMENTS |
| 111668 | 10 | City of Athens | Assistant City Engineer Jessica Adine | ATH Uptown Area Improvement Ph 1 | Safety project that includes pavement marking updates, signal improvements, lighting improvements, sidewalk improvements and accessibility improvements in the City of Athens. Work will take place on State Street and Washington Street. Funded through the TAP and Safety Programs. | $1,005,000 | $91,727 | TAP +Federal Safety | ADVANCE MOBILITY AND ACCESSIBILITY |
| 111209 | 10 | Meigs County Commissioners | Director Meigs County Economic Development Perry Varnadoe | MEG Pomeroy Path Phase 4 | Continued extension of a shared use path connecting the Villages of Middleport to the Pomeroy River Walk. Along SR 833 0.33-0.64.Total length is 0.34 miles. | $787,000 | $91,727 | TAP | ADVANCE MOBILITY AND ACCESSIBILITY |
| Unknown at time of writing | 10 | City of Logan | Mayor Greg Fraunfelter | HOC-CR505/SR93 | 2" Mill and Fill Resurfacing Project | $678,262 | $50,000 | Small City | PROMOTE & SUPPORT SAFETY IMPROVEMENTS |
| Unknown at time of writing | 10 | City of Nelsonville | City Manager Scott Frank | ATH-CR33/SR178 | 2" Mill and Fill Resurfacing Project | $2,000,000 | $91,728 | Small City | PROMOTE & SUPPORT SAFETY IMPROVEMENTS |

## LONG-TERM PROJECT REQUESTS

Below are the projects submitted during the writing of the plan that BHRC were unable to program funds for. BHRC still believes these projects are important and will work with various funding sources, including future rounds of capital funding, to try to bring these projects forward. They are presented here as submitted, with some edits to project descriptions for length.

# PLAN RECOMMENDATIONS

| Project Name | Project Description | Project Location | Project Type | Project Cost | Projected Funding Source |
|---|---|---|---|---|---|
| Caldwell East of I-77 Business Park Access Roads | Access roads for new commerce park in Olive Township with six commercial sites and construction of a 10,000 square-foot commercial speculative building. Number of Linear Feet: 3200 LF Total in project | SR 564 & SR 78 in Olive Township in Noble County | Access Road Construction | 596351.0 | ARC, ODOT TID, 629 |
| C-27-0072 Bridge Replacement | Bridge Replacement project, new concrete gravity abutments with pre-cast concrete box beams with concrete composite deck on existing alignment. Existing structure to be completely removed, all work to be performed within the existing right of way. Environmental permitting would be minimal as the new abutments would be founded behind the existing abutments. No additional right of way required. | 0.72 mile marker on County Road 27 in Barlow Township | Bridge Replacement | 368698 | MVGT |
| T-32-0262 Bridge Replacement | Bridge Replacement project, new capped pile abutments with single span steel beams with concrete composite deck on existing alignment. Existing structure to be completely removed, all work to be performed within the existing right of way. Environmental permitting would be minimal as the new abutments would be founded behind the existing abutments, utilizing driven piling. No additional right of way required. | 2.62 Mile marker on Township Road 32 in Adams Township | Bridge Replacement | 407915 | MVGT |
| C-16-0324 Bridge Replacement | Bridge Replacement project, new capped pile abutments with single span steel beams with concrete composite deck on existing alignment. Existing structure to be completely removed, all work to be performed within the existing right of way. Environmental permitting would be minimal as the new abutments would be founded behind the existing abutments, utilizing driven piling. No additional right of way required. | 3.24 mile marker on County Road 16 in Fearing Township | Bridge Replacement | 559629 | MVGT |
| C-20-0562 Bridge Replacement | Bridge replacement project, new capped pile abutments with pre-cast box beams with concrete composite deck on existing alignment. Existing structure to be completely removed, all work to be performed within the existing right of way. Environmental permitting would be minimal as the new abutments would be founded behind the existing abutments, utilizing driven piling. No additional right of way required. | 5.62 mile marker on C-20 in Newport Township | Bridge Replacement | 379533 | MVGT |
| TR1004-2.27 Bridge Replacement | Replacement of the existing truss bridge on TR1004-2.27, with a single span structure, including abutments and approach work. | Perry Township Road 1004, Monroe County | Bridge Replacement | 790000 | Federal Land Access Program, Local funds |
| Scotch Hill Road Bridge | Replace concrete bridge. | Scotch Hill Rd, Village of Shawnee, Perry County | Bridge Replacement | 450154.8 | ODOT, ARC |
| West Main Street Bridge | Replace concrete slab bridge. | W Main St, Village of Shawnee, Perry County | Bridge Replacement | 377963 | RTPO, ODOT, ARC |
| TR199-2.57 & TR199-2.38 Bridge Replacements | Replace two concrete low water crossing bridges on Switzerland Township Road 199. TR199-2.57 bridge has been closed since 2019, when the structure failed completely. TR199-2.38 bridge has been load-posted at 4 tons maximum since 2017, when it was added to the County bridge inventory. | Switzerland Township Road 199, Cats Run Road, Monroe County | Bridge Replacements | 750000 | Unknown |
| Village of Lewisville approximately 700 feet of curbs | Replace curbs that are at or below road level and are deteriorated beyond repair. | Various locations on 3or4 different streets including SR 145 | Concrete curb replacement various locations | 250000 | grants |
| Rome township road dust control improvements | Extend dust control on township roads that receive heavy traffic to alleviate hazardous conditions through winter months | Lightner road. Haga ridge road. Featherstone road and other various locations throughout rome township athens county ohio | Double layers chip seal on graded and prepped existing road surface | 100000 | Rome township ARPA funds if approved to be used for road re surfacing |
| Multi-use trail .75 miles in the village of Beverly | A new multi-use trail will be created in Beverly with the trailhead situated at Lock #4 in the village, continuing south through the Fort Frye Local School District property and ending at the south end of the District's property. This trail will be approximately .75 mile long. Most of the trail will be created on land along the river, some of it will be on village streets. | Beverly, Ohio | multi-use trail | 375000 | grants and donations |
| Township Road 358 Thorn Township,Perry County, 9/10 of a mile resurface | Build a walking/biking multi-use trail to connect Thornville, Thornport to Buckeye Lake. This trail would be 9/10 of a mile and would need resurfacing, draining installed and a foot bridge. | Thorn Township, Perry County, Ohio | Multi-use trail development | 250000 | Undetermined at this time |
| Hocking Valley Scenic Trail | Multi-phase non-motorized alternative transportation and recreation path anticipated to be completed in 3 phases. The first phase connects Well Road south of Logan through the Village of Haydenville. The final trail, when complete, will connect to existing trails in Fairfield County and Athens County, creating an off-road bicycle and pedestrian trail that stretches over 80 miles across southeastern Ohio. | Well Road to Village of Haydenville, Hocking County | non-motorized alternative transportation route | 450154.8 | Capital Budget, ODNR, ODOT TAP |

# PLAN RECOMMENDATIONS

| Project Name | Project Description | Project Location | Project Type | Project Cost | Projected Funding Source |
|---|---|---|---|---|---|
| Hocking Valley Scenic Trail Ph 1 - 2.7 miles recreation path | The Hocking Valley Scenic Trail is a proposed 18-mile multi-use trail to connect Logan to Nelsonville. Phase 1 is adjacent to the Hocking Valley Scenic Railway from Well Road to SR 595/Hocking Drive. At Well Road, these is the option to utilize the existing roadway ROW in different directions. In Haydenville, bicycle lanes have been added to Hocking Drive to the Athens County line. Future phases will take the trail from Hocking Drive/SR 595 to Nelsonville to connect to the Hockhocking-Adena Bicycle Trail, and from Well Road into the City of Logan with designated paths and trails. Capital Budget Funds of $250,000 have already been award for the design of the project. Fund raising and additional contributions will come from private donors and the Hocking Valley Scenic Trail Committee that was formed for the purpose of supporting and maintaining this project. | Logan & Haydenville, Hocking County | Non-Motorized Commuter & Recreational Trail | 2000000 | Capital Budget, TAP, Fundraising |
| City of Nelsonville Canal St & Burr Oak Blvd Resurfacing | The project includes removal of 2" of existing pavement via item 254 pavement planning, application of item 407 tack coat, and 2" of item 441 surface course. Traffic control will be in accordance with item 614 and pavement striping will be replaced per item 642. As projects have been completed, sidewalks, curbs, and curb ramps have been updated to ADA compliance. This project will address those areas along the CR33 and CR178 that have not previously been made ADA compliant with new curbs and curb ramps. Logical Project Termini CR-33: Begin at the round-a-bout near the north-west city limit at log point 1.94 and travel south-east along the corridor for approximately 2.9 miles to log point 4.88 at the intersection of CR33 and SR691. Logical Project Termini CR-178: Begin at log point 0.00 at the intersection of CR33 and CR178 and travel north-east for approximately 0.57 miles to the US33 overpass at log point 0.565. | Canal St & Burr Oak Blvd, City of Nelsonville, Ohio 45764 | Paving/Resurfacing | 2985896.6 | 2,000,000.00 FY 2025 ODOT Small City Grant Awarded |
| Morgan County Outdoor Recreation Complex | The school is donating the old football stadium (athletic field) for county park district use. Planning funds for design are needed to consider options for renovating the community pool to include an upper floor indoor walking trail, adding access to a small stream on the property for outdoor education and recreation and possible tourism/informational center. | McConnelsville - off of 8th street | Recreation and Education | 75000 | ARC |
| SR60 Center Turn Lane | The addition of a center turn lane for in front of Miba Bearings, Miba Sinter, Mahle, etc. to allow for safer traffic flow in a busy, industrial/commercial area of the county. | SR60 north approximately one mile north of McConnelsville | road improvement | 1600000 | ODOT TID, District 10, ARC |
| Monroe CR22 Reconstruction - 3 miles Cement Stabilization & Paving | Cement Stabilization and paving of the entire length of CR22 - 3.02 miles - to repair the failing base and provide a safe traveling surface. | County Road 22, Bares Run Road, Monroe County | Road Reconstruction | 900000 | Local Roads Oil & Shale Program, Ohio Public Works Infrastructure Program |
| Monroe CR96 Road Reconstruction - 1.0 mile | Following multiple FEMA slip repairs, any failed culverts will be replaced, the ditch cleaned and graded, then the roadway cement stabilized and a chip seal surface applied. | County Road 96, Baptist Ridge Road, Monroe County | Road Reconstruction | 300000 | Local funds/force account, Oil & Gas operator contributions, FEMA |
| Monroe CR9A Road Rehabilitation - 2.74 miles | Cement Stabilization of poor base areas, then asphalt paving of entire length of CR9A - 2.74 miles. | County Road 9A, Six Points Road, Monroe County | Road Reconstruction | 650000 | Local Roads Oil & Shale Program, Ohio Public Works Infrastructure Program |
| Middleport Streetscape Improvements -- Phase 1 | Sidewalk replacements from and including No. Second business district down So. 2nd, So. 3rd and So. 4th to Blakeslee Center | Village of Middleport | Sidewalk Improvements | 1060200 | ODOT TAP |
| Carroll Street Corridor sidewalk or multi-use trail 7/10 of a mile | Build a sidewalk or multi-use trail from Broadway to Panther Drive on the west side of Carroll Street. This is the largest shopping district in Perry County. It has the most traffic flow of any destination in the county. | Carroll Street, New Lexington, Ohio, Perry County | Sidewalk or multi-use trail less than a mile long on the west side of the street. | 750000 | ODOT Safety Grant |
| Village of Thornville, Oh Streets | Paving of several streets within the Village of Thornville. | Village of Thornville, OH Perry County | Street Paving | 450000 | Transportation funding |
| Hocking County Fixed routes to Metro Employment | As Columbus and other central/southern Ohio employers contine to hunt for employees, southern Ohio is positioned to provide assistance in supplying qualified individuals. Many in Hocking County can't reach the employment opportunities due to a lack of transportation. Flexible fixed routes to employment centers would help alievate the issue. | Hocking County | Transit | 1 | Cost and funding is unknown until routes are identified. |
| Operating/maintenance/mobility management for Hocking County/Logan Public Transit/HAPCAP | Each year transit agencies are awarded funds through Federal Programs. We use funds from the 5311, 5339 and 5310 Federal Grant Programs, in addition we receive some State GRF funds. At the point that these funds start to flow through RTPOs instead of direct funding, we want the RTPOs to be aware of local needs and work with the regional transit agencies. Each transit program operates differently and the RTPOs need the knowledge to understand local needs/goals and operations. | Hocking County | Transit | 1 | Federal, State, Local |

# PLAN RECOMMENDATIONS

| Project Name | Project Description | Project Location | Project Type | Project Cost | Projected Funding Source |
|---|---|---|---|---|---|
| Hocking County Fixed routes to State Parks | There is a need for fixed routes to the many State Parks in Hocking County. The Federal Government provides grants to allow transit access to Federal Parks, however the State of Ohio has never embraced this concept. In Hocking County there is a major issue with traffic congestion on the roads to the State Parks and once there, parking is a significant problem. Hocking County Tourism made one attempt with a commerical transit provider, but costs were prohibitive. Fixed routes to the parks would limit some of the problem and Logan Transit would be able provide the service with State and local support. | Hocking County | Transit Fixed Route | 1 | Unknown at the present time. |
| Albany / Lake Snowden Sewer Project | Albany Extended Water Treatment / Sewage - Lake Snowden | Albany Ohio, Lake Snowden, St Rt 50/St Rt 681 Athens, County | Water treatment / Sewer | 2000000 | Proposed future Grant |
| Gateway to Opportunity | Our goal is to provide access to driver's education for the most economically disadvantaged students in Ohio. This program will promote workforce development, economic development and promote well being for students in Appalachia. Driver's licenses will support apprenticeships and internships for jobs and give them access to post secondary education opportunities. This program will eliminate barriers to jobs, extracurricular activities, community involvement, and healthcare. With no access to public transportation and extremely limited access to driver's education programs (4 counties have NO training programs), the barriers for students are enormous to get the needed training to be successful in life. | 8 Counties in Appalachia including Coshocton, Hocking, Monroe, Morgan, Muskingum, Noble, Perry, and Washington; there are 15 school districts within these 8 counties including Belpre, Caldwell, Crooksville, Fort Frye, Frontier, Logan Hocking, Marietta, Morgan, Noble Local, River View, Switzerland of Ohio, Warren, Washington County Career Center, Wolf Creek, and Zanesville City Schools | Driver's Education Program (including vehicles, staffing, training, certifications, driving instruction, etc.) | 1100000 | We received a grant from Honda for $100,000 and In kind matches from districts will include vehicle insurance, maintenance, fuel, school coordinators. |
| CEVSDC Campus Connectivity | This project has multiple scope items associated with varying stretches within the project area including sidewalk replacement and new sidewalk, drainage improvements, ADA compliant crosswalks, advanced warning signs, curb ramps, and pedestrian lighting. This project aims to improve safety, connectivity, and community health and wellness. The proposed project will close a sidewalk gap and area of deficient narrow sidewalk with known wheelchair mobility issues at high ADT volume (~4142) road CR56 from the grade school to the village, replace and modernize 1660 linear ft of 5ft wide sidewalk along CR56 and 4ft wide sidewalk in the Village of Caldwell connecting the grade school and High School. A Caldwell Exempted Village School District purchased property is designated and being designed for CEVSD sports complex which is also located in between the schools in the Village of Caldwell at the junction of CR56 and Main Street with poor student access connectivity. The district is scheduled to start site prep at the beginning of November 2022. Connectivity will be vastly improved by adding 1,150 linear feet of new sidewalk and incidental drainage improvements to CR58 from junction of CR56 to connect underserved apartment buildings and residential developments that currently become too icy to walk from during winter due to drainage issues. Located on the crest of a sharp turn, the junction of CR56 and CR58 will have advanced warning pedestrian crosswalk signage and a painted crosswalk added to both sides of the junction point and also 270 feet of new sidewalk on CR56 to connect CR58 sidewalk to the county fairgrounds entrance. (Primarily requesting engineering costs from RTPO to facilitate any TAP, SRTS, ACG moneys received for construction) | noble county (cr 56 and cr 58) and village of caldwell (main street) | safety, pedestrian and alternative transportation | 2597650.54 | SRTS?, TAP?, ACG? (loi and applications being submitted) |

# APPENDIX A FEDERAL & STATE COMPLIANCE

*BHRC RTPO Long-Range Transportation Plan 2020-2045*

# Appendix A: Stakeholder Participation Process

For the Buckeye Hills RTPO program's 2020-2045 Long Range Transportation Plan, the following disclose the plan's compliance with Federal and State of Ohio law and regulations:

## FIXING AMERICAN'S SURFACE TRANSPORTATION ACT (FAST ACT)

On December 4, 2015, the Fixing America's Surface Transportation Act, or "FAST Act" was signed into law. Continuing on prior legislation (MAP-21, SAFETEA-LU and previous), the FAST Act requires the regional transportation planning process comply with the statutory language for public participation in regional planning. It states all planning organizations shall provide citizens, affected public agencies, representatives of public transportation employees, freight shippers, providers of freight transportation services, private providers of transportation, representatives of users of public transportation, representatives of users of pedestrian walkways and bicycle transportation facilities, representatives of the disabled, and other interested parties with a reasonable opportunity to comment on the transportation plan.

## THE OHIO PUBLIC RECORDS ACT

The Ohio Public Records Act, commonly known as the Sunshine Law, is based on the United States' historical principle that the records of government are "the people's records." The Public Records Act provides citizens with steps to take in order to request records from any public office in Ohio while protecting specific types of records from release. This act also establishes a legal process to enforce compliance when a requester feels that a public office has failed to satisfy its public records obligations. (O.R.C. Chapter 149.)

In order to foster open, transparent and accountable government, citizens have the following rights under Ohio's Open Records Law:

- The right to request public records without providing your name or the reason for your request.
- The right to make a public records request orally or in writing.
- The right to promptly inspect public records, while allowing the office in question a "reasonable" amount of time to retrieve, review and redact the requested records.
- The right to receive copies of public records at cost.
- The right to get copies of public records on paper, on the medium on which they are kept or on any other medium you request (a compact disc, for example), if the keeper of the records determines that can be done reasonably as part of normal operations.
- The right to an explanation if any part of your public records request is denied.

- The right to revise a request that the recipient determined was overly broad or ambiguous with the help of that public office.
- The right to have redactions from public records made plainly visible and to be notified of the redactions.
- The right to file a lawsuit against a public office that fails to comply with the Ohio Public Records Act.
- The right to recover court costs, reasonable attorney fees and damages if you win a Public Records Act lawsuit.

All aspects of the Ohio Public Records Act will be observed and enforced during the completion of RTPO activities undertaken by Buckeye Hills, its staff, and any parties contractually obligated to Buckeye Hills during the project period.

## TITLE VI OF THE CIVIL RIGHTS ACT

Title VI of the Civil Rights Act of 1964 protects individuals from discrimination on the basis of their race, color, or national origin by government agencies and programs that receive federal financial assistance.

There are many forms of illegal discrimination based on race, color, or national origin that can limit the opportunity of minorities to gain equal access to services and programs.

For example, in operating a federally assisted program, a recipient cannot, on the basis of race, color, or national origin, either directly or through contractual means:

> *"No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance."*

- Deny program services, aids, or benefits;
- Provide a different service, aid, or benefit, or provide them in a manner different than they are provided to others;
- Segregate or separately treat individuals in any matter related to the receipt of any services, aid, or benefit.

All aspects of the Civil Rights Act will be observed and enforced during the completion of RTPO activities undertaken by Buckeye Hills, its staff, and any parties contractually obligated to Buckeye Hills during the project period.

Buckeye Hills Title VI plan document can be found on the Buckeye Hills website http://www.buckeyehills.org.

## ADA COMPLIANCE

The Americans with Disabilities Act (ADA) of 1990 is a civil rights statute which prohibits discrimination against people with disabilities in all aspects of life. The ADA requires federally assisted programs to be accessible to people with disabilities of all types. All RTPO public meetings conducted by Buckeye Hills will be held at locations with accessible facilities in order to accommodate people with mobility limitations. Special accommodations will be made to ensure that individuals with communicative disabilities can participate in meetings. Buckeye Hills asks that requests for special communications accommodations are made one week prior to the scheduled meeting time in order to allow for any necessary arrangements to me made.

All aspects of the Americans with Disabilities Act will be observed and enforced during the completion of RTPO activities undertaken by Buckeye Hills, its staff, and any parties contractually obligated to Buckeye Hills during the project period.

## ENVIRONMENTAL JUSTICE

> *"Each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations."*

Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, 1994.

Public participation in the Buckeye Hills RTPO program will also take into consideration Presidential Executive Order 12898 regarding Environmental Justice. This order ensures the fair treatment and meaningful involvement of people of all races, cultures, and incomes with respect to development, implementation and enforcement of environmental laws, regulations, programs, and policies. Fair treatment means that no racial, ethnic or socioeconomic group should bear a disproportionate share of the negative environmental consequences resulting from the operation of industrial, municipal, and commercial enterprises and from the execution of federal, state, local, and tribal; programs and policies. These negative consequences can include, but are not limited to:

- Bodily impairment, infirmity, illness, or death;
- Air, noise, and water pollution;
- Soil contamination;
- Destruction or disruption of man-made or natural resources;
- Destruction or diminution of aesthetic values;
- Destruction or disruption of community cohesion or a community's economic vitality;
- Displacement of persons, businesses, farms, or nonprofit organizations;
- Adverse employment effects.

Buckeye Hills views Environmental Justice compliance as more than a set of legal and regulatory obligations. Properly implemented environmental justice principles and procedures improve all levels of transportation decision making. During the completion of RTPO activities, Buckeye Hills will:

- Support transportation decisions that meet the needs of all people.
- Design transportation facilities that fit harmoniously into existing communities.
- Strengthen community-based partnerships in order to provide all populations with opportunities to learn about and improve the quality of transportation in their lives.
- Partner with other public and private programs to leverage transportation related resources to achieve a common vision for communities.
- Avoid disproportionately high and adverse impacts on minority and low- income populations.
- Minimize and/ or mitigate unavoidable impacts by identifying concerns early in the planning phase and providing offsetting initiatives and enhancement measures to benefit affected communities and neighborhoods.
- Whenever possible, public meetings will be held in locations convenient to low-income and minority populations and that are accessible to people with disabilities. These locations may include public libraries, schools, community centers, and churches. Agencies and organizations that represent these populations will be given adequate notice of public meetings taking place in their local areas.

Within Environmental Justice, Buckeye Hills is required to take into consideration three factoring groups – minority populations, populations over age 65, and low-income populations.

## *NOTE:*

*This report was funded in part through grant[s] from the Federal Highway Administration [and Federal Transit Administration], U.S. Department of Transportation and the Ohio Department of Transportation. The views and opinions of the authors [Buckeye Hills Regional Council] expressed herein do not necessarily state or reflect those of the U. S. Department of Transportation or the Ohio Department of Transportation.*

# APPENDIX B DEMOGRAPHICS

*BHRC RTPO Long-Range Transportation Plan 2020-2045*

# Appendix B: Demographics

For BHRC's RTPO program's 2020-2045 Long-Range Transportation Plan, the following describes key demographic features of the region. For more detailed and up-to-date demographic information in the BHRC region and its counties, a Data Compendium can be found at http://www.buckeyehills.org/data-center.

## REGION POPULATION

According to the Ohio Department of Development (formerly Development Services Agency) only Athens County is expected to increase in population between 2010 and 2040, and that county by less than 100 total people. The region as a whole is anticipated to lose almost 20,000 people. This trend is caused both by many of the region's youth seeking opportunity elsewhere, and high percentage of middle-aged people in the population. Tables for the projected population change, as well as current population numbers, and a population pyramid are below.

### Table: Projected Population Change in the Region

| Projected Population Changes to 2040, by County (2019) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Census 2010 | 2015 | 2020 | 2025 | 2030 | 2035 | 2040 | Change | Percent Change |
| Ohio | 11,536,504 | 11,549,120 | 11,574,870 | 11,598,670 | 11,615,100 | 11,635,110 | 11,679,010 | ↑ 142,506 | 1.24% |
| BHRC* | 260,084 | 257,400 | 255,000 | 251,570 | 248,310 | 244,460 | 241,410 | ↓ -18,674 | -7.18% |
| Athens | 64,757 | 65,990 | 66,720 | 66,710 | 66,320 | 65,630 | 64,830 | ↑ 73 | 0.11% |
| Hocking | 29,380 | 28,470 | 27,550 | 26,600 | 26,020 | 25,260 | 24,680 | ↓ -4,700 | -16.00% |
| Meigs | 23,770 | 23,610 | 23,630 | 23,300 | 23,170 | 22,670 | 22,340 | ↓ -1,430 | -6.02% |
| Monroe | 14,642 | 14,420 | 14,160 | 13,900 | 13,590 | 13,290 | 13,120 | ↓ -1,522 | -10.39% |
| Morgan | 15,054 | 14,880 | 14,770 | 14,600 | 14,360 | 14,100 | 13,820 | ↓ -1,234 | -8.20% |
| Noble | 14,645 | 14,190 | 13,960 | 13,830 | 13,790 | 13,750 | 13,920 | ↓ -725 | -4.95% |
| Perry | 36,058 | 35,430 | 35,210 | 35,010 | 34,840 | 34,830 | 34,980 | ↓ -1,078 | -2.99% |
| Washington | 61,778 | 60,410 | 59,000 | 57,620 | 56,220 | 54,930 | 53,720 | ↓ -8,058 | -13.04% |

*BHRC value is a sum of the constituent counties

Source: Ohio Development Services Agency, Ohio County Indicators
Published July 2020

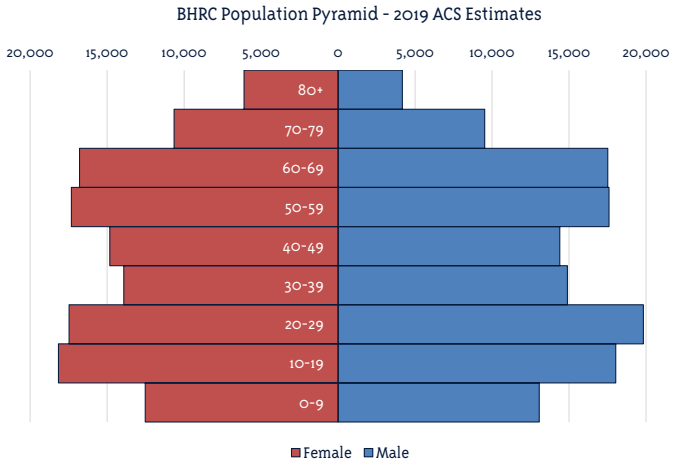
## Table and Chart: Population by Age in the Region

| Population Estimates by Age Group (ACS 2019) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Total | Under 5 | 5-17* | 18-24 | 25-64* | 65-84* | 85+ | 65+ | Median Age |
| Ohio | 11,655,397 | 694,711 | 1,910,299 | 1,074,610 | 6,034,483 | 1,690,491 | 250,803 | 1,941,294 | 39.4 |
| BHRC** | 256,831 | 12,556 | 37,480 | 33,710 | 126,747 | 40,974 | 5,364 | 46,338 | 42.8 |
| Athens | 65,917 | 2,555 | 7,131 | 19,247 | 28,703 | 7,171 | 1,110 | 8,281 | 29.6 |
| Hocking | 28,390 | 1,598 | 4,674 | 2,140 | 14,717 | 4,595 | 666 | 5,261 | 43.1 |
| Meigs | 23,078 | 1,159 | 3,823 | 1,580 | 12,067 | 3,934 | 515 | 4,449 | 43.6 |
| Monroe | 13,942 | 698 | 2,221 | 914 | 6,866 | 2,953 | 290 | 3,243 | 46.5 |
| Morgan | 14,640 | 711 | 2,382 | 1,084 | 7,426 | 2,745 | 292 | 3,037 | 44.5 |
| Noble | 14,416 | 704 | 1,962 | 680 | 7,225 | 3,362 | 483 | 3,845 | 50.4 |
| Perry | 36,022 | 2,170 | 6,360 | 2,820 | 18,826 | 5,316 | 530 | 5,846 | 40.2 |
| Washington | 60,426 | 2,961 | 8,927 | 5,245 | 30,917 | 10,898 | 1,478 | 12,376 | 44.3 |

*Statistic calculated by Buckeye Hills

**BHRC value is a sum or average of constituent counties, whichever is appropriate

Data Source: US Census Bureau, Table S0101
ACS 2015-2019




## Table: Population by Race and Hispanic Status in the Region

| Population by Race and Hispanic Status (2019) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Total Population | White | Black | Native American/Alaskan Native | Asian | Native Hawaiian/Pacific Islander | Two or More Races* | Hispanic (Any Race)** | Total Minorities*** |
| Ohio | 11,689,100 | 9,552,736 | 1,525,570 | 34,010 | 291,478 | 7,055 | 278,251 | 470,462 | 2,520,008 |
| BHRC**** | 255,129 | 242,364 | 4,211 | 873 | 2,772 | 114 | 4,795 | 3,126 | 15,295 |
| Athens | 65,327 | 59,600 | 1,857 | 233 | 2,034 | 36 | 1,567 | 1,265 | 6,724 |
| Hocking | 28,264 | 27,402 | 206 | 117 | 111 | 11 | 417 | 322 | 1,116 |
| Meigs | 22,907 | 22,237 | 230 | 78 | 49 | 5 | 308 | 171 | 804 |
| Monroe | 13,654 | 13,324 | 87 | 24 | 27 | 2 | 190 | 110 | 429 |
| Morgan | 14,508 | 13,411 | 453 | 66 | 26 | 1 | 551 | 145 | 1,192 |
| Noble | 14,424 | 13,770 | 400 | 56 | 42 | 3 | 153 | 101 | 735 |
| Perry | 36,134 | 35,156 | 195 | 130 | 72 | 42 | 539 | 316 | 1,248 |
| Washington | 59,911 | 57,464 | 783 | 169 | 411 | 14 | 1,070 | 696 | 3,047 |

*The total population is equal to the sum of the "one race only" populations and the two-or-more races category

**Hispanics may be of any race and are included in the columns to the left

***The total minorities category is computed by subtracting the non-Hispanic-one-race-only whites (data not shown) from the total population

**** BHRC total is a sum of the constituent counties

Data Source: Ohio Development Services Agency, Ohio County Indicators
Published July 2020

# ECONOMIC INFORMATION

The BHRC region is generally resilient to national economic swings, which is both a negative and a positive. The region is not as significantly impacted by large economic downturns as other areas are, but it also does not benefit from great upswings in the national economy either. The 2008 crash was felt in the area though, as the unemployment information below clearly shows. It is important to note that the region typically has comparatively high unemployment, and that the smaller populations mean that smaller changes in raw numbers lead to significant swings in percentage values like unemployment. In many BHRC counties, a three percent increase in unemployment equates to a few hundred more people without jobs, while in larger counties such an increase would mean thousands are looking for work. This, in turn, means that when large employers leave the region, as they have in the past several decades, it can have an outsized impact on the metrics, when compared to similar departures in other regions.

### Table: Unemployment Rates for 2010 – 2020 in the Region

| Unemployment Rate 2010-2020 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
| Ohio | 10.3% | 8.8% | 7.4% | 7.5% | 5.8% | 4.9% | 5.0% | 5.0% | 4.6% | 4.2% | 8.1% |
| BHRC* | 12.4% | 10.9% | 9.3% | 9.5% | 7.6% | 6.8% | 7.1% | 6.4% | 6.0% | 5.5% | 9.3% |
| Athens | 10.6% | 9.9% | 8.5% | 9.0% | 6.9% | 6.2% | 6.4% | 6.0% | 5.8% | 5.3% | 7.3% |
| Hocking | 11.7% | 9.9% | 8.3% | 8.1% | 6.5% | 5.6% | 5.6% | 5.4% | 5.1% | 4.7% | 7.4% |
| Meigs | 14.6% | 13.1% | 11.6% | 11.9% | 9.0% | 8.2% | 8.5% | 8.1% | 7.3% | 6.9% | 9.6% |
| Monroe | 12.2% | 9.9% | 8.4% | 10.0% | 11.0% | 9.9% | 11.1% | 8.3% | 7.8% | 8.3% | 10.6% |
| Morgan | 13.3% | 11.4% | 9.9% | 10.1% | 7.8% | 7.3% | 8.3% | 6.7% | 6.0% | 6.5% | 9.3% |
| Noble | 16.0% | 13.3% | 11.0% | 9.6% | 7.6% | 7.3% | 8.7% | 7.2% | 6.7% | 7.0% | 9.6% |
| Perry | 13.4% | 11.6% | 9.8% | 9.6% | 7.4% | 6.5% | 6.4% | 6.0% | 5.6% | 5.3% | 8.4% |
| Washington | 11.4% | 10.0% | 8.7% | 8.6% | 6.4% | 6.0% | 7.0% | 6.2% | 5.6% | 5.4% | 8.6% |

*BHRC value is determined by combining all the constituent counties into one area in the Ohio LMI Tool.

Data Source: Ohio Labor Market Information, Civilian Labor Force Estimates
Table Updated July 2021

The BHRC region also has a consistently lower median household income than the state of Ohio, usually about $10,000 less. The counties within the region have varied values, but in general they remain consistent against each other.

### Table: Median Household Income for the Region

| Median Household Income 2010-2019* | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
| Ohio | $47,358 | $48,071 | $48,246 | $48,308 | $48,849 | $49,429 | $50,674 | $52,407 | $54,533 | $56,602 |
| BHRC** | $37,511 | $38,804 | $39,193 | $39,049 | $39,394 | $39,961 | $40,923 | $43,202 | $45,237 | $46,608 |
| Athens | $31,559 | $33,546 | $33,863 | $33,823 | $33,773 | $33,872 | $34,221 | $37,191 | $37,778 | $40,905 |
| Hocking | $39,586 | $42,227 | $40,556 | $42,089 | $42,792 | $42,170 | $43,382 | $48,073 | $50,000 | $52,363 |
| Meigs | $33,407 | $33,708 | $34,704 | $35,469 | $35,970 | $37,813 | $39,640 | $42,105 | $43,591 | $44,899 |
| Monroe | $37,030 | $38,811 | $41,677 | $40,573 | $41,394 | $41,528 | $41,368 | $43,299 | $43,956 | $45,289 |
| Morgan | $34,962 | $35,855 | $37,152 | $37,865 | $38,696 | $37,067 | $38,941 | $40,276 | $41,731 | $42,341 |
| Noble | $39,500 | $40,239 | $39,544 | $38,290 | $37,126 | $41,708 | $41,398 | $42,171 | $47,456 | $46,897 |
| Perry | $42,388 | $42,860 | $42,222 | $41,446 | $41,892 | $42,017 | $43,674 | $46,477 | $48,811 | $50,150 |
| Washington | $41,654 | $43,185 | $43,829 | $42,834 | $43,512 | $43,509 | $44,763 | $46,021 | $48,572 | $50,021 |

*ACS 5-Year Estimates
**BHRC value is an average of the constituent counties
Data Source: US Census Bureau, Table DP03
Table Updated July 2021

Poverty rates in the region are also consistently higher than the state of Ohio, with Athens County regularly having the highest rate in the state. Poverty levels worsened a bit between 2000 and 2010, but between 2010 and 2019 they were mostly unchanged, with a couple counties having between a 1-2% improvement in poverty levels.

### Table: Percentage of Persons Below Poverty Level in the Region

| Percentage of Persons Below Poverty Level 1990-2019 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Years | | | | | Percent Change | | |
| | 1990 | 2000 | 2010* | 2014* | 2019* | 1990-2000 | 2000-2010 | 2010-2019 |
| Ohio | 13.6% | 10.6% | 14.2% | 15.9% | 14.0% | -3.0% | 3.6% | -0.2% |
| BHRC** | 20.4% | 16.0% | 18.9% | 19.9% | 18.5% | -4.5% | 3.0% | -0.4% |
| Athens | 28.7% | 27.4% | 30.3% | 31.6% | 30.2% | -1.3% | 2.9% | -0.1% |
| Hocking | 15.7% | 13.5% | 15.3% | 16.8% | 13.3% | -2.2% | 1.8% | -2.0% |
| Meigs | 27.0% | 19.8% | 20.8% | 23.0% | 19.6% | -7.2% | 1.0% | -1.2% |
| Monroe | 21.5% | 13.9% | 17.3% | 18.8% | 17.1% | -7.6% | 3.4% | -0.2% |
| Morgan | 21.2% | 18.4% | 19.1% | 19.5% | 19.2% | -2.8% | 0.7% | 0.1% |
| Noble | 16.4% | 11.4% | 14.9% | 13.7% | 15.6% | -5.0% | 3.5% | 0.7% |
| Perry | 19.1% | 11.8% | 18.5% | 18.8% | 19.1% | -7.3% | 6.7% | 0.6% |
| Washington | 13.7% | 11.4% | 15.2% | 16.6% | 14.2% | -2.3% | 3.8% | -1.0% |

*ACS 5 year estimates
**BHRC values are averages of its constituent counties
Data Source: US Census Bureau, Table DP03
Table Updated July 2021

# PERSONAL HINDRANCES

The BHRC region has a greater concentration of residents with a disability than the state of Ohio, 19% compared to 14% respectively. Residents with disabilities need accessibility options, especially in rural areas where non-motorized transportation is especially difficult.

In this region, where a large portion of the population is over the age of 65, special attention needs to be brought to those residents with disabilities. Making efforts to increase their accessibility should also help those under the age of 65 with similar difficulties.

## Tables: Residents with Disabilities in the Region and Residents Aged 65+ with Disabilities in the Region

| Residents with Disability (ACS 2019) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Civilian Noninstituio-nalized Population | Without a Disability* | With a Disability | Type of Disability | | | | | |
| | | | | Hearing | Vision | Cognitive | Ambulatory | Self Care | Independent Living |
| Ohio | 11,482,519 | 9,876,885 | 1,605,634 | 433,458 | 272,139 | 627,281 | 812,775 | 299,017 | 557,977 |
| BHRC** | 251,801 | 203,701 | 48,100 | 11,161 | 6,471 | 15,310 | 17,403 | 6,471 | 12,053 |
| Athens | 65,217 | 54,698 | 10,519 | 2,731 | 1,997 | 4,942 | 4,703 | 1,905 | 3,106 |
| Hocking | 27,858 | 22,661 | 5,197 | 1,545 | 857 | 2,391 | 2,554 | 940 | 1,831 |
| Meigs | 22,872 | 17,457 | 5,415 | 1,882 | 1,211 | 2,355 | 2,592 | 753 | 1,795 |
| Monroe | 13,805 | 10,922 | 2,883 | 975 | 572 | 1,111 | 1,377 | 481 | 877 |
| Morgan | 14,451 | 11,259 | 3,192 | 944 | 760 | 1,105 | 1,642 | 609 | 1,190 |
| Noble | 12,071 | 9,642 | 2,429 | 1,146 | 200 | 630 | 1,199 | 417 | 901 |
| Perry | 35,777 | 29,469 | 6,308 | 1,938 | 874 | 2,776 | 3,336 | 1,366 | 2,353 |
| Washington | 59,750 | 47,593 | 12,157 | 4,229 | 2,739 | 4,483 | 6,170 | 2,081 | 3,519 |

*Value calculated by Buckeye Hills

**BHRC values are sums of the constituent counties

Source: US Census Bureau, Table S1810 ACS (2015-2019)

| Residents Aged 65 + with Disability (ACS 2019) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Civilian Noninstitutionalized Population Aged 65+ | Without a Disability* | With a Disability* | Type of Disability | | | | | |
| | | | | Hearing | Vision | Cognitive | Ambulatory | Self Care | Independent Living |
| Ohio | 1,872,384 | 1,253,720 | 618,664 | 264,185 | 110,464 | 148,100 | 402,082 | 138,091 | 257,829 |
| BHRC** | 44,685 | 7,948 | 36,737 | 8,549 | 3,294 | 4,275 | 10,586 | 3,601 | 6,432 |
| Athens | 8,058 | 5,142 | 2,916 | 1,470 | 557 | 781 | 1,616 | 674 | 1,065 |
| Hocking | 5,024 | 3,003 | 2,021 | 828 | 498 | 445 | 1,247 | 543 | 868 |
| Meigs | 4,294 | 2,452 | 1,842 | 1,070 | 388 | 575 | 1,168 | 347 | 787 |
| Monroe | 3,136 | 1,836 | 1,300 | 616 | 200 | 344 | 708 | 244 | 446 |
| Morgan | 2,877 | 1,689 | 1,188 | 481 | 266 | 267 | 756 | 228 | 484 |
| Noble | 3,735 | 2,285 | 1,450 | 898 | 129 | 258 | 697 | 239 | 539 |
| Perry | 5,635 | 3,482 | 2,153 | 1,030 | 268 | 449 | 1,360 | 485 | 854 |
| Washington | 11,926 | 7,105 | 4,821 | 2,156 | 988 | 1,156 | 3,034 | 841 | 1,389 |

*Value calculated by Buckeye Hills

**BHRC values are sums of the constituent counties

Source: US Census Bureau, Table S1810 ACS (2015-2019)

In rural areas, households that do not have access to a vehicle can have a serious lack of access to vital services. This state is a matter of disability and income issues combining, but both result in a need for those people to have a greater variety of options for them to access their destinations. The BHRC region has a lower percentage of zero-car households than the state of Ohio, but whether that is a preference decision or not is unclear. Particular attention will be paid to those areas with high-percentages of zero-car households, as those people are at the greatest mobility need.

### Table: Households by Number of Vehicles Available in the Region

| Households by Vehicles Available (ACS 2019) | | | | | | | |
|---|---|---|---|---|---|---|---|
| | Total Households | 0 cars | 1 car | 2 cars | 3 cars | 4+ Cars | 0 car % |
| Ohio | 4,730,340 | 365,115 | 1,582,919 | 1,775,665 | 683,801 | 322,840 | 7.72% |
| BHRC* | 98,505 | 6,741 | 28,759 | 35,448 | 17,528 | 10,029 | 6.84% |
| Athens | 22,557 | 1,757 | 7,543 | 7,966 | 3,605 | 1,686 | 7.79% |
| Hocking | 11,286 | 658 | 2,980 | 4,096 | 2,084 | 1,468 | 5.83% |
| Meigs | 9,045 | 650 | 2,619 | 2,866 | 1,857 | 1,053 | 7.19% |
| Monroe | 5,745 | 424 | 1,476 | 2,035 | 1,100 | 710 | 7.38% |
| Morgan | 6,108 | 383 | 1,691 | 2,403 | 968 | 663 | 6.27% |
| Noble | 5,067 | 424 | 1,359 | 1,861 | 920 | 503 | 8.37% |
| Perry | 13,500 | 987 | 3,564 | 4,842 | 2,562 | 1,545 | 7.31% |
| Washington | 25,197 | 1,458 | 7,527 | 9,379 | 4,432 | 2,401 | 5.79% |

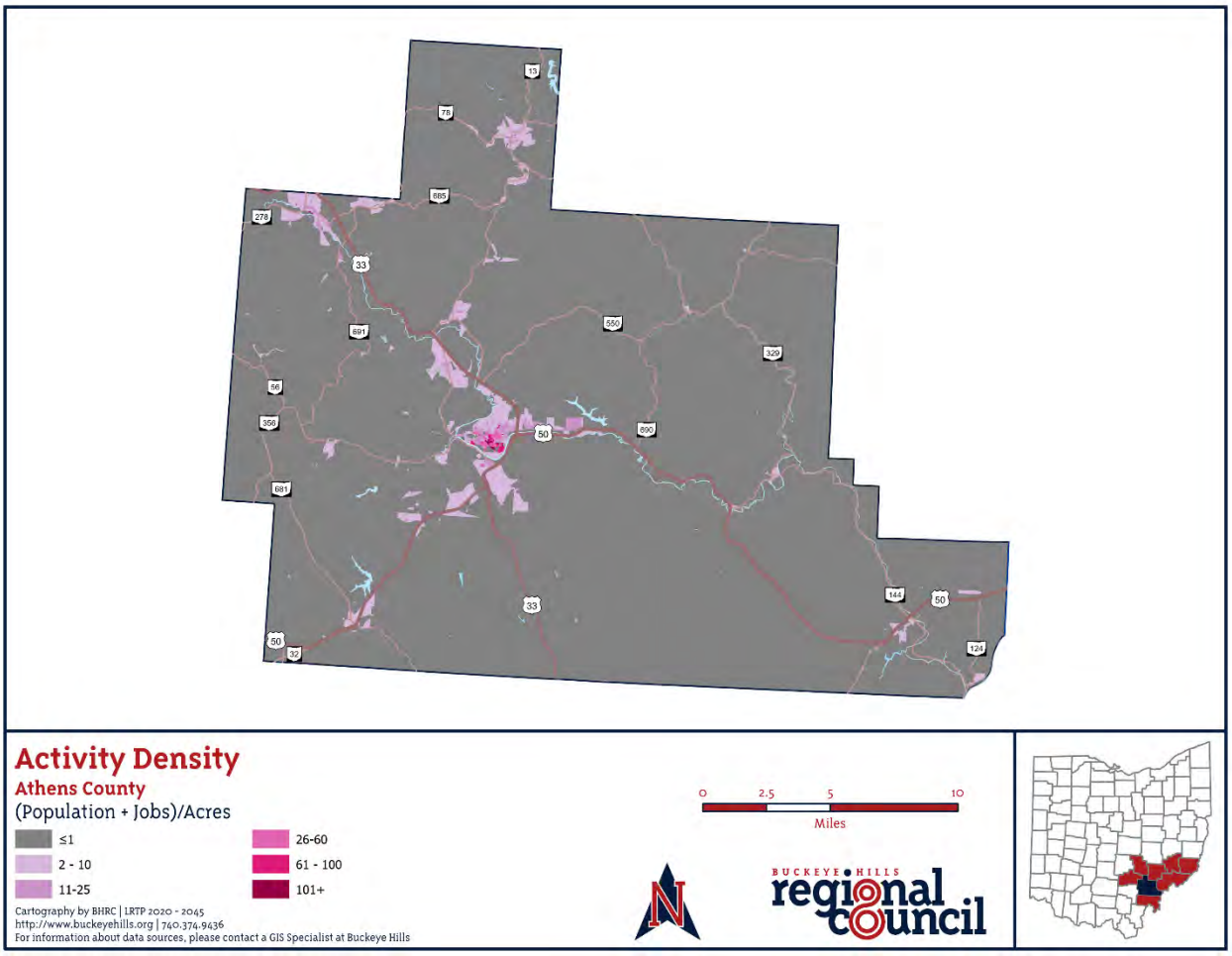
*BHRC values are sums of the constituent counties

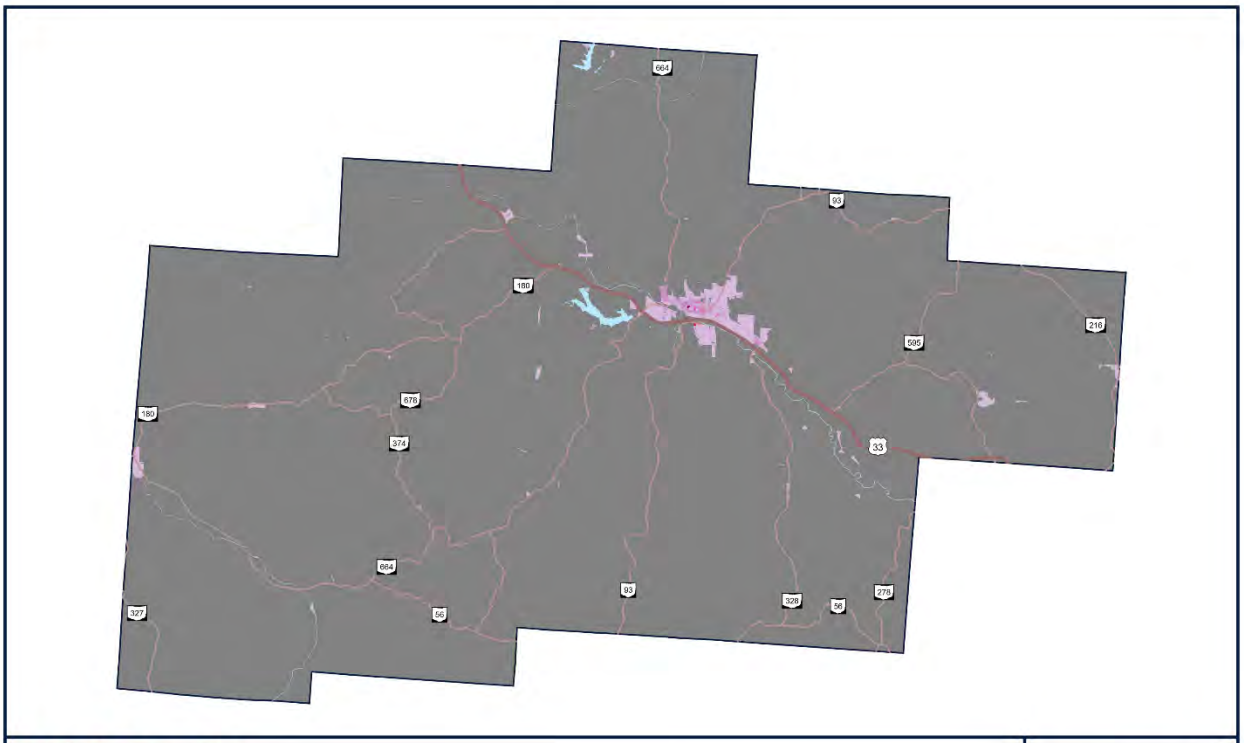
Source: US Census Bureau, Table B08201 ACS (2015-2019)

## *Activity Density*

An Activity Density map depicts density of people-driven activity - or the number of people *and jobs* per acre - in census blocks. Population data comes from the US Census Bureau's 2013 population estimates. The jobs information is from the Census Bureau's LEHD On the Map application, from 2011. These values were combined and divided by the acreage of the containing block. Due to some quirks of the LEHD data, some jobs are overly combined into a single block. This leads to blocks that can appear overly dense. It is best to consider the overall density of an area. The activity density information can be used to assess the amount of human activity in an area to determine active transportation infrastructure needs and/or gaps, and support active transportation plans or individual active transportation project development. It can also highlight areas where transit services may need to put resources, as it can highlight areas not previously conceived of as “active.”

## Maps: Activity Density for Each County in the Region






# Activity Density

## Hocking County

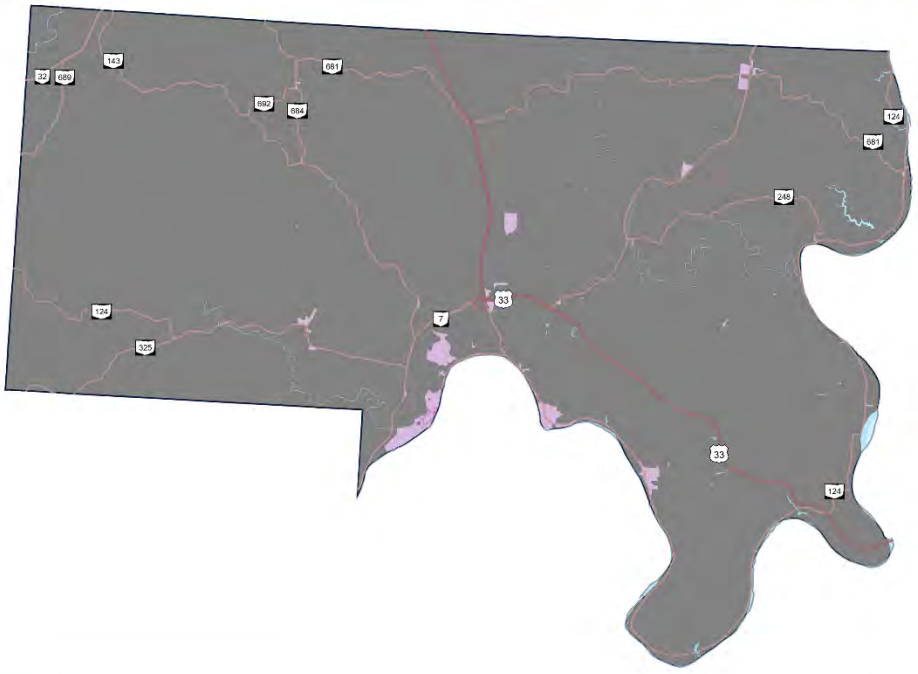
(Population + Jobs)/Acres

- ≤1
- 2 - 10
- 11-25
- 26-60
- 61 - 100
- 101+

Cartography by BHRC | LRTP 2020 - 2045
http://www.buckeyehills.org | 740.374.9436
For information about data sources, please contact a GIS Specialist at Buckeye Hills

0 2.5 5 10
Miles

BUCKEYE HILLS regional council




# Activity Density

## Meigs County

(Population + Jobs)/Acres

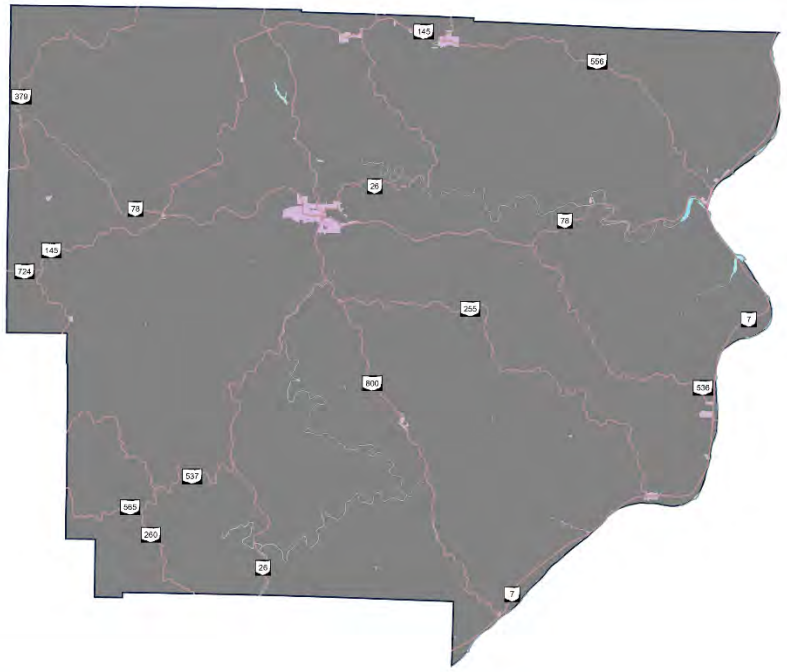
| | |
|---|---|
| ≤1 | 26-60 |
| 2 - 10 | 61 - 100 |
| 11-25 | 101+ |

0 2.5 5 10

Miles

Cartography by BHRC | LRTP 2020 - 2045
http://www.buckeyehills.org | 740.374.9436
For information about data sources, please contact a GIS Specialist at Buckeye Hills

BUCKEYE HILLS regional council




# Activity Density

## Monroe County

(Population + Jobs)/Acres

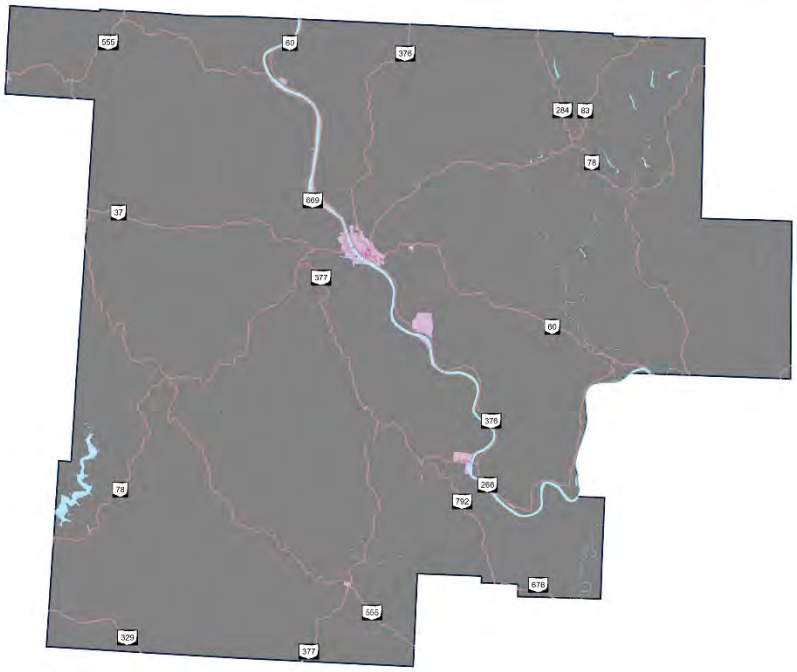
- ≤1
- 2 - 10
- 11-25
- 26-60
- 61 - 100
- 101+

0 2.5 5 10

Miles

BUCKEYE HILLS regional council

Cartography by BHRC | LRTP 2020 - 2045
http://www.buckeyehills.org | 740.374.9436
For information about data sources, please contact a GIS Specialist at Buckeye Hills




# Activity Density

## Morgan County

(Population + Jobs)/Acres

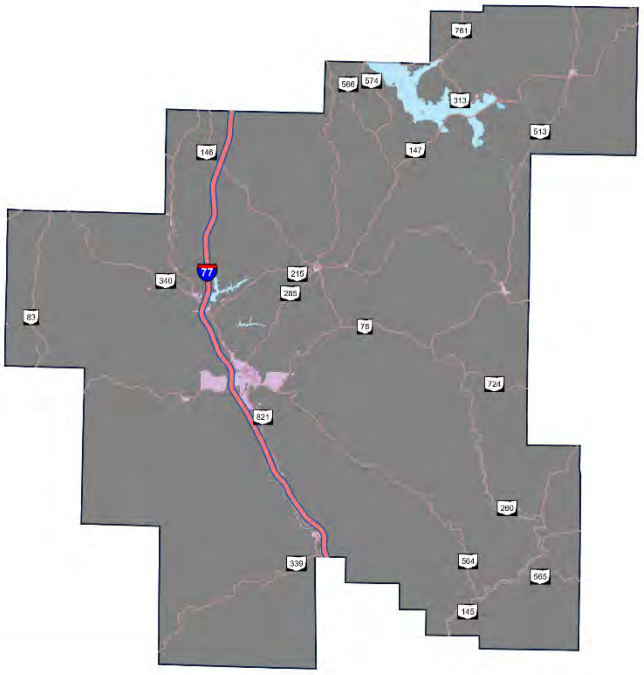
- ≤1
- 2 - 10
- 11-25
- 26-60
- 61 - 100
- 101+

0 2.5 5 10

Miles

Cartography by BHRC | LRTP 2020 - 2045
http://www.buckeyehills.org | 740.374.9436
For information about data sources, please contact a GIS Specialist at Buckeye Hills

BUCKEYE HILLS regional council




# Activity Density

## Noble County

(Population + Jobs)/Acres

- ≤1
- 2 - 10
- 11-25
- 26-60
- 61 - 100
- 101+

0 2.5 5 10

Miles

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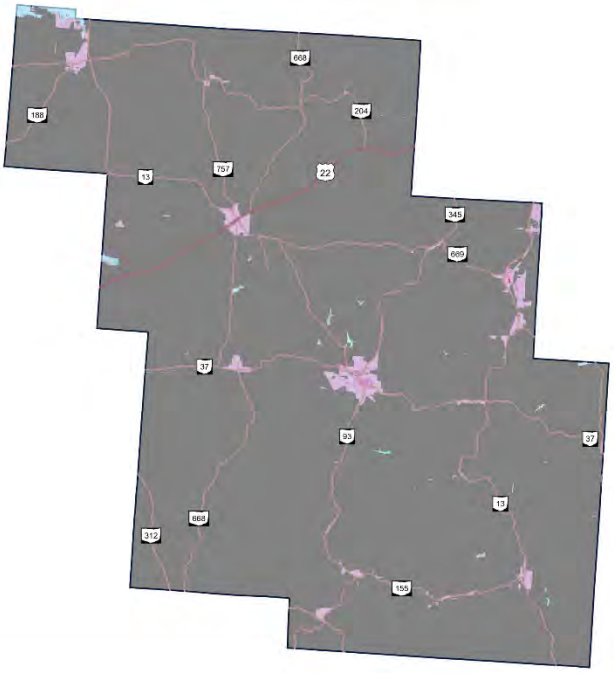
Cartography by BHRC | LRTP 2020 - 2045
http://www.buckeyehills.org | 740.374.9436
For information about data sources, please contact a GIS Specialist at Buckeye Hills




# Activity Density

## Perry County

(Population + Jobs)/Acres

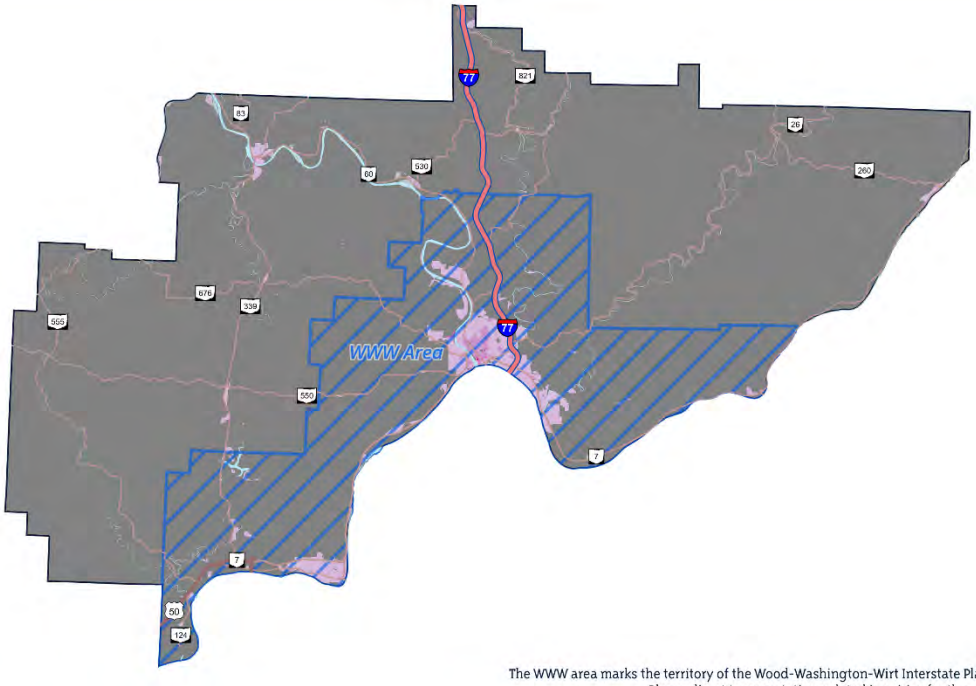
- ≤1
- 2 - 10
- 11-25
- 26-60
- 61 - 100
- 101+

0 2.5 5 10

Miles

Cartography by BHRC | LRTP 2020 - 2045
http://www.buckeyehills.org | 740.374.9436
For information about data sources, please contact a GIS Specialist at Buckeye Hills

BUCKEYE HILLS regional council




The WWW area marks the territory of the Wood-Washington-Wirt Interstate Planning Commission.
Please direct transportation-related inquiries for these townships to them.

# Activity Density

## Washington County

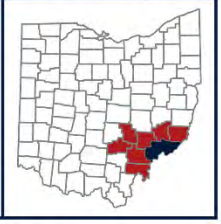
(Population + Jobs)/Acres

- ≤1
- 2 - 10
- 11-25
- 26-60
- 61 - 100
- 101+

Cartography by BHRC | LRTP 2020 - 2045
http://www.buckeyehills.org | 740.374.9436
For information about data sources, please contact a GIS Specialist at Buckeye Hills

0 2.5 5 10
Miles

BUCKEYE HILLS regional council



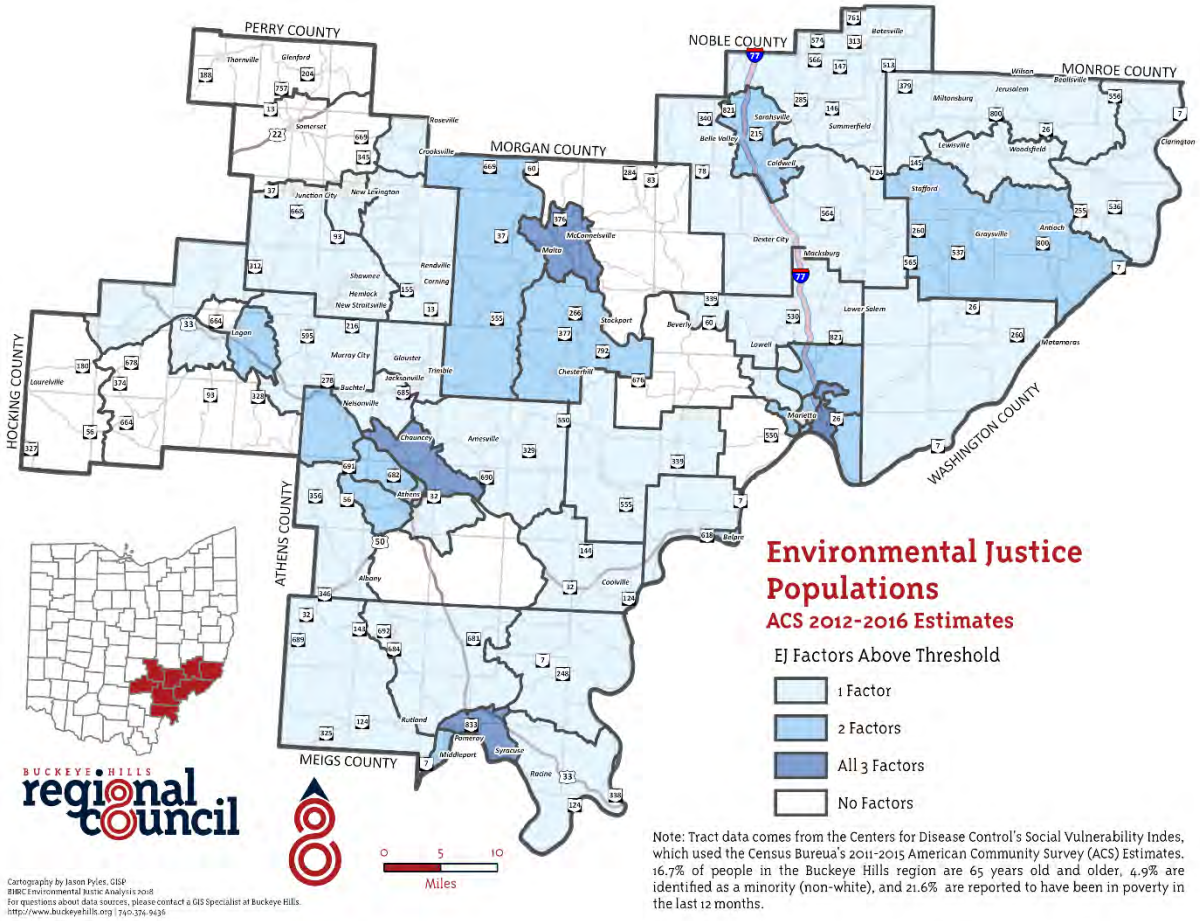
# APPENDIX C ENVIRONMENTAL JUSTICE

*BHRC RTPO Long-Range Transportation Plan 2020-2045*

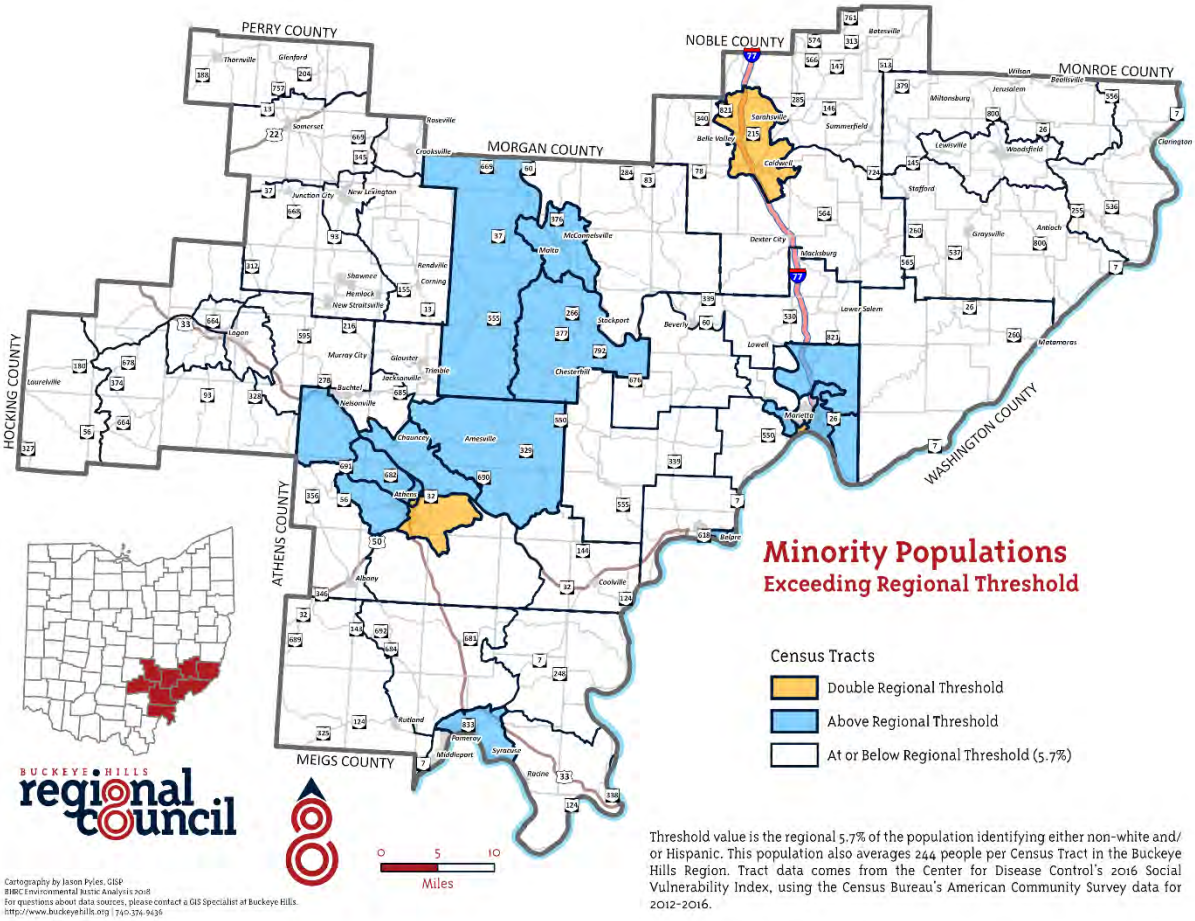
# Appendix C: Environmental Justice

For the Buckeye Hills RTPO program's 2020-2045 Long-Range Transportation Plan, the following explores the plan's identified environmental justice population focus areas (Census Tracts in which a given population concentration was higher than the regional average). These are populations BHRC needs to identify to ensure that no project unfairly harms these populations or unfairly benefits areas in which they don't reside. After concentrations of those over the age of 65, those identified as a minority in race or ethnicity, and those in poverty are located, BHRC staff combined those Census Tracts together to find concentrations of all Environmental Justice populations. These areas in particular will be examined for systemic bias as projects are awarded and idenfied.

## Map: Environmental Justice Populations

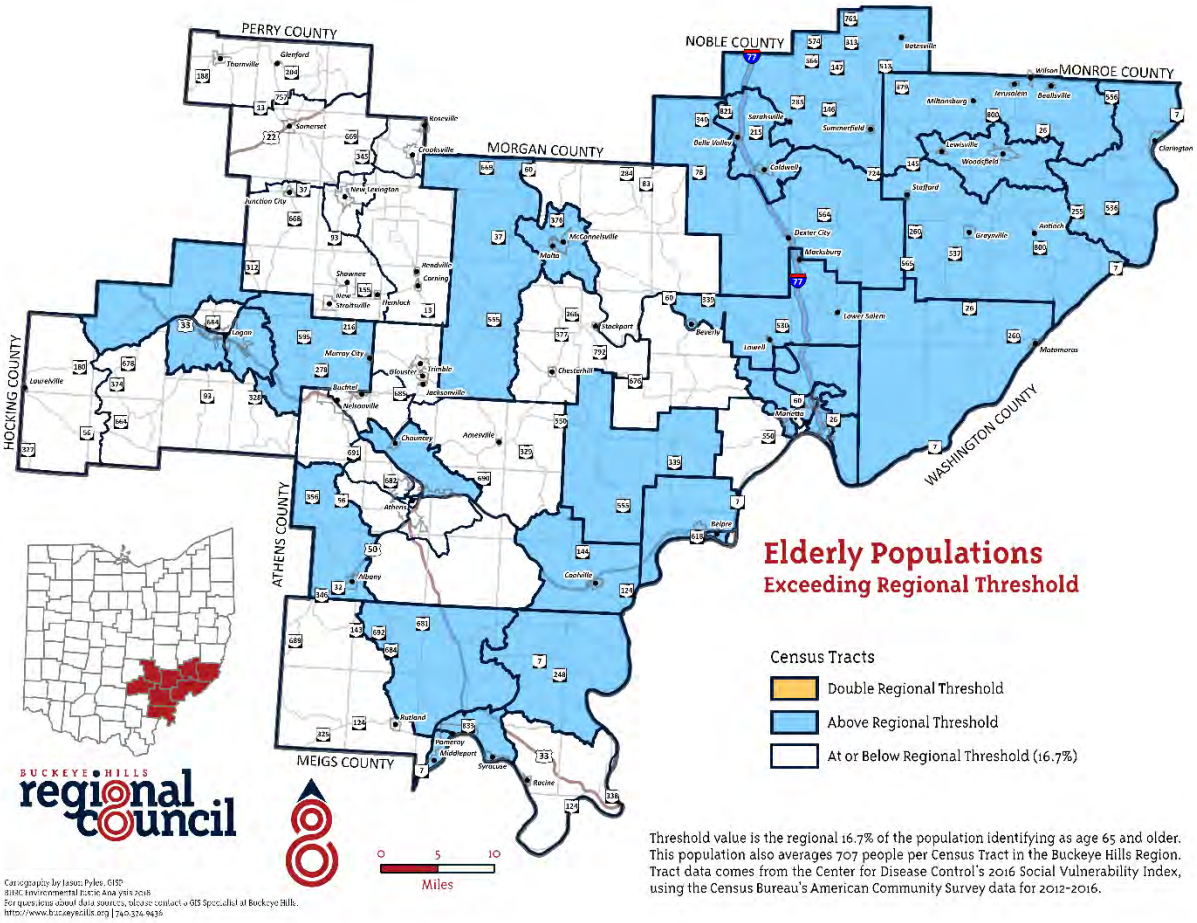


## Map: Minority Populations

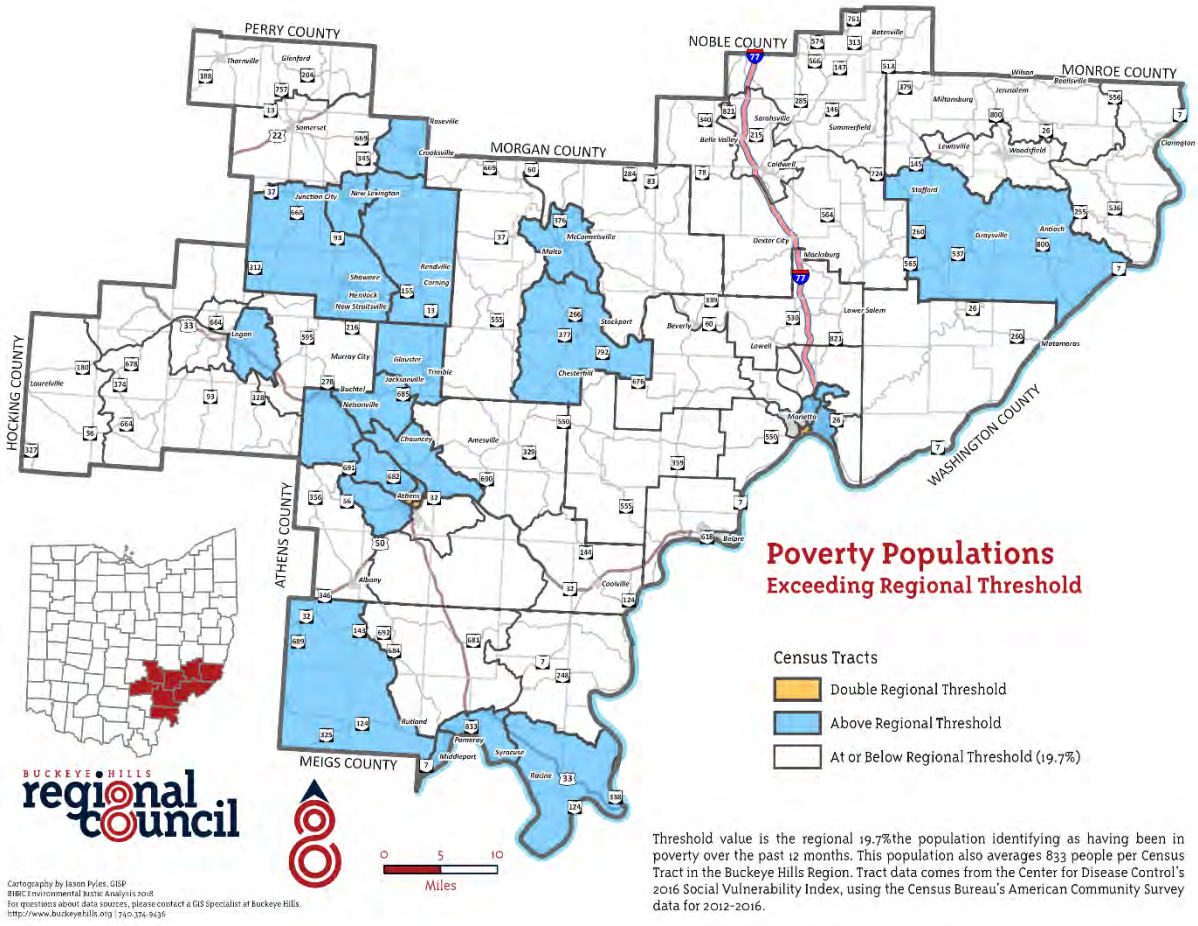



Threshold value is the regional 5.7% of the population identifying either non-white and/or Hispanic. This population also averages 244 people per Census Tract in the Buckeye Hills Region. Tract data comes from the Center for Disease Control's 2016 Social Vulnerability Index, using the Census Bureau's American Community Survey data for 2012-2016.

## Map: Elderly Populations



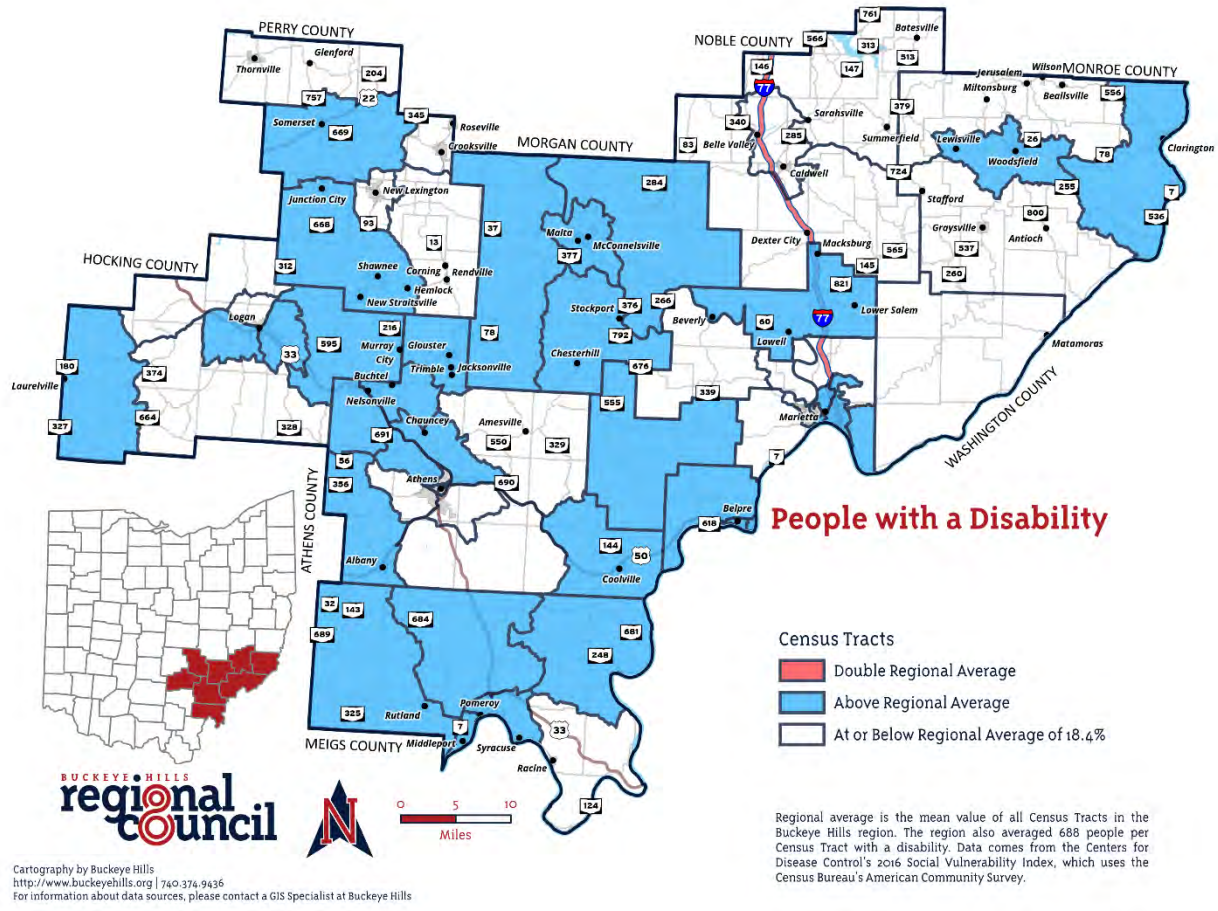
## Map: Poverty Populations



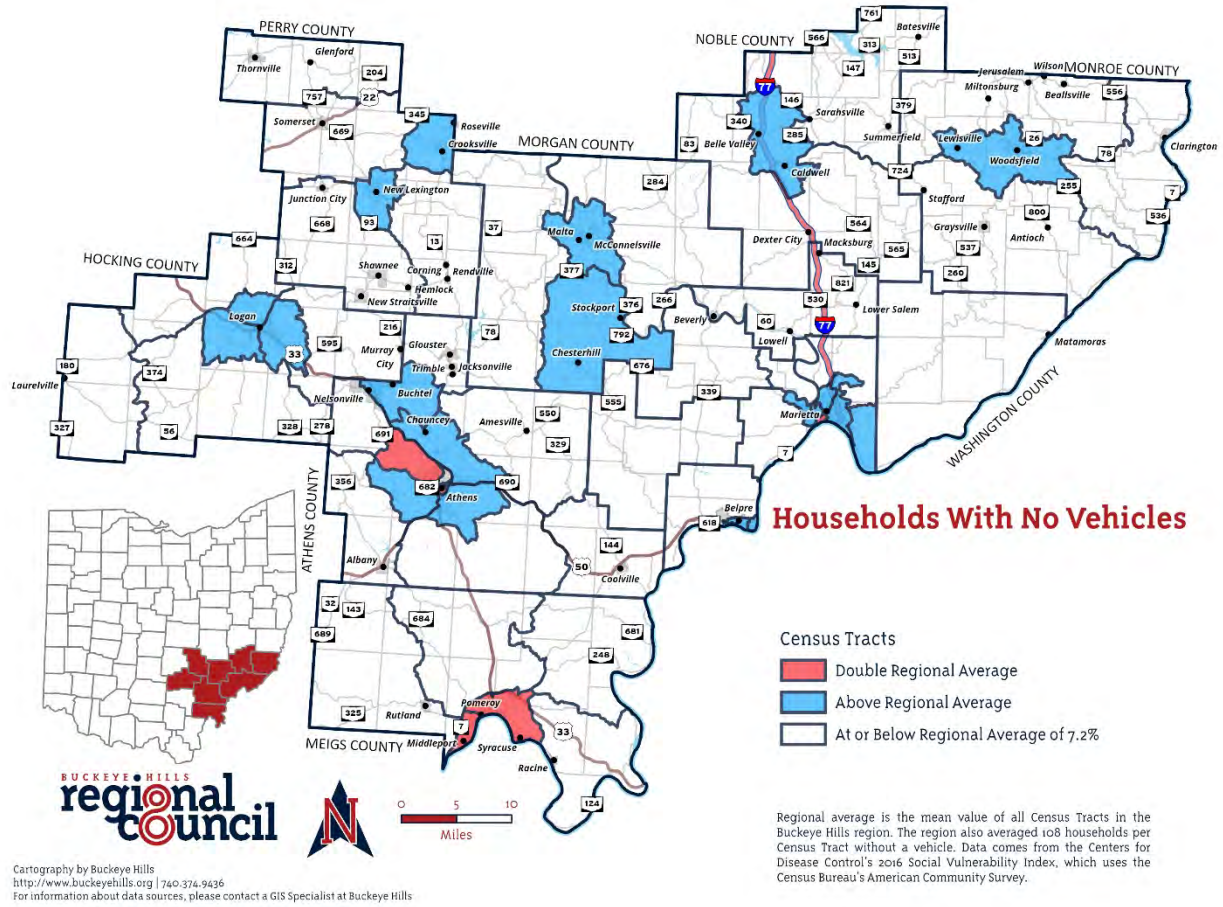

Threshold value is the regional 19.7%the population identifying as having been in poverty over the past 12 months. This population also averages 833 people per Census Tract in the Buckeye Hills Region. Tract data comes from the Center for Disease Control's 2016 Social Vulnerability Index, using the Census Bureau's American Community Survey data for 2012-2016.

In addition, other populations have been identified that BHRC would like to track the concentrations of. These populations are also considered when planning projects in the region. At the time of this writing, those are the disabled populations and households without access to an automobile.

## Map: Disabled Populations



## Map: Households with No Vehicles



# APPENDIX D ROADWAY NETWORK

*BHRC RTPO Long-Range Transportation Plan 2020-2045*

# Appendix D: Roadway Network

For the Buckeye Hills Regional Transportation Planning Organization's (RTPO) 2020-2045 Long-Range Transportation Plan (LRTP), the following maps and tables disclose the key elements of the region's transportation network identified and referenced in the plan.

## ROAD NETWORK FUNCTIONAL CLASSIFICATIONS

At the federal level, all roads are classified with values 1-7, indicating their relative importance to the nation's transportation system. The classifications are described below:

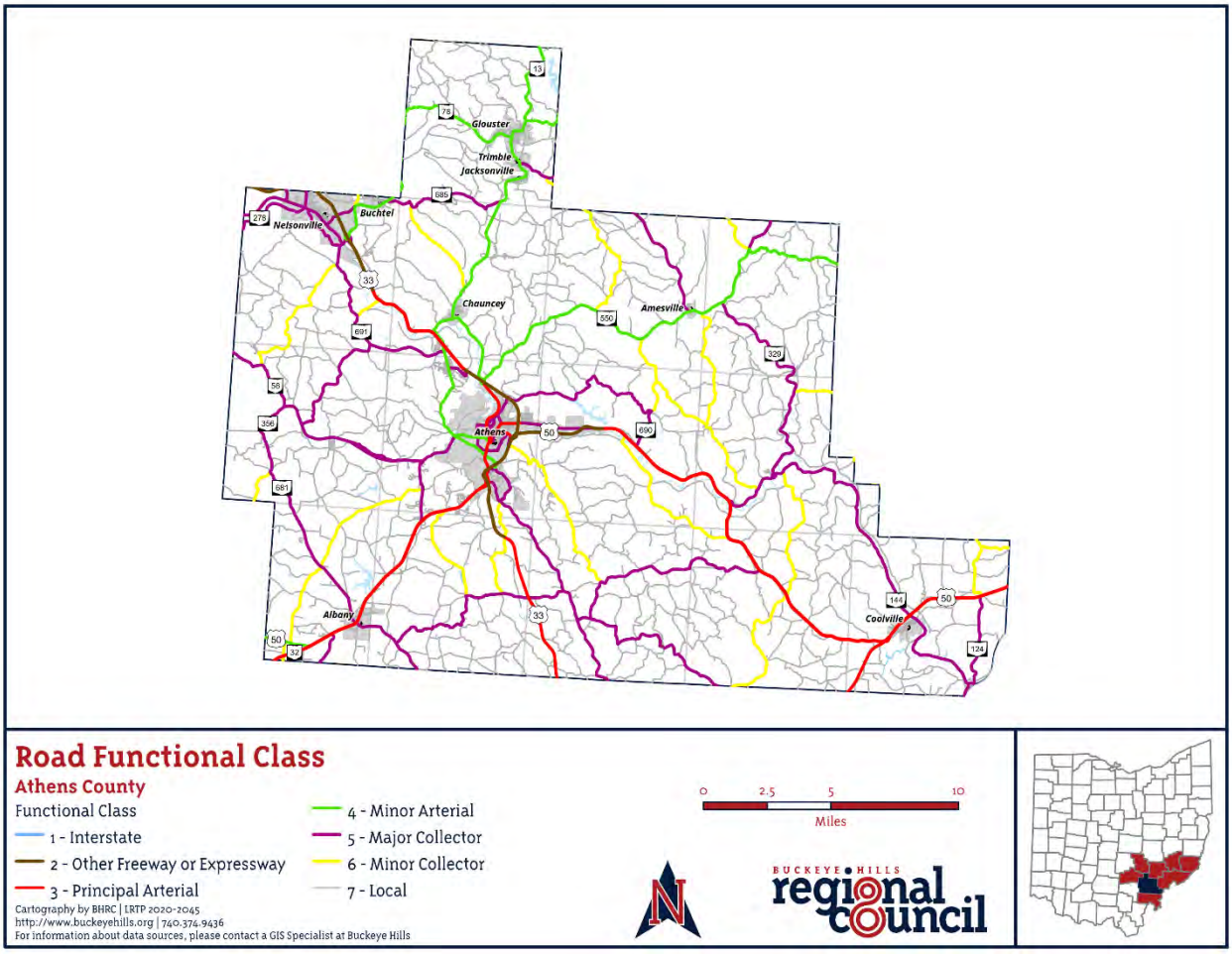
1- Interstate
2- Other Freeway or Expressway
3- Principal Arterial
4- Minor Arterial
5- Major Collector
6- Minor Collector
7- Local Road

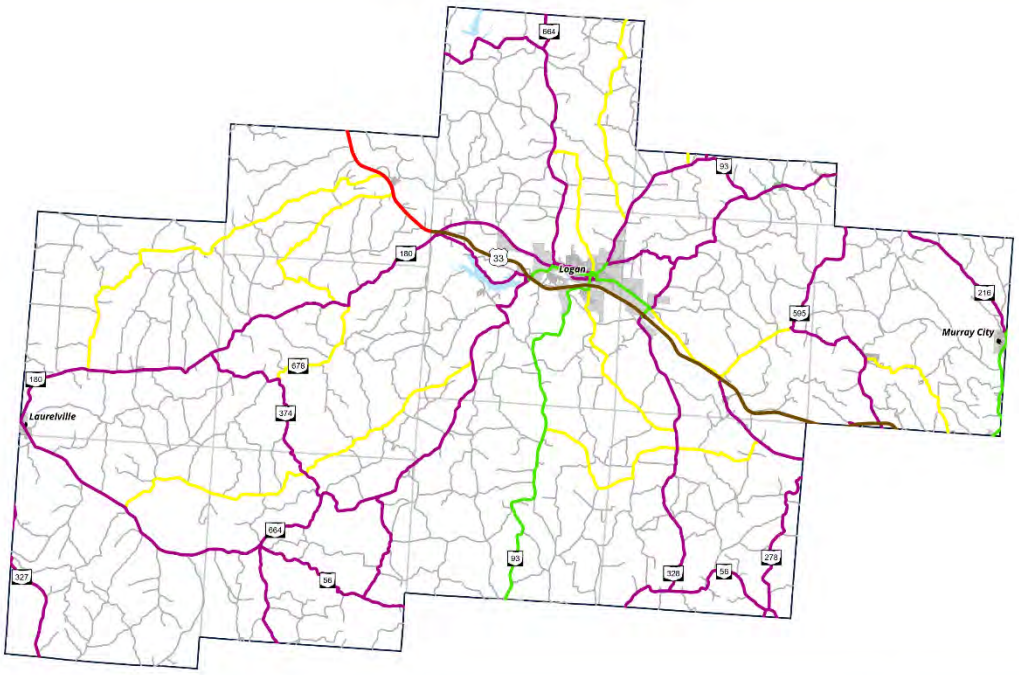
Roads defined as Major Collector or above are eligible for federal funding. Approximately 10% of road miles in the BHRC region are eligible for federal funding. Local and state funds must cover the maintenance of these roads. The table below shows the distribution of these road classifications among the BHRC counties.

| | Federal Aid Eligible (miles) | | | | | Federal Aid Ineligible (miles) | | |
|---|---|---|---|---|---|---|---|---|
| COUNTY | Interstate | Freeway & Expressway | Other Principal Arterial | Minor Arterial | Major Collector | Minor Collector | Local | Totals |
| Athens | 0 | 35 | 94 | 58 | 159 | 86 | 928 | 1,360 |
| Hocking | 0 | 31 | 9 | 22 | 146 | 77 | 675 | 960 |
| Meigs | 0 | 0 | 72 | 3 | 175 | 74 | 729 | 1,054 |
| Monroe | 0 | 0 | 31 | 58 | 118 | 71 | 862 | 1,142 |
| Morgan | 0 | 0 | 0 | 58 | 113 | 72 | 692 | 935 |
| Noble | 38 | 0 | 0 | 21 | 132 | 89 | 751 | 1,031 |
| Perry | 0 | 0 | 0 | 65 | 93 | 85 | 788 | 1,031 |
| Washington | 36 | 0 | 86 | 77 | 171 | 141 | 1,120 | 1,631 |
| **BHRC** | **74** | **66** | **292** | **361** | **1,107** | **696** | **6,546** | **9,143** |

**BHRC value is a sum of the constituent counties. Source: ODOT Transportation Mapping System (TIMS), 2020*

## Maps: Road Functional Class for county in the BHRC region






# Road Functional Class

## Hocking County

Functional Class

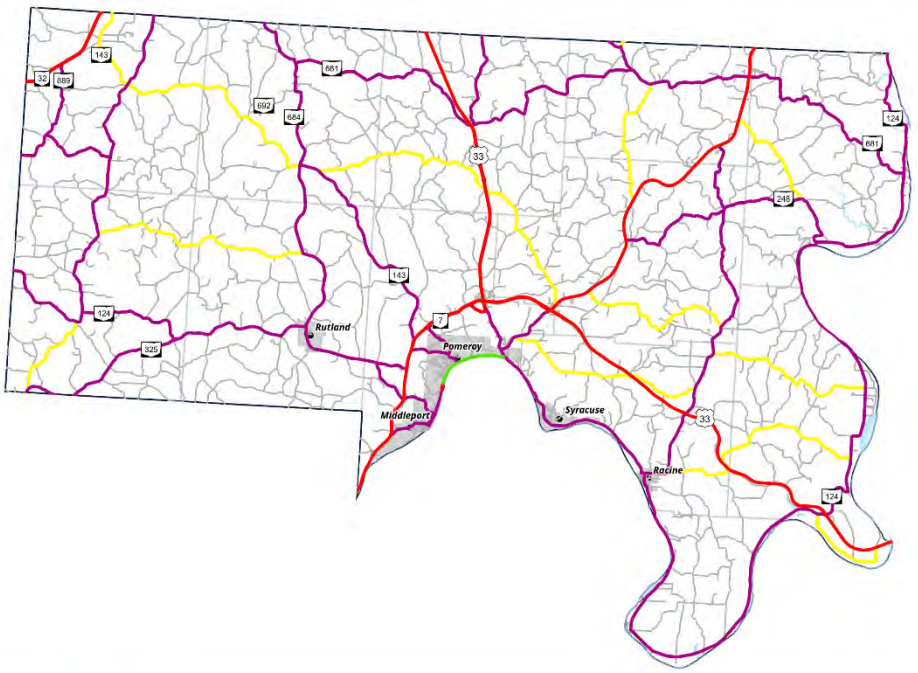
- 1 - Interstate
- 2 - Other Freeway or Expressway
- 3 - Principal Arterial
- 4 - Minor Arterial
- 5 - Major Collector
- 6 - Minor Collector
- 7 - Local

0 2.5 5 10

Miles

Cartography by BHRC | LRTP 2020-2045
http://www.buckeyehills.org | 740.374.9436
For information about data sources, please contact a GIS Specialist at Buckeye Hills

BUCKEYE HILLS regional council




# Road Functional Class

## Meigs County

Functional Class

- 1 - Interstate
- 2 - Other Freeway or Expressway
- 3 - Principal Arterial
- 4 - Minor Arterial
- 5 - Major Collector
- 6 - Minor Collector
- 7 - Local

0 2.5 5 10

Miles

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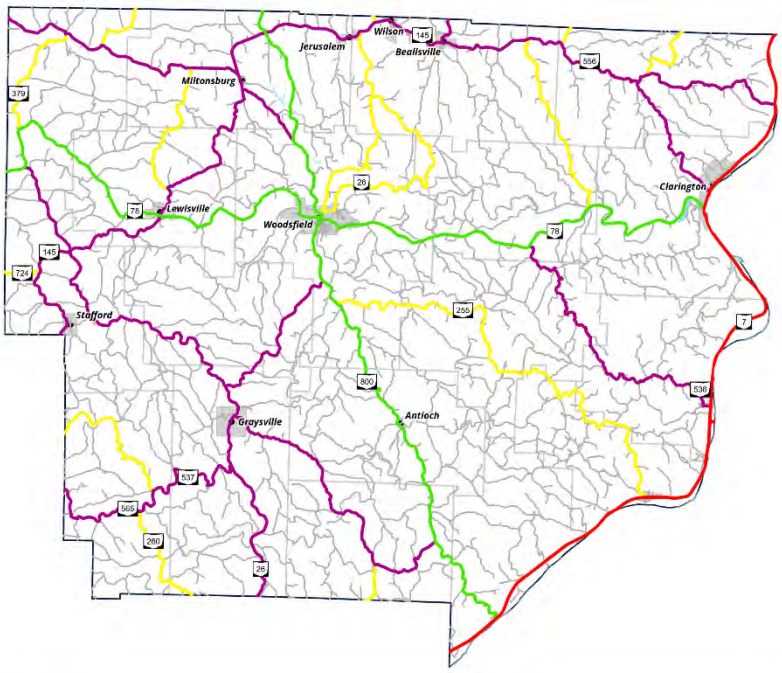
BUCKEYE HILLS regional council




# Road Functional Class

## Monroe County

Functional Class

- 1 - Interstate
- 2 - Other Freeway or Expressway
- 3 - Principal Arterial
- 4 - Minor Arterial
- 5 - Major Collector
- 6 - Minor Collector
- 7 - Local

0 2.5 5 10

Miles

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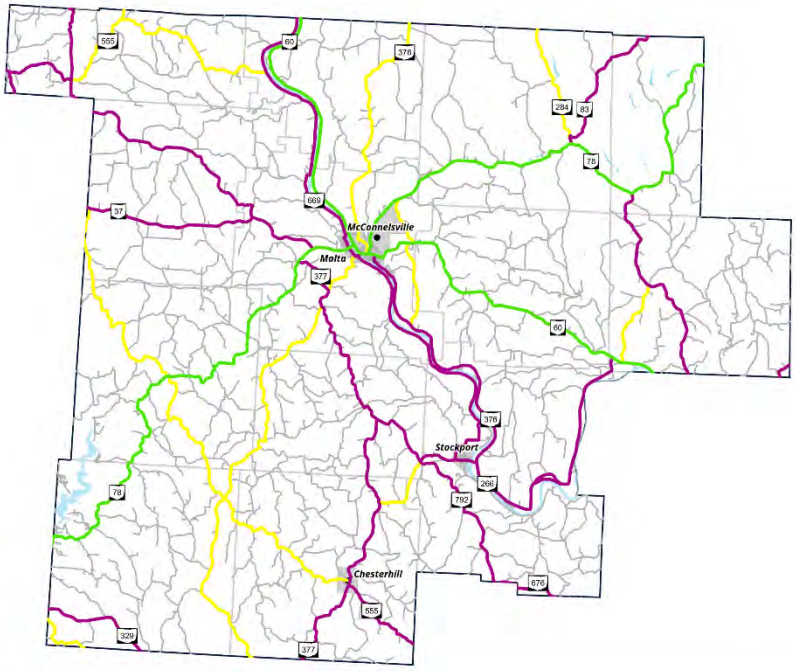


# Road Functional Class

## Morgan County

Functional Class

- 1 - Interstate
- 2 - Other Freeway or Expressway
- 3 - Principal Arterial
- 4 - Minor Arterial
- 5 - Major Collector
- 6 - Minor Collector
- 7 - Local

0 2.5 5 10

Miles

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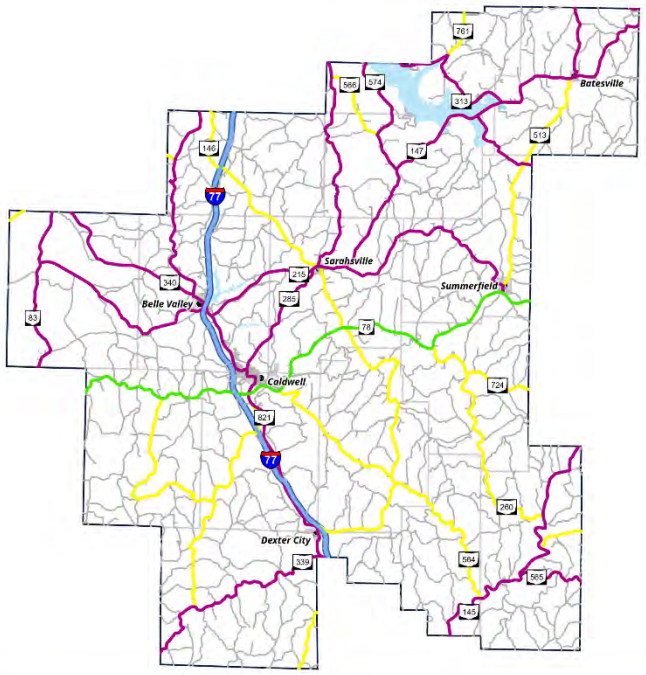


# Road Functional Class

## Noble County

Functional Class

- 1 - Interstate
- 2 - Other Freeway or Expressway
- 3 - Principal Arterial
- 4 - Minor Arterial
- 5 - Major Collector
- 6 - Minor Collector
- 7 - Local

0 2.5 5 10

Miles

Cartography by BHRC | LRTP 2020-2045
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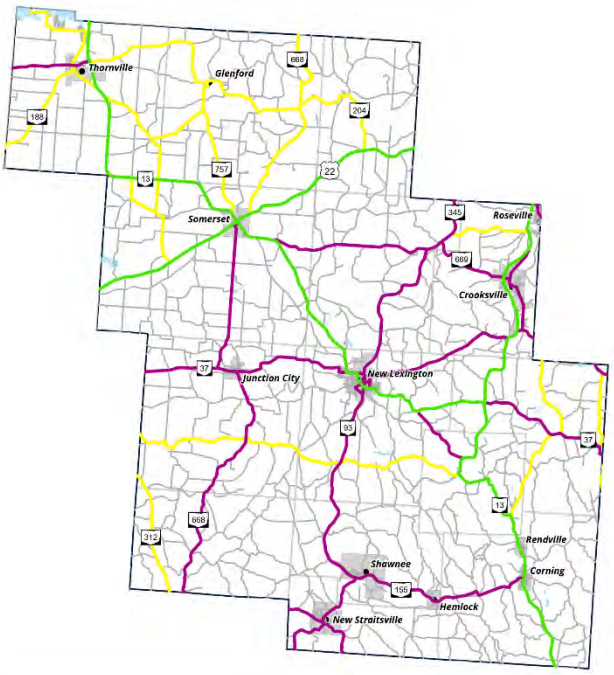
BUCKEYE HILLS regional council




# Road Functional Class

## Perry County

Functional Class

- 1 - Interstate
- 2 - Other Freeway or Expressway
- 3 - Principal Arterial
- 4 - Minor Arterial
- 5 - Major Collector
- 6 - Minor Collector
- 7 - Local

0 2.5 5 10

Miles

Cartography by BHRC | LRTP 2020-2045
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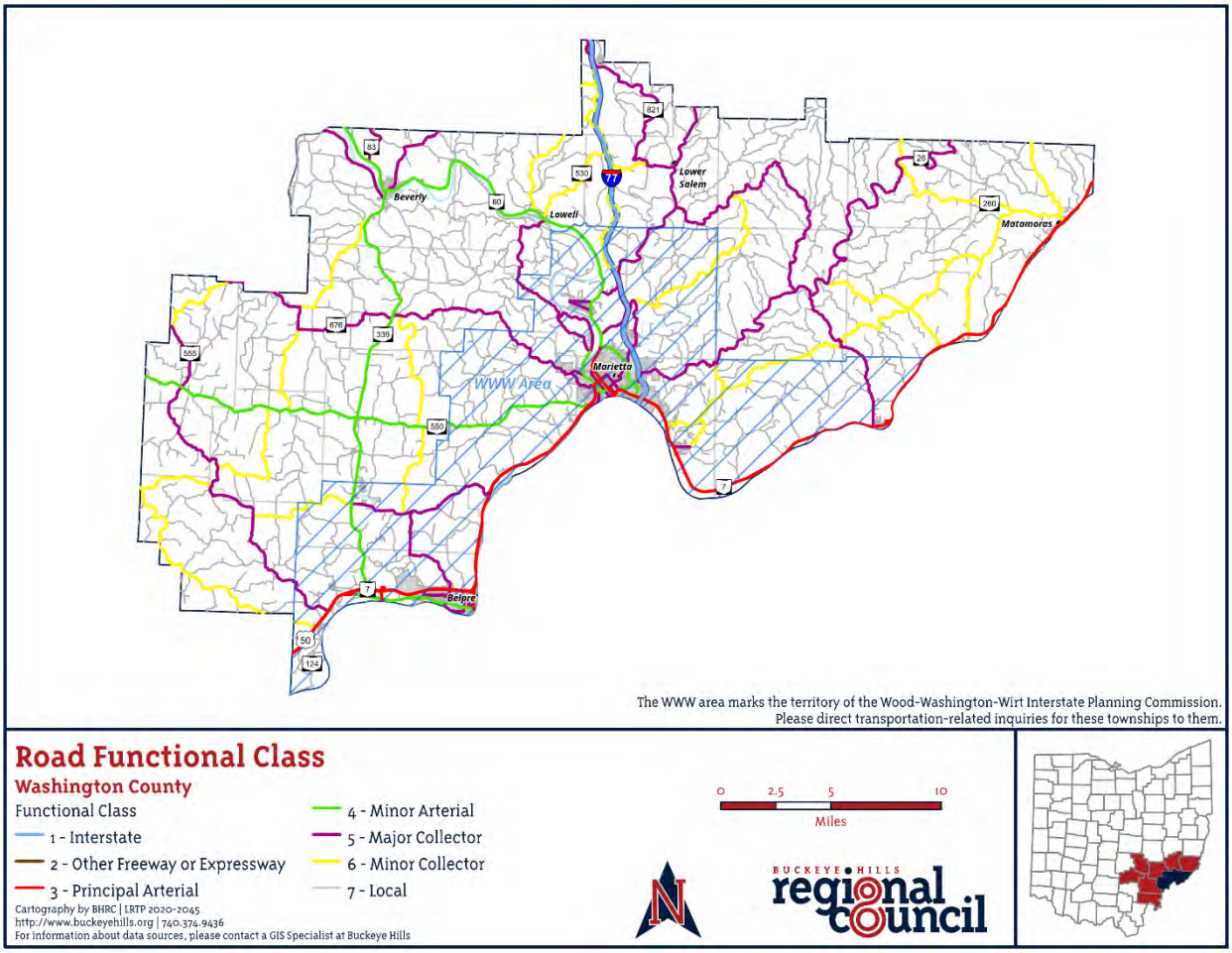
BUCKEYE HILLS regional council

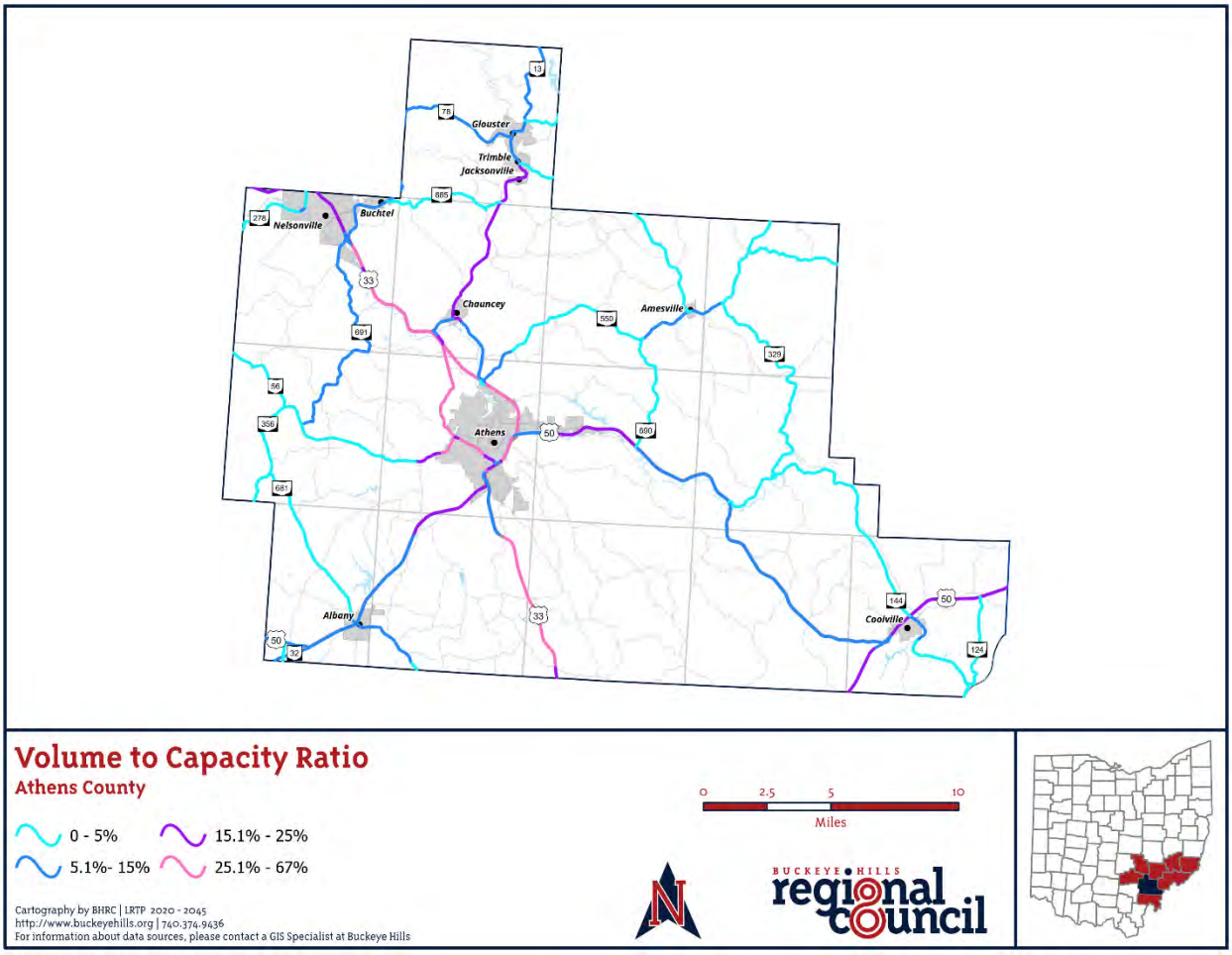


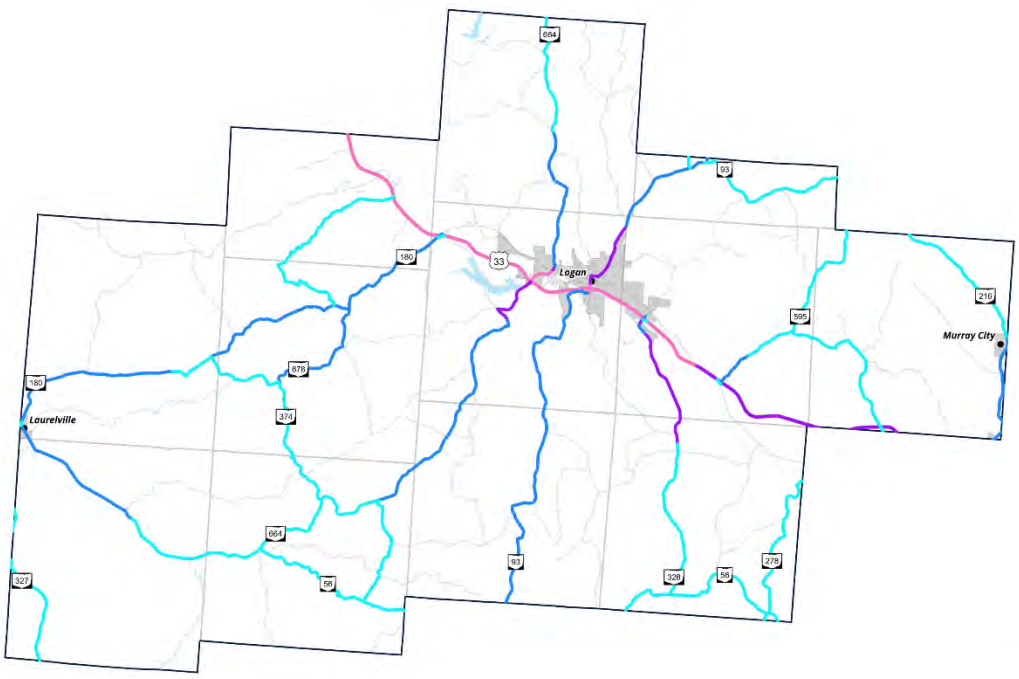

## VOLUME-TO-CAPACITY RATIO (V/C)

After exploring several ways to determine future needs for roads in the BHRC region, it was determined that Volume-to-Capacity Ratio (V/C) at peak hours would give the best snapshot of the health of the system. This value determines what percent of the carrying capacity of the road is being used at peak hours. This gives some indication about how much room there is to grow before intervention is required. Not all roads have sufficient data for this to be determined, so the maps below cover only the federal-aid system.

No road analyzed in the region had a V/C over 67%, meaning that at peak times, generally, no road in the BHRC region uses more than approximately two-thirds of its capacity. The vast majority of roads were under 25% of their capacity.

*Maps: Volume-To-Capacity Ratio for each county the BHRC region*






# Volume to Capacity Ratio

## Hocking County

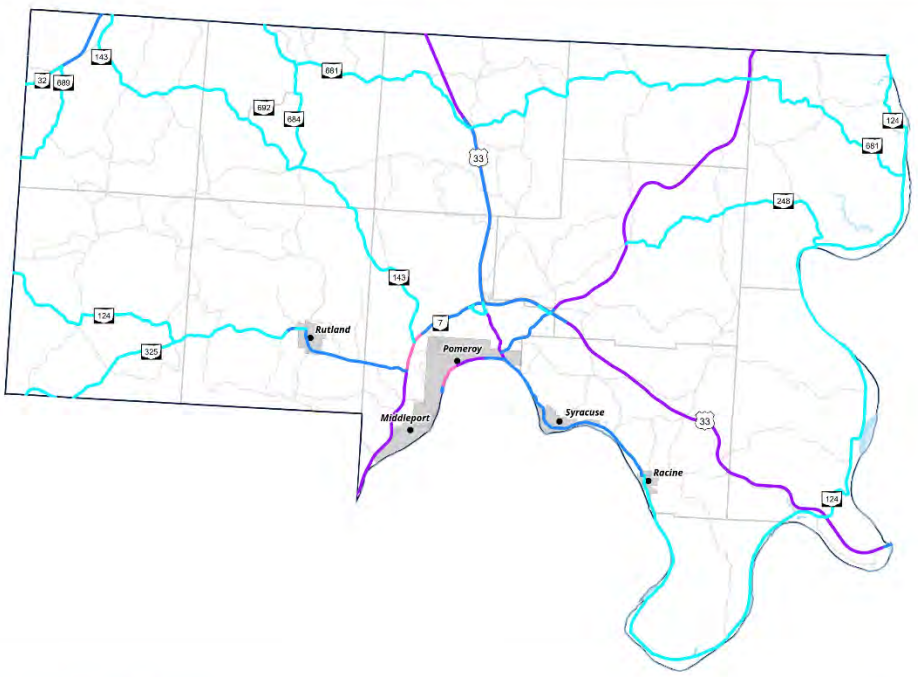
- 0 - 5%
- 5.1%- 15%
- 15.1% - 25%
- 25.1% - 67%

0 2.5 5 10

Miles

Cartography by BHRC | LRTP 2020 - 2045
http://www.buckeyehills.org | 740.374.9436
For information about data sources, please contact a GIS Specialist at Buckeye Hills

BUCKEYE HILLS regional council




# Volume to Capacity Ratio

## Meigs County

- 0 - 5%
- 5.1%- 15%
- 15.1% - 25%
- 25.1% - 67%

0 2.5 5 10

Miles

Cartography by BHRC | LRTP 2020 - 2045
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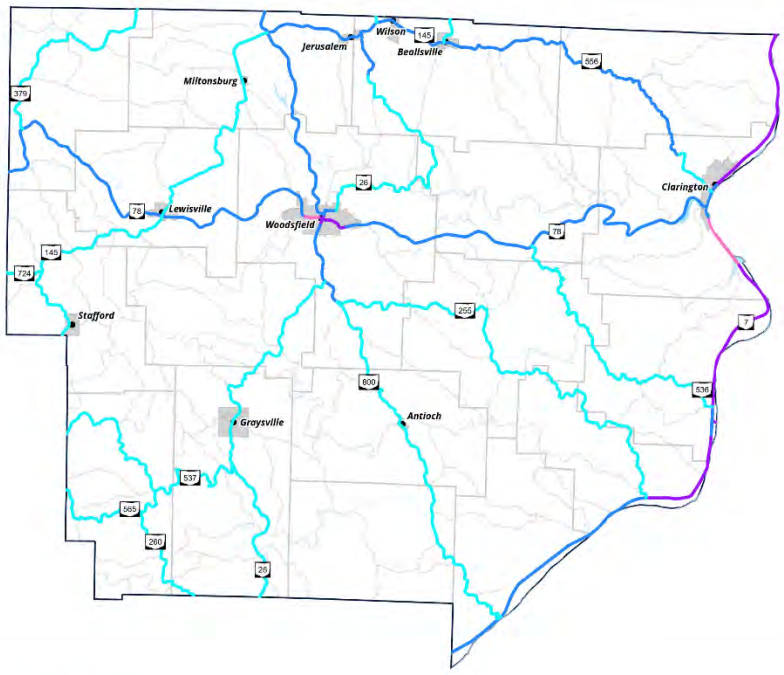


# Volume to Capacity Ratio

## Monroe County

- 0 - 5%
- 5.1%- 15%
- 15.1% - 25%
- 25.1% - 67%

0 2.5 5 10

Miles

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Cartography by BHRC | LRTP 2020 - 2045
http://www.buckeyehills.org | 740.374.9436
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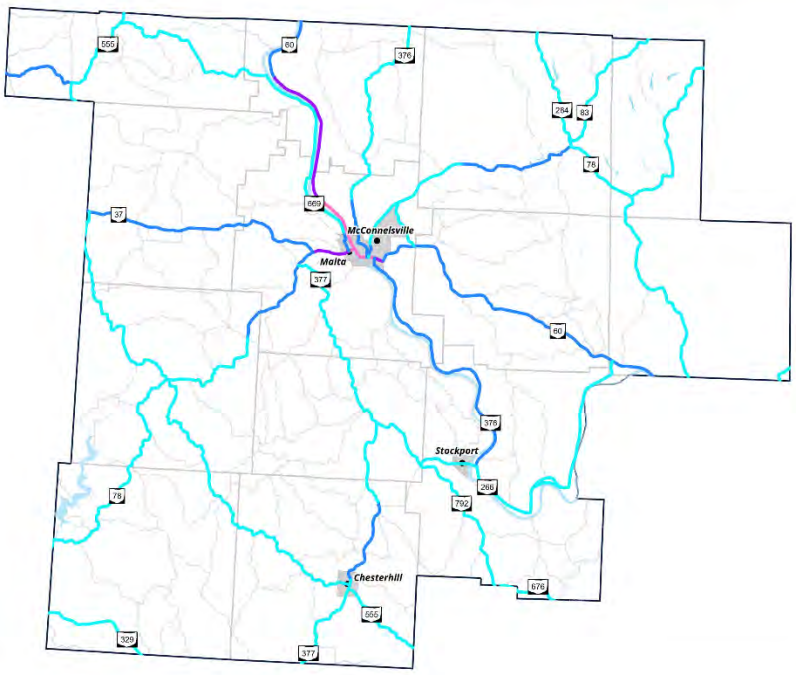


# Volume to Capacity Ratio

## Morgan County

0 - 5%

5.1%- 15%

15.1% - 25%

25.1% - 67%

0 2.5 5 10

Miles

BUCKEYE HILLS regional council

Cartography by BHRC | LRTP 2020 - 2045
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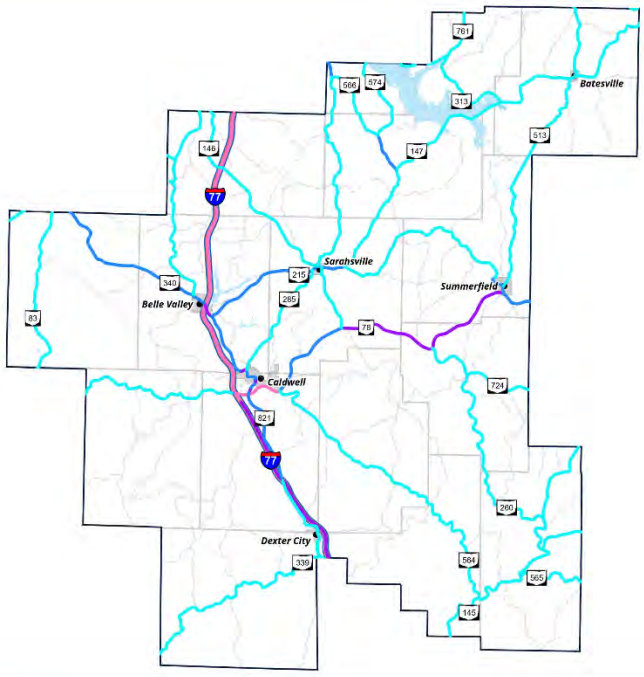
For information about data sources, please contact a GIS Specialist at Buckeye Hills




# Volume to Capacity Ratio

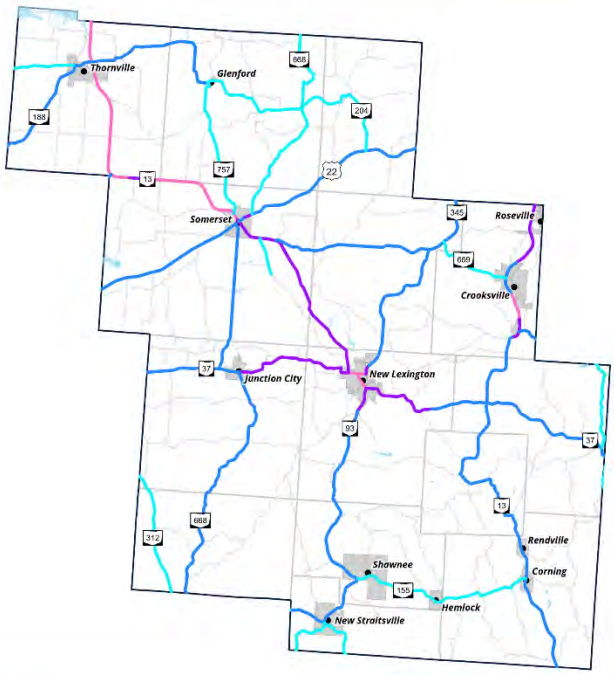
## Noble County

0 - 5%
5.1%- 15%
15.1% - 25%
25.1% - 67%

0 2.5 5 10
Miles

Cartography by BHRC | LRTP 2020 - 2045
http://www.buckeyehills.org | 740.374.9436
For information about data sources, please contact a GIS Specialist at Buckeye Hills

BUCKEYE HILLS regional council




# Volume to Capacity Ratio

## Perry County

0 - 5%

5.1%- 15%

15.1% - 25%

25.1% - 67%

0 2.5 5 10

Miles

BUCKEYE HILLS regional council

Cartography by BHRC | LRTP 2020 - 2045
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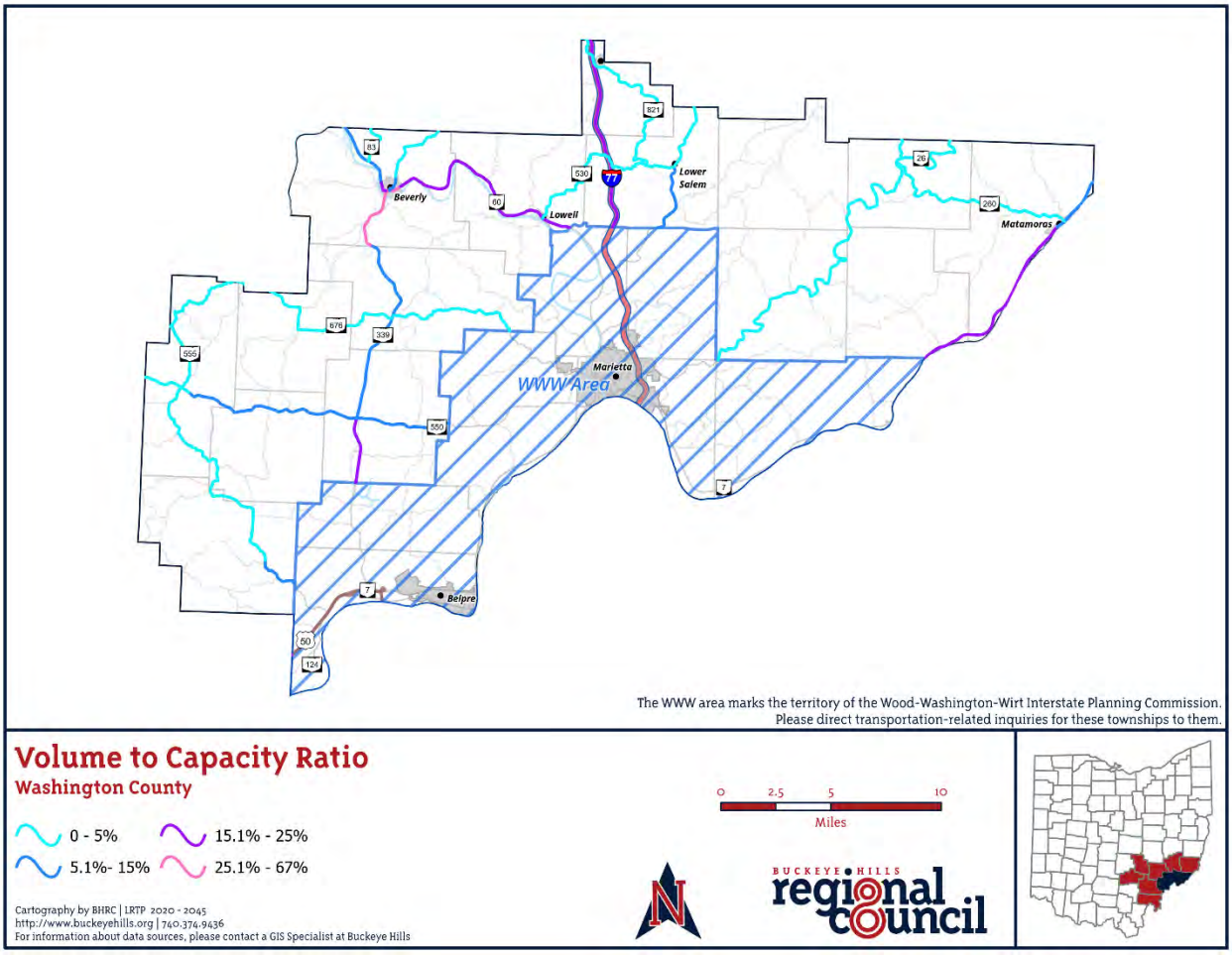
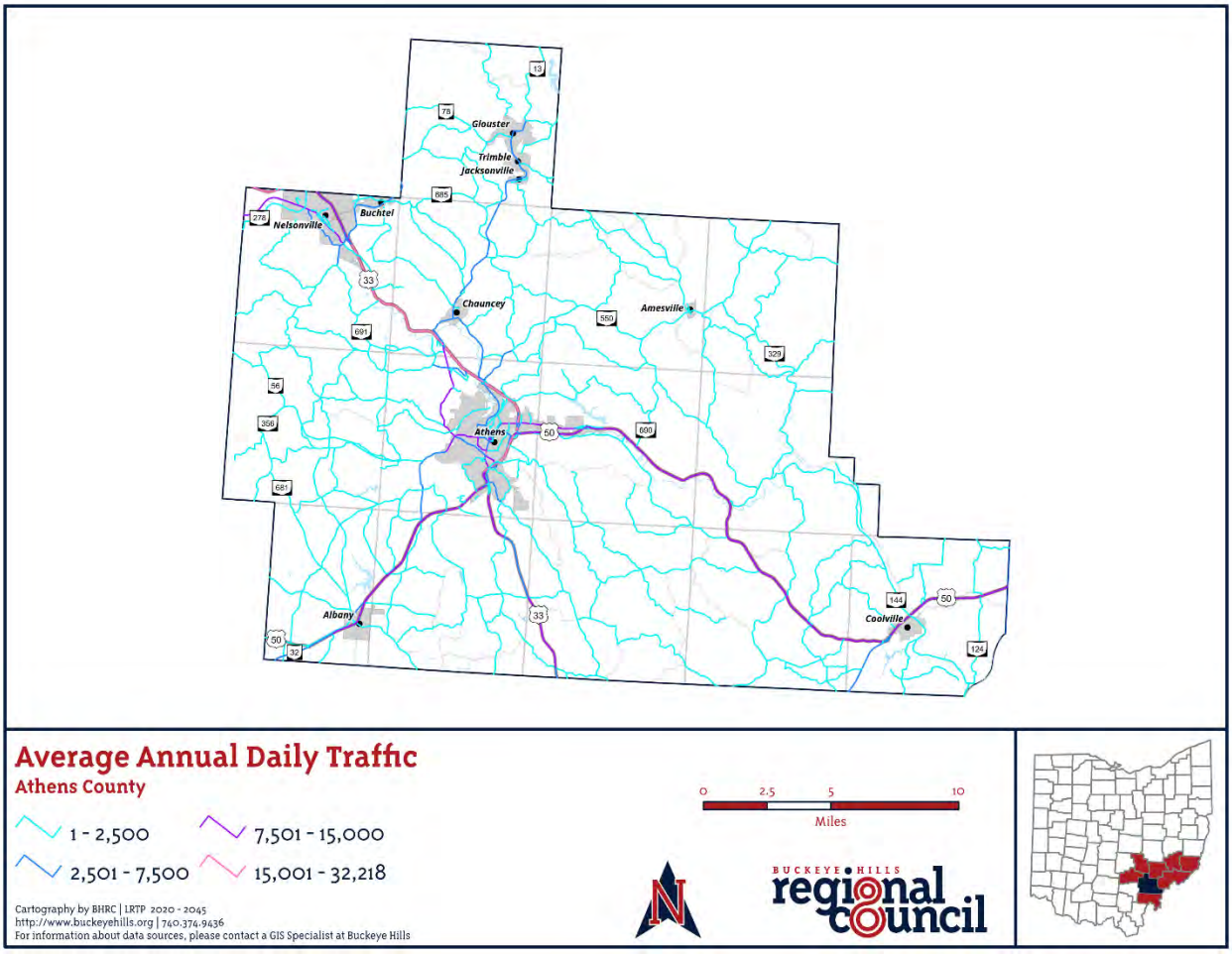
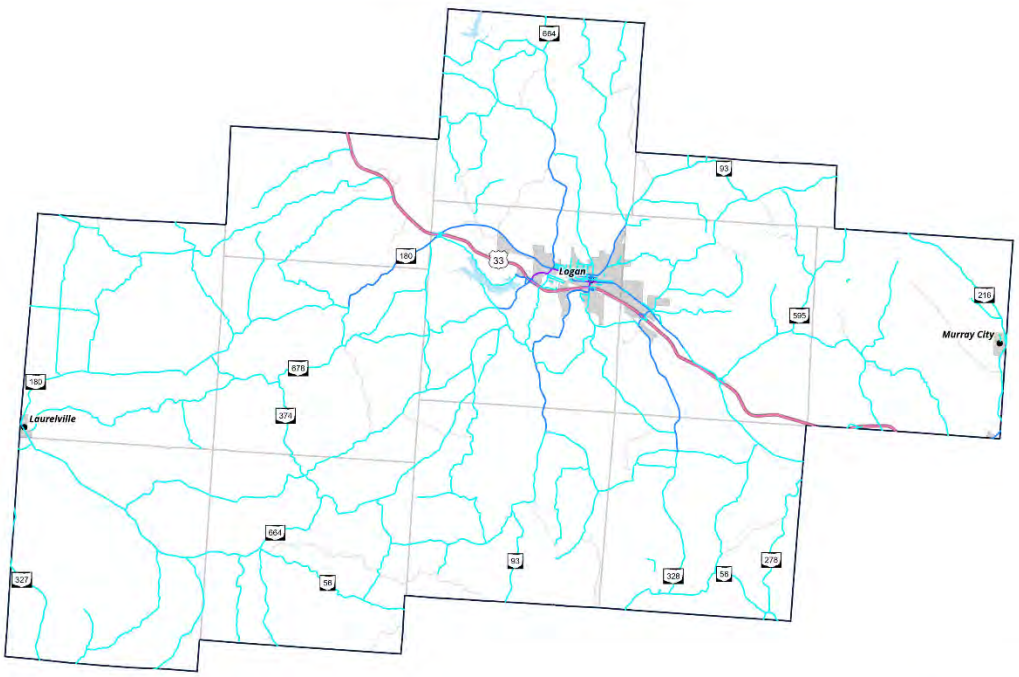



## AVERAGE ANNUAL DAILY TRAFFIC

Traffic counts for roads are traditionally reported as a "average annual daily traffic," (AADT) a normalized value attempting to show the traffic volumes on a standard day, accepting that seasonal patterns, weekends, holidays, etc. will impact that actual number of cars on a road in a given day. In the BHRC region, very few roads have more than 2,500 a day on average, and most of those that do are major highways, or Interstate 77. While most of these vehicles will be taking these roads at the peak hours, typically in the morning and evening, it can sometimes be helpful to think of these numbers as vehicles per hour or minute in a typical day. For example, 2,500 vehicles a day is approximately 104 vehicles an hour, or just over 1 car a minute. Given that most vehicles will be passing in a few hours of the day, large portions of an average day will likely have several minutes between vehicles on roads with counts this low.

## Maps: Average Annual Daily Traffic for Selected Roads in each county in the BHRC Region






# Average Annual Daily Traffic

## Hocking County

1 - 2,500

2,501 - 7,500

7,501 - 15,000

15,001 - 32,218

0 2.5 5 10

Miles

Cartography by BHRC | LRTP 2020 - 2045
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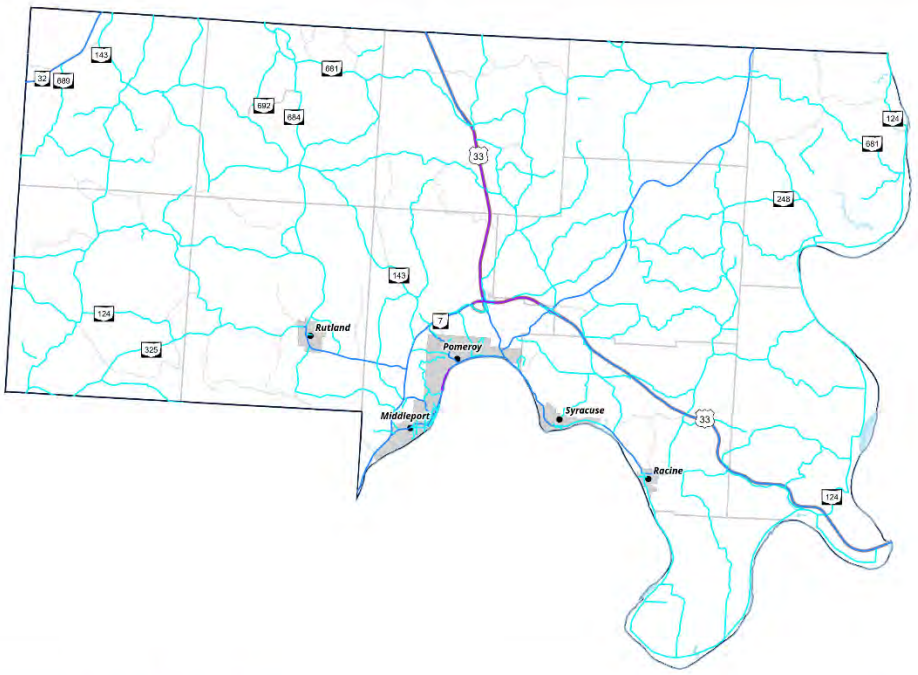
For information about data sources, please contact a GIS Specialist at Buckeye Hills

BUCKEYE HILLS regional council




# Average Annual Daily Traffic

## Meigs County

1 - 2,500

2,501 - 7,500

7,501 - 15,000

15,001 - 32,218

0 2.5 5 10

Miles

Cartography by BHRC | LRTP 2020 - 2045
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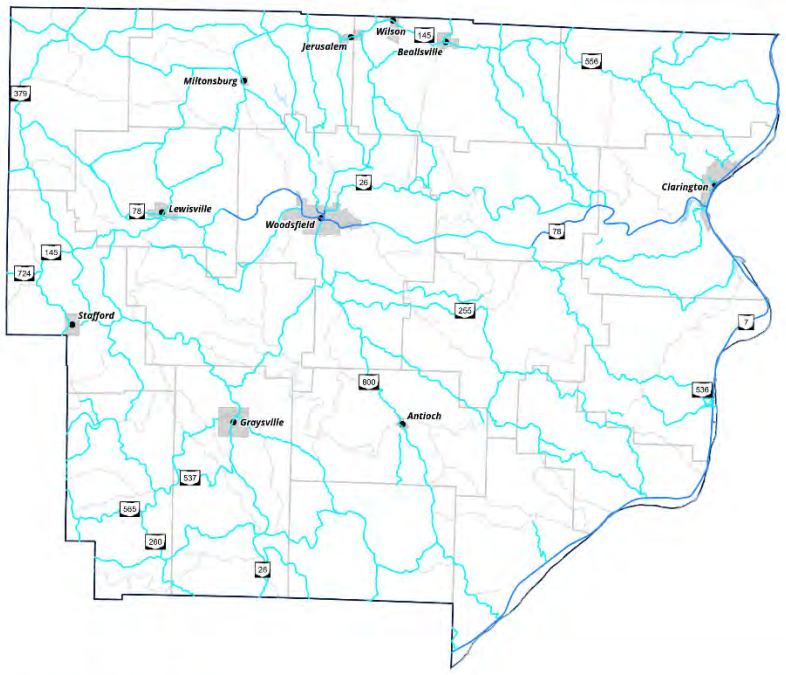
For information about data sources, please contact a GIS Specialist at Buckeye Hills

BUCKEYE HILLS regional council




# Average Annual Daily Traffic

## Monroe County

- 1 - 2,500
- 2,501 - 7,500
- 7,501 - 15,000
- 15,001 - 32,218

0 2.5 5 10

Miles

Cartography by BHRC | LRTP 2020 - 2045
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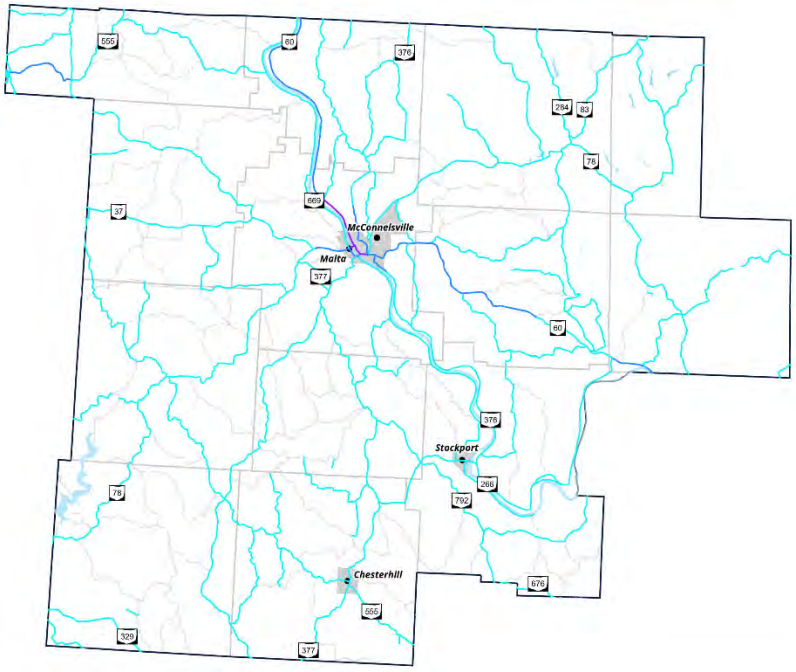
For information about data sources, please contact a GIS Specialist at Buckeye Hills

BUCKEYE HILLS regional council




# Average Annual Daily Traffic

## Morgan County

1 - 2,500

2,501 - 7,500

7,501 - 15,000

15,001 - 32,218

0 2.5 5 10

Miles

Cartography by BHRC | LRTP 2020 - 2045
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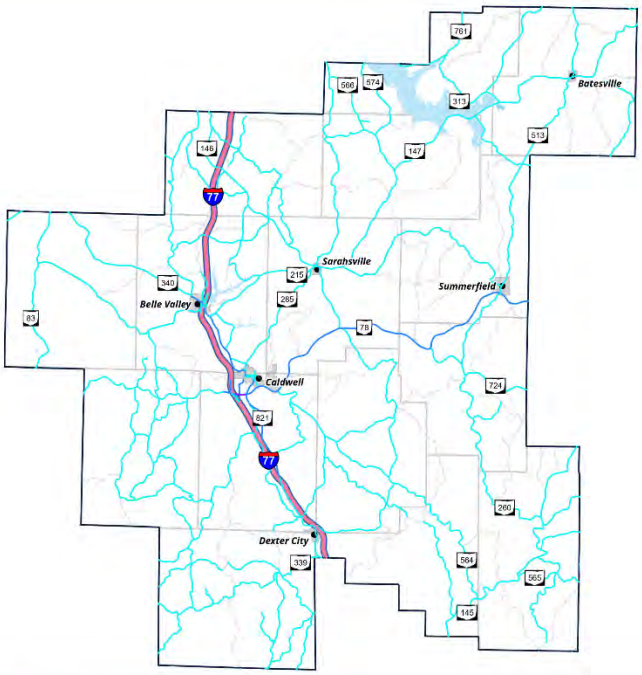
BUCKEYE HILLS regional council




# Average Annual Daily Traffic

## Noble County

1 - 2,500

2,501 - 7,500

7,501 - 15,000

15,001 - 32,218

0 2.5 5 10

Miles

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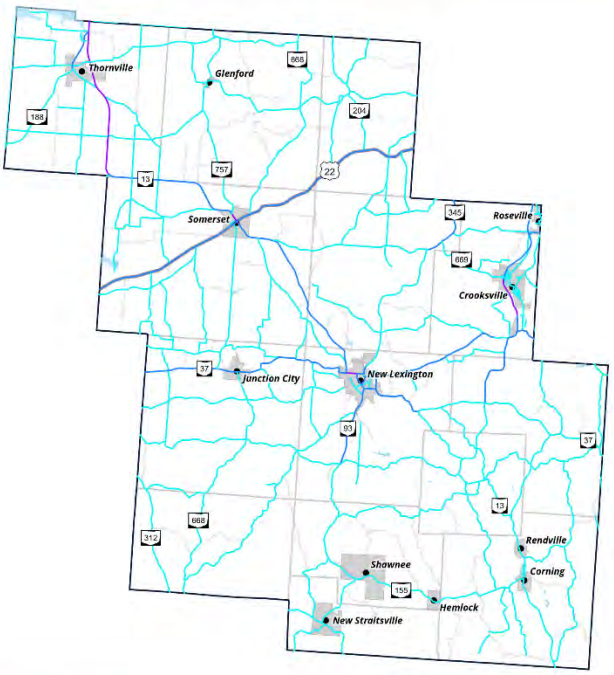
BUCKEYE HILLS regional council




# Average Annual Daily Traffic

## Perry County

- 1 - 2,500
- 2,501 - 7,500
- 7,501 - 15,000
- 15,001 - 32,218

0 2.5 5 10

Miles

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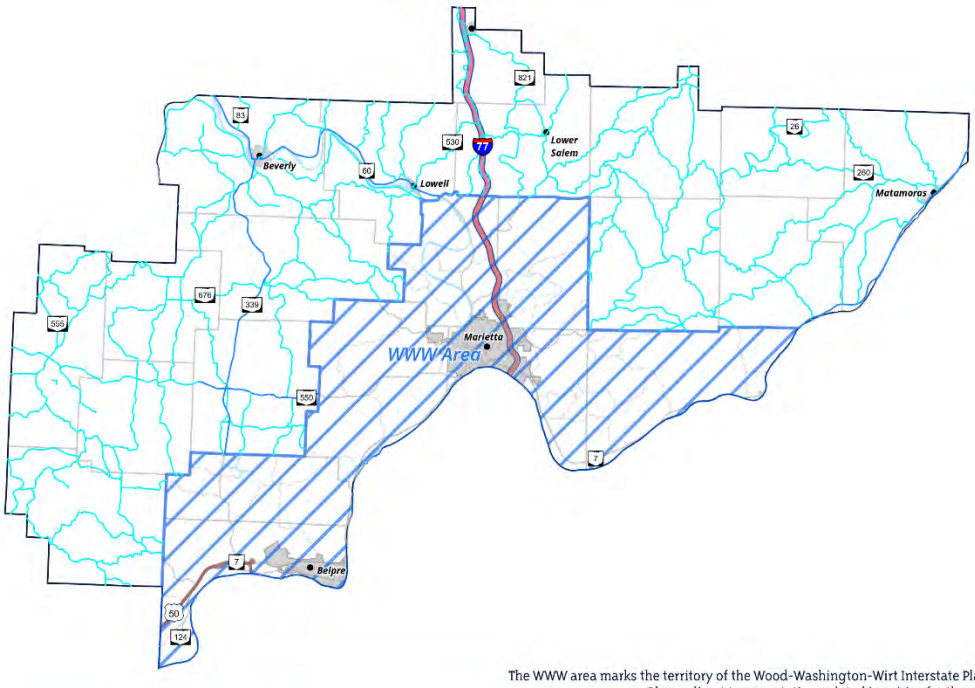
BUCKEYE HILLS regional council




The WWW area marks the territory of the Wood-Washington-Wirt Interstate Planning Commission.
Please direct transportation-related inquiries for these townships to them.

# Average Annual Daily Traffic

## Washington County

1 - 2,500

2,501 - 7,500

7,501 - 15,000

15,001 - 32,218

0 2.5 5 10

Miles

Cartography by BHRC | LRTP 2020 - 2045
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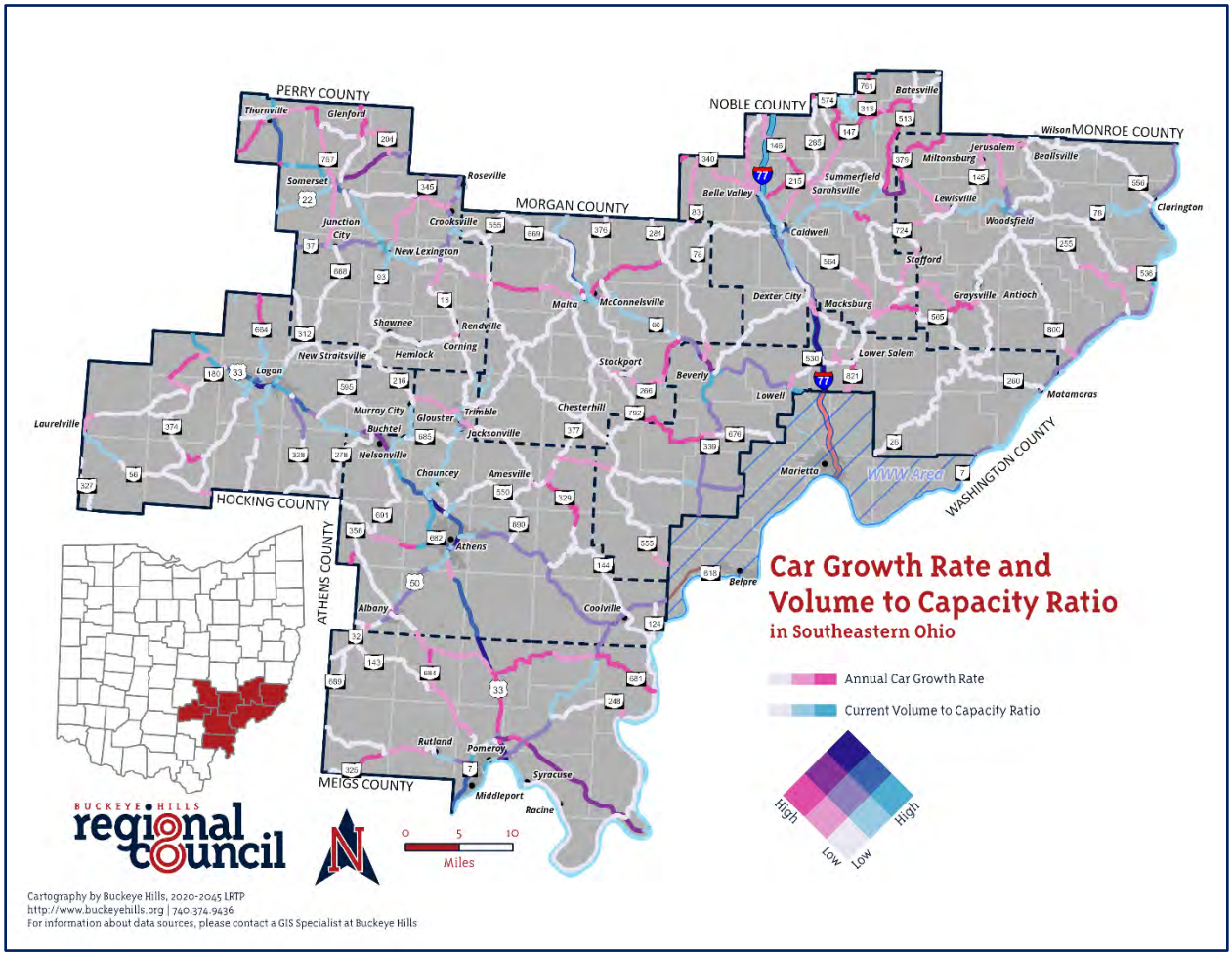
BUCKEYE HILLS regional council

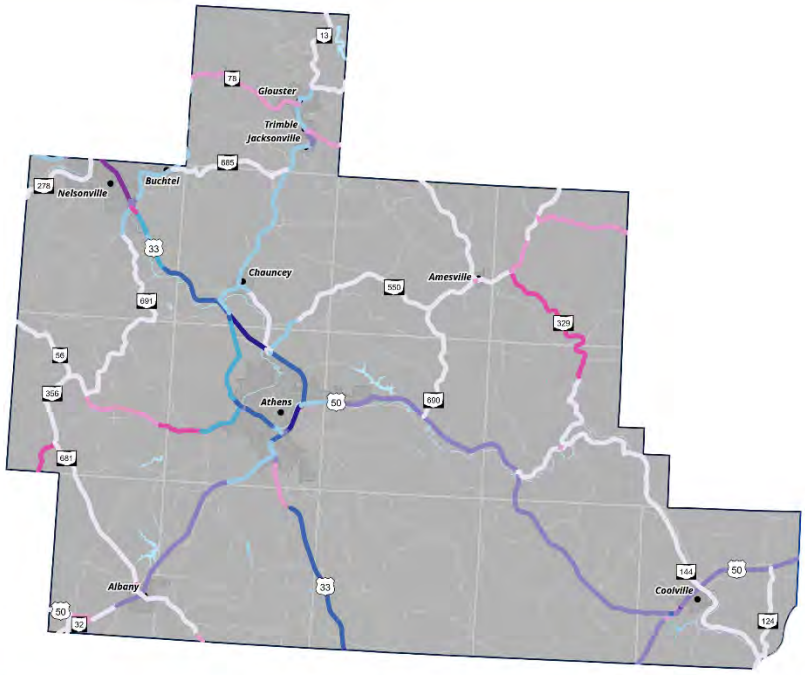
## CAR AND TRUCK GROWTH RATE

Given that traffic volumes in the BHRC region, in general, are fairly low, it was decided that the V/C ration should be compared to the expected growth rate of the roads. If both values are high, meaning a road with less capacity to spare was experiencing growth, this road may be a candidate for remediation. For car traffic, the cutoffs for growth rate were 61% and 186%, with a maximum value of 3 percent. There are some roads that were expected to almost double their usage or more. The V/C cutoffs were 9% and 23% with a maximum value of 67%. This means that of the roads that are expected to double or more in traffic, most of them are using less than 25% of their total capacity, so they should have the room to grow.

For trucks, instead of the Volume-to-Capacity ratio, the percentage of total traffic that trucks make up was used. Truck growth cutoffs were 93% and 270% with a maximum value of 400%. This is a significant increase in truck traffic, but it makes sense, given the oil and gas activity in the region. While, drilling has slowed, trucks are still required to move product. The vast majority of roads have so little truck traffic that it doesn't register in the data. Some roads are heavily used by trucks, but those roads, generally, have very little other traffic.

## Maps: Car Growth Rate and Volume to Capacity Ratios for Selected Roads in each county in the BHRC Region, as well as the region as a whole






# Car Growth Rate and Volume to Capacity Ratio

## Athens County

Annual Car Growth Rate

Current Volume to Capacity Ratio



BUCKEYE HILLS regional council

Cartography by BHRC | LRTP 2020 - 2045
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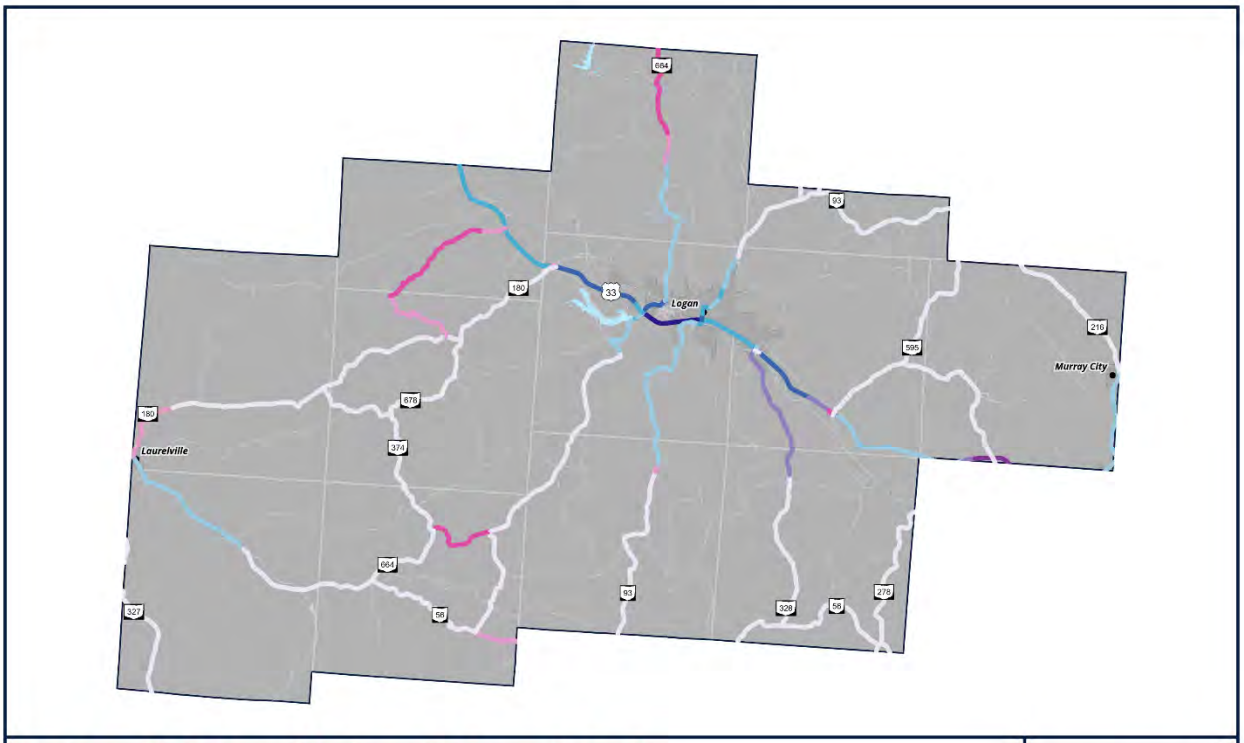


# Car Growth Rate and Volume to Capacity Ratio

## Hocking County

Annual Car Growth Rate

Current Volume to Capacity Ratio


0 2.5 5 10

Miles

BUCKEYE HILLS regional council

Cartography by BHRC | LRTP 2020 - 2045
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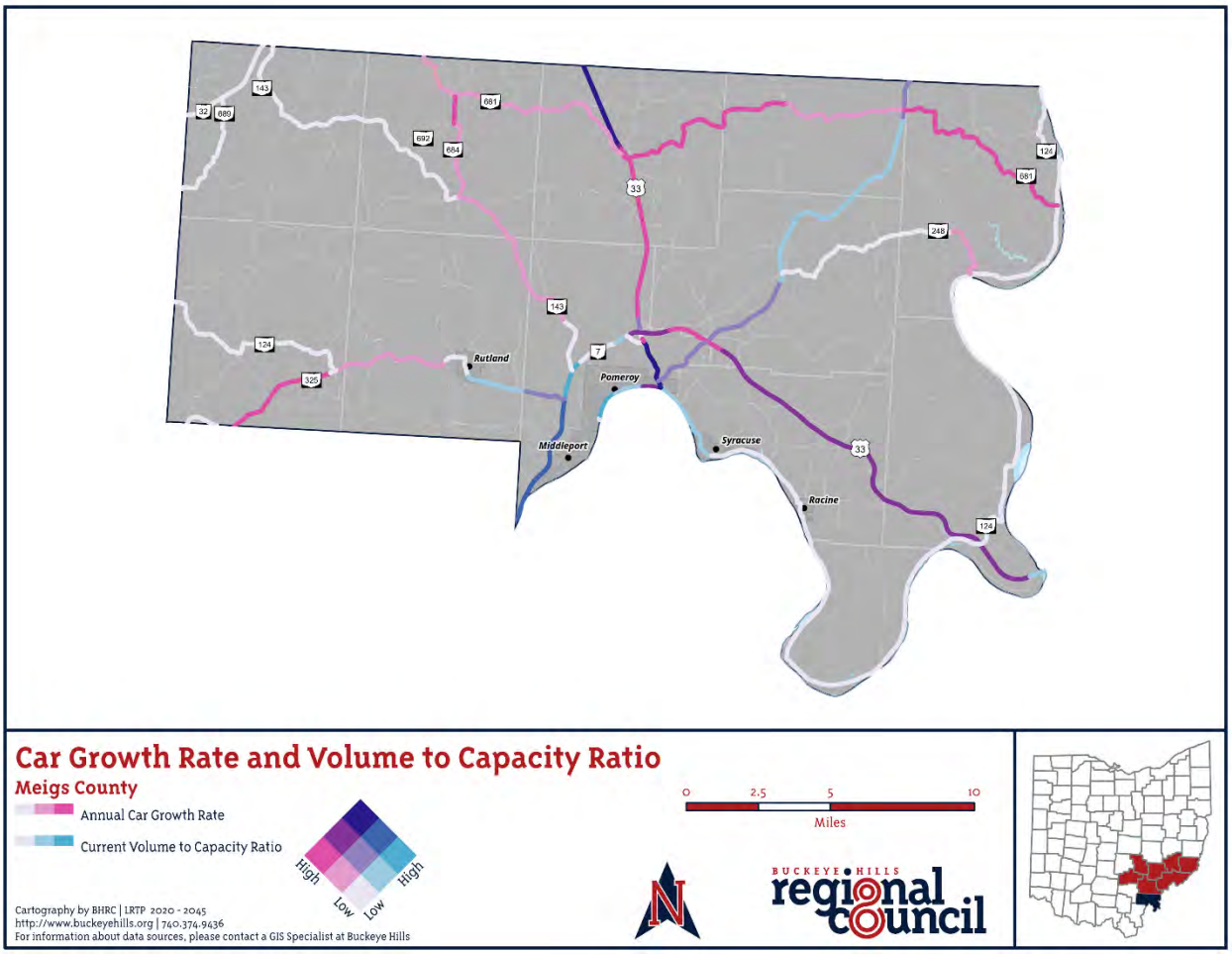


# Car Growth Rate and Volume to Capacity Ratio

## Meigs County

Annual Car Growth Rate

Current Volume to Capacity Ratio

High
High
Low
Low

0 2.5 5 10

Miles

BUCKEYE HILLS regional council



Cartography by BHRC | LRTP 2020 - 2045
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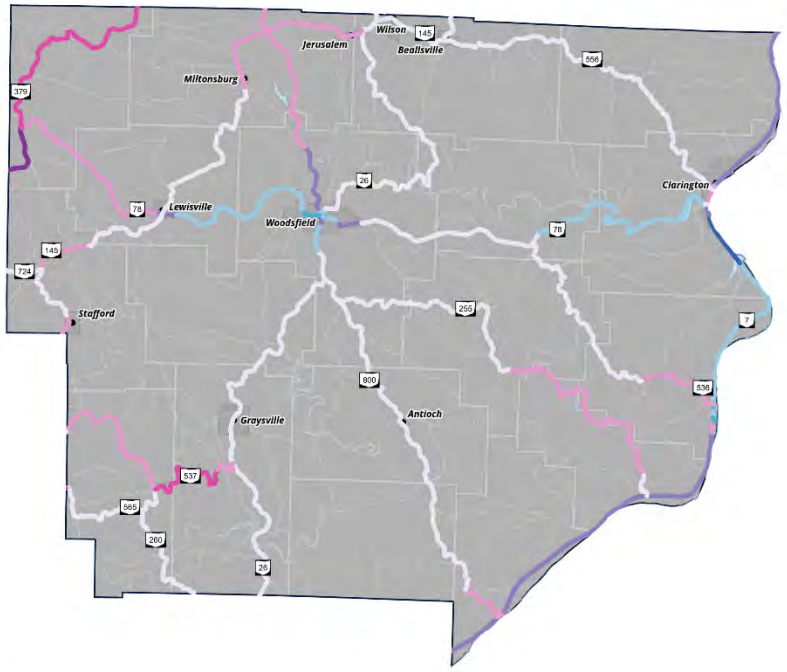


# Car Growth Rate and Volume to Capacity Ratio

## Monroe County

Annual Car Growth Rate

Current Volume to Capacity Ratio


0 2.5 5 10

Miles

BUCKEYE HILLS regional council

Cartography by BHRC | LRTP 2020 - 2045
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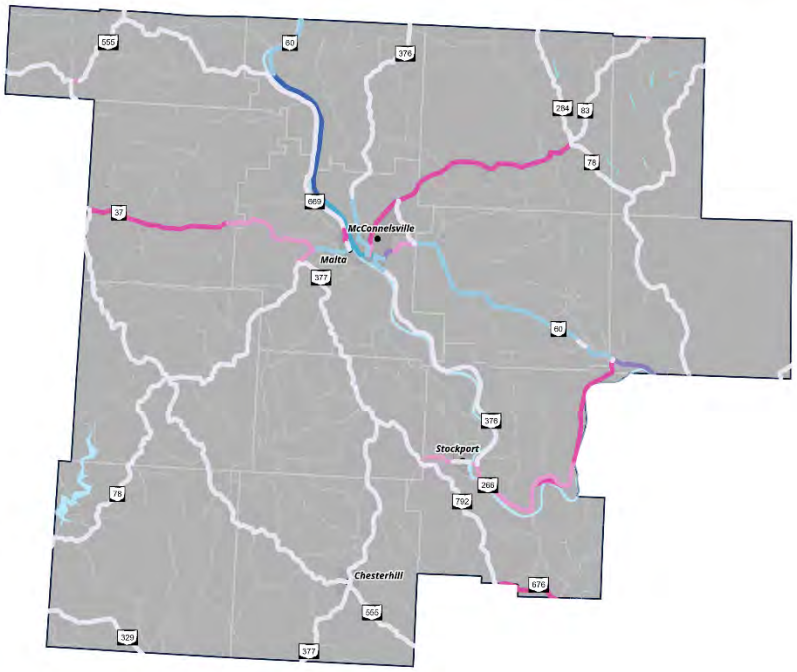


# Car Growth Rate and Volume to Capacity Ratio

## Morgan County

Annual Car Growth Rate

Current Volume to Capacity Ratio


0 2.5 5 10

Miles

Cartography by BHRC | LRTP 2020 - 2045
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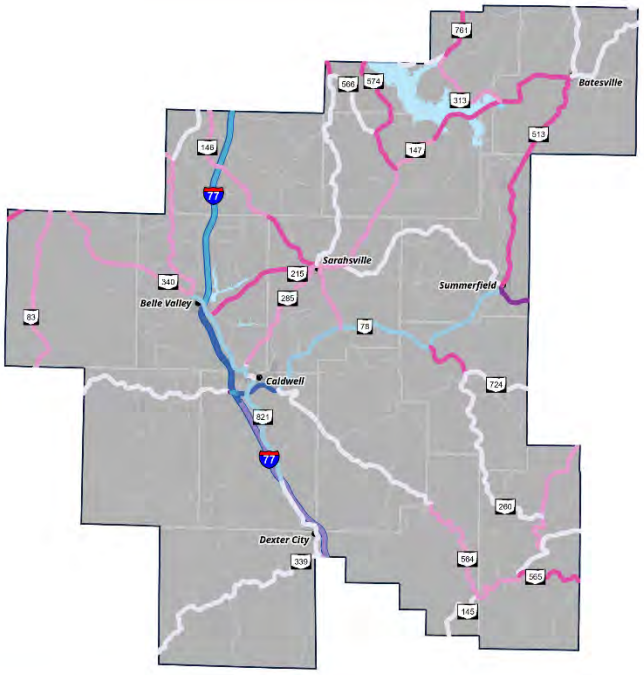
BUCKEYE HILLS regional council




# Car Growth Rate and Volume to Capacity Ratio

## Noble County

Annual Car Growth Rate

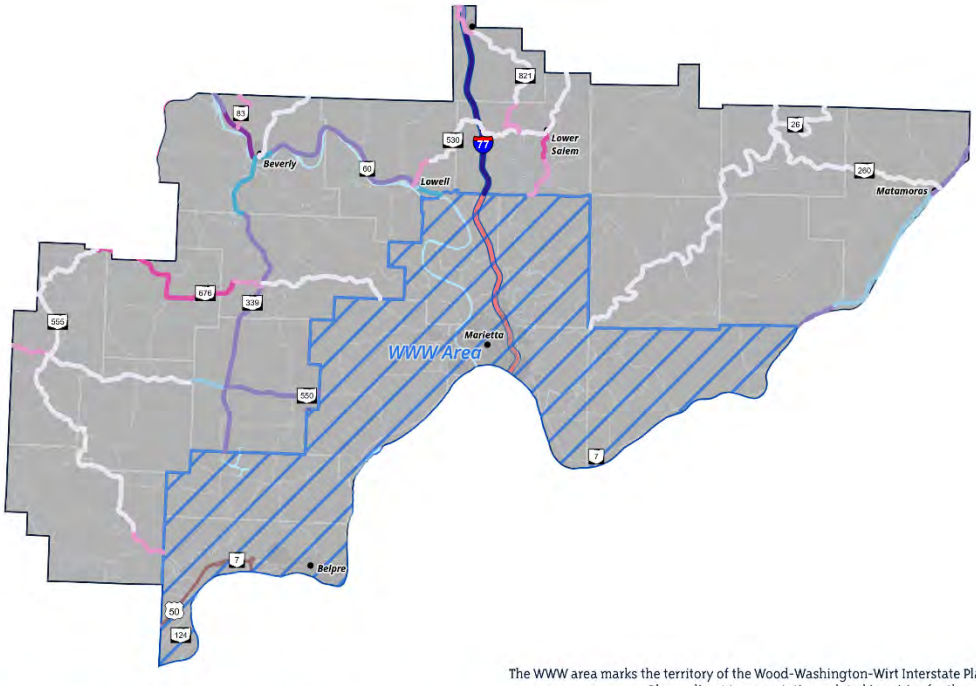
Current Volume to Capacity Ratio


0 2.5 5 10

Miles

Cartography by BHRC | LRTP 2020 - 2045
http://www.buckeyehills.org | 740.374.9436
For information about data sources, please contact a GIS Specialist at Buckeye Hills

BUCKEYE HILLS regional council




The WWW area marks the territory of the Wood-Washington-Wirt Interstate Planning Commission.
Please direct transportation-related inquiries for these townships to them.

# Car Growth Rate and Volume to Capacity Ratio

## Washington County

Annual Car Growth Rate

Current Volume to Capacity Ratio


0 2.5 5 10

Miles

BUCKEYE HILLS regional council

Cartography by BHRC | LRTP 2020 - 2045
http://www.buckeyehills.org | 740.374.9436
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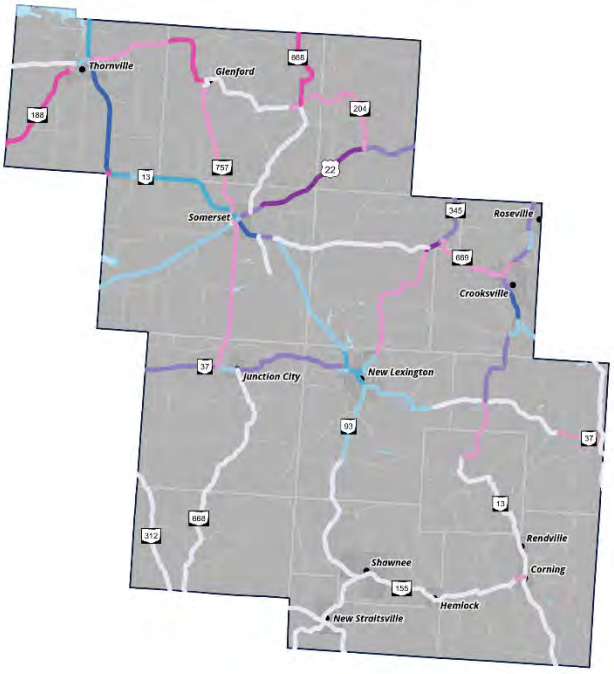


# Car Growth Rate and Volume to Capacity Ratio

## Perry County

Annual Car Growth Rate

Current Volume to Capacity Ratio


0 2.5 5 10

Miles

BUCKEYE HILLS regional council

Cartography by BHRC | LRTP 2020 - 2045
http://www.buckeyehills.org | 740.374.9436
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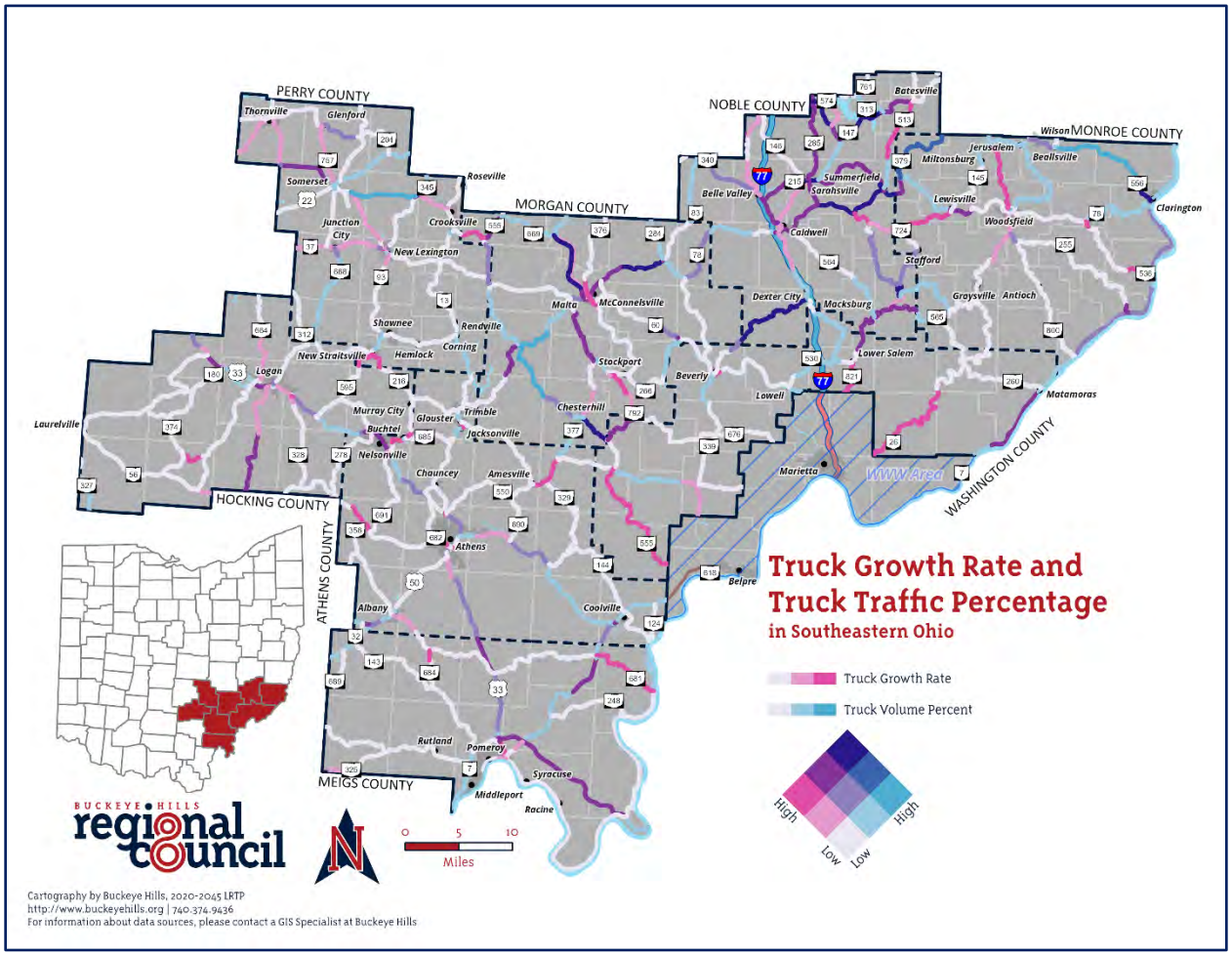
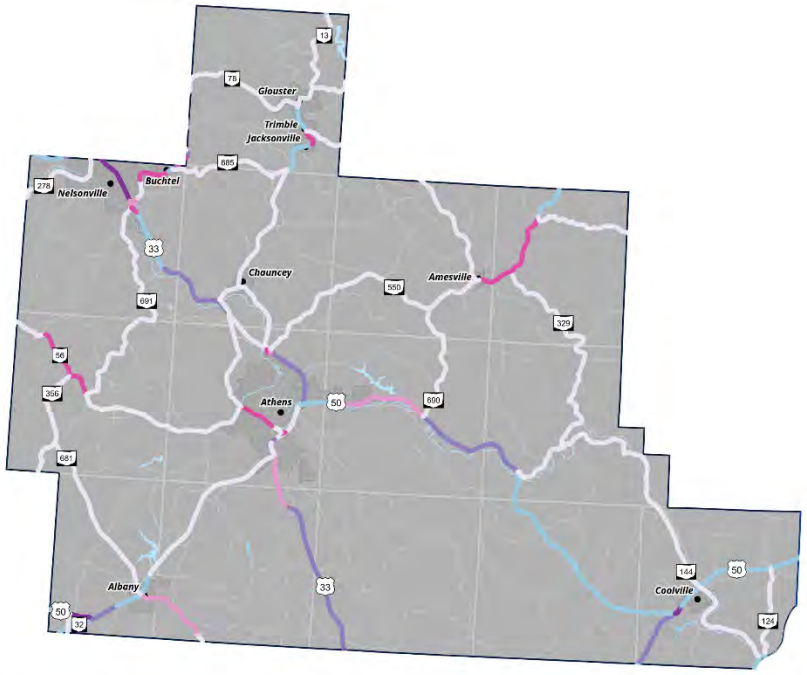
## Maps: Truck Rate and Truck Traffic Percentage for Selected Roads in each county in the BHRC Region, as well as the region as a whole



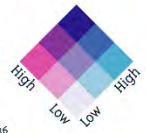



# Truck Growth Rate and Truck Volume Percent

## Athens County

Truck Growth Rate

Truck Volume Percent





BUCKEYE HILLS regional council

Cartography by BHRC | LRTP 2020 - 2045
http://www.buckeyehills.org | 740.374.9436
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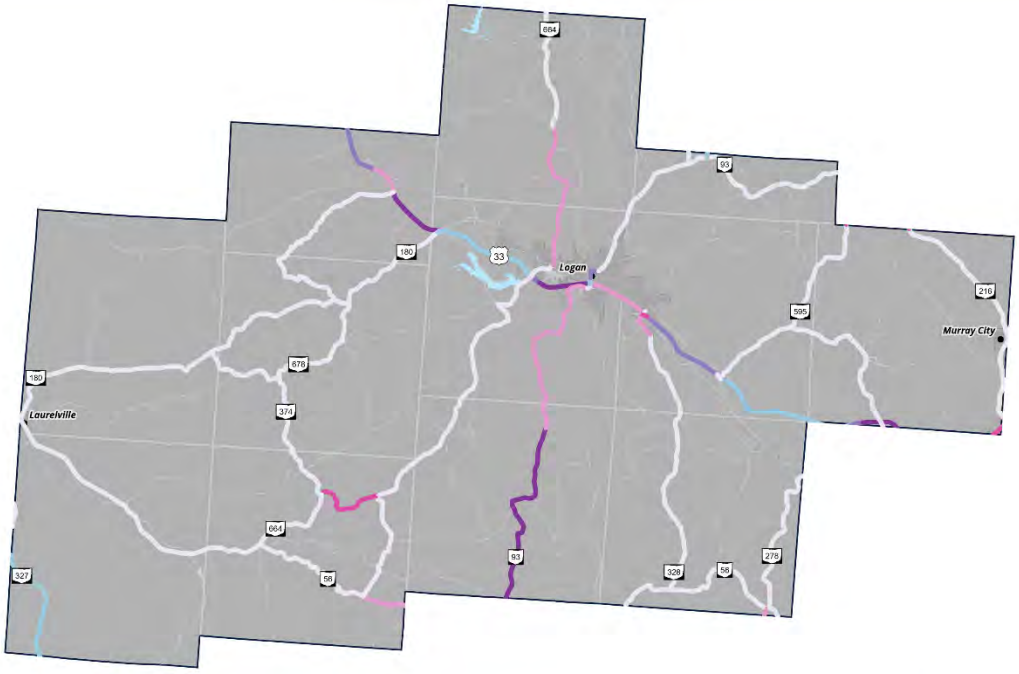
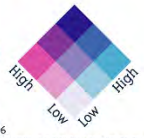



# Truck Growth Rate and Truck Volume Percent

## Hocking County

Truck Growth Rate

Truck Volume Percent




0 2.5 5 10

Miles

BUCKEYE HILLS regional council

Cartography by BHRC | LRTP 2020 - 2045
http://www.buckeyehills.org | 740.374.9436
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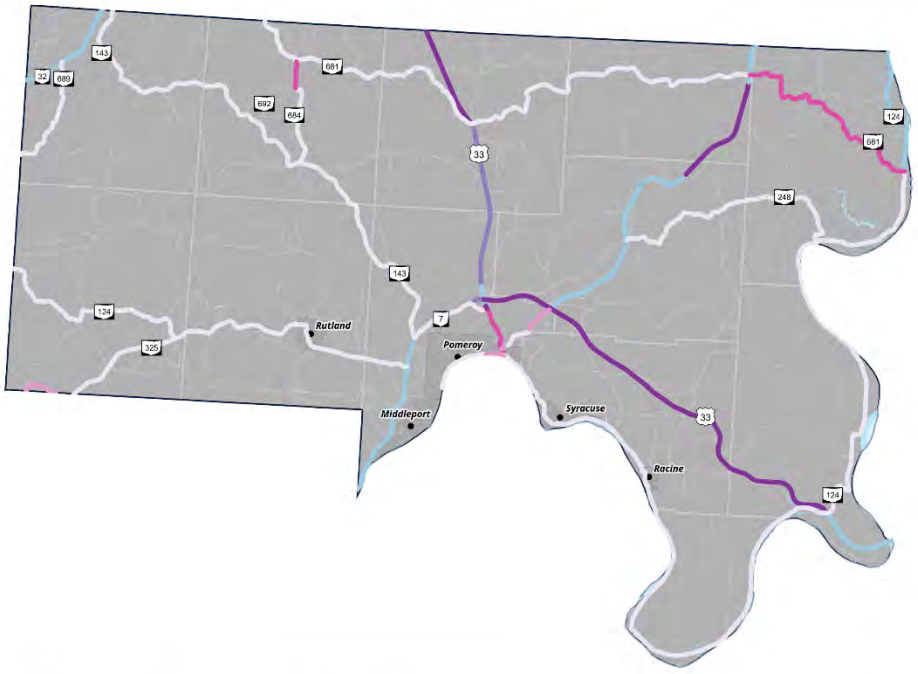
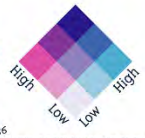



# Truck Growth Rate and Truck Volume Percent

## Meigs County

Truck Growth Rate

Truck Volume Percent




0 2.5 5 10

Miles

BUCKEYE HILLS regional council

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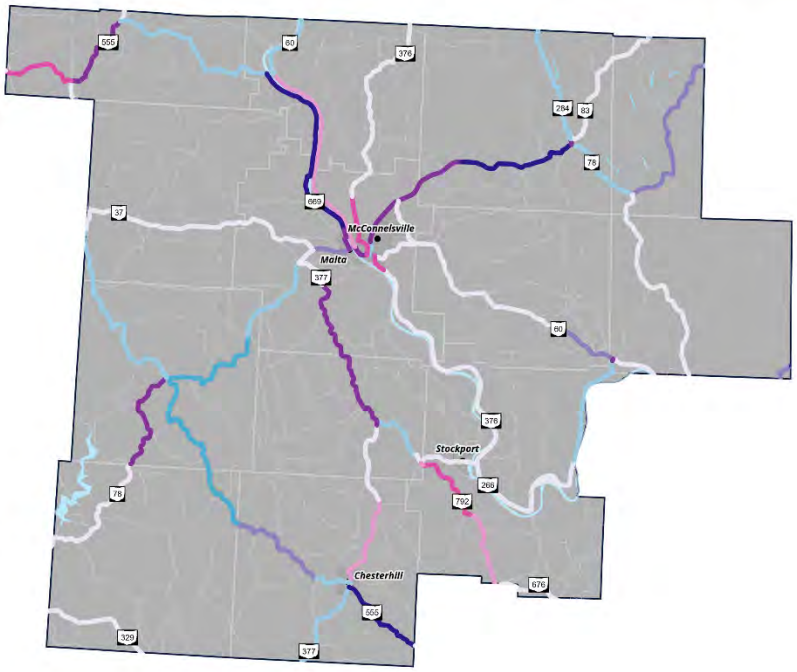
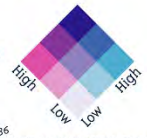



# Truck Growth Rate and Truck Volume Percent

## Morgan County

Truck Growth Rate

Truck Volume Percent




0 2.5 5 10

Miles

BUCKEYE HILLS regional council

Cartography by BHRC | LRTP 2020 - 2045
http://www.buckeyehills.org | 740.374.9436
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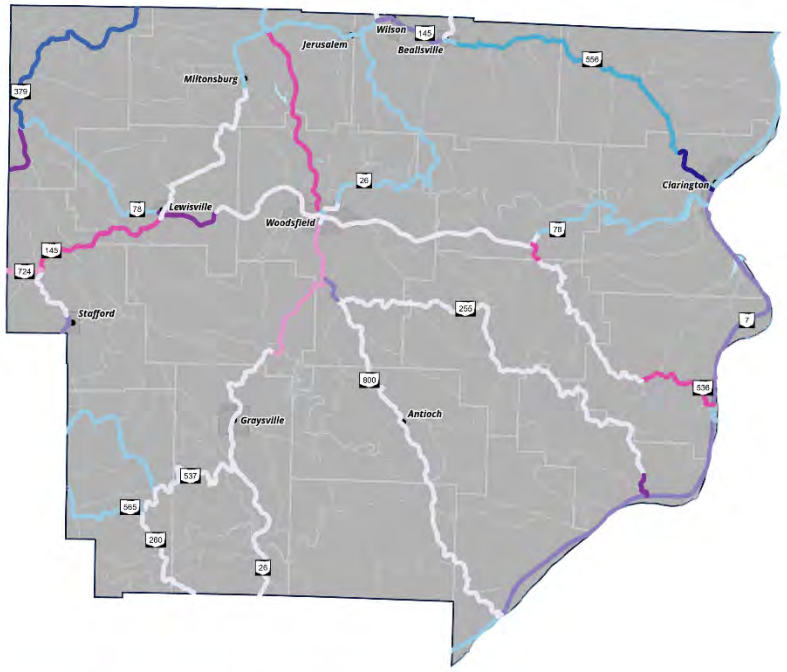
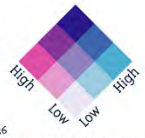



# Truck Growth Rate and Truck Volume Percent

## Monroe County

Truck Growth Rate

Truck Volume Percent





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Cartography by BHRC | LRTP 2020 - 2045
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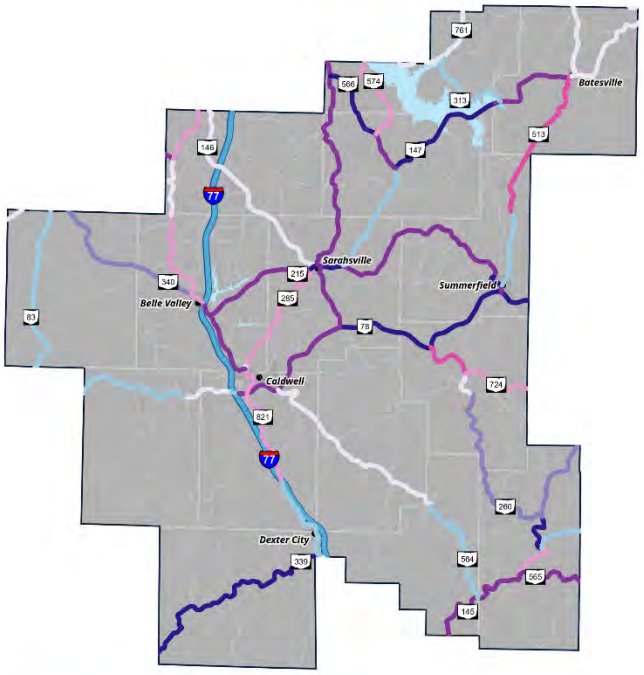
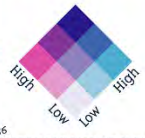



# Truck Growth Rate and Truck Volume Percent

## Noble County

Truck Growth Rate

Truck Volume Percent




0 2.5 5 10

Miles

BUCKEYE HILLS regional council

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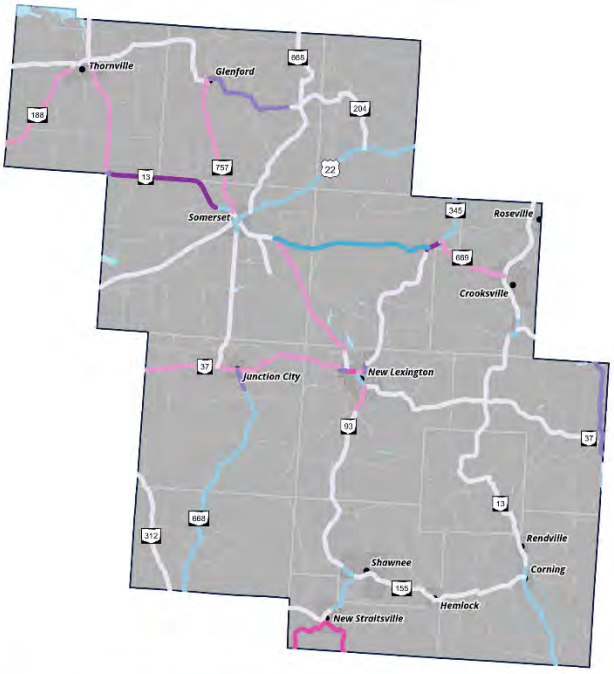
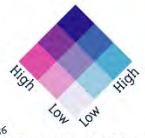



# Truck Growth Rate and Truck Volume Percent

## Perry County

Truck Growth Rate

Truck Volume Percent




0 2.5 5 10

Miles

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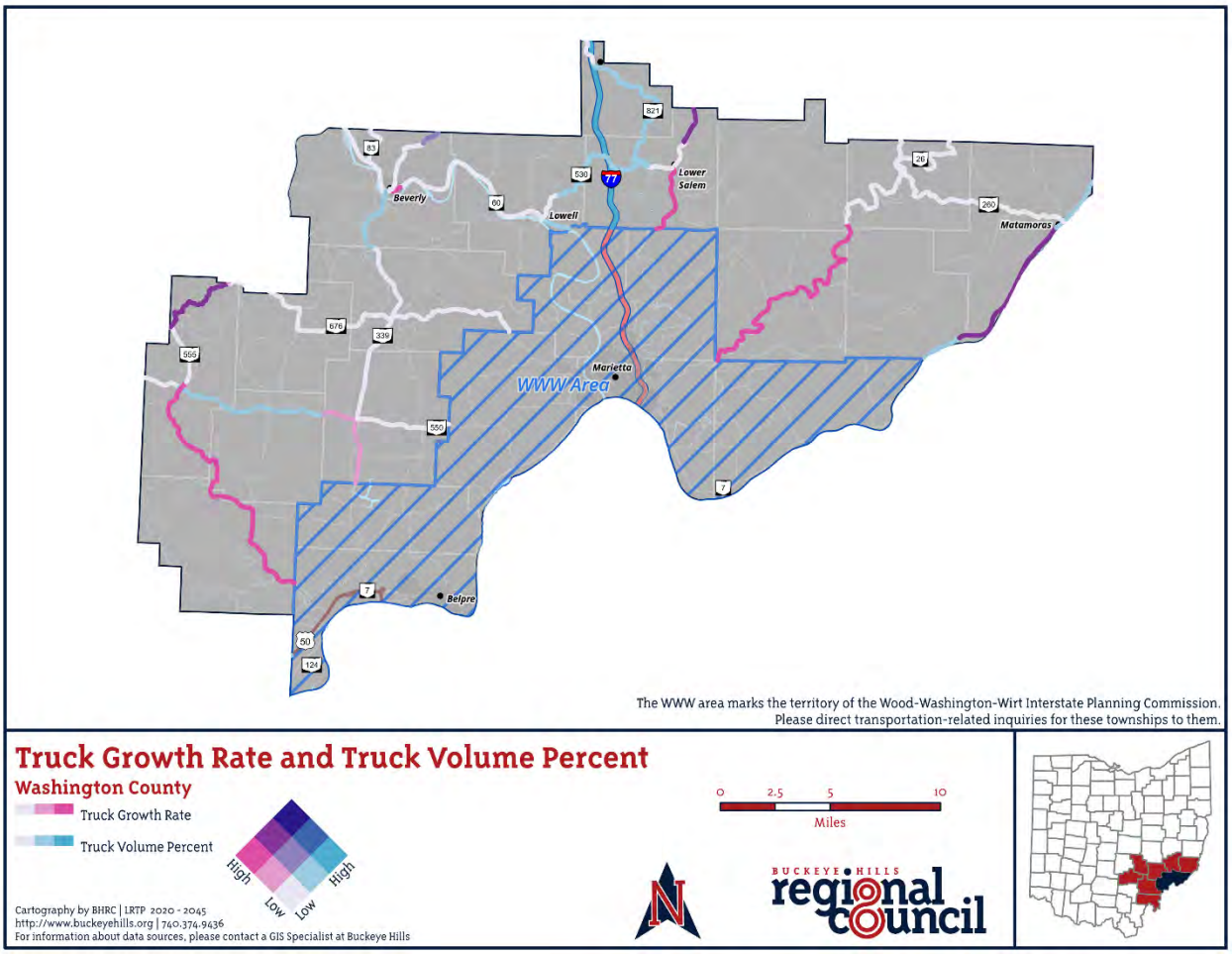
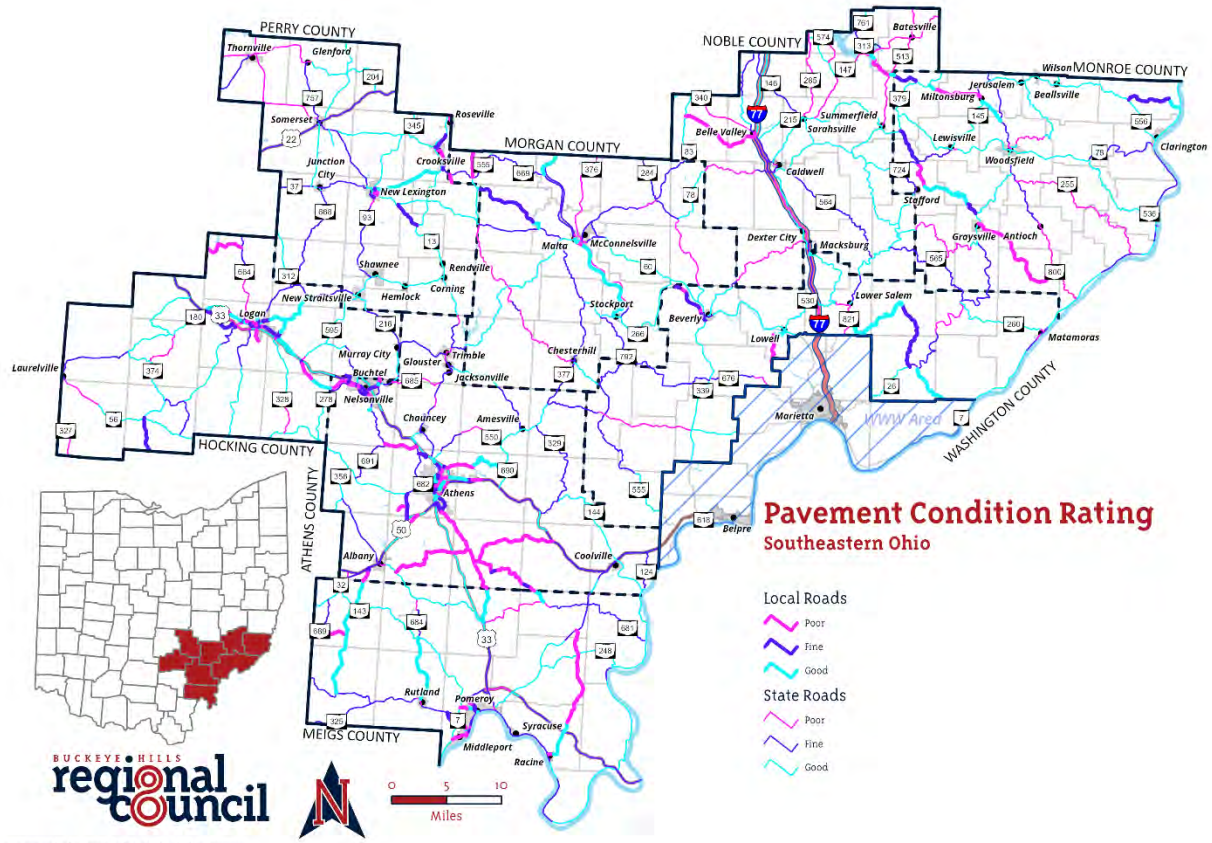
BUCKEYE HILLS regional council



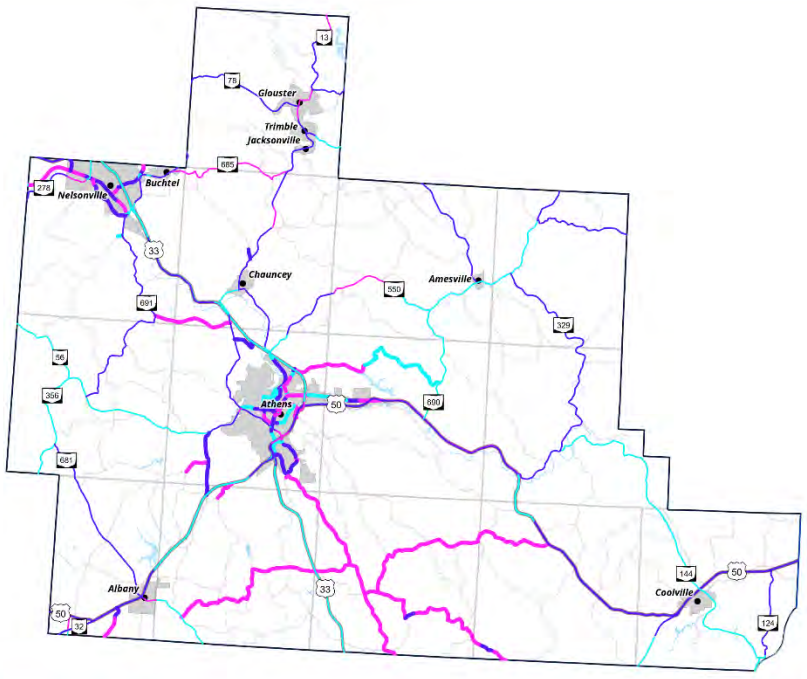

## PAVEMENT CONDITION RATING

Pavement condition rating (PCR) is a standardized way of assessing the general condition of a road surface. On a scale from 0-100, this rating covers the full scope of possible conditions for a road surface. For the purposes of this plan the maps below, a PCR of 50 or less is considered poor. Only local roads monitored by the state are below.

## Maps: Pavement condition rating for BHRC counties and the region as a whole




Cartography by Jason Pyles, GISP | LRTP 2020-2045
http://www.buckeyehills.org | 740-374-9436
For information about data sources, please contact a GIS Specialist at Buckeye Hills




# Pavement Condition Rating

## Athens County

State Roads
- Poor
- Fine
- Good

Local Roads
- Poor
- Fine
- Good

0 2.5 5 10

Miles

Cartography by BHRC | LRTP 2020 - 2045
http://www.buckeyehills.org | 740.374.9436
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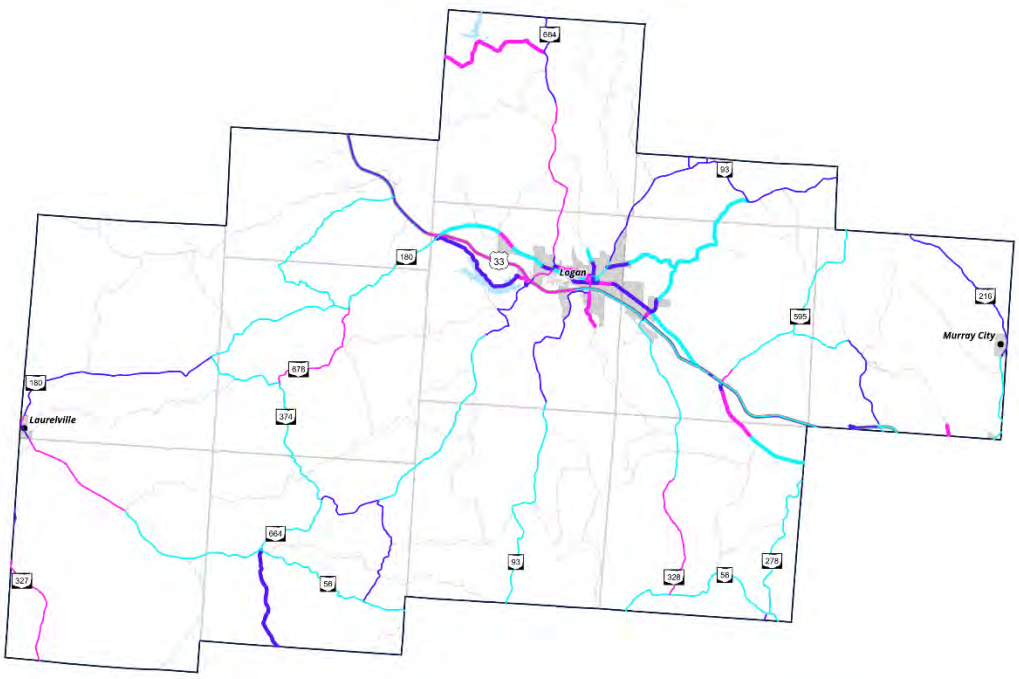
BUCKEYE HILLS regional council




# Pavement Condition Rating

## Hocking County

State Roads
- Poor
- Fine
- Good

Local Roads
- Poor
- Fine
- Good

0 2.5 5 10
Miles

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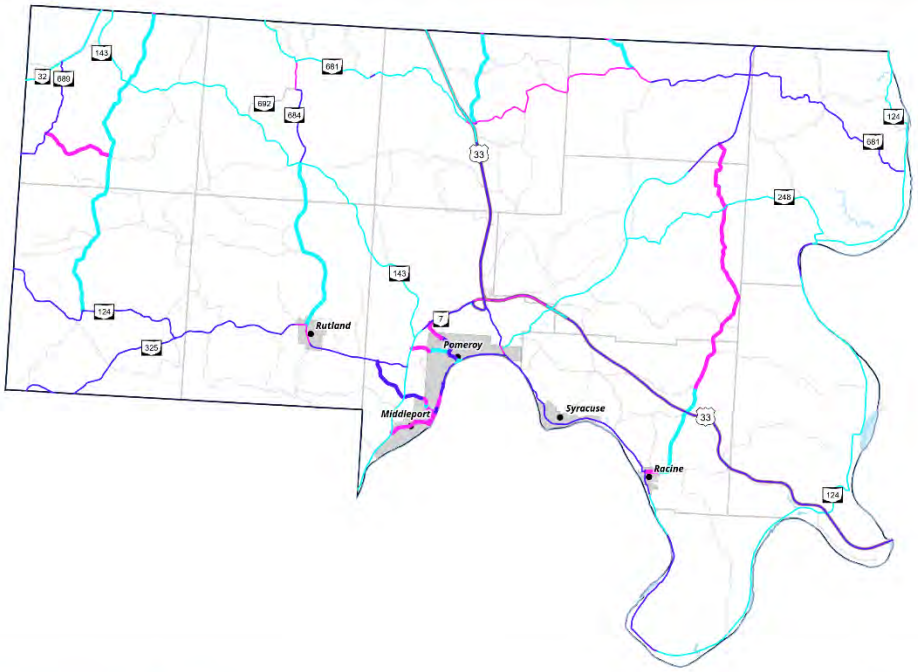


# Pavement Condition Rating

## Meigs County

| State Roads | Local Roads |
|---|---|
| Poor | Poor |
| Fine | Fine |
| Good | Good |

0 2.5 5 10

Miles

Cartography by BHRC | LRTP 2020 - 2045
http://www.buckeyehills.org | 740.374.9436
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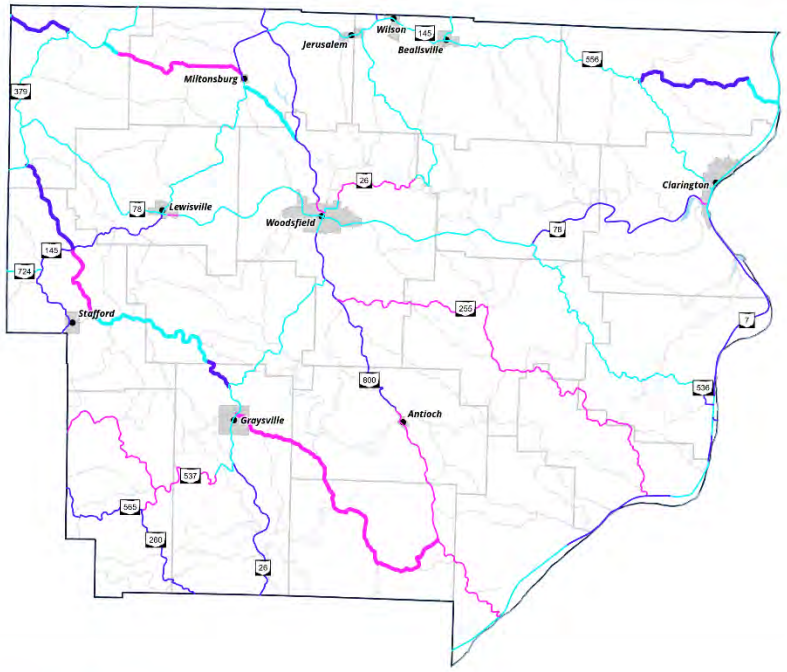
BUCKEYE HILLS regional council




# Pavement Condition Rating

## Monroe County

State Roads
- Poor
- Fine
- Good

Local Roads
- Poor
- Fine
- Good

0 2.5 5 10
Miles

Cartography by BHRC | LRTP 2020 - 2045
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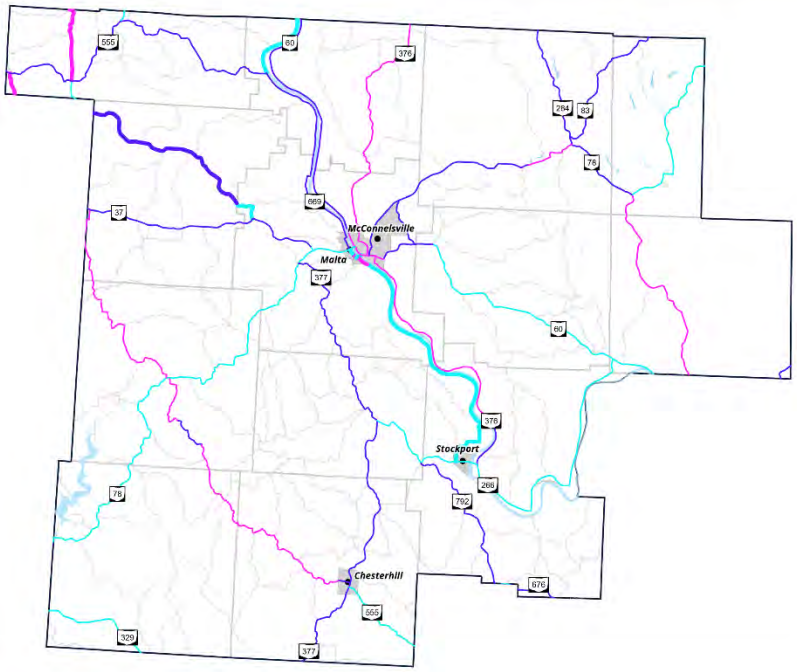
BUCKEYE HILLS regional council




# Pavement Condition Rating

## Morgan County

State Roads
- Poor
- Fine
- Good

Local Roads
- Poor
- Fine
- Good

0 2.5 5 10
Miles

BUCKEYE HILLS regional council

Cartography by BHRC | LRTP 2020 - 2045
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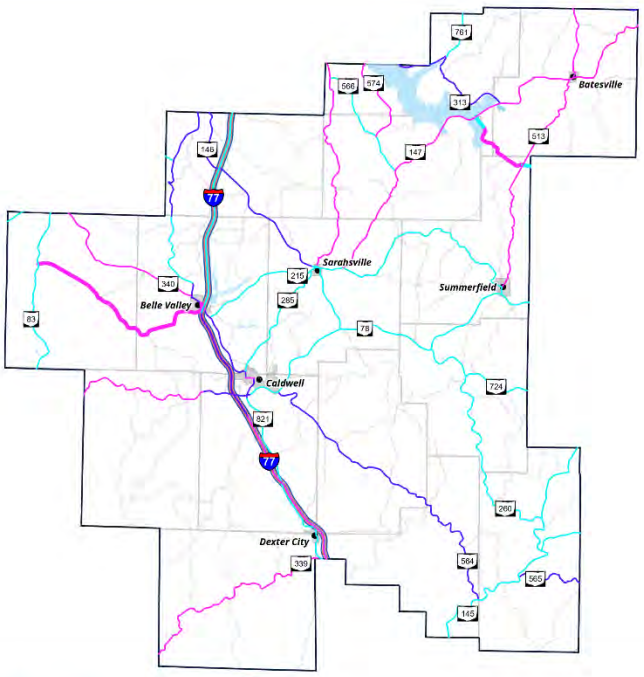


# Pavement Condition Rating

## Noble County

State Roads
- Poor
- Fine
- Good

Local Roads
- Poor
- Fine
- Good

0 2.5 5 10
Miles

Cartography by BHRC | LRTP 2020 - 2045
http://www.buckeyehills.org | 740.374.9436
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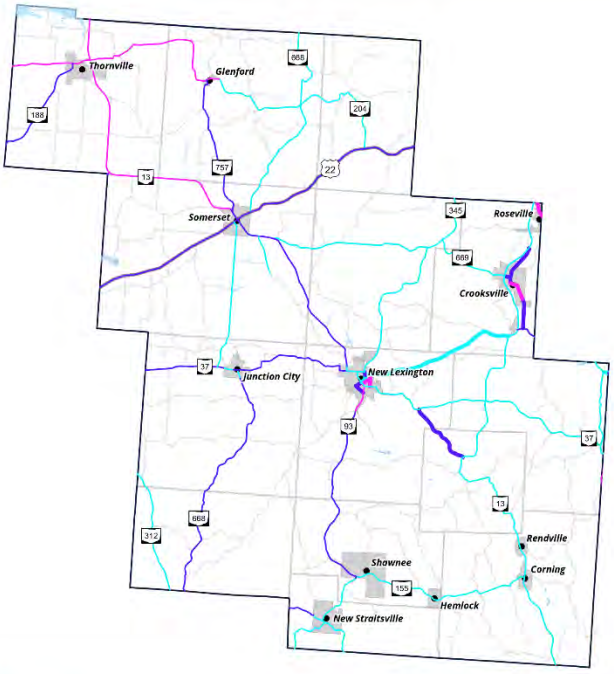


# Pavement Condition Rating

## Perry County

State Roads
- Poor
- Fine
- Good

Local Roads
- Poor
- Fine
- Good

0 2.5 5 10

Miles

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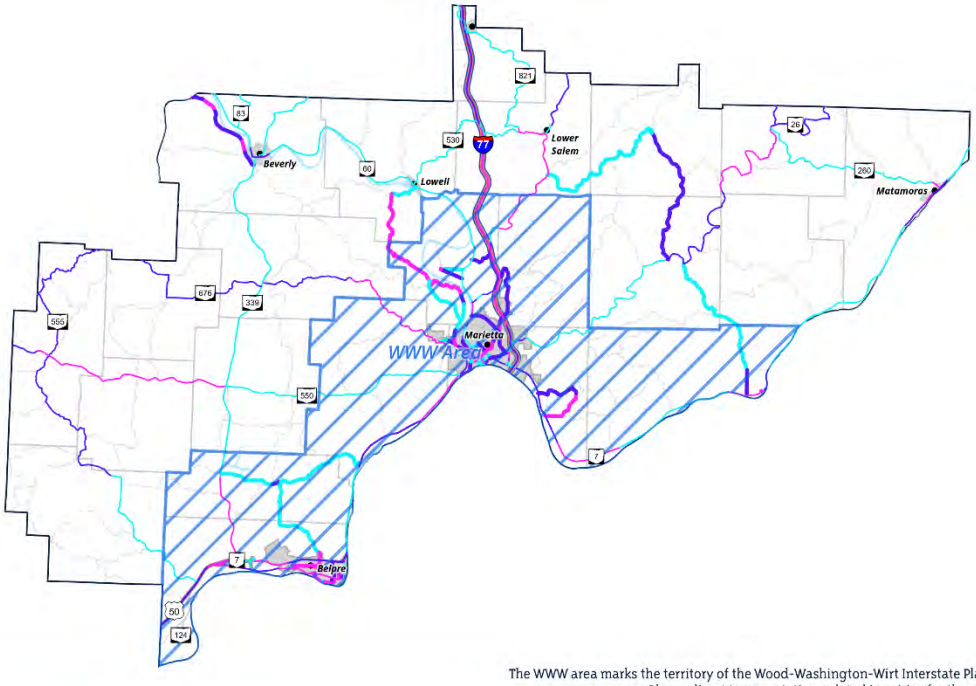
BUCKEYE HILLS regional council




The WWW area marks the territory of the Wood-Washington-Wirt Interstate Planning Commission.
Please direct transportation-related inquiries for these townships to them.

# Pavement Condition Rating

## Washington County

State Roads
- Poor
- Fine
- Good

Local Roads
- Poor
- Fine
- Good

0 2.5 5 10
Miles

BUCKEYE HILLS regional council

Cartography by BHRC | LRTP 2020 - 2045
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# APPENDIX D
# ROADWAY SAFETY

## REGIONAL OVERVIEW:

Between 2015 and 2019 there were a total of 23,232 crashes reported within the 8-county Buckeye Hills transportation planning region in southeastern Ohio, averaging 4,600 per year. In the past 5-years around 5,800 people were injured as result of these crashes which includes 194 fatalities and 1,183 serious injuries. Overall there has been a decrease in total crashes, with 8.3% fewer crashes in 2019 compared to 2015. Fatal crashes have increased since 2015 by 15.2% with an uptick in the more recent years after reaching the low point in 2017. Injury crashes overall have decreased by 10.9% in the last 5-years.

## CRASH TRENDS BY YEAR, 2015 TO 2019:

| YEAR | CRASH STATISTICS | | | | OCCUPANT STATISTICS | | | SAFETY METRICS | |
|---|---|---|---|---|---|---|---|---|---|
| | Fatal Crashes | Injury Crashes | Property Damage Crashes | Total Crashes | Fatalities | Serious Injuries | Minor Injuries | Injury Rate | Severity Index |
| 2015 | 33 | 1,332 | 3,359 | 4,724 | 36 | 205 | 942 | 28.9% | 1.64 |
| 2016 | 34 | 1,324 | 3,332 | 4,690 | 38 | 251 | 906 | 29.0% | 1.64 |
| 2017 | 30 | 1,315 | 3,371 | 4,716 | 33 | 274 | 892 | 28.5% | 1.63 |
| 2018 | 40 | 1,239 | 3,490 | 4,769 | 43 | 246 | 796 | 26.8% | 1.61 |
| 2019 | 38 | 1,187 | 3,108 | 4,333 | 44 | 207 | 933 | 28.3% | 1.64 |
| 5-Year Total | 175 | 6,397 | 16,660 | 23,232 | 194 | 1,183 | 4,469 | | |
| Annual Average | 35 | 1,279 | 3,332 | 4,646 | 39 | 237 | 894 | 28.30% | 1.63 |
| % Change '15-'19 | 15.20% | -10.90% | -7.50% | -8.30% | 22.20% | 1.00% | -1.00% | -2.20% | 0.20% |

Notes:

- Cells with red text indicate the year with the highest value for each respective column
- The Severity Index is calculated by the following formula: *[(12 x #FatalCrashes) + (3 x #InjuryCrashes) + #NoInjuryCrashes ] / #TotalCrashes*

## Crash Type Frequency & Severity, 2015 TO 2019

| % of Crashes | CRASH TYPE | PDO | Injury Crash | Fatal Crash | Fatal and Injury % |
|---|---|---|---|---|---|
| 35.10% | Fixed Object | 5,342 | 2,736 | 75 | 34.48% |
| 14.10% | Rear End | 2,295 | 969 | 7 | 29.84% |
| 13.10% | Animal | 2,835 | 209 | 4 | 6.99% |
| 9.00% | Angle | 1,380 | 703 | 10 | 34.07% |
| 6.50% | Sideswipe - Passing | 1,242 | 268 | 3 | 17.91% |
| 5.20% | Left Turn | 793 | 408 | 3 | 34.14% |
| 3.20% | Parked Vehicle | 640 | 97 | 2 | 13.40% |
| 3.10% | Backing | 691 | 31 | 1 | 4.38% |
| 3.00% | Overturning | 297 | 385 | 9 | 57.02% |
| 2.60% | Head On | 288 | 289 | 37 | 53.09% |
| 1.60% | Other Non-Collision | 329 | 53 | 1 | 14.10% |
| 1.60% | Right Turn | 304 | 76 | 1 | 20.21% |
| 0.70% | Other Object | 152 | 12 | 0 | 7.32% |
| 0.50% | Pedestrian | 7 | 98 | 12 | 94.02% |
| 0.20% | Pedalcycles | 6 | 44 | 1 | 88.24% |
| 0.20% | Unknown | 40 | 3 | 0 | 6.98% |
| 0.10% | Sideswipe - Meeting | 18 | 9 | 7 | 47.06% |
| 0.00% | Train | 1 | 0 | 1 | 50.00% |
| 0.00% | Falling From Or In Vehicle | 0 | 0 | 1 | 100.00% |

*PDO stands for Property Damage-Only Crash

## KEY FACTS:

- There was an 8.3% decrease in crashes between 2015 and 2019.
- On average, there were 35 fatal crashes per year between 2015 and 2019. That's roughly 3 fatal crashes every month.
- Between 2015 and 2019, there were 8,153 Fixed Object crashes (35% of total crashes), making this the most common crash type overall and accounts for the largest number of fatalities.
- Of the 117 pedestrian crashes reported in the last 5-years, 94% resulted in an injury and 12 were fatal.
- Between 2015 and 2019, head-on collisions accounted for the second highest number of fatalities in the Region, with just over half of all head-on crashes resulting in fatality.

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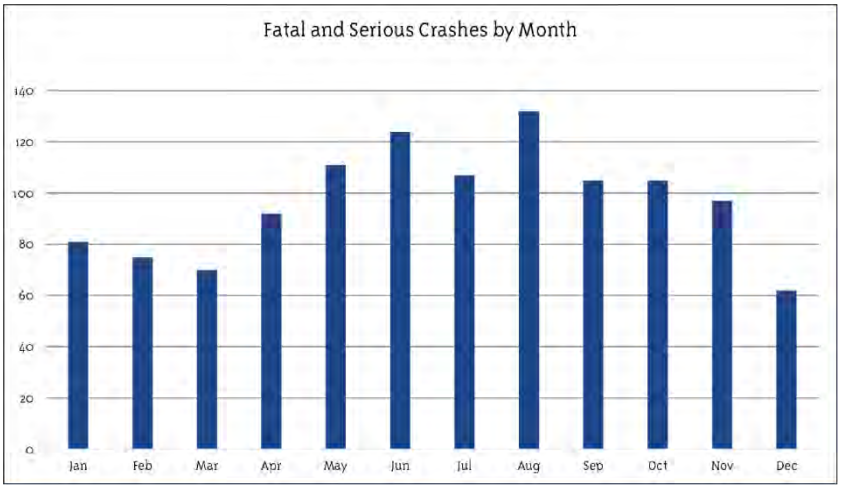
**CONTRIBUTING FACTORS:**

| Contributing Factors | Number | % of Crashes |
|---|---|---|
| None | 3,957 | 17.0% |
| Unsafe Speed | 3,877 | 16.7% |
| Following Too Close / ACDA* | 3,360 | 14.5% |
| Improper Lane Change | 2,860 | 12.3% |
| Other Improper Action | 2,671 | 11.5% |
| Failure to Yield | 2,555 | 11.0% |
| Left of Center | 957 | 4.1% |
| Drove off Road | 706 | 3.0% |
| Improper Backing | 589 | 2.5% |
| Operating Defective Equipment | 379 | 1.6% |
| Swerving to Avoid | 302 | 1.3% |
| Improper Turn | 243 | 1.0% |
| Ran Red Light | 220 | 0.9% |
| Ran Stop Sign | 146 | 0.6% |
| Load Shifting/Falling/Spilling | 126 | 0.5% |
| All Others | 284 | 1.2% |

*ACDA stands for Assured Clear Distance Ahead

| Time and Day | Mon | Tue | Wed | Thu | Fri | Sat | Sun | Total |
|---|---|---|---|---|---|---|---|---|
| 5 am | 110 | 100 | 96 | 98 | 101 | 92 | 59 | 656 |
| 6 am | 129 | 131 | 164 | 142 | 170 | 92 | 75 | 903 |
| 7 am | 205 | 217 | 203 | 212 | 209 | 100 | 87 | 1,233 |
| 8 am | 159 | 157 | 185 | 180 | 151 | 110 | 77 | 1,019 |
| 9 am | 133 | 133 | 133 | 150 | 151 | 100 | 97 | 897 |
| 10 am | 138 | 127 | 140 | 139 | 135 | 141 | 113 | 933 |
| 11 am | 171 | 147 | 175 | 170 | 169 | 175 | 130 | 1,137 |
| Noon | 182 | 167 | 145 | 179 | 200 | 169 | 163 | 1,205 |
| 1 pm | 156 | 160 | 173 | 171 | 219 | 168 | 159 | 1,206 |
| 2 pm | 228 | 202 | 209 | 210 | 281 | 169 | 137 | 1,436 |
| 3 pm | 248 | 261 | 230 | 239 | 311 | 209 | 157 | 1,655 |
| 4 pm | 253 | 206 | 274 | 254 | 289 | 206 | 171 | 1,653 |
| 5 pm | 263 | 269 | 251 | 253 | 288 | 198 | 170 | 1,692 |
| 6 pm | 168 | 160 | 197 | 204 | 247 | 184 | 172 | 1,332 |
| 7 pm | 132 | 140 | 146 | 136 | 199 | 161 | 172 | 1,086 |
| 8 pm | 113 | 164 | 158 | 132 | 159 | 170 | 145 | 1,041 |
| 9 pm | 107 | 107 | 111 | 131 | 150 | 132 | 120 | 858 |
| 10 pm | 96 | 81 | 104 | 92 | 141 | 121 | 85 | 720 |
| 11 pm | 66 | 63 | 72 | 81 | 103 | 115 | 66 | 566 |
| Midnight | 48 | 42 | 43 | 63 | 62 | 113 | 97 | 468 |
| 1 am | 40 | 46 | 33 | 43 | 47 | 98 | 94 | 401 |
| 2 am | 40 | 33 | 25 | 45 | 46 | 94 | 100 | 383 |
| 3 am | 23 | 28 | 31 | 44 | 53 | 93 | 84 | 356 |
| 4 am | 58 | 48 | 44 | 55 | 55 | 69 | 67 | 396 |
| Total | 3,266 | 3,189 | 3,342 | 3,423 | 3,936 | 3,279 | 2,797 | 23,232 |

**FATAL & SERIOUS INJURY CRASHES:**




**OTHER KEY FACTS:**

- In the region, the day and time with the highest frequency of crashes is on Fridays between 2pm and 6pm.
- While 17% of crashes have no contributing factor associated with it, the next highest two contributing factors of Unsafe Speed and Following Too Close make up for 31% of all crashes.
- Over 77% of fatalities and serious injuries occurred on roadways where the posted speed was greater than 50 MPH.
- While alcohol and drugs were only suspected in just 8% of total crashes, they were suspected in roughly 30% of fatal and serious injury crashes.
- The crash classification of 'Distracted' accounts for 9% of total crashes. Based on anecdotally evidence, that statistic is likely underreported.

BUCKEYE HILLS regional council

## Top 40 Crash Intersections in the Buckeye Hills Region, 2015-2020

| Rank | Crashes | Highest Severity | Roadways Involved | County | Jurisdiction |
|---|---|---|---|---|---|
| 1 | 90 | Minor Injury Suspected | SR 682/Richland Ave (roundabout) | Athens | Athens City |
| 2 | 77 | Serious Injury Suspected | US 33/E State St (interchange) | Athens | Athens City |
| 3 | 59 | Minor Injury Suspected | SR 664/US 33 (roundabout interchange) | Hocking | Logan City |
| 4 | 37 | Minor Injury Suspected | SR 664/Chieftain Dr/Hunter St | Hocking | Logan City |
| 5 | 32 | Serious Injury Suspected | SR 682/W Union St | Athens | Athens City |
| 6 | 30 | Minor Injury Suspected | US 33/Mulberry St S | Hocking | Logan City |
| 7 | 30 | Injury Possible | E State St/Charles St/Community Center Dr | Athens | Athens City |
| 8 | 29 | Serious Injury Suspected | Front St/Mulberry St S | Hocking | Logan City |
| 9 | 29 | Minor Injury Suspected | SR 664 S/Primmer Rd/Private Dr | Hocking | Logan City |
| 10 | 28 | Serious Injury Suspected | Front St/West St/Hunter St W/Miller Pl/Lincoln Ave/Short St | Hocking | Logan City |
| 11 | 26 | Serious Injury Suspected | Plains Rd(from E Third St to Connett Rd) | Athens | Athens Twp |
| 12 | 22 | Serious Injury Suspected | E State St/E Carpenter St/W Stimson Ave/Kern St | Athens | Athens City |
| 13 | 21 | Minor Injury Suspected | Culver St N/Hunter St E/Zainesville Ave/East St | Hocking | Logan City |
| 14 | 20 | Serious Injury Suspected | US 50/Brimstone Rd/Cemetery St | Athens | Coolville Village |
| 15 | 20 | Minor Injury Suspected | US 33/Clear Creek Rd | Hocking | Good Hope Twp |
| 16 | 19 | Fatal | US 33/Albany Rd/Richland Ave/Pomeroy Rd | Athens | Athens City |
| 17 | 19 | Serious Injury Suspected | E State St/Eden Pl | Athens | Athens City |
| 18 | 19 | Minor Injury Suspected | Radford Rd/US 50 | Athens | Alexander Twp |
| 19 | 19 | Minor Injury Suspected | State St/N Court St | Athens | Athens City |
| 20 | 19 | Minor Injury Suspected | Carroll St/Mill Ln/Broadway St | Perry | New Lexinton Village |
| 21 | 18 | Minor Injury Suspected | Richland Ave/S Shafer St/S Green Dr | Athens | Athens City |
| 22 | 17 | Serious Injury Suspected | E State St/Euclid Dr | Athens | Athens City |
| 23 | 17 | Minor Injury Suspected | W State St/N Congress St/Rose Ave | Athens | Athens City |
| 24 | 17 | Minor Injury Suspected | Brown St/Main St | Perry | New Lexinton Village |
| 25 | 16 | Serious Injury Suspected | Second St E/Mulberry St S | Hocking | Logan City |
| 26 | 16 | Injury Possible | E State St/Avon Pl | Athens | Athens City |
| 27 | 15 | Fatal | S Shafer St/W Union St | Athens | Athens City |
| 28 | 14 | Minor Injury Suspected | Court St/Main St | Monroe | Woodsfield Village |
| 29 | 14 | Injury Possible | Main St E/Mulberry St | Hocking | Logan City |
| 30 | 14 | Injury Possible | E Main St/7th St | Morgan | McConnelsville Village |
| 31 | 14 | Injury Possible | N Main St/7th St | Morgan | Malta Village |
| 32 | 14 | PDO/No Injury | Main St W/Spring St | Hocking | Logan City |
| 33 | 13 | Serious Injury Suspected | SR 664 S/Lake Logan Rd | Hocking | Logan City |
| 34 | 12 | Serious Injury Suspected | Blackbrun Rd/US 50/Kimes Ln | Athens | Athens City |
| 35 | 12 | Minor Injury Suspected | W Washington St/Congress St | Athens | Athens City |
| 36 | 12 | Minor Injury Suspected | Carpenter St/Armory St/N Court St | Athens | Athens City |
| 37 | 12 | Injury Possible | E State St/Harris Dr/Home St | Athens | Athens City |
| 38 | 11 | Serious Injury Suspected | Stewart St/Playground Dr/Coss St/Mill St/Palmer St/Hocking St | Athens | Athens City |
| 39 | 11 | Serious Injury Suspected | Tunnel Hill Rd NE/Hunter Dr/Lovers Ln | Perry | Pike Twp |
| 40 | 11 | Serious Injury Suspected | SR 13 NW/Blackbird LN NW/Zion Rd NW/Honey Creek RD NW | Perry | Thorn Twp |

**The Top Crash Intersection data does not include the WWW jurisdiction that includes the City of Marietta (Washington Co.)*

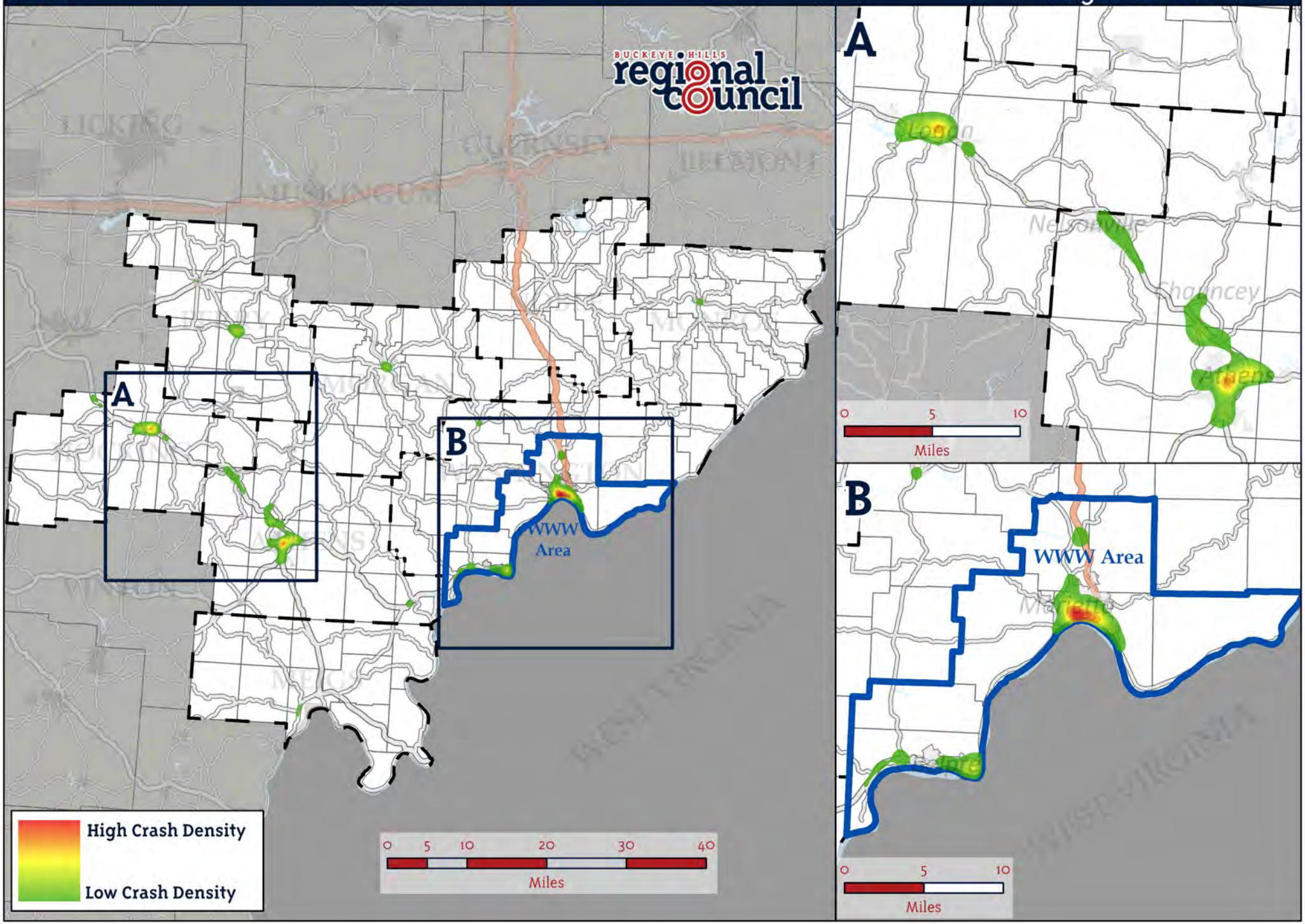
*Source: ODOT GIS Crash Analysis Tool (GCAT) & Crash Analysis Module (CAM) Tool*

***Denotes a non-municipal intersection***

BUCKEYE HILLS regional council

# Buckeye Hills Regional Council
RTPO

# Top Crash Locations (2015-2019)
Regional Overview



## ATHENS COUNTY OVERVIEW:

Between 2015 and 2019 there were a total of 5,371 crashes reported within Athens County, Ohio, averaging 1,074 per year. Around 1,128 people were injured as result of these crashes which includes 31 fatalities and 205 serious injuries. Overall there has been a decrease in total crashes, with 21% fewer crashes in 2019 compared to 2015. Fatal crashes have also remained constant over the 5-year period at an average 5 per year, with a high point outlier of 11 in 2018. Injury crashes overall have decreased by 10.9% in the last 5-years.

## CRASH TRENDS BY YEAR, 2015 TO 2019:

| YEAR | CRASH STATISTICS | | | | OCCUPANT STATISTICS | | | SAFETY METRICS | |
|---|---|---|---|---|---|---|---|---|---|
| | Fatal Crashes | Injury Crashes | Property Damage Crashes | Total Crashes | Fatalities | Serious Injuries | Minor Injuries | Injury Rate | Severity Index |
| 2015 | 5 | 316 | 884 | 1,205 | 5 | 26 | 205 | 26.6% | 1.57 |
| 2016 | 4 | 279 | 751 | 1,034 | 6 | 47 | 185 | 27.4% | 1.58 |
| 2017 | 1 | 263 | 791 | 1,055 | 1 | 54 | 178 | 25.0% | 1.51 |
| 2018 | 11 | 246 | 869 | 1,126 | 12 | 46 | 169 | 22.8% | 1.54 |
| 2019 | 5 | 234 | 712 | 951 | 7 | 32 | 186 | 25.1% | 1.55 |
| 5-Year Total | 26 | 1,338 | 4,007 | 5,371 | 31 | 205 | 923 | | |
| Annual Average | 5 | 268 | 801 | 1,074 | 6 | 41 | 185 | 25.40% | 1.55 |
| % Change '15-'19 | 0.00% | -10.90% | -19.50% | -21.10% | 40.00% | 23.10% | -9.30% | -5.70% | -1.30% |

Notes:

- Cells with red text indicate the year with the highest value for each respective column
- The Severity Index is calculated by the following formula: *[(12 x #FatalCrashes) + (3 x #InjuryCrashes) + #NoInjuryCrashes ] / #TotalCrashes*

## CRASH TYPE BY FREQUENCY AND SEVERITY:

| % of Crashes | CRASH TYPE | PDO | Injury Crash | Fatal Crash | Fatal and Injury % |
|---|---|---|---|---|---|
| 32.40% | Fixed Object | 1,220 | 514 | 8 | 6.40% |
| 15.30% | Rear End | 579 | 241 | 1 | 7.40% |
| 15.20% | Animal | 780 | 37 | 2 | 1.28% |
| 9.70% | Angle | 346 | 172 | 2 | 8.31% |
| 6.70% | Sideswipe - Passing | 308 | 52 | 0 | 3.44% |
| 4.90% | Left Turn | 176 | 88 | 0 | 7.31% |
| 3.40% | Parked Vehicle | 162 | 21 | 2 | 3.11% |
| 2.60% | Backing | 132 | 8 | 0 | 1.10% |
| 2.30% | Head On | 65 | 58 | 3 | 8.83% |
| 2.20% | Overturning | 51 | 65 | 2 | 10.91% |
| 1.70% | Other Non-Collision | 81 | 10 | 1 | 2.87% |
| 1.60% | Right Turn | 62 | 23 | 0 | 6.04% |
| 0.80% | Pedestrian | 2 | 35 | 4 | 23.78% |
| 0.70% | Other Object | 35 | 0 | 0 | 0.00% |
| 0.20% | Pedalcycles | 1 | 12 | 0 | 23.53% |
| 0.10% | Unknown | 5 | 0 | 0 | 0.00% |
| 0.10% | Sideswipe - Meeting | 2 | 2 | 1 | 8.82% |
| 0.00% | Train | 0 | 0 | 0 | 0.00% |
| 0.00% | Falling From Or In Vehicle | 0 | 0 | 0 | 0.00% |

*PDO stands for Property Damage-Only Crash

## KEY FACTS:

- There's been an 21% reduction in total crashes between 2015 and 2019.
- On average, there were 5 fatal crashes per year between 2015 and 2019. That's roughly 1 fatal crash every 2.4 months.
- Between 2015 and 2019, there were 1,220 Fixed object crashes (32.4% of total crashes), making this the most common crash type overall and accounts for the largest number of fatalities.
- Of the 41 pedestrian crashes reported, 24% resulted in an injury and 4 were fatal – the second highest fatality causing crashes in the Athens County.

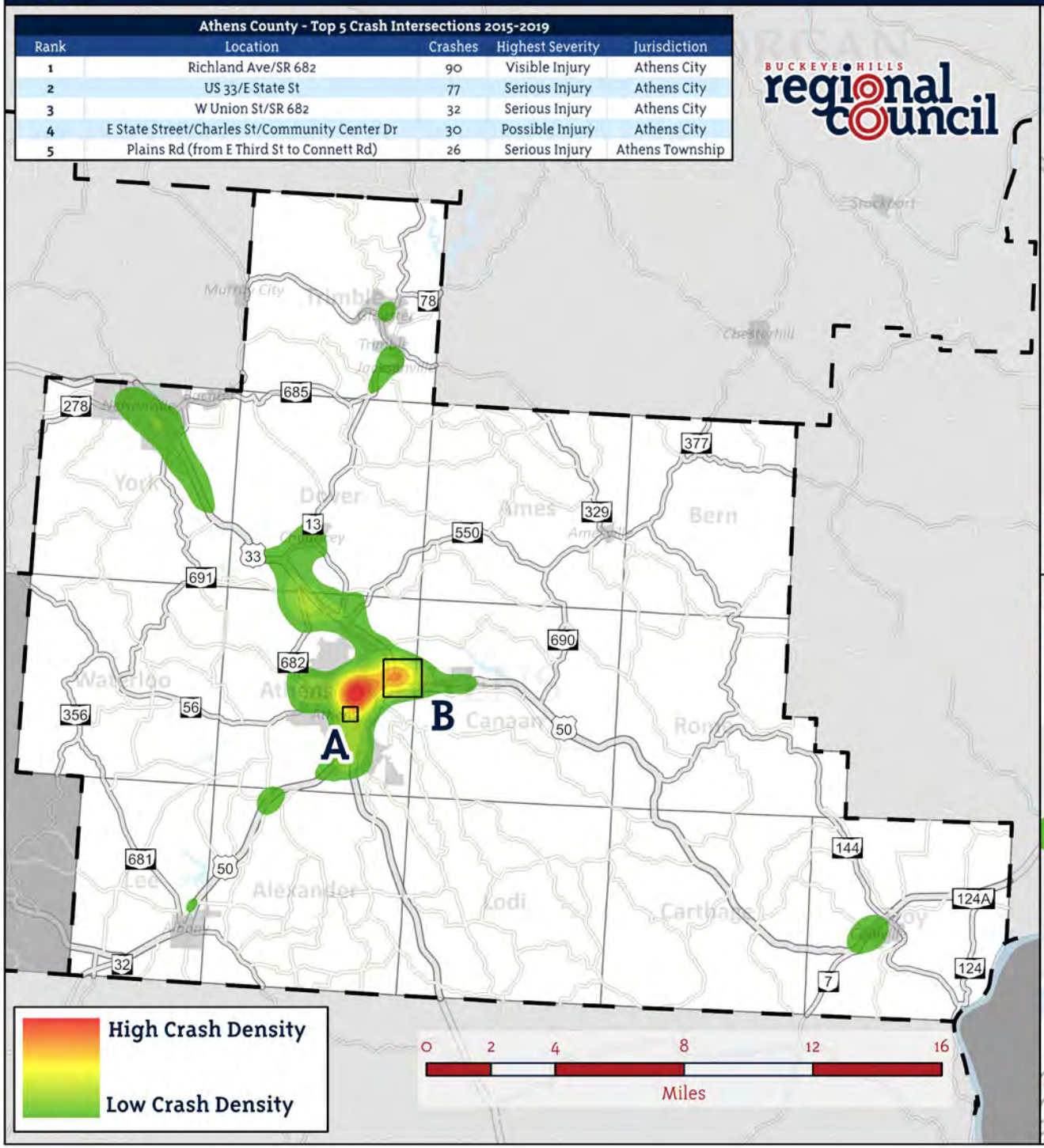
BUCKEYE HILLS regional council

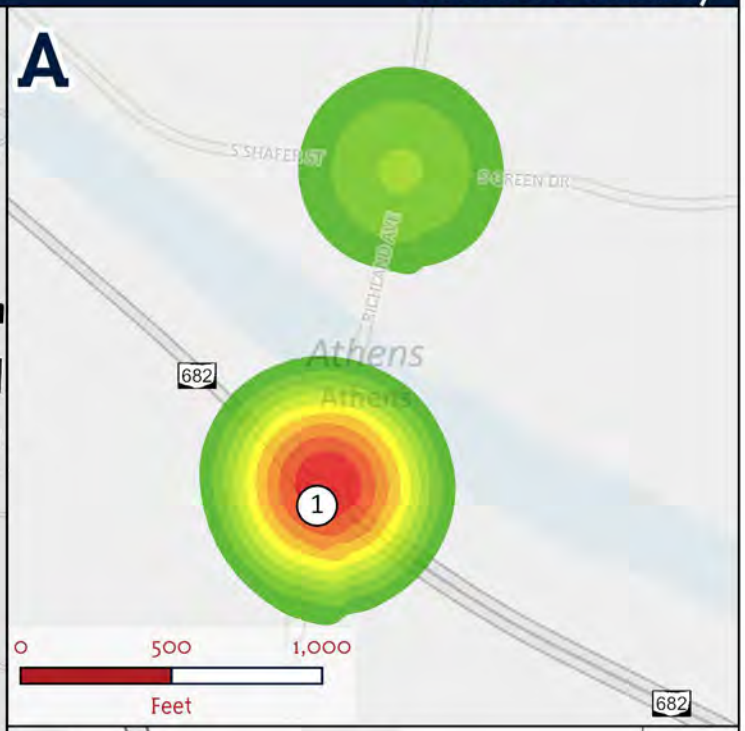
# Buckeye Hills Regional Council
RTPO

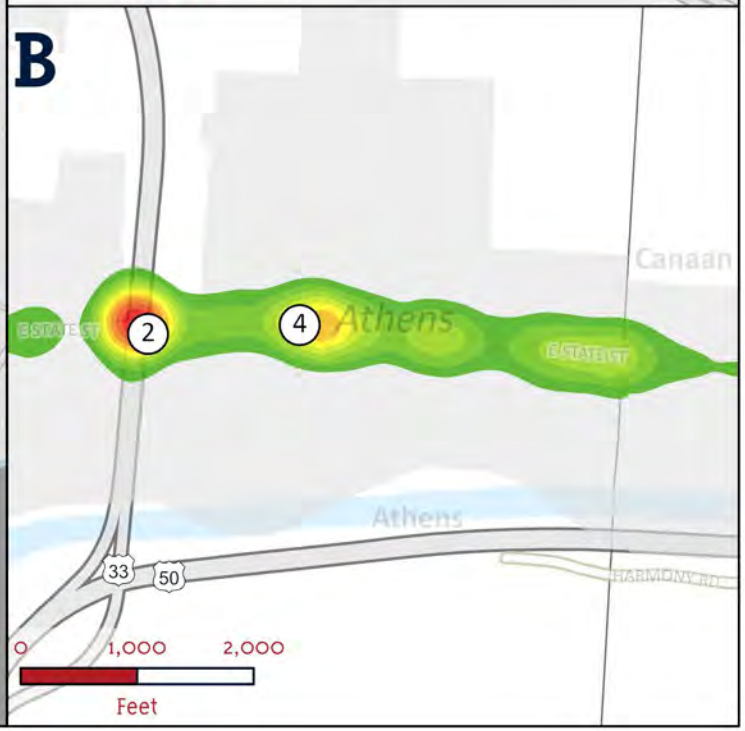
# Top Crash Locations (2015-2019)
Athens County

**Athens County - Top 5 Crash Intersections 2015-2019**

| Rank | Location | Crashes | Highest Severity | Jurisdiction |
|---|---|---|---|---|
| 1 | Richland Ave/SR 682 | 90 | Visible Injury | Athens City |
| 2 | US 33/E State St | 77 | Serious Injury | Athens City |
| 3 | W Union St/SR 682 | 32 | Serious Injury | Athens City |
| 4 | E State Street/Charles St/Community Center Dr | 30 | Possible Injury | Athens City |
| 5 | Plains Rd (from E Third St to Connett Rd) | 26 | Serious Injury | Athens Township |



## HOCKING COUNTY OVERVIEW:

Between 2015 and 2019 there were a total of 3,201 crashes reported within Hocking County, Ohio, averaging 640 per year. Around 778 people were injured as result of these crashes which includes 22 fatalities and 146 serious injuries. Overall there has been an increase in total crashes, with 13% more crashes in 2019 compared to 2015. Fatal crashes have decreased over the 5-year period by 33%, with high points of 6 in 2017 & 2018 each. Injury crashes overall have increased by 26% in the last 5-years.

## CRASH TRENDS BY YEAR, 2015 TO 2019:

| YEAR | CRASH STATISTICS | | | | OCCUPANT STATISTICS | | | SAFETY METRICS | |
|---|---|---|---|---|---|---|---|---|---|
| | Fatal Crashes | Injury Crashes | Property Damage Crashes | Total Crashes | Fatalities | Serious Injuries | Minor Injuries | Injury Rate | Severity Index |
| 2015 | 3 | 152 | 452 | 607 | 4 | 22 | 109 | 25.5% | 1.56 |
| 2016 | 4 | 171 | 417 | 592 | 4 | 33 | 129 | 29.6% | 1.65 |
| 2017 | 6 | 158 | 457 | 621 | 6 | 39 | 122 | 26.4% | 1.62 |
| 2018 | 6 | 197 | 494 | 697 | 6 | 29 | 125 | 29.1% | 1.66 |
| 2019 | 2 | 191 | 491 | 684 | 2 | 23 | 125 | 28.2% | 1.59 |
| 5-Year Total | 21 | 896 | 2,311 | 3,201 | 22 | 146 | 610 | | |
| Annual Average | 4 | 174 | 462 | 640 | 4 | 29 | 122 | 27.80% | 1.61 |
| % Change '15-'19 | -33.30% | 25.70% | 8.60% | 12.70% | -50.00% | 4.50% | 14.70% | 10.50% | 2.30% |

Notes:

- Cells with red text indicate the year with the highest value for each respective column
- The Severity Index is calculated by the following formula: *[(12 x #FatalCrashes) + (3 x #InjuryCrashes) + #NoInjuryCrashes ] / #TotalCrashes*

## CRASH TYPE BY FREQUENCY AND SEVERITY:

| % of Crashes | CRASH TYPE | PDO | Injury Crash | Fatal Crash | Fatal and Injury % |
|---|---|---|---|---|---|
| 37.70% | Fixed Object | 782 | 418 | 6 | 5.20% |
| 13.90% | Rear End | 325 | 119 | 1 | 3.67% |
| 11.30% | Animal | 337 | 24 | 1 | 0.82% |
| 7.40% | Angle | 172 | 63 | 2 | 3.11% |
| 6.90% | Sideswipe - Passing | 181 | 41 | 0 | 2.71% |
| 4.80% | Left Turn | 104 | 51 | 0 | 4.24% |
| 3.60% | Parked Vehicle | 100 | 16 | 0 | 2.17% |
| 3.40% | Backing | 104 | 5 | 0 | 0.68% |
| 3.20% | Overturning | 41 | 61 | 0 | 8.83% |
| 2.30% | Head On | 30 | 36 | 7 | 7.00% |
| 1.80% | Right Turn | 51 | 8 | 0 | 2.09% |
| 1.60% | Other Non-Collision | 43 | 5 | 0 | 1.31% |
| 0.80% | Other Object | 26 | 1 | 0 | 0.61% |
| 0.60% | Pedestrian | 14 | 4 | 0 | 3.42% |
| 0.40% | Unknown | 12 | 1 | 0 | 1.96% |
| 0.20% | Pedacycles | 1 | 5 | 0 | 11.63% |
| 0.10% | Sideswipe - Meeting | 2 | 1 | 0 | 2.94% |
| 0.00% | Train | 0 | 0 | 0 | 0.00% |
| 0.00% | Falling From Or In Vehicle | 0 | 0 | 0 | 0.00% |

*PDO stands for Property Damage-Only Crash

## KEY FACTS:

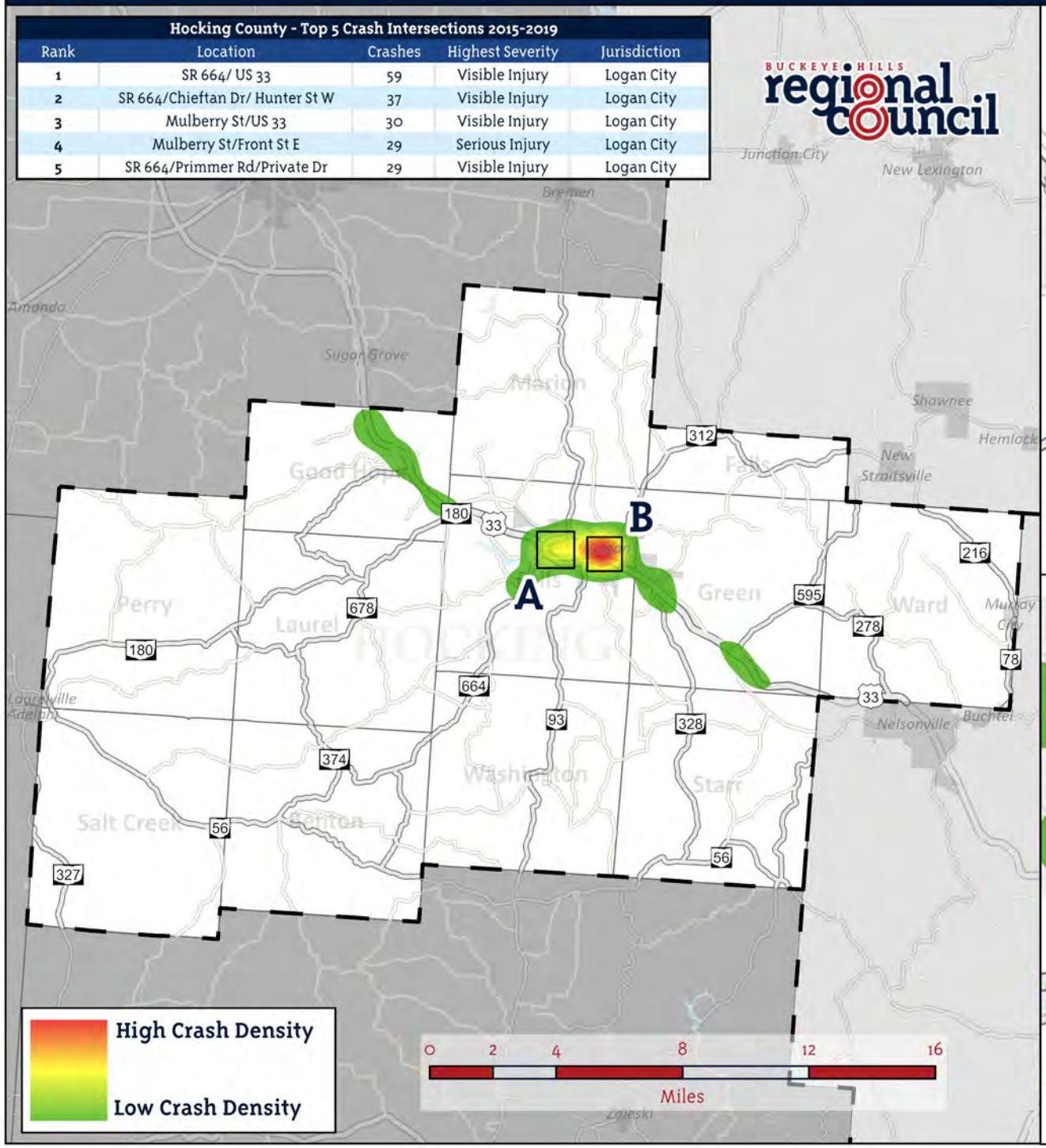
- There's been an 13% increase in total crashes between 2015 and 2019.
- On average, there were 4 fatal crashes per year between 2015 and 2019. That's roughly 1 fatal crash every 3 months.
- Between 2015 and 2019, there were 1,206 Fixed object crashes (37.7% of total crashes), making this the most common crash type overall and accounts for the second largest number of fatalities.
- Of the 18 pedestrian crashes reported, 3.42% resulted in an injury and 0 were fatal.
- Head On crashes were responsible for only 2.3% of the crashes in the last 5-years but account for the second highest fatalities in Hocking County at 7.

BUCKEYE HILLS regional council

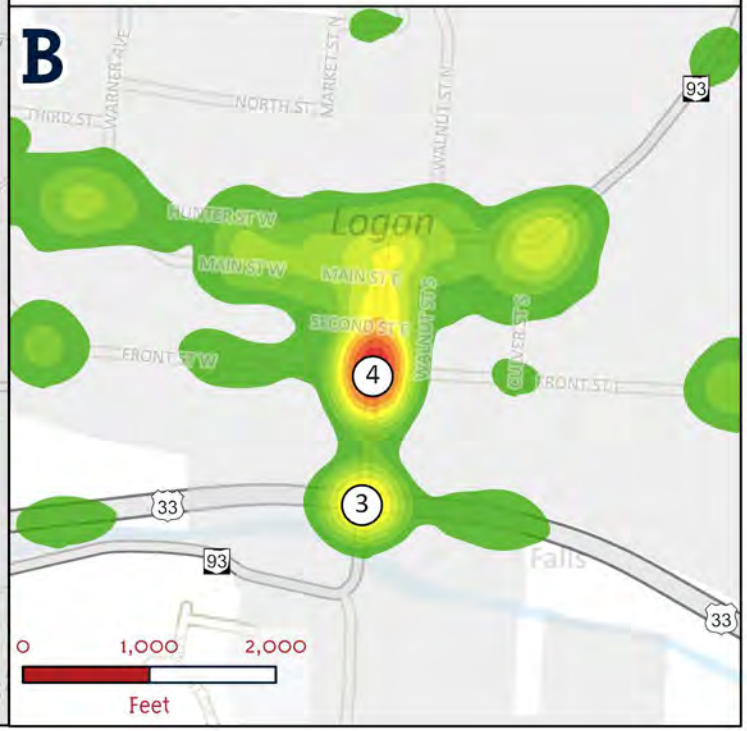
# Buckeye Hills Regional Council
RTPO

# Top Crash Locations (2015-2019)
Hocking County

| Hocking County - Top 5 Crash Intersections 2015-2019 | | | | |
|---|---|---|---|---|
| Rank | Location | Crashes | Highest Severity | Jurisdiction |
| 1 | SR 664/ US 33 | 59 | Visible Injury | Logan City |
| 2 | SR 664/Chieftan Dr/ Hunter St W | 37 | Visible Injury | Logan City |
| 3 | Mulberry St/US 33 | 30 | Visible Injury | Logan City |
| 4 | Mulberry St/Front St E | 29 | Serious Injury | Logan City |
| 5 | SR 664/Primmer Rd/Private Dr | 29 | Visible Injury | Logan City |







## MEIGS COUNTY OVERVIEW:

Between 2015 and 2019 there were a total of 1,852 crashes reported within Meigs County, Ohio, averaging 370 per year. Around 681 people were injured as result of these crashes which includes 29 fatalities and 86 serious injuries. Overall there has been a decrease in total crashes, with 6% less crashes in 2019 compared to 2015. Fatal crashes have decreased over the 5-year period by 17%, with high points of 6 in 2015 & 2018. Injury crashes overall have decreased by 7% in the last 5-years.

## CRASH TRENDS BY YEAR, 2015 TO 2019:

| YEAR | CRASH STATISTICS | | | | OCCUPANT STATISTICS | | | SAFETY METRICS | |
|---|---|---|---|---|---|---|---|---|---|
| | Fatal Crashes | Injury Crashes | Property Damage Crashes | Total Crashes | Fatalities | Serious Injuries | Minor Injuries | Injury Rate | Severity Index |
| 2015 | 6 | 118 | 238 | 362 | 6 | 17 | 111 | 34.3% | 1.83 |
| 2016 | 5 | 127 | 223 | 355 | 5 | 13 | 124 | 37.2% | 1.87 |
| 2017 | 4 | 132 | 253 | 389 | 4 | 17 | 110 | 35.0% | 1.79 |
| 2018 | 6 | 130 | 270 | 406 | 8 | 11 | 116 | 33.5% | 1.80 |
| 2019 | 5 | 110 | 225 | 340 | 6 | 28 | 105 | 33.8% | 1.81 |
| 5-Year Total | 26 | 617 | 1,209 | 1,852 | 29 | 86 | 566 | | |
| Annual Average | 5 | 123 | 242 | 370 | 6 | 17 | 113 | 34.70% | 1.82 |
| % Change '15-'19 | -16.70% | -6.80% | -5.50% | -6.10% | 0.00% | 64.70% | -5.40% | -1.30% | -1.40% |

Notes:

- Cells with red text indicate the year with the highest value for each respective column
- The Severity Index is calculated by the following formula: *[(12 x #FatalCrashes) + (3 x #InjuryCrashes) + #NoInjuryCrashes ] / #TotalCrashes*

## CRASH TYPE BY FREQUENCY AND SEVERITY:

| % of Crashes | CRASH TYPE | PDO | Injury Crash | Fatal Crash | Fatal and Injury % |
|---|---|---|---|---|---|
| 43.00% | Fixed Object | 477 | 303 | 17 | 3.92% |
| 21.00% | Animal | 359 | 30 | 0 | 0.92% |
| 8.60% | Rear End | 81 | 78 | 0 | 2.56% |
| 6.20% | Angle | 55 | 58 | 1 | 2.82% |
| 4.40% | Sideswipe - Passing | 56 | 25 | 0 | 1.65% |
| 4.20% | Left Turn | 41 | 36 | 1 | 3.07% |
| 3.30% | Overturning | 26 | 34 | 1 | 4.74% |
| 2.50% | Backing | 42 | 5 | 0 | 0.68% |
| 2.10% | Head On | 13 | 23 | 3 | 3.76% |
| 1.90% | Parked Vehicle | 27 | 8 | 0 | 1.30% |
| 0.80% | Right Turn | 8 | 7 | 0 | 1.83% |
| 0.80% | Other Non-Collision | 11 | 3 | 0 | 0.79% |
| 0.60% | Other Object | 11 | 1 | 0 | 0.61% |
| 0.30% | Sideswipe - Meeting | 1 | 2 | 2 | 3.42% |
| 0.20% | Pedestrian | 0 | 3 | 0 | 5.88% |
| 0.10% | Pedalcycles | 0 | 1 | 1 | 4.65% |
| 0.10% | Unknown | 1 | 0 | 0 | 0.00% |
| 0.00% | Train | 0 | 0 | 0 | 0.00% |
| 0.00% | Falling From Or In Vehicle | 0 | 0 | 0 | 0.00% |

*PDO stands for Property Damage-Only Crash

## KEY FACTS:

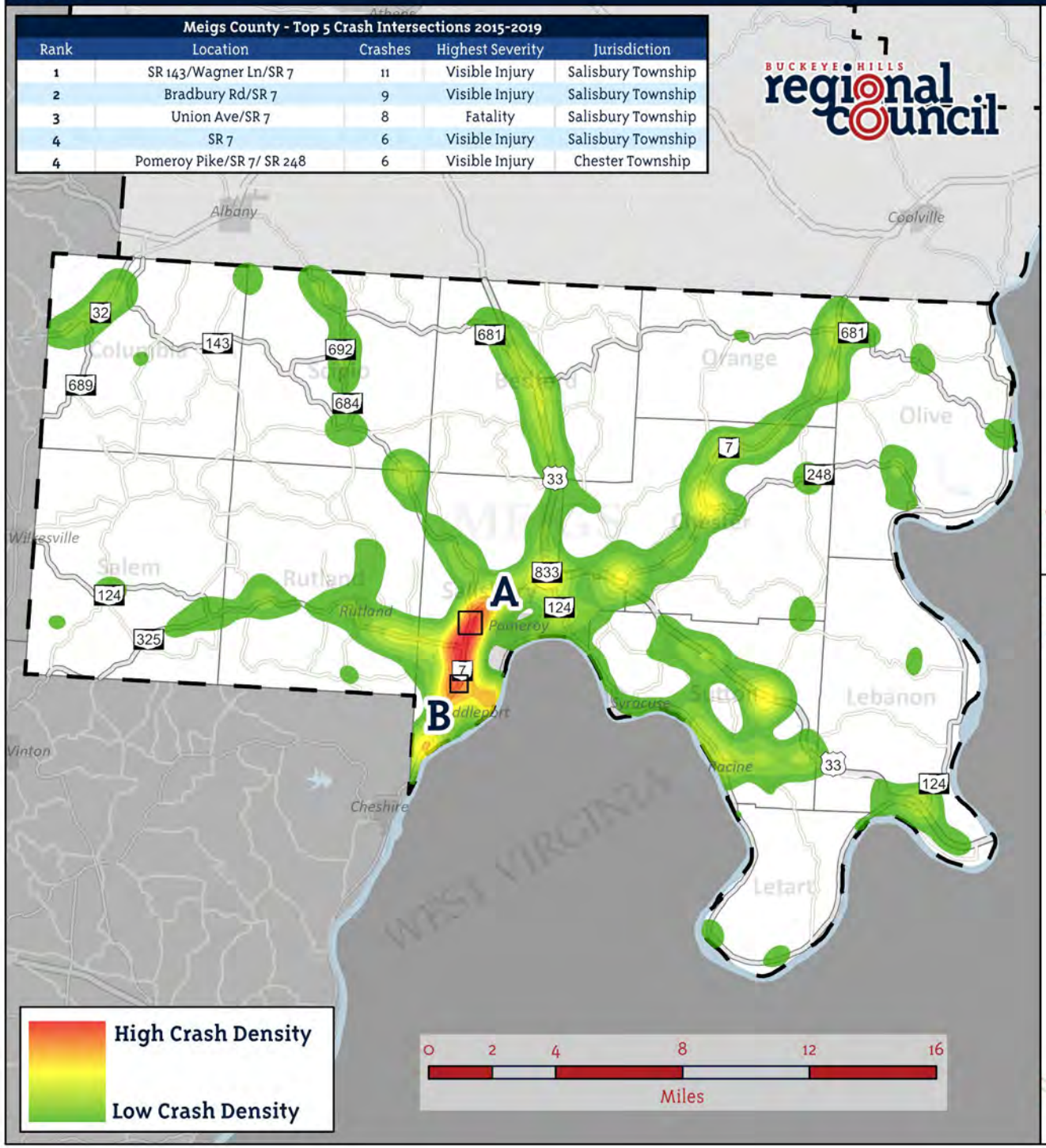
- There's been an 6% decrease in total crashes between 2015 and 2019.
- On average, there were 5 fatal crashes per year between 2015 and 2019. That's roughly a fatal crash every 2.5 months.
- Between 2015 and 2019, there were 797 Fixed object crashes (43% of total crashes), making this the most common crash type overall and also accounts for the largest number of fatalities.
- There were only 2 Pedalcycle crashes, but 1 resulted in a fatality.
- Head On crashes were responsible for only 2.1% of the crashes in the last 5-years but account for the second highest fatalities in Meigs County at 3.

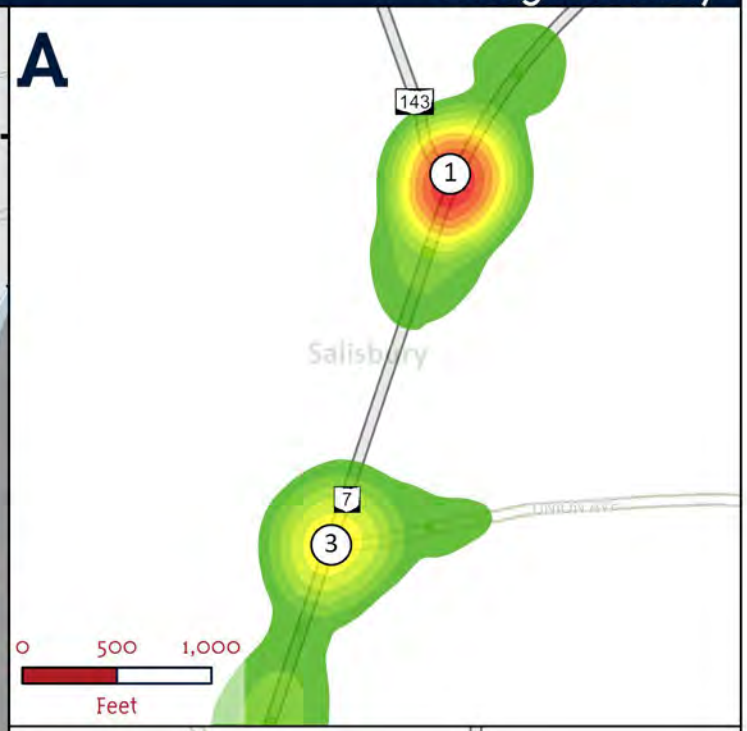
# Buckeye Hills Regional Council
RTPO

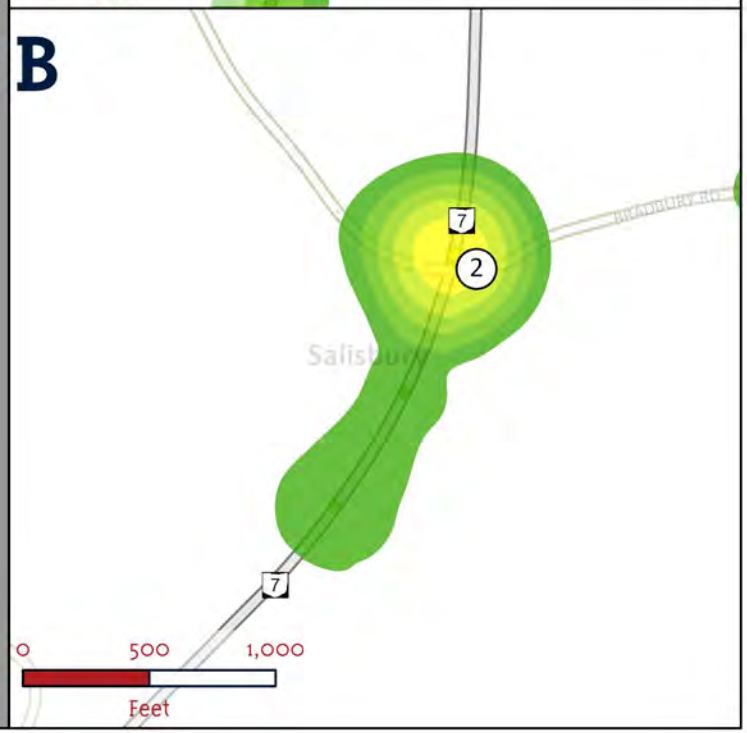
# Top Crash Locations (2015-2019)
Meigs County

**Meigs County - Top 5 Crash Intersections 2015-2019**

| Rank | Location | Crashes | Highest Severity | Jurisdiction |
|---|---|---|---|---|
| 1 | SR 143/Wagner Ln/SR 7 | 11 | Visible Injury | Salisbury Township |
| 2 | Bradbury Rd/SR 7 | 9 | Visible Injury | Salisbury Township |
| 3 | Union Ave/SR 7 | 8 | Fatality | Salisbury Township |
| 4 | SR 7 | 6 | Visible Injury | Salisbury Township |
| 4 | Pomeroy Pike/SR 7/ SR 248 | 6 | Visible Injury | Chester Township |



## MONROE COUNTY OVERVIEW:

Between 2015 and 2019 there were a total of 1,406 crashes reported within Monroe County, Ohio, averaging 281 per year. Around 577 people were injured as result of these crashes which includes 15 fatalities and 70 serious injuries. Overall there has been a decrease in total crashes, with 8% less crashes in 2019 compared to 2015. Fatal crashes have increased notably over the 5-year period by 250%, with 7 fatal crashes in 2019 skewing the statistics. Injury crashes overall have increased by 9% in the last 5-years.

## CRASH TRENDS BY YEAR, 2015 TO 2019:

| YEAR | CRASH STATISTICS | | | | OCCUPANT STATISTICS | | | SAFETY METRICS | |
|---|---|---|---|---|---|---|---|---|---|
| | Fatal Crashes | Injury Crashes | Property Damage Crashes | Total Crashes | Fatalities | Serious Injuries | Minor Injuries | Injury Rate | Severity Index |
| 2015 | 2 | 65 | 212 | 279 | 2 | 12 | 36 | 24.0% | 1.54 |
| 2016 | 3 | 72 | 163 | 238 | 3 | 13 | 38 | 31.5% | 1.74 |
| 2017 | 3 | 86 | 230 | 319 | 3 | 16 | 48 | 27.9% | 0.16 |
| 2018 | 0 | 89 | 225 | 314 | 0 | 15 | 40 | 28.3% | 1.57 |
| 2019 | 7 | 71 | 178 | 256 | 7 | 14 | 49 | 30.5% | 1.86 |
| 5-Year Total | 15 | 383 | 1,008 | 1,406 | 15 | 70 | 211 | | |
| Annual Average | 3 | 77 | 202 | 281 | 3 | 14 | 42 | 28.40% | 1.67 |
| % Change '15-'19 | 250.00% | 9.20% | -16.00% | -8.20% | 250.00% | 16.70% | 36.10% | 26.90% | 20.10% |

Notes:

- Cells with red text indicate the year with the highest value for each respective column
- The Severity Index is calculated by the following formula: *[(12 x #FatalCrashes) + (3 x #InjuryCrashes) + #NoInjuryCrashes ] / #TotalCrashes*

## CRASH TYPE BY FREQUENCY AND SEVERITY:

| % of Crashes | CRASH TYPE | PDO | Injury Crash | Fatal Crash | Fatal and Injury % |
|---|---|---|---|---|---|
| 48.30% | Fixed Object | 483 | 188 | 8 | 2.40% |
| 8.70% | Rear End | 84 | 38 | 0 | 1.16% |
| 7.80% | Angle | 72 | 38 | 0 | 1.25% |
| 7.00% | Left Turn | 75 | 23 | 0 | 1.10% |
| 5.70% | Overturning | 47 | 33 | 0 | 2.18% |
| 4.60% | Animal | 57 | 8 | 0 | 0.66% |
| 4.60% | Sideswipe - Passing | 50 | 13 | 1 | 1.89% |
| 4.30% | Backing | 55 | 5 | 0 | 0.68% |
| 3.40% | Head On | 21 | 23 | 4 | 3.91% |
| 2.00% | Parked Vehicle | 24 | 4 | 0 | 0.65% |
| 1.30% | Other Non-Collision | 15 | 3 | 0 | 0.78% |
| 1.20% | Right Turn | 12 | 4 | 1 | 1.31% |
| 0.70% | Other Object | 8 | 2 | 0 | 1.22% |
| 0.20% | Sideswipe - Meeting | 3 | 0 | 0 | 0.00% |
| 0.10% | Unknown | 2 | 0 | 0 | 0.00% |
| 0.10% | Pedestrian | 0 | 1 | 1 | 4.65% |
| 0.00% | Train | 0 | 0 | 0 | 0.00% |
| 0.00% | Falling From Or In Vehicle | 0 | 0 | 0 | 0.00% |

*PDO stands for Property Damage-Only Crash

## KEY FACTS:

- There's been an 8% decrease in total crashes between 2015 and 2019.
- Aside from a notable spike of 7 in fatal crashes in 2019, the County normally averaged 2 fatal crashes per year.
- Between 2015 and 2019, there were 483 Fixed object crashes (48% of total crashes), making this the most common crash type overall and also accounts for the largest number of fatalities.
- There were only 2 Pedestrian crashes, but 1 resulted in a fatality.
- Head On crashes were responsible for only 3.4% of the crashes in the last 5-years but account for the second highest fatalities in Monroe County at 4.

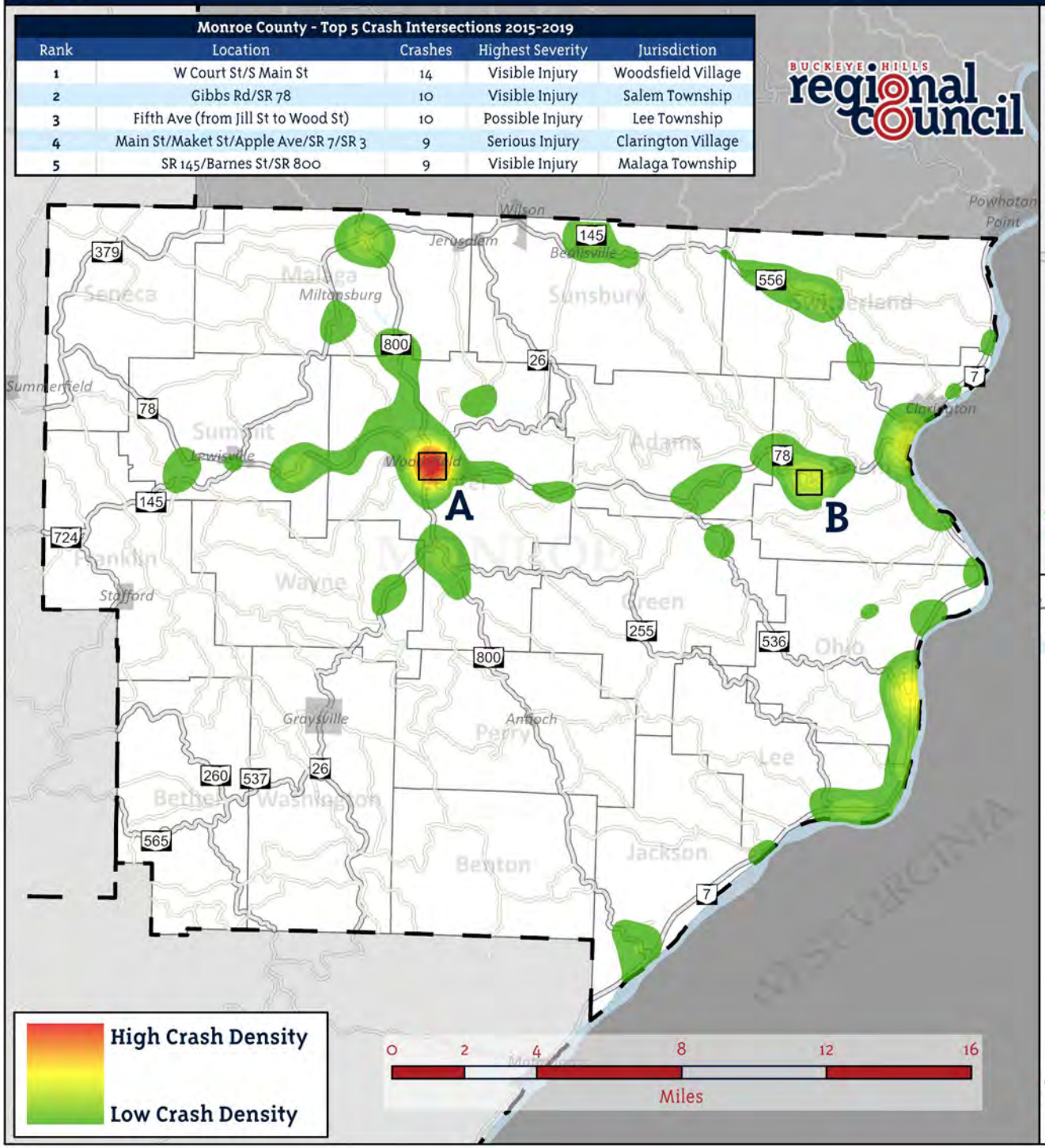
BUCKEYE HILLS regional council

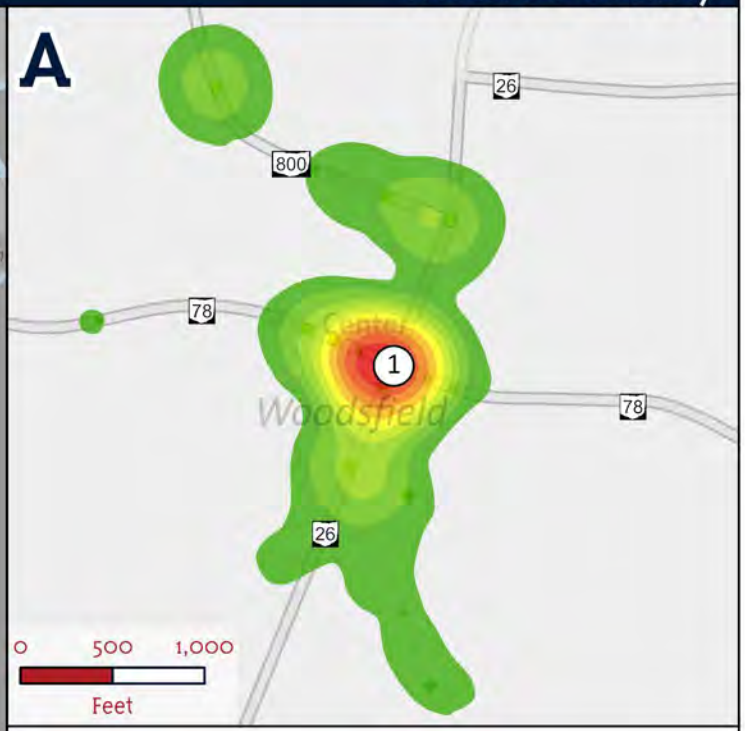
# Buckeye Hills Regional Council
RTPO

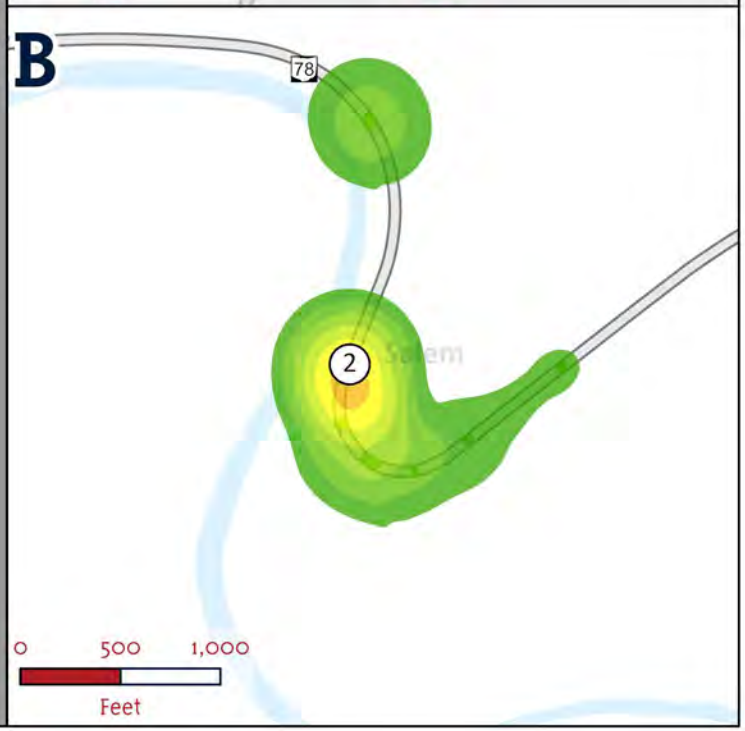
# Top Crash Locations (2015-2019)
Monroe County

**Monroe County - Top 5 Crash Intersections 2015-2019**

| Rank | Location | Crashes | Highest Severity | Jurisdiction |
|---|---|---|---|---|
| 1 | W Court St/S Main St | 14 | Visible Injury | Woodsfield Village |
| 2 | Gibbs Rd/SR 78 | 10 | Visible Injury | Salem Township |
| 3 | Fifth Ave (from Jill St to Wood St) | 10 | Possible Injury | Lee Township |
| 4 | Main St/Maket St/Apple Ave/SR 7/SR 3 | 9 | Serious Injury | Clarington Village |
| 5 | SR 145/Barnes St/SR 800 | 9 | Visible Injury | Malaga Township |



## MORGAN COUNTY OVERVIEW:

Between 2015 and 2019 there were a total of 1,115 crashes reported within Morgan County, Ohio, averaging 233 per year. Around 337 people were injured as result of these crashes which includes 22 fatalities and 97 serious injuries. Overall there has been a decrease in total crashes, with 21% less crashes in 2019 compared to 2015. Fatal crashes have remained stable over the 5-year with no change in the annual average of 4. Injury crashes overall have decreased by 25% in the last 5-years.

## CRASH TRENDS BY YEAR, 2015 TO 2019:

| YEAR | CRASH STATISTICS | | | | OCCUPANT STATISTICS | | | SAFETY METRICS | |
|---|---|---|---|---|---|---|---|---|---|
| | Fatal Crashes | Injury Crashes | Property Damage Crashes | Total Crashes | Fatalities | Serious Injuries | Minor Injuries | Injury Rate | Severity Index |
| 2015 | 4 | 76 | 163 | 243 | 6 | 16 | 55 | 32.0% | 1.81 |
| 2016 | 5 | 74 | 172 | 251 | 6 | 24 | 44 | 31.5% | 1.81 |
| 2017 | 4 | 60 | 158 | 222 | 4 | 16 | 40 | 28.8% | 1,74 |
| 2018 | 2 | 64 | 141 | 207 | 2 | 19 | 38 | 31.9% | 1.72 |
| 2019 | 4 | 57 | 131 | 192 | 4 | 22 | 41 | 31.8% | 1.82 |
| 5-Year Total | 19 | 331 | 765 | 1,115 | 22 | 97 | 218 | | |
| Annual Average | 4 | 66 | 153 | 223 | 4 | 19 | 44 | 31.40% | 1.78 |
| % Change '15-'19 | 0.00% | -25.00% | -19.60% | -21.00% | -33.30% | 37.50% | -25.50% | -3.50% | 0.90% |

Notes:

- Cells with red text indicate the year with the highest value for each respective column
- The Severity Index is calculated by the following formula: *[(12 x #FatalCrashes) + (3 x #InjuryCrashes) + #NoInjuryCrashes ] / #TotalCrashes*

## CRASH TYPE BY FREQUENCY AND SEVERITY:

| % of Crashes | CRASH TYPE | PDO | Injury Crash | Fatal Crash | Fatal and Injury % |
|---|---|---|---|---|---|
| 40.50% | Fixed Object | 297 | 147 | 8 | 1.90% |
| 11.80% | Animal | 124 | 8 | 0 | 0.24% |
| 8.60% | Angle | 69 | 26 | 1 | 0.89% |
| 8.50% | Rear End | 67 | 27 | 1 | 1.34% |
| 5.40% | Overturning | 21 | 36 | 3 | 2.58% |
| 4.60% | Left Turn | 33 | 17 | 1 | 1.50% |
| 4.40% | Head On | 20 | 26 | 3 | 3.92% |
| 4.20% | Sideswipe - Passing | 33 | 14 | 0 | 1.92% |
| 3.70% | Parked Vehicle | 35 | 6 | 0 | 0.87% |
| 3.20% | Backing | 34 | 1 | 1 | 0.33% |
| 3.00% | Other Non-Collision | 18 | 16 | 0 | 4.18% |
| 0.60% | Right Turn | 6 | 1 | 0 | 0.26% |
| 0.50% | Other Object | 5 | 1 | 0 | 0.61% |
| 0.30% | Pedestrian | 0 | 3 | 0 | 2.56% |
| 0.20% | Unknown | 2 | 0 | 0 | 0.00% |
| 0.20% | Pedalcycles | 0 | 2 | 0 | 4.65% |
| 0.20% | Sideswipe - Meeting | 1 | 0 | 1 | 50.00% |
| 0.00% | Train | 0 | 0 | 0 | 0.00% |

*PDO stands for Property Damage-Only Crash

## KEY FACTS:

- There's been an 21% decrease in total crashes between 2015 and 2019.
- On average, there were 4 fatal crashes per year between 2015 and 2019. That's roughly a fatal crash every 3 months.
- Between 2015 and 2019, there were 452 Fixed object crashes (40% of total crashes), making this the most common crash type overall and also accounts for the largest number of fatalities.
- There were only 2 Pedalcycle crashes, but only resulted in injury and not fatal.
- Head On and Overturning crashes account for the second highest fatalities in Morgan County at 3 each.

BUCKEYE HILLS regional council

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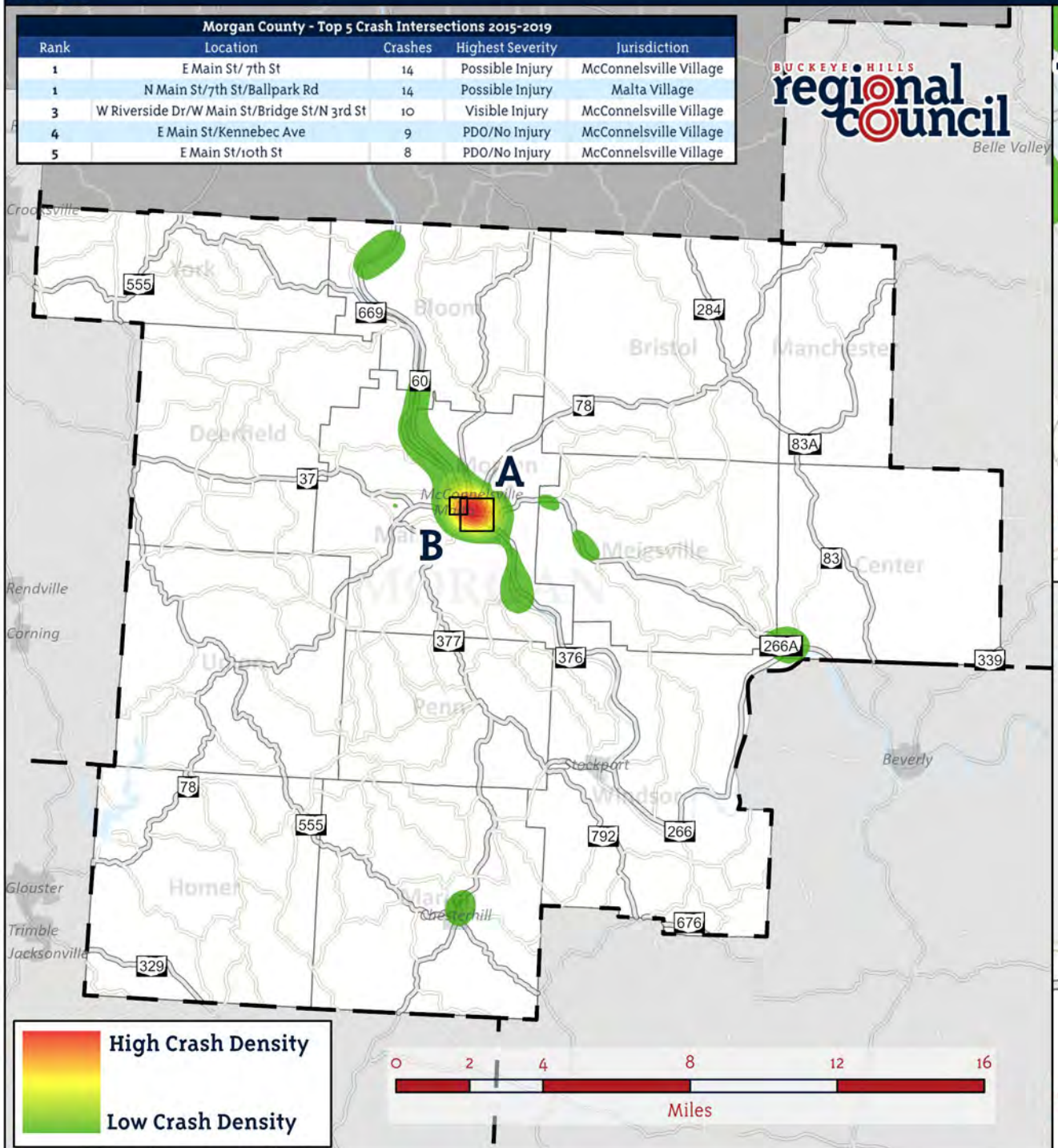
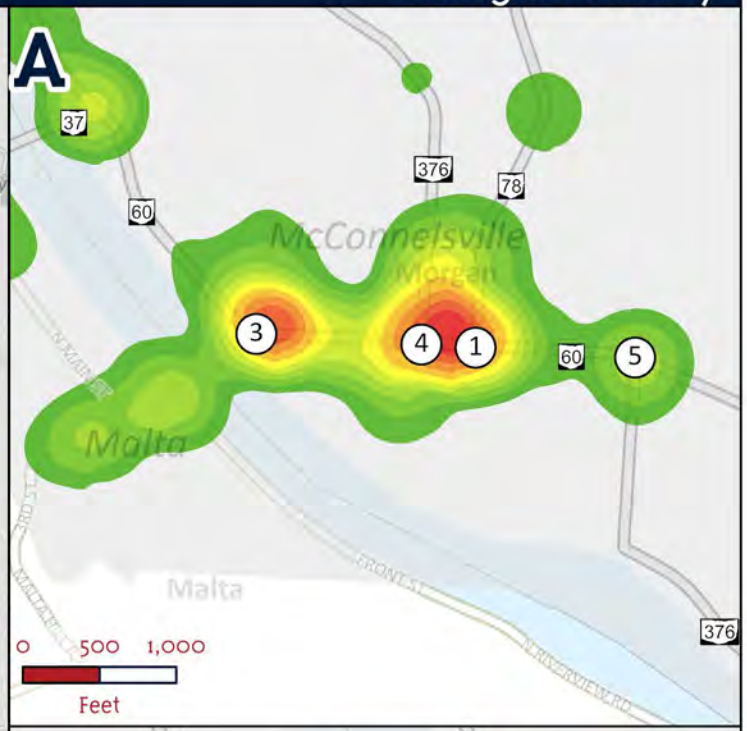
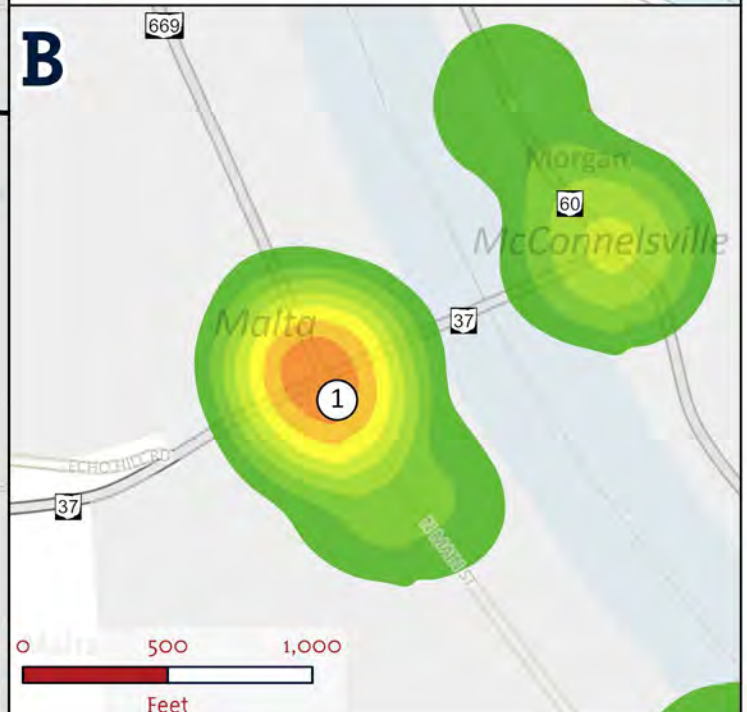
# Top Crash Locations (2015-2019)
Morgan County

| Morgan County - Top 5 Crash Intersections 2015-2019 | | | | |
|---|---|---|---|---|
| Rank | Location | Crashes | Highest Severity | Jurisdiction |
| 1 | E Main St/ 7th St | 14 | Possible Injury | McConnelsville Village |
| 1 | N Main St/7th St/Ballpark Rd | 14 | Possible Injury | Malta Village |
| 3 | W Riverside Dr/W Main St/Bridge St/N 3rd St | 10 | Visible Injury | McConnelsville Village |
| 4 | E Main St/Kennebec Ave | 9 | PDO/No Injury | McConnelsville Village |
| 5 | E Main St/10th St | 8 | PDO/No Injury | McConnelsville Village |



## NOBLE COUNTY OVERVIEW:

Between 2015 and 2019 there were a total of 982 crashes reported within Noble County, Ohio, averaging 196 per year. Around 191 people were injured as result of these crashes which includes 15 fatalities and 30 serious injuries. Overall there has been an increase in total crashes, with 29% more crashes in 2019 compared to 2015. Fatal crashes have remained stable over the 5-year with no change in the annual average of 3. Injury crashes overall have increased by 95% in the last 5-years.

## CRASH TRENDS BY YEAR, 2015 TO 2019:

| YEAR | CRASH STATISTICS | | | | OCCUPANT STATISTICS | | | SAFETY METRICS | |
|---|---|---|---|---|---|---|---|---|---|
| | Fatal Crashes | Injury Crashes | Property Damage Crashes | Total Crashes | Fatalities | Serious Injuries | Minor Injuries | Injury Rate | Severity Index |
| 2015 | 4 | 22 | 114 | 140 | 4 | 2 | 21 | 18.6% | 1.63 |
| 2016 | 2 | 63 | 138 | 203 | 2 | 8 | 38 | 32.0% | 1.73 |
| 2017 | 0 | 57 | 192 | 249 | 0 | 10 | 31 | 22.9% | 1.46 |
| 2018 | 3 | 42 | 165 | 210 | 3 | 5 | 26 | 21.4% | 1.56 |
| 2019 | 4 | 43 | 133 | 180 | 6 | 5 | 30 | 26.1% | 1.72 |
| 5-Year Total | 13 | 227 | 742 | 982 | 15 | 30 | 146 | | |
| Annual Average | 3 | 45 | 148 | 196 | 3 | 6 | 29 | 24.20% | 1.62 |
| % Change '15-'19 | 0.00% | 95.00% | 16.70% | 28.60% | 50.00% | 150.00% | 42.90% | 40.60% | 5.80% |

Notes:

- Cells with red text indicate the year with the highest value for each respective column
- The Severity Index is calculated by the following formula: *[(12 x #FatalCrashes) + (3 x #InjuryCrashes) + #NoInjuryCrashes ] / #TotalCrashes*

## CRASH TYPE BY FREQUENCY AND SEVERITY:

| % of Crashes | CRASH TYPE | PDO | Injury Crash | Fatal Crash | Fatal and Injury % |
|---|---|---|---|---|---|
| 39.90% | Fixed Object | 267 | 121 | 4 | 1.53% |
| 21.60% | Animal | 198 | 14 | 0 | 0.43% |
| 7.90% | Sideswipe - Passing | 67 | 11 | 0 | 0.36% |
| 5.70% | Rear End | 38 | 17 | 1 | 0.86% |
| 3.80% | Angle | 23 | 14 | 0 | 0.93% |
| 3.70% | Head On | 21 | 9 | 6 | 1.25% |
| 3.70% | Overturning | 14 | 22 | 0 | 2.98% |
| 3.40% | Left Turn | 26 | 7 | 0 | 0.96% |
| 2.40% | Other Non-Collision | 21 | 3 | 0 | 0.43% |
| 2.20% | Other Object | 21 | 1 | 0 | 0.16% |
| 2.00% | Backing | 19 | 1 | 0 | 0.26% |
| 1.60% | Parked Vehicle | 12 | 4 | 0 | 1.05% |
| 1.00% | Right Turn | 9 | 1 | 0 | 0.61% |
| 0.40% | Unknown | 4 | 0 | 0 | 0.00% |
| 0.40% | Pedestrian | 1 | 2 | 1 | 5.88% |
| 0.10% | Falling From Or In Vehicle | 0 | 0 | 1 | 2.33% |
| 0.10% | Sideswipe - Meeting | 1 | 0 | 0 | 0.00% |
| 0.00% | Train | 0 | 0 | 0 | 0.00% |

*PDO stands for Property Damage-Only Crash

## KEY FACTS:

- There's been an 29% increase in total crashes between 2015 and 2019.
- On average, there were 3 fatal crashes per year between 2015 and 2019. That's roughly a fatal crash every 4 months.
- Between 2015 and 2019, there were 392 Fixed object crashes (40% of total crashes), making this the most common crash type overall but accounts for the second largest number of fatalities.
- There were only 4 Pedestrian crashes with the results of 2 injury crashes and 1 fatal crash.
- Head On crashes account for the highest fatalities in the County at 6 each.

BUCKEYE HILLS regional council

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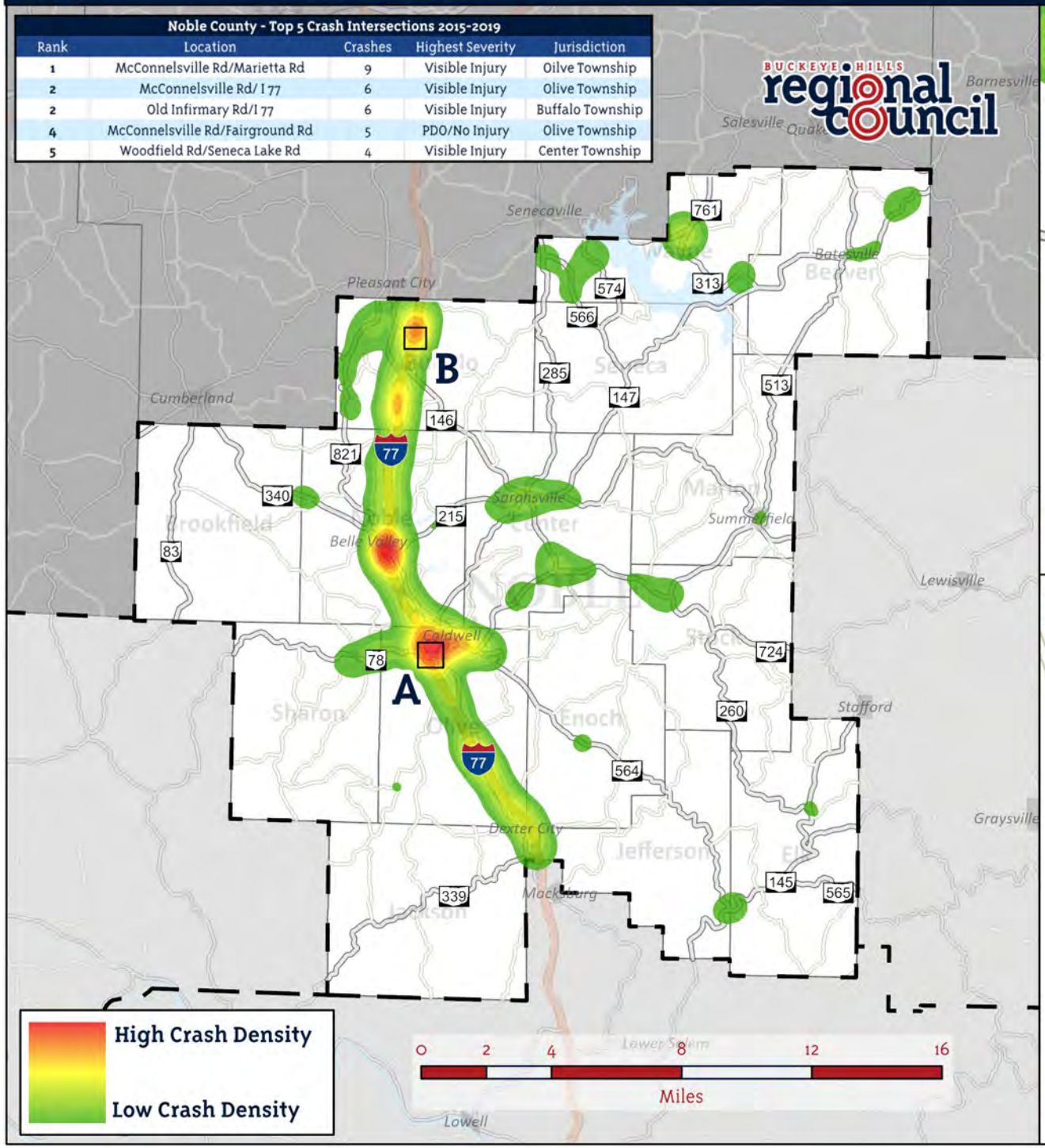
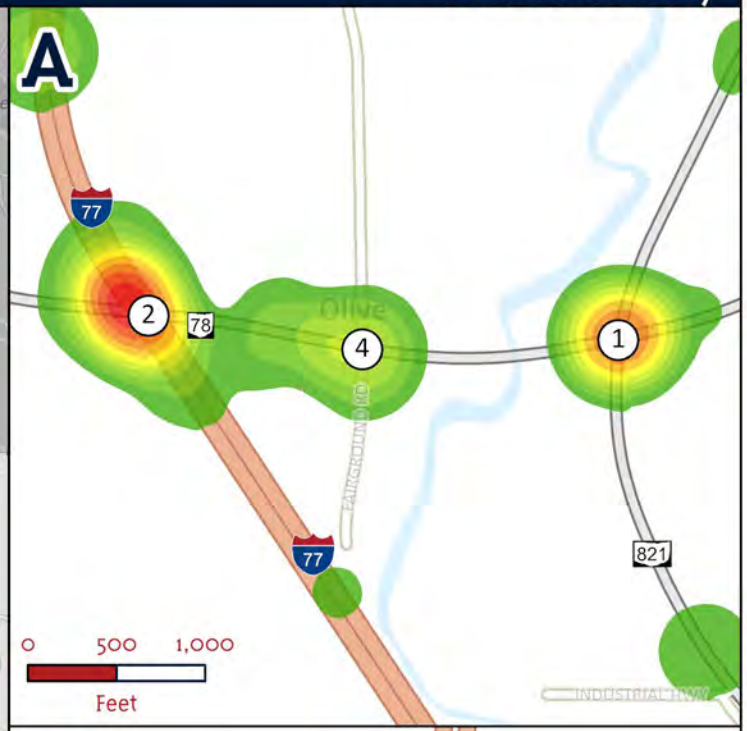
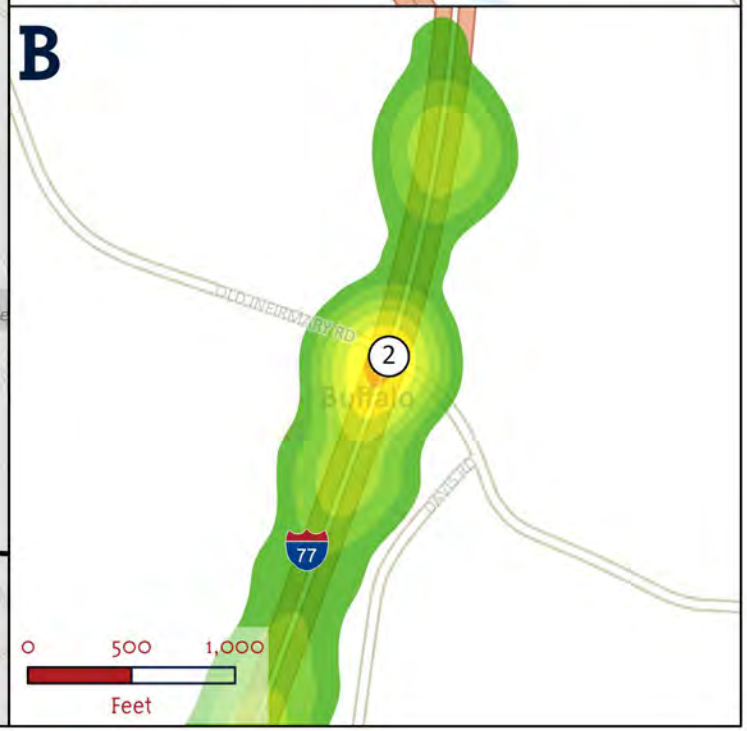
# Top Crash Locations (2015-2019)
Noble County

| Noble County - Top 5 Crash Intersections 2015-2019 | | | | |
|---|---|---|---|---|
| Rank | Location | Crashes | Highest Severity | Jurisdiction |
| 1 | McConnelsville Rd/Marietta Rd | 9 | Visible Injury | Oilve Township |
| 2 | McConnelsville Rd/ I 77 | 6 | Visible Injury | Olive Township |
| 2 | Old Infirmary Rd/I 77 | 6 | Visible Injury | Buffalo Township |
| 4 | McConnelsville Rd/Fairground Rd | 5 | PDO/No Injury | Olive Township |
| 5 | Woodfield Rd/Seneca Lake Rd | 4 | Visible Injury | Center Township |



## PERRY COUNTY OVERVIEW:

Between 2015 and 2019 there were a total of 2,780 crashes reported within Perry County, Ohio, averaging 556 per year. Around 984 people were injured as result of these crashes which includes 20 fatalities and 266 serious injuries. Overall there has been an increase in total crashes, with 11% more crashes in 2019 compared to 2015. Fatal crashes have increased over the last 5-years by 33% with high points of 5 in 2016 and 2018. Injury crashes overall have decreased by 13% in the last 5-years.

## CRASH TRENDS BY YEAR, 2015 TO 2019:

| YEAR | CRASH STATISTICS | | | | OCCUPANT STATISTICS | | | SAFETY METRICS | |
|---|---|---|---|---|---|---|---|---|---|
| | Fatal Crashes | Injury Crashes | Property Damage Crashes | Total Crashes | Fatalities | Serious Injuries | Minor Injuries | Injury Rate | Severity Index |
| 2015 | 3 | 202 | 298 | 503 | 3 | 45 | 147 | 40.8% | 1.87 |
| 2016 | 5 | 202 | 379 | 586 | 5 | 60 | 114 | 35.3% | 1.78 |
| 2017 | 2 | 206 | 362 | 570 | 2 | 64 | 138 | 36.5% | 1.76 |
| 2018 | 5 | 189 | 369 | 563 | 5 | 57 | 132 | 34.5% | 1.77 |
| 2019 | 4 | 175 | 379 | 558 | 5 | 40 | 167 | 32.1% | 1.71 |
| 5-Year Total | 19 | 974 | 1,787 | 2,780 | 20 | 266 | 698 | | |
| Annual Average | 4 | 195 | 357 | 556 | 4 | 53 | 140 | 35.80% | 1.78 |
| % Change '15-'19 | 33.30% | -13.40% | 27.20% | 10.90% | 66.70% | -11.10% | 13.60% | -21.30% | -8.70% |

Notes:

- Cells with red text indicate the year with the highest value for each respective column
- The Severity Index is calculated by the following formula: *[(12 x #FatalCrashes) + (3 x #InjuryCrashes) + #NoInjuryCrashes ] / #TotalCrashes*

## CRASH TYPE BY FREQUENCY AND SEVERITY:

| % of Crashes | CRASH TYPE | PDO | Injury Crash | Fatal Crash | Fatal and Injury % |
|---|---|---|---|---|---|
| 41.90% | Fixed Object | 689 | 468 | 8 | 5.84% |
| 11.40% | Rear End | 189 | 127 | 0 | 3.88% |
| 8.90% | Angle | 134 | 112 | 2 | 3.74% |
| 8.40% | Animal | 206 | 27 | 1 | 1.34% |
| 5.80% | Left Turn | 100 | 60 | 0 | 3.97% |
| 4.90% | Sideswipe - Passing | 106 | 28 | 2 | 2.49% |
| 3.70% | Head On | 50 | 51 | 3 | 7.31% |
| 3.40% | Backing | 96 | 5 | 0 | 0.68% |
| 3.60% | Parked Vehicle | 82 | 8 | 0 | 1.16% |
| 3.20% | Overturning | 28 | 49 | 0 | 7.98% |
| 2.80% | Other Non-Collision | 51 | 8 | 0 | 2.09% |
| 2.10% | Right Turn | 28 | 12 | 0 | 3.15% |
| 1.40% | Other Object | 13 | 4 | 0 | 2.44% |
| 0.60% | Pedestrian | 1 | 10 | 1 | 9.40% |
| 0.40% | Sideswipe - Meeting | 7 | 2 | 1 | 5.88% |
| 0.40% | Unknown | 7 | 0 | 0 | 0.00% |
| 0.30% | Pedalcycles | 0 | 3 | 0 | 150.00% |
| 0.10% | Train | 0 | 0 | 1 | 0.61% |

*PDO stands for Property Damage-Only Crash

## KEY FACTS:

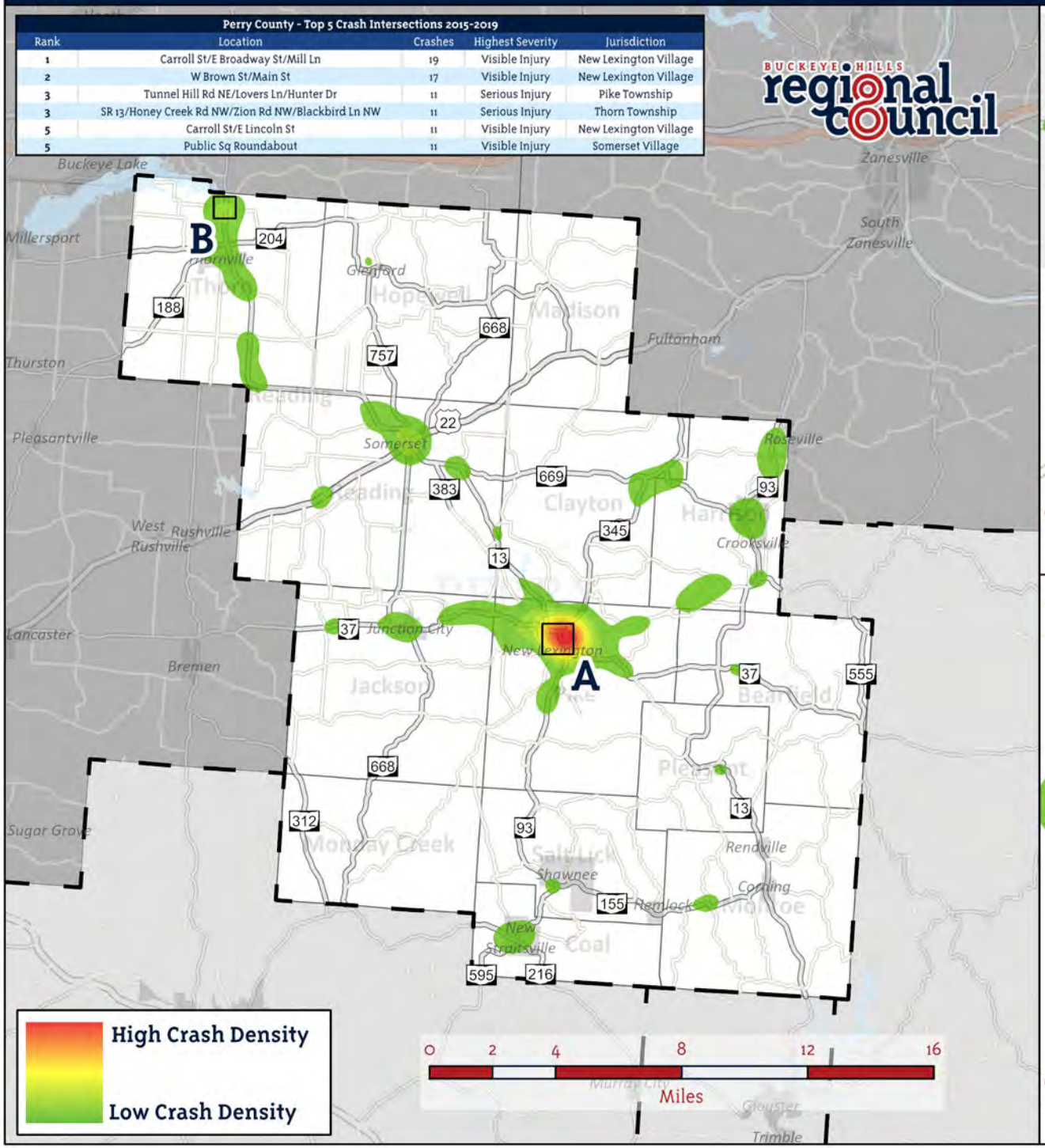
- There's been an 11% increase in total crashes between 2015 and 2019.
- On average, there were 4 fatal crashes per year between 2015 and 2019. That's roughly a fatal crash every 3 months.
- Between 2015 and 2019, there were 1,165 Fixed object crashes (42% of total crashes), making this the most common crash type overall and accounting for the largest number of fatalities.
- There were a notable 12 Pedestrian crashes in the last 5-years with the results of 10 injury crashes and 1 fatal crash.
- There was 1 crash involving a train that resulted in a fatality.

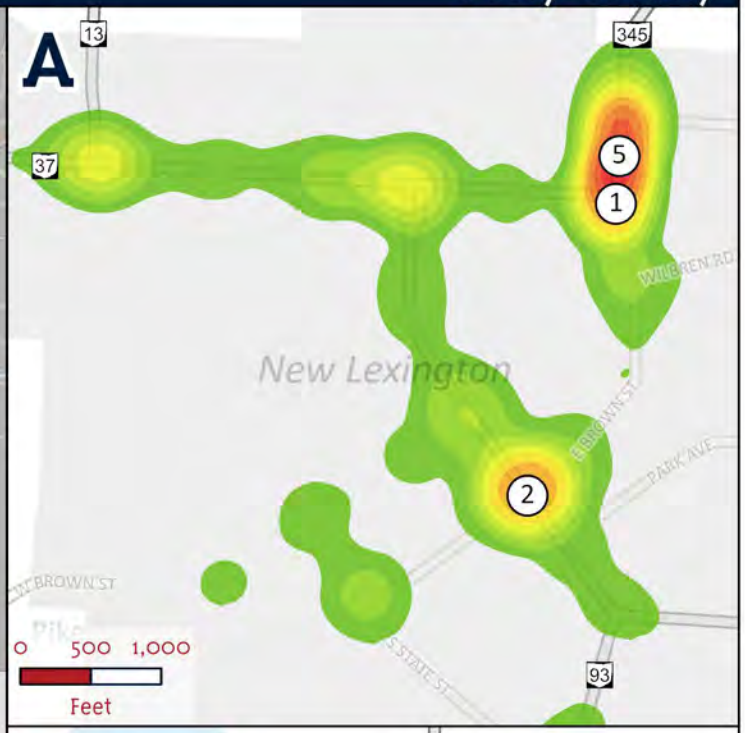
BUCKEYE HILLS regional council

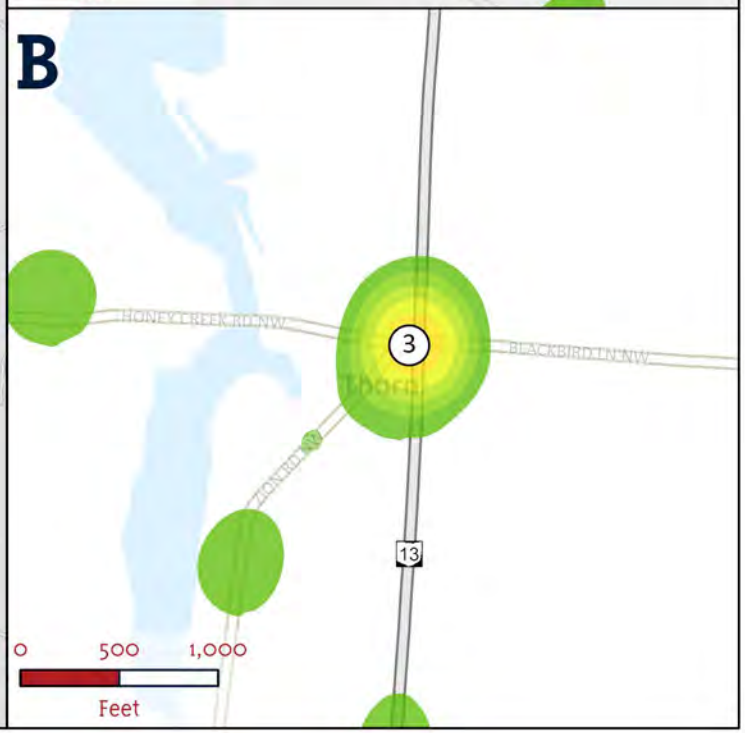
# Buckeye Hills Regional Council
RTPO

# Top Crash Locations (2015-2019)
Perry County

| Perry County - Top 5 Crash Intersections 2015-2019 | | | | |
|---|---|---|---|---|
| Rank | Location | Crashes | Highest Severity | Jurisdiction |
| 1 | Carroll St/E Broadway St/Mill Ln | 19 | Visible Injury | New Lexington Village |
| 2 | W Brown St/Main St | 17 | Visible Injury | New Lexington Village |
| 3 | Tunnel Hill Rd NE/Lovers Ln/Hunter Dr | 11 | Serious Injury | Pike Township |
| 3 | SR 13/Honey Creek Rd NW/Zion Rd NW/Blackbird Ln NW | 11 | Serious Injury | Thorn Township |
| 5 | Carroll St/E Lincoln St | 11 | Visible Injury | New Lexington Village |
| 5 | Public Sq Roundabout | 11 | Visible Injury | Somerset Village |



## WASHINGTON COUNTY OVERVIEW:

Between 2015 and 2019 there were a total of 6,525 crashes reported within Washington County, Ohio, averaging 1,305 per year. Around 1,420 people were injured as result of these crashes which includes 40 fatalities and 283 serious injuries. Overall there has been a decrease in total crashes, with 15% less crashes in 2019 compared to 2015. Fatal crashes have increased over the last 5-years by 17% with a high point of 10 in 2017. Injury crashes overall have decreased by 20% in the last 5-years.

**The data presented herein represents the whole of Washington County, but it is important to note that the roadway network in the southern half of the County (including the City of Marietta) resides under the planning jurisdiction of the WWW Interstate Planning Commission, and not Buckeye Hills RTPO. Should any local or County official wish to analyze particular areas of the County, Buckeye Hills RTPO will work with WWW Interstate Planning Commission to meet any needs.*

## CRASH TRENDS BY YEAR, 2015 TO 2019:

| YEAR | CRASH STATISTICS | | | | OCCUPANT STATISTICS | | | SAFETY METRICS | |
|---|---|---|---|---|---|---|---|---|---|
| | Fatal Crashes | Injury Crashes | Property Damage Crashes | Total Crashes | Fatalities | Serious Injuries | Minor Injuries | Injury Rate | Severity Index |
| 2015 | 6 | 381 | 998 | 1,385 | 6 | 65 | 258 | 27.9% | 1.60 |
| 2016 | 6 | 336 | 1,089 | 1,431 | 7 | 53 | 234 | 23.9% | 1.52 |
| 2017 | 10 | 353 | 928 | 1,291 | 13 | 58 | 225 | 28.1% | 1.63 |
| 2018 | 7 | 282 | 957 | 1,246 | 7 | 64 | 150 | 23.2% | 1.51 |
| 2019 | 7 | 306 | 859 | 1,172 | 7 | 43 | 230 | 26.7% | 1.59 |
| 5-Year Total | 36 | 1,658 | 4,831 | 6,525 | 40 | 283 | 1,097 | | |
| Annual Average | 7 | 332 | 966 | 1,305 | 8 | 57 | 219 | 26.00% | 1.57 |
| % Change '15-'19 | 16.70% | -19.70% | -13.90% | -15.40% | 16.70% | -33.80% | -10.90% | -4.40% | -0.60% |

Notes:

- Cells with red text indicate the year with the highest value for each respective column
- The Severity Index is calculated by the following formula: *[(12 x #FatalCrashes) + (3 x #InjuryCrashes) + #NoInjuryCrashes ] / #TotalCrashes*

## CRASH TYPE BY FREQUENCY AND SEVERITY:

| % of Crashes | CRASH TYPE | PDO | Injury Crash | Fatal Crash | Fatal and Injury % |
|---|---|---|---|---|---|
| 26.40% | Fixed Object | 1,127 | 577 | 16 | 7.27% |
| 19.30% | Rear End | 932 | 322 | 3 | 9.94% |
| 12.80% | Animal | 774 | 61 | 0 | 2.00% |
| 11.20% | Angle | 509 | 220 | 2 | 10.61% |
| 8.00% | Sideswipe - Passing | 441 | 84 | 0 | 5.55% |
| 5.60% | Left Turn | 238 | 126 | 1 | 10.55% |
| 3.50% | Parked Vehicle | 198 | 30 | 0 | 4.06% |
| 3.30% | Backing | 209 | 8 | 0 | 1.10% |
| 2.40% | Overturning | 69 | 85 | 3 | 12.74% |
| 2.30% | Right Turn | 128 | 20 | 0 | 3.26% |
| 2.10% | Head On | 68 | 63 | 8 | 18.54% |
| 1.40% | Other Non-Collision | 89 | 5 | 0 | 1.31% |
| 0.50% | Other Object | 33 | 2 | 0 | 1.22% |
| 0.50% | Pedestrian | 3 | 30 | 1 | 26.50% |
| 0.40% | Pedalcycle | 4 | 21 | 0 | 41.18% |
| 0.10% | Unknown | 7 | 2 | 0 | 4.65% |
| 0.10% | Sideswipe - Meeting | 1 | 2 | 2 | 200.00% |
| 0.00% | Train | 1 | 0 | 0 | 0.00% |

*PDO stands for Property Damage-Only Crash

## KEY FACTS:

- There's been an 15% decrease in total crashes between 2015 and 2019.
- On average, there were 7 fatal crashes per year between 2015 and 2019. That's roughly a fatal crash every 2 months.
- Between 2015 and 2019, there were 1,127 Fixed object crashes (26% of total crashes), making this the most common crash type overall and accounting for the largest number of fatalities.
- There were a notable 34 Pedestrian crashes in the last 5-years with the results of 30 injury crashes and 1 fatal crash.
- There was 1 crash involving a train that resulted in a Property Damage Only crash.

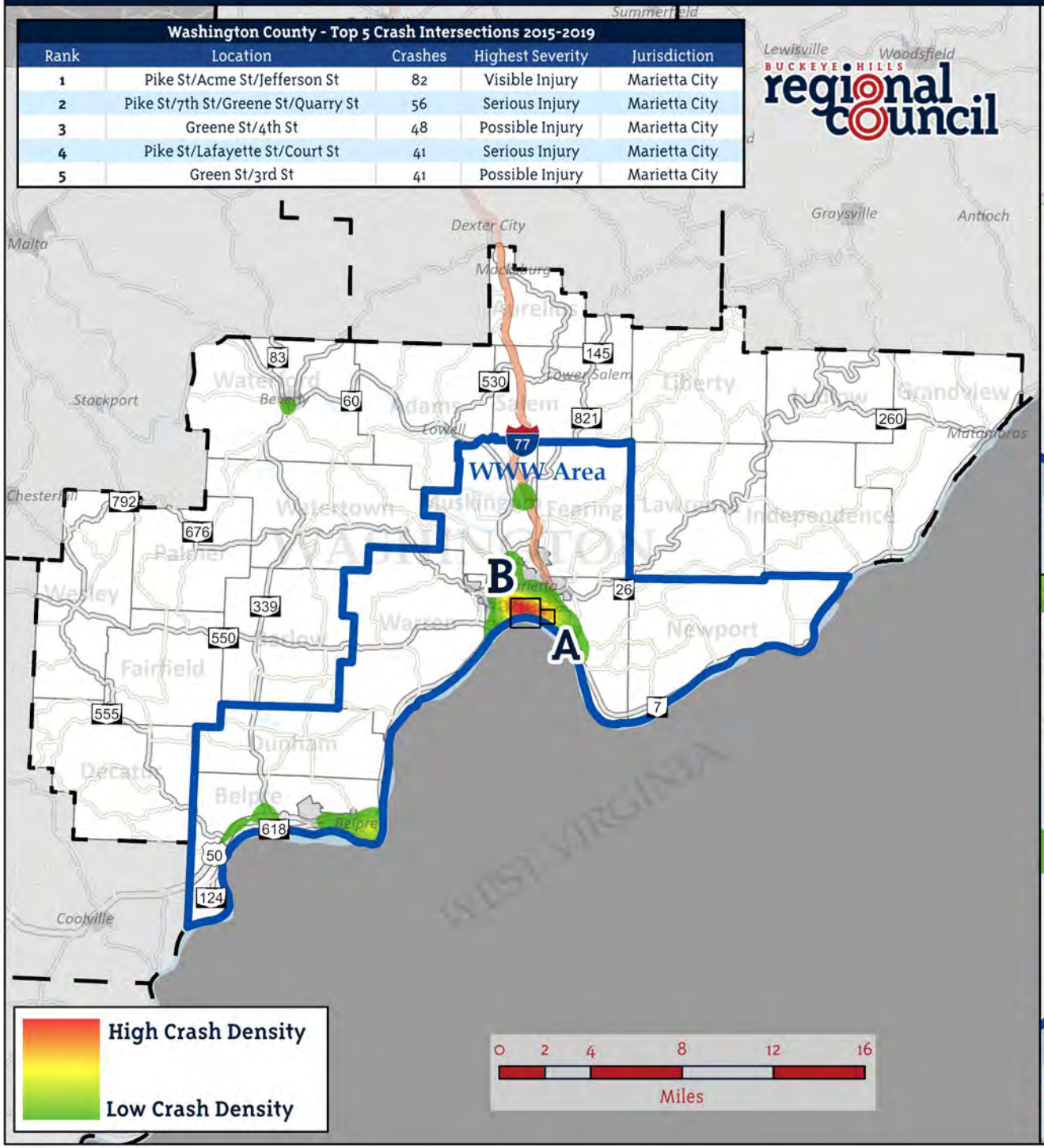
BUCKEYE HILLS regional council

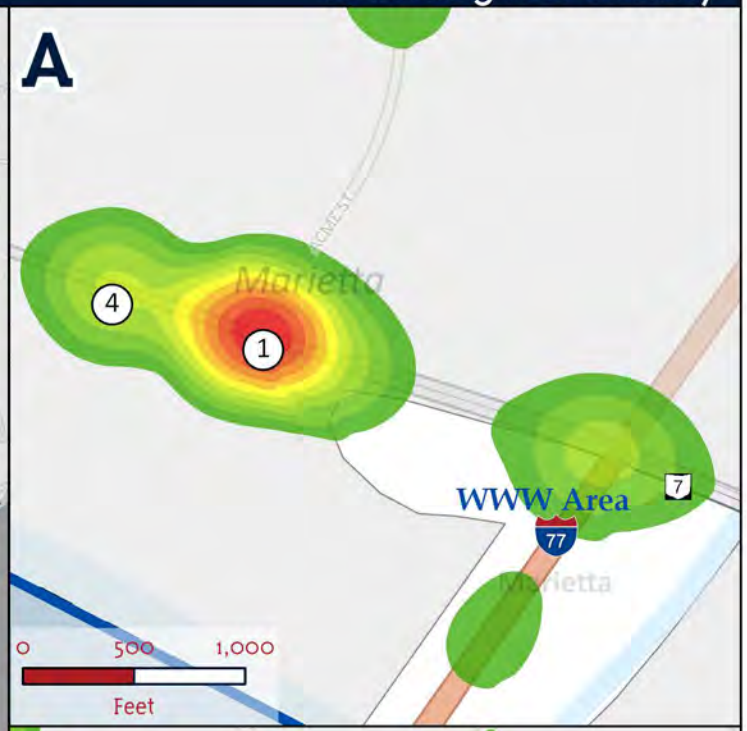
# Buckeye Hills Regional Council
RTPO

# Top Crash Locations (2015-2019)
Washington County

**Washington County - Top 5 Crash Intersections 2015-2019**

| Rank | Location | Crashes | Highest Severity | Jurisdiction |
|---|---|---|---|---|
| 1 | Pike St/Acme St/Jefferson St | 82 | Visible Injury | Marietta City |
| 2 | Pike St/7th St/Greene St/Quarry St | 56 | Serious Injury | Marietta City |
| 3 | Greene St/4th St | 48 | Possible Injury | Marietta City |
| 4 | Pike St/Lafayette St/Court St | 41 | Serious Injury | Marietta City |
| 5 | Green St/3rd St | 41 | Possible Injury | Marietta City |



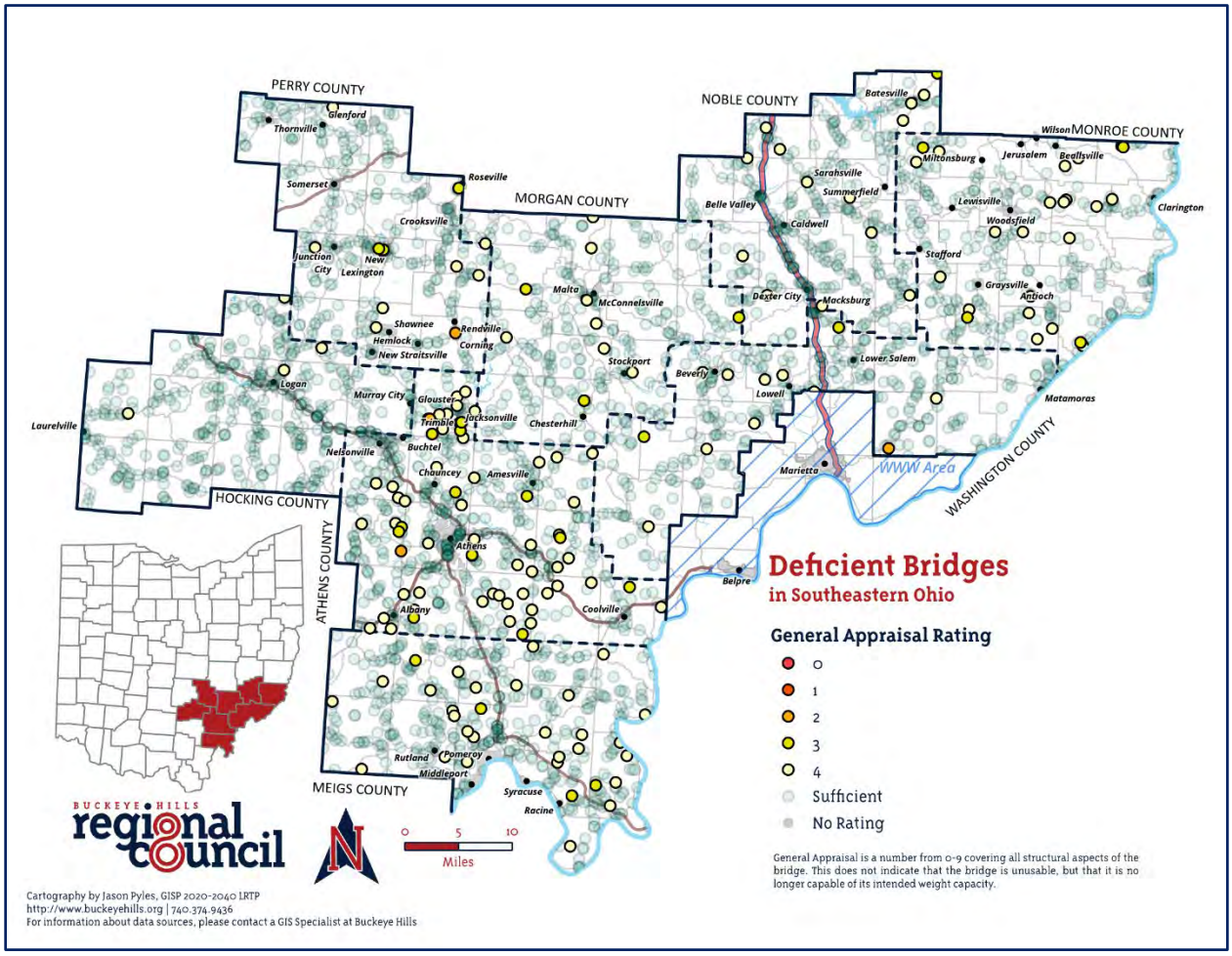

# APPENDIX F
# BRIDGES

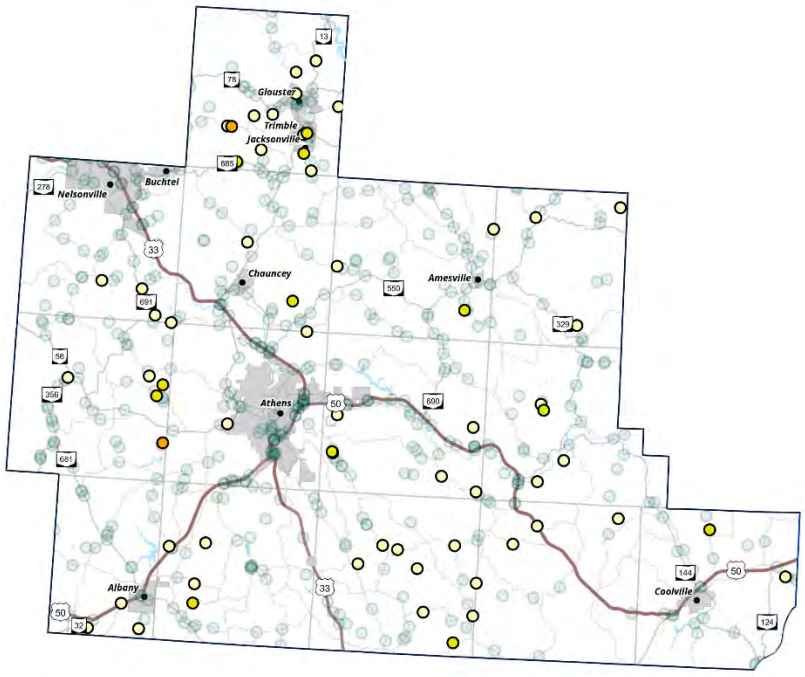
*BHRC RTPO Long-Range Transportation Plan 2020 - 2045*

# Appendix F: Bridges

Given the hilly characteristics of the natural environment in the BHRC region, there are a number of bridges spanning various rivers, creeks, ravines, etc. throughout the region. The vast majority of those bridges have a sufficient condition rating. The National Bridge Inventory condition rating rates bridges from 0-9, with 9 being newly constructed or equivalent, and 0 being completely destroyed. Any bridge with a rating 4 or below is considered deficient. In this case, deficient means compared to the original specifications. These bridges must be weight-limited and posted as such, but can still perform a useful function for the community for a number of years. Bridges rated at 1 or below must be closed to traffic as they have deteriorated to a point that they can no longer be used. Only bridges longer than twenty feet are considered part of the National Bridge Inventory. Most "deficient" bridges in the BHRC region are rated at a 4, and therefore can be used normally by passenger vehicle traffic, but may have limitations on truck traffic.

## *Maps: Bridge Inventory and those Classified by a Deficient Rating for the region and all counties*






# Bridge Condition

## Athens County

General Appraisal Rating

- 0
- 1
- 2
- 3
- 4

Sufficient

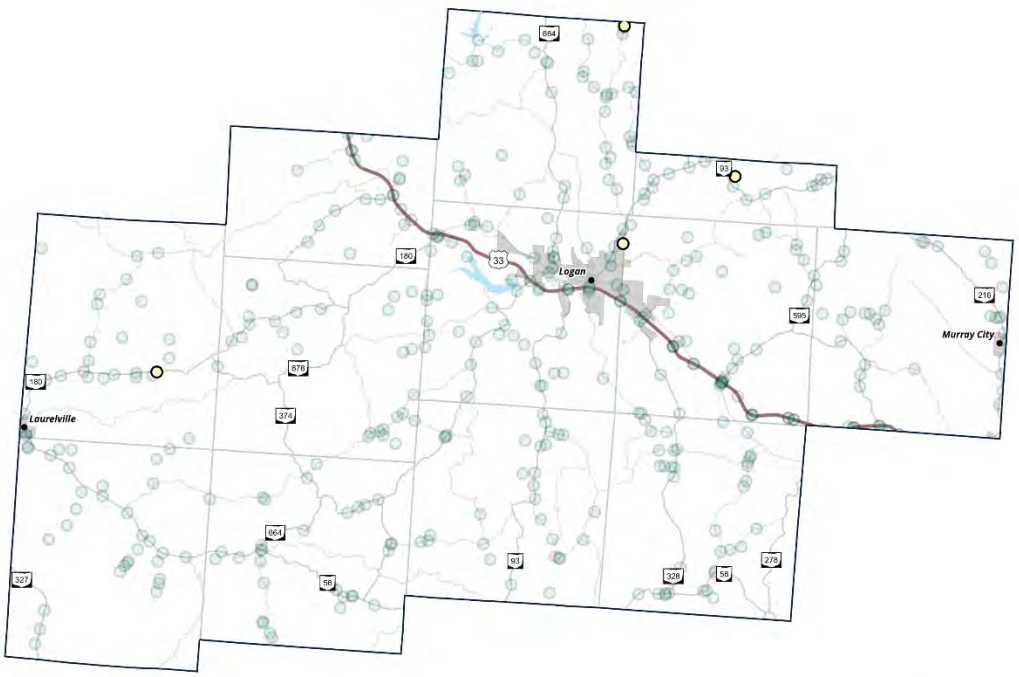
No Rating

0 2.5 5 10

Miles

BUCKEYE HILLS regional council

Cartography by BHRC | LRTP 2020-2045
http://www.buckeyehills.org | 740.374.9436
For information about data sources, please contact a GIS Specialist at Buckeye Hills




# Bridge Condition

## Hocking County

General Appraisal Rating

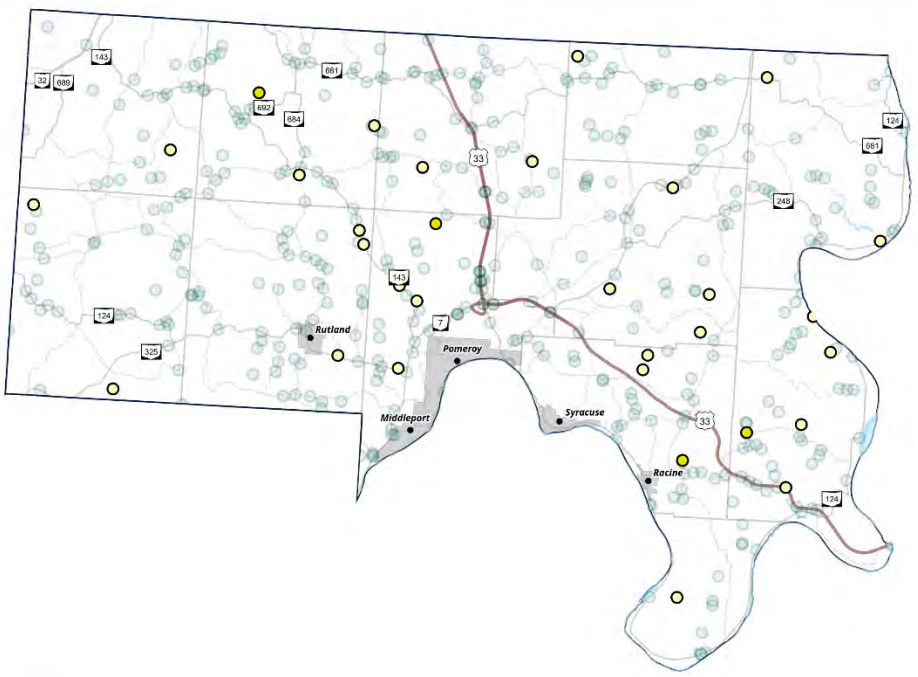
- 1
- 2
- 3
- 4
- Sufficient
- No Rating

0 2.5 5 10

Miles

BUCKEYE HILLS regional council

Cartography by BHRC | LRTP 2020-2045
http://www.buckeyehills.org | 740.374.9436
For information about data sources, please contact a GIS Specialist at Buckeye Hills




# Bridge Condition

## Meigs County

General Appraisal Rating

- 0
- 1
- 2
- 3
- 4

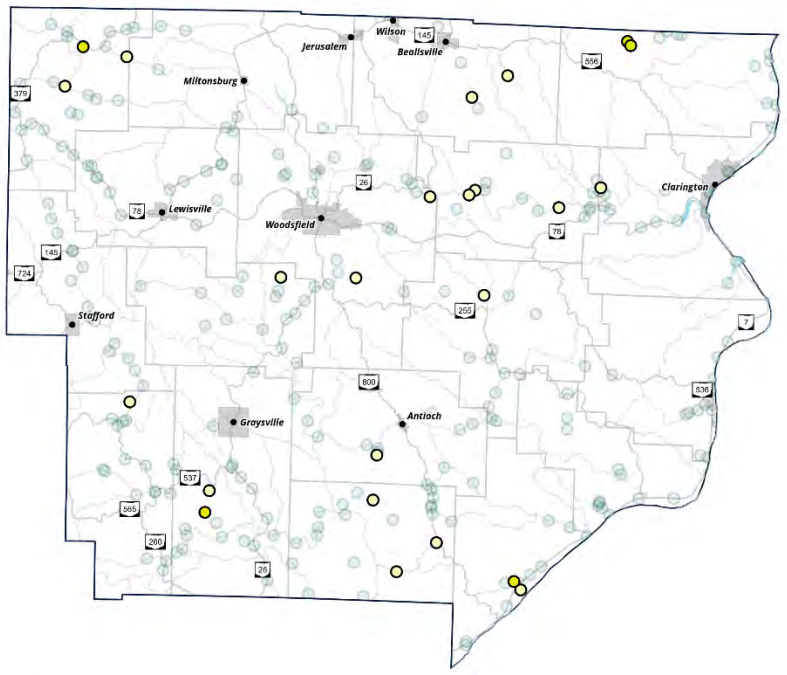
- Sufficient
- No Rating

0 2.5 5 10

Miles

BUCKEYE HILLS regional council

Cartography by BHRC | LRTP 2020-2045
http://www.buckeyehills.org | 740.374.9436
For information about data sources, please contact a GIS Specialist at Buckeye Hills




# Bridge Condition

## Monroe County

General Appraisal Rating

- 0
- 1
- 2
- 3
- 4

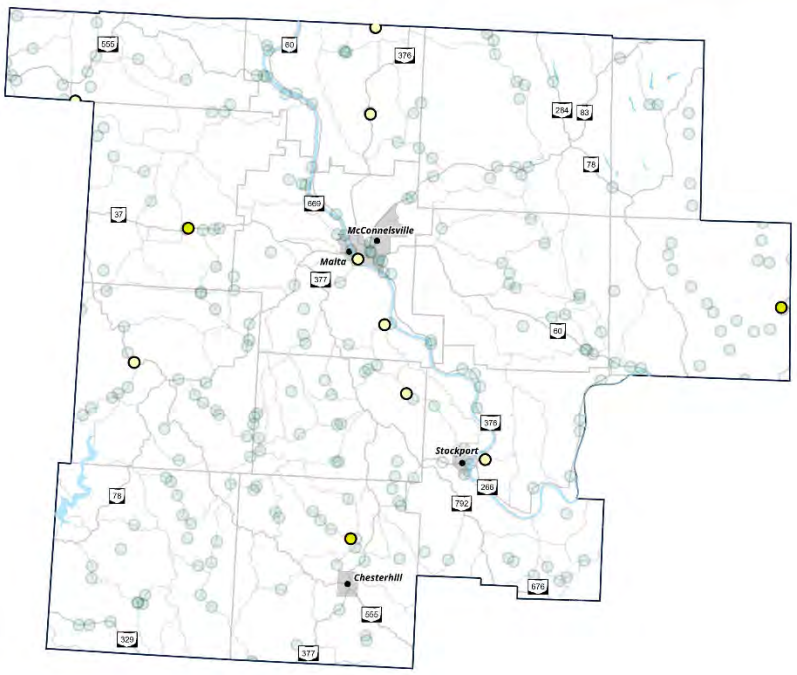
- Sufficient
- No Rating

0 2.5 5 10

Miles

BUCKEYE HILLS regional council

Cartography by BHRC | LRTP 2020-2045
http://www.buckeyehills.org | 740.374.9436
For information about data sources, please contact a GIS Specialist at Buckeye Hills




# Bridge Condition

## Morgan County

General Appraisal Rating

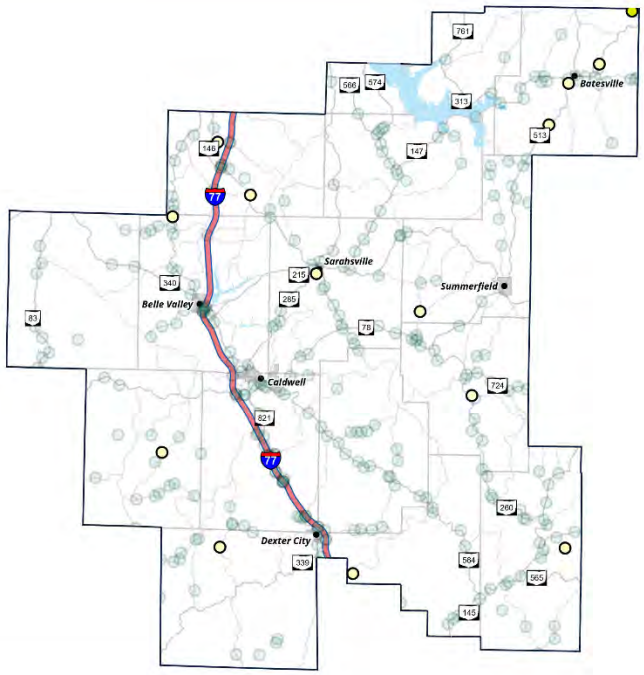
- 0
- 1
- 2
- 3
- 4

- Sufficient
- No Rating

0 2.5 5 10

Miles

Cartography by BHRC | LRTP 2020-2045
http://www.buckeyehills.org | 740.374.9436
For information about data sources, please contact a GIS Specialist at Buckeye Hills




# Bridge Condition

## Noble County

General Appraisal Rating

- 0
- 1
- 2
- 3
- 4

Sufficient

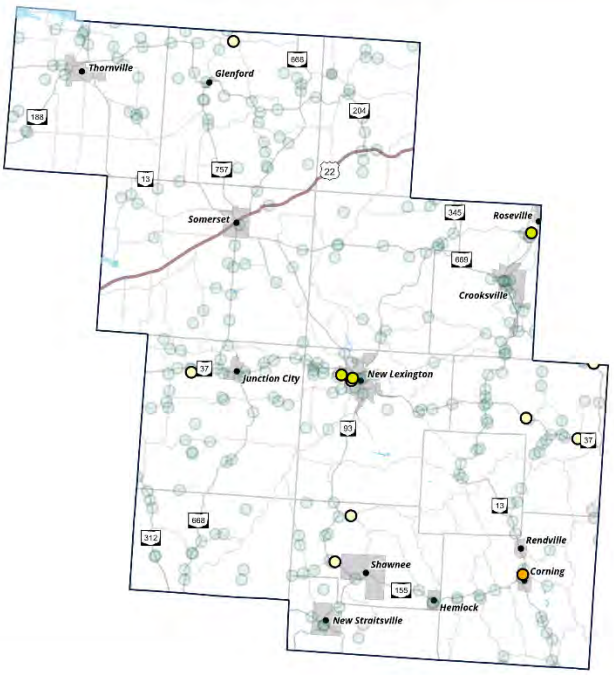
No Rating

0 2.5 5 10

Miles

BUCKEYE HILLS regional council

Cartography by BHRC | LRTP 2020-2045
http://www.buckeyehills.org | 740.374.9436
For information about data sources, please contact a GIS Specialist at Buckeye Hills




# Bridge Condition

## Perry County

General Appraisal Rating

- 0
- 1
- 2
- 3
- 4

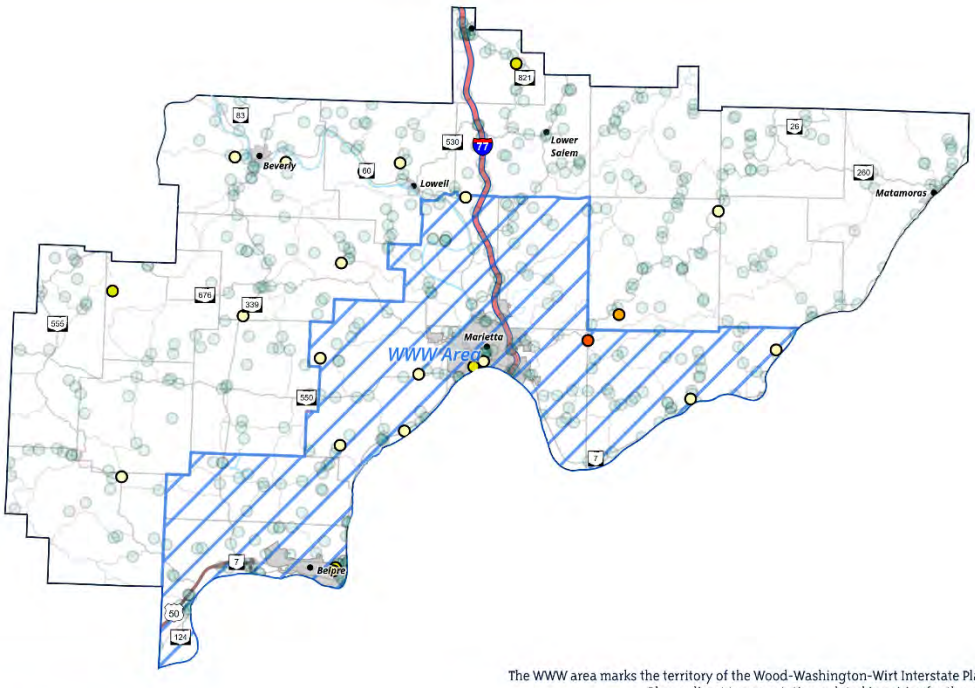
- Sufficient
- No Rating

0 2.5 5 10

Miles

BUCKEYE HILLS regional council

Cartography by BHRC | LRTP 2020-2045
http://www.buckeyehills.org | 740.374.9436
For information about data sources, please contact a GIS Specialist at Buckeye Hills




The WWW area marks the territory of the Wood-Washington-Wirt Interstate Planning Commission.
Please direct transportation-related inquiries for these townships to them.

# Bridge Condition

## Washington County

General Appraisal Rating

- 1
- 2
- 3
- 4

Sufficient

No Rating

0 2.5 5 10

Miles

BUCKEYE HILLS regional council

Cartography by BHRC | LRTP 2020-2045
http://www.buckeyehills.org | 740.374.9436
For information about data sources, please contact a GIS Specialist at Buckeye Hills

# APPENDIX G TRANSIT & TRANSPORTATION SERVICES

*BHRC RTPO Long-Range Transportation Plan 2020-204*

# Appendix G: Transit & Transportation Services

For the Buckeye Hills RTPO program's 2020-2045 Long-Range Transportation Plan, this appendix discloses the plan's referenced inventory tables of the transit, mobility, and transportation services in each of the Buckeye Hills region's eight (8) counties:

## Table: Athens County

| Athens City-County Transit & Transportation Service Inventory | | | | | |
|---|---|---|---|---|---|
| **Agency Name** | **Service Type** | **Contact Info** | **Service Hours** | **Eligibility** | **Website** |
| Alexander School District | Fixed-route school transportation | 740-698-8831 | School hours | Only students & staff | www.alexanderschools.org |
| Area Agency on Aging | Provides waivers & referrals | 800-331-2644 | M-F: 8am-4pm | Age requirement | www/buckeyehills.org/aging |
| Athens Airport Express | Taxi Service | 740-590-4686 | 24/7 | Open to public | www.athensairportexpress.com |
| Athens City-Co Health Dept | Provides waivers, vouchers & referrals | 740-592-4431 | M-F: 8am-4pm | Open to public | www.health.athens.oh.us |
| Athens City School District | Fixed-route school transportation | 740-797-4128 | School hours | Only students & staff | www.athenscsd.org |
| Athens Co. Board of Development | Door-to-door, fixed-route, school transp, vouchers | 740-594-3539 | M-F: 6am-4:30pm | Agency clients | www.athensbdd.org |
| Athens Co. Childrens Services | Door-to-door, vouchers | 740-592-3061 | By appointment | Agency clients | www.athenschildrenservices.com |
| Athens Co. Dept of Job & Family Services | Non-Emergency medical transpo, vouchers, other | 740-677-4206 | By appointment | Qualifying guidelines | www.jfs.athensoh.org/Transportation |
| Athens Co. Head Start (HAPCAP) | Fixed-route student transportation | 740-592-1124 | School hours | Agency clients | www.hapcap.org/headstart |
| Athens Co. Re-Entry (Dept of Job & Family Services) | Vouchers and retains services from others | 740-797-1405 | M-F: 8am-4pm | Qualifying clients | www.jfs.athensoh.org/reentryprogram |
| Athens Go-To Cab | Taxi Service | 740-594-8294 | 24/7 | Open to public | www.athensgotocab.com |
| Athens Mobility Management Program | Referrals, outreach, travel training | 740-594-8499 | M-F: 8am-4pm | Open to public | www.athensmobility.com |
| Athens On-Demand Transit (HAPCAP) | Door-to-door | 740-597-2404 | M-F: 7:30am-7:30pm | Seniors, disabled, low-income | www.athensondemand.com |
| Athens Public Transit (HAPCAP) | Fixed-route | 740-594-2424 | M-F: 7am-10pm; Sat: 8:45am-10pm | Open to public | www.athenstransit.org |
| Athens Veterans Association | Door-to-Door | 740-773-1141 | M-F: 8am-5pm | Veterans who qualify | n/a |
| Athens Veterans Services | Referrals | 740-592-3216 | M-F: 8am-5pm | Veterans who qualify | www.co.athnsoh.org/residents/veterans/index |
| Athens Village | Vouchers and referrals | 740-447-0500 | 24/7 | Members only | www.theathensvillage.org |
| Buckeye Hills Regional Council | Waivers, vouchers, and referrals | 800-331-2644 | M-F: 8am-4:30pm | Open to public | www.buckeyehills.org |
| Daybreak Transportation Services | Door-to-door | 740-401-9285 | By appointment | Open to public | www.daybreakambulette.com |
| Echoing Connections | Door-to-door | 740-327-2311 | By appointment | Agency clients | www.ehvi.org/adult-day-services |
| Federal Hocking School District | Fixed-route student transportation | 740-662-6691 | School hours | Only students & staff | www.fedhock.com |
| GoBus (HAPCAP) | Inter-City Bus | 888-95-GOBUS | Hours vary | Open to public | www.ridegobus.com |
| Good Works | Vouchers and retains services from others | 740-541-0816 | n/a | Agency clients | www.good-works.net |
| Green Cab | Taxi Service | 740-594-7339 | 24/7 | Open to public | www.facebook.com/AthensGreenCab |
| Haughland School | Student transportation | 740-249-1887 | M-F: 8am-4pm | Only students & staff | www.haughlandlearningcenter.com |
| HAVAR | Door-to-door | 740-594-3433 | M-F: 7:30am-7:30pm | Agency clients | www.havar.org |
| Hocking College | Student transportation | 740-753-3591 | Dependent on events | Only students & staff | www.hocking.edu |
| Holzer Hospital | Referrals | 740-589-3100 | 24/7 | Agency clients | www.holzer.org |
| Hopewell Health Centers | Medical transportation, vouchers | 740-592-3091 | By appointment | Agency clients | www.hopewellhealth.org |
| Integrated Services | Door-to-door, referrals, vouchers | 740-594-6807 | By appointment | Agency clients | www.integratedservice.org |
| Lyft | Ride hail service | 855-865-9552 | 24/7 | Open to public | www.lyft.com |
| My Sister's Place | Vouchers and retains services from others | n/a | 24/7 | Agency clients | www.mspathens.org |
| Nelsonville-York School District | Fixed-route student transportation | 740-753-2106 | School hours | Only students & staff | www.nelsonvilleyork.k12.oh.us |
| Ohio Health Hosptials | Retains services from other providers | 740-593-1611 | Dependent on needs | Open to public | www.ohiohealth.com |
| Ohio University | Fixed route, door-to-door, rental, and retain from others | 740-593-1611 | Dependent on events | Only students & staff | www.ohio.edu/transportation |
| Passion Works/Creative Foundations | Door-to-door | 740-592-3673 | M-F: 9am-5pm | Program clients | www.passionworks.org |
| PersonnelPlus (Athens Co Brd of Dev. Disabilities) | Retains services from other providers | 740-592-3416 | M-F: 8am-4pm | Program clients | www.athenscbdd.org/services-for-adults/personnelplus |
| Residential Home for the Developmentally Disabled | Retains services from other providers | 740-592-3416 | By appointment | Agency clients | www.hassemanmarketing.wixsite.com/rhdd |
| Retired Seniors Volunteer Program (RSVP) | Volunteer driver service | 740-594-8499 | By appointment | Qualifying clients | www.coadinc.org/senior-programs/retired-senior-volunteer |
| Tabs Taxi | Taxi Service | 740-594-8294 | 24/7 | Open to public | n/a |
| Salvation Army of Athens & Meigs Counties | Vouchers, referrals, and assistance | 740-797-1305 | 24/7 | Qualifying clients | www.salvationarmyusa.org/usn |
| The Sech-Kar Company | Door-to-door non-medical service | 740-753-9993 | M-F: 6:30am-4pm | Agency clients | www.sechkar.com/index.html |
| The Summit at Coates Run Apartments | Retains services from other providers | 740-594-3030 | M-T: 7am-9:30pm; F: 7am-2:30pm; Sat: 9:30am-2:30pm | Open to public | www.summitatcoatesrun.com |
| Trimble School District | Fixed-route student transportation | 740-767-2525 | School hours | Only students & staff | www.trimble.k12.oh.us |
| United Seniors | Door-to-door | 740-594-3535 | M-F: 8am-4pm | Age: 60+ & pass assessment | www.seorf.ohiou.edu/~usac |
| University Commons | Fixed-route student transportation | 740-593-7571 | Dependent on OU | Only students | www.ucourtyardathens.com |

Data Source: Athens City-County Coordinated Transportation Plan, 2018

*Denotes a local public transit agency*

## Table: Hocking County

| Hocking County Transit & Transportation Service Inventory | | | | | |
|---|---|---|---|---|---|
| **Agency Name** | **Service Type** | **Contact Info** | **Service Hours** | **Eligibility** | **Website** |
| AHOY Transportation | Door-to-door; non-emergency transportation | 740-596-0536 | M-F: 5am-9pm | Non-emergency | n/a |
| American Cancer Society | Door-to-door; non-emergency transportation | 1-800-227-2345 | unavailable | n/a | www.cancer.org |
| Carlin House | Door-to-door | 740-380-6383 | M-F: 8am-4pm | Only qualifying clients | n/a |
| Hocking County Board of Developmental Disabilities | Provides vouchers | 740-385-6805 | M-F: 8am-4pm | Only qualifying clients | www.hockingdd.org |
| Hocking County Health Department | Provides vouchers | 740-385-3030 | M-F: 8am-4pm | n/a | www.hockingcountyhealthdepartment.com |
| Goodwill | Door-to-door; non-emergency transportation | 740-380-9012 | M-F: 8am-5pm | Goodwill employees only | http://gwisco.org/ |
| GoBus (HAPCAP) | Inter-City Bus | 1-888-95GOBUS | M-S: 4am-11pm | Open to public | www.Ridegobus.com |
| Health Recovery Services (Hocking) | Door-to-door | 740-385-9895 | M-F: 8am-4pm | n/a | www.hrs.org |
| Hocking Valley Industries | Door-to-door; non-emergency transportation | 740-385-2118 | M-F: 8am-5pm | Only agency clients | n/a |
| Hopewell Health | Medical Transportation | 740-385-2555 | M-F: 9am-5pm | Only agency clients | http://www.tcmhcs.org/ |
| Logan Hocking School Disgtrict | Fixed-route student transportation | 740-385-7844 | School Hours | Only students & faculty | www.loganhocking.k12.oh.us |
| Logan Healthcare | Door-to-door | 740-385-2155 | M-F: 8am-5pm | Only agency clients | n/a |
| Logan Public Transit | Door-to-door | 740-385-6999 | M-F: 8am-5pm | Open to public | www.loganpublictransit.com |
| Scenic Hills Senior Center | Door-to-door | 740-385-6581 | M-F: 7am-6pm | Only agency clients | http://www.scenichillsseniorcenter.com |
| Shane's Place | Door-to-door | 740-216-4333 | M-F: 7am-5pm | Only agency clients | www.shanesplace.org |
| Hocking County Veterans Affairs Board | Door-to-door; non-emergency transportation | 740-385-7505 | M-F: 9am-4pm | Only agency clients | www.co.hocking.oh.us |

Data Source: Hocking County Coordinated Transportation Plan, 2018

***Denotes a local public transit agency***

## Table: Meigs County

| Meigs County Transit & Transportation Service Inventory | | | | | |
|---|---|---|---|---|---|
| **Agency Name** | **Service Type** | **Contact Info** | **Service Hours** | **Eligibility** | **Website** |
| Eastern Local School District | Fixed-route school transportation | 740-667-6079 | School Hours | Only students & faculty | www.easternlocal.com |
| Southern Local School District | Fixed-route school transportation | 740-949-2811 | School Hours | Only students & faculty | https://www.southern.k12.oh.us/ |
| Meigs Local School District | Fixed-route school transportation | 740-742-2990 | School Hours | Only students & faculty | https://www.ml.k12.oh.us/ |
| Athens-Meigs Educational Service Center | Fixed-route school transportation | 740-797-0064 | M-F: 8am-2pm | Only students | www.athensmeigs.com |
| Haugland Learning Center | Fixed-route school transportation | 614-420-4917 | M-F: 8am-2:30pm | Only students with autism | http://hauglandlearningcenter.com/haugland-learning-center-autism-aspergersschool-athens.html |
| Heart of the Valley Head Start | Fixed-route school transportation | 740-992-1740 | School Hours | Only students & faculty | https://www.facebook.com/pages/category/Preschool/Heart-of-the-Valley-Head-Start-1212870205393453/ |
| Meigs County Health Department | Provides vouchers | 740-992-6626 | M-F: 8am-4pm | Open to public | https://www.meigs-health.com/contact/ |
| Meigs County Board of Developmental Disabilities-Carleton School | Fixed-route school transportation | 740-992-6681 | M-F: 7:30am-4pm | Clients with developmental disabilities | www.meigscbdd.org |
| Meigs County Childrens Services | Provides vouchers | 740-992-2117 | M-F: 8am-4pm | Only for agency clients | https://meigsdjfs.net/ |
| Meigs County Job and Family Services NET Transport | Non-medical medicaid transportation | 740-444-7639 | M-F: 8am-4pm | Medicaid eligible clients | https://meigsdjfs.net/ |
| Gallia-Meigs Community Action Agency | Non-Emergency Medical Transportation | 740-367-7341 | M-F: 8am-4:30pm | Approved and referred by Meigs County DJFS | www.galliameigscaa.org |
| Meigs County Veterens Services | Volunteer driver ride services | 740-992-2820 | M-F: 8am-4pm | Honorably discharged veteran with VA medical appointment | https://dvs.ohio.gov/wps/portal/gov/dvs/what-we-do/find-acvso/Meigs%2BCounty%2BVeterans%2BService%2BOffice |
| Buckeye Hills Regional Council | Provides waivers, vouchers and referrals | 1-800-331-2644 | M-F: 8am-4:30pm | Open to public | www.buckeyehills.org |
| Daybreak Transportation Services | Door-to-door | 740-401-9285 | By Appointment | Open to public | www.daybreakambulette.com |
| Echoing Connections of Southeast Ohio – Echoing Hills | Door-to-door | 740-327-2311 | By Event or Appointment | Only for agency clients | www.ehvi.org/adult-day-services/echoing-connections-of-southeast-ohio |
| Hopewell Health Centers | Medical transportation, provides vouchers | 740-992-0540 | By Appointment | Only for agency clients | www.hopewellhealth.org |
| Integrated Services (Meigs County) | Case Management during appointments and meeting basic needs | 740-444-5895 | M-F: 8am-4pm | Only for agency clients | https://integratedservice.org/counties/meigs-county/ |
| Holzer Meigs Clinic & Holzer Emergency Department | Provides referrals to transportation services | 740-446-5411 | Clinic: M-F: 8am-5pm; Emergency: 24/7 | Only for agency clients | www.holzer.org |
| Salvation Army of Athens and Meigs Counties | Provides vouchers, referrals and transportation assistance | 740-797-1305 | 24/7 | Must meet eligibility requirements set by the Salvation Army | www.salvationarmyusa.org/usa/ |
| MedFlight of Ohio | Air medical transportation | 740-610-5817 | 24/7 | CAMTS & local requirements | www.medflight.com |
| Meigs Industries INC | Adult Day Services Workshop Transportation | 614-530-8883 | M-F: 7:30pm-2:30pm | Employees Only | n/a |
| Expanding Your Horizons | Transportation Waivers/Referrals | 740-416-1103 | By Appointment | IO Waiver, level one waivers & self-waivers | www.eyhservices.com |
| Portsmouth Emergency Ambulance Services | Non-Emergency Medical Transportation | 740-354-3122 | 24/7 | Insurance covers most transports | http://peasi.app/ |
| Need a Lift Transportation | Non-Emergency Medical Transportation | 740-709-0177 | 24/7 | Medicaid eligible clients | n/a |
| Jackson Transportation | Any | 740-884-4800 | 24/7 | Agency approval or self-pay | n/a |
| On the Go Transportation, LLC | Non-Emergency Medical Transportation | 740-645-2268 | M-F: 8am-4pm | Ohio Medicaid, Other Insurance | https://www.facebook.com/On-The-Go-Transportation-782580685135939 |
| Meigs Council on Aging INC | Non-Emergency Medical Transportation | 740-992-2161 | M-F: 8am-4pm | Ages 60+ | www.meigscoa.com |
| Inclusions, LLC | Non-Emergency Medical Transportation | 740-416-3055 | M-F: 9:30am-2:30pm | Current clients only | https://www.facebook.com/inclusionsmeigs |

Data Source: Meigs County Coordinated Transportation Plan, 2020

***Denotes a local public transit agency***

## Table: Monroe County

| Monroe County Transit & Transportation Service Inventory | | | | | |
|---|---|---|---|---|---|
| **Agency Name** | **Service Type** | **Contact Info** | **Service Hours** | **Eligibility** | **Website** |
| Monroe County Public Transportation | Non-emergency medical, on-demand, higher eductation contract with JFS | 740-472-2505 | M-F: 8am-4pm; Dialysis service on weekends by appointment | Must be a Monroe County resident | https://www.monroecountyohio.com/departments/public_transportation_(mcpt)/index.php |

Data Source: Morgan County Mobility Management, 2021

***Denotes a local public transit agency***

## Table: Morgan County

| Morgan County Transit & Transportation Service Inventory | | | | | |
|---|---|---|---|---|---|
| **Agency Name** | **Service Type** | **Contact Info** | **Service Hours** | **Eligibility** | **Website** |
| Morgan County Public Transit | Public Transit | 740-962-9125 | M-F: 8am-5pm | Must be a Morgan Co resident | www.mocopublictransit.com |
| Morgan County Senior Center | Non-Emergency Medical Transportation | 740-962-5600 | M-F: 8am-4pm | Age 60+ | n/a |

Data Source: Morgan County Mobility Management, 2021

***Denotes a local public transit agency***

## Table: Noble County

| Noble County Transit & Transportation Service Inventory | | | | | |
|---|---|---|---|---|---|
| **Agency Name** | **Service Type** | **Contact Info** | **Service Hours** | **Eligibility** | **Website** |
| Noble Taxi and Cab, LLC | On-Demand Service | 740-394-4255 | 24/7 | Open to public | nobletaxi.com |
| Joyce M Davis Senior Center | Non-Emergency Medical Transportation | 740-732-5129 | M-F: 8am-4pm | Ages 60+ | www.gmntrico.org |
| Southeast Area Transit (SEAT) | On-Demand Service | 740-454-8573 | M-F: 8am-4pm | Open to public | seatbus.org |
| Noble County Veterans Service Commission | Non-Emergency Medical Transportation | 740-732-5567 | M-F: 8am-4pm; Thurs: 8am-Noon | Military veteran & county resident & by appointment | noblecountyveteransservice.com |

Data Source: Noble County Emergency Management, 2021

***Denotes a local public transit agency***

## Table: Perry County

| Perry County Transit & Transportation Service Inventory | | | | | |
|---|---|---|---|---|---|
| **Agency Name** | **Service Type** | **Contact Info** | **Service Hours** | **Eligibility** | **Website** |
| Perry County Transit | Public Transportation | 740-342-2810 | Mon/Tues/Thurs/Fri: 6am-9pm; Wed/Sat: 8am-12pm; | Open to Public | PerryCountyTransit.com |
| Sech-Kar | Client & Employee Transportation | 740-342-4030 | M-F: 7:30am-3:30pm | Variable | Sechkar.com |
| Perry County Job & Family Services | Public & Staff Transportation | 740-342-3551 | M-F: 8am-4:30pm | Varies Depending on Program | Perryjfs.org |
| Perry Behavioral Health Choices, Inc | Client & Employee Transportation | 740-342-1992 | As required | PNHC Clients & Employees | Perrybhc.org |
| Mount Aloysius | Client & Employee Transportation | 740-342-3343 | As needed | Mount Aloysius Residents & Employees | Mountaloysius.org |
| PerCo | Client & Employee Transportation | 740-342-5156 | M-F: 7:30am-3:30pm | DD Participant | Facebook only |
| Perry County Senior Center | Client & Employee Transportation | 740-342-2149 | M-F: 8am-4pm | Senior Citizens | Facebook only |
| Perry County Veterans Service Commission | Client & Employee Transportation | 740-342-2536 | M-F: 8:30am-4:30pm; Last Mon. of the month: 8am-11:30am | Veteran Population | Facebook only |
| Fairview Assisted Living | Client & Employee Transportation | 740-342-1213 | 24/7 | Fairview Residents & Employees | Perrycountyohio.net |

Data Source: Perry County Coordinated Transportation Plan, 2020

***Denotes a local public transit agency***

## Table: Washington County

| Washington County Transit & Transportation Service Inventory | | | | | |
|---|---|---|---|---|---|
| **Agency Name** | **Service Type** | **Contact Info** | **Service Hours** | **Eligibility** | **Website** |
| Residential Home for the Developmentally Disabled (RHDD) | Per-trip; Private; Contract with Public Coordinator | 740-373-3781 | 24/7 | Developmental Disabled | www.rhdd.org |
| O'Neill Senior Center | Non-Emergency Medical | 740-373-3914 | Mon/Tues/Thurs: 8am-7pm; Wed/Fri: 8am-4:30pm | Services: Age 60+ and County Resident; Activities: Age 50+ | www.oneillcenter.com |
| Washington County Public Transit (CABL) | Public Transit | 740-373-7671 | M-F: 7am-5pm; Sat: 8am-1pm | Open to Public | www.wmcap.org/transportation |
| Washington Morgan Community Action | Non-Emergency Medical and On-Demand | 740-373-7671 | Varies per contract | NET Eligible & Private Pay | www.wmcap.org |
| Retired & Senior Volunteer Program (RSVP) | Volunteer-Based Local & Long-Distance Non-Emergency Medical, and Personal Transportation | 740-373-3107 | M-F: 8am-4:30pm | Age 55+ and unable to drive | www.rsvpwashingtoncounty.org |
| WASCO, Inc. | Non-Medical Transportation | 740-373-3418 | M-Sun: 6am-12pm | Non-medical transportation eligible & private pay | www.wascoinc.org |
| National Church Residences Transportation | Non-Medical Transportation; On-Demand | 740-425-9001 | 24/7 | n/a | www.nationalchurchresidences.org |

Data Source: Washington County Coordinated Transportation Plan, 2020

***Denotes a local public transit agency***

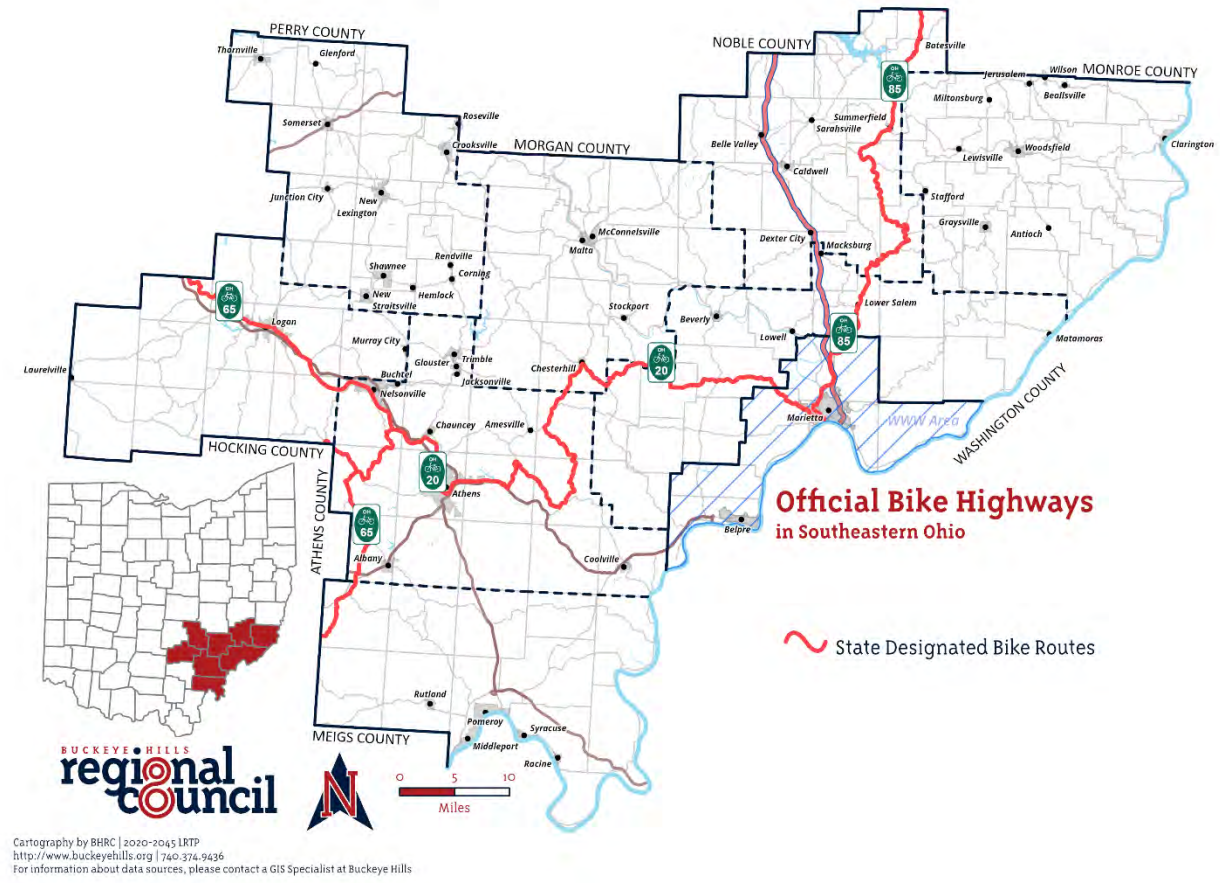
# APPENDIX H ACTIVE TRANSPORTATION

*BHRC RTPO Long-Range Transportation Plan 2020-2045*

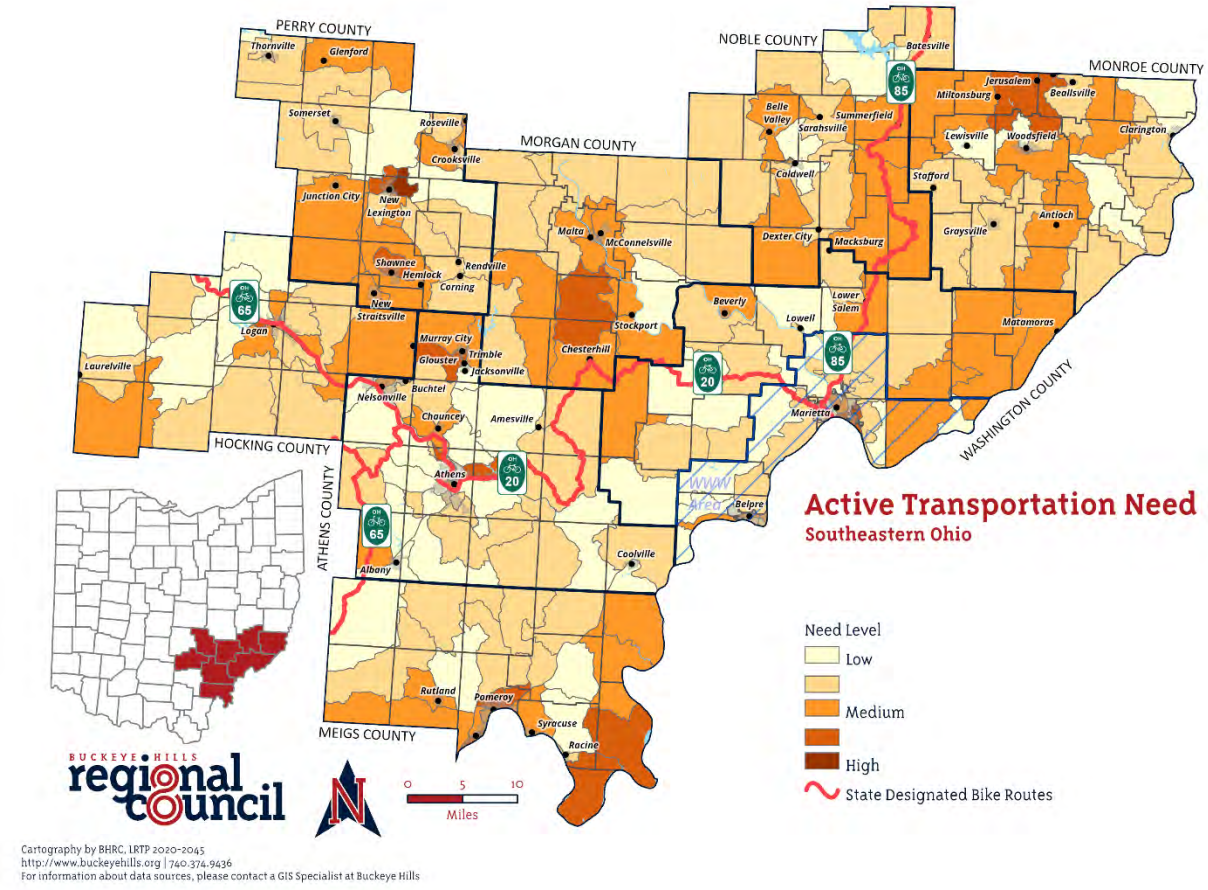
# Appendix H: Active Transportation

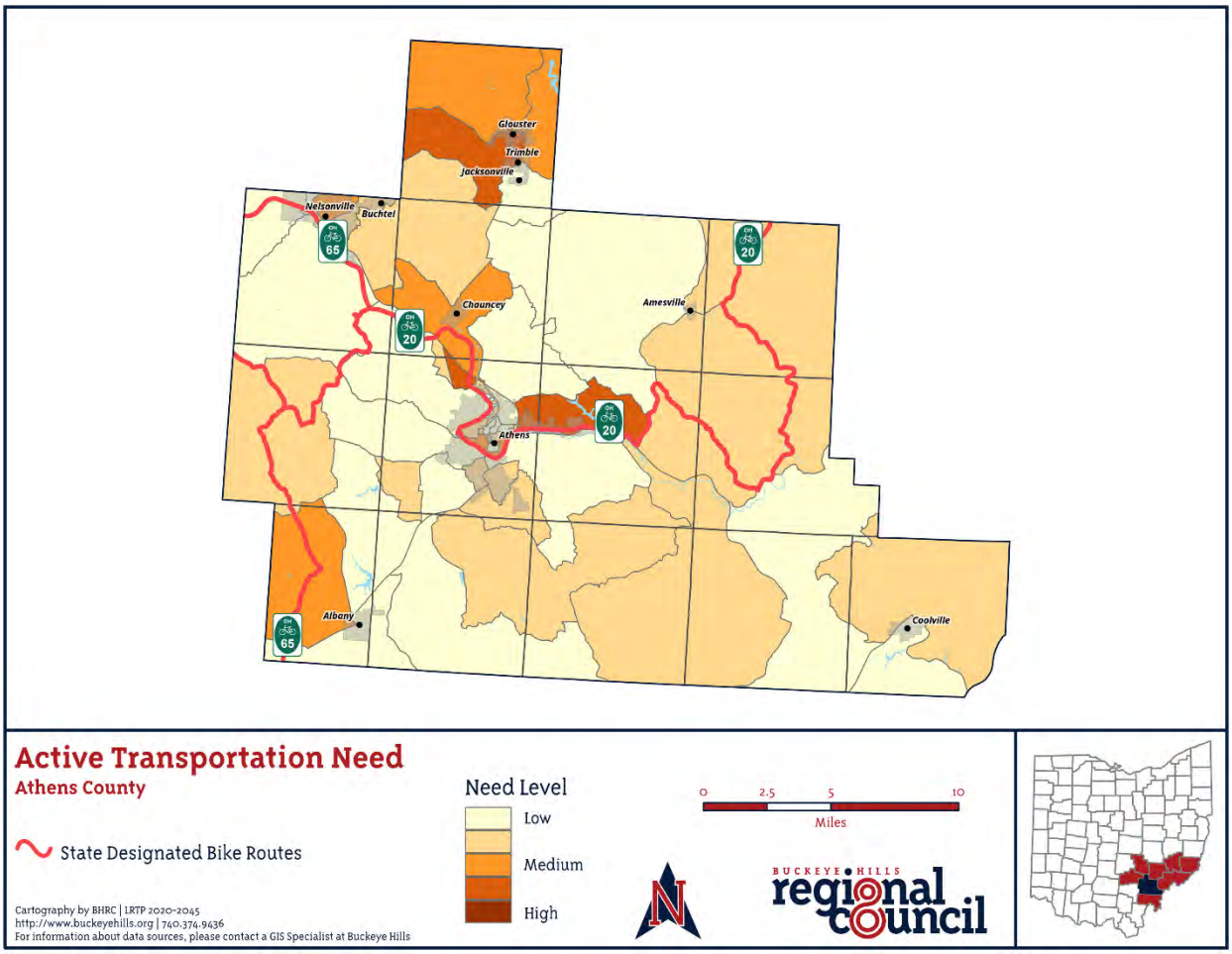
For the Buckeye Hills RTPO program's 2020-2045 Long-Range Transportation Plan, the following disclose the plan's referenced Active Transportation maps.

## Map: State Bike Routes in the Region



## Maps: Active Transportation Need in Each County and the Region as a whole






# Active Transportation Need

## Athens County

State Designated Bike Routes

Need Level

- Low
- Medium
- High

0 2.5 5 10

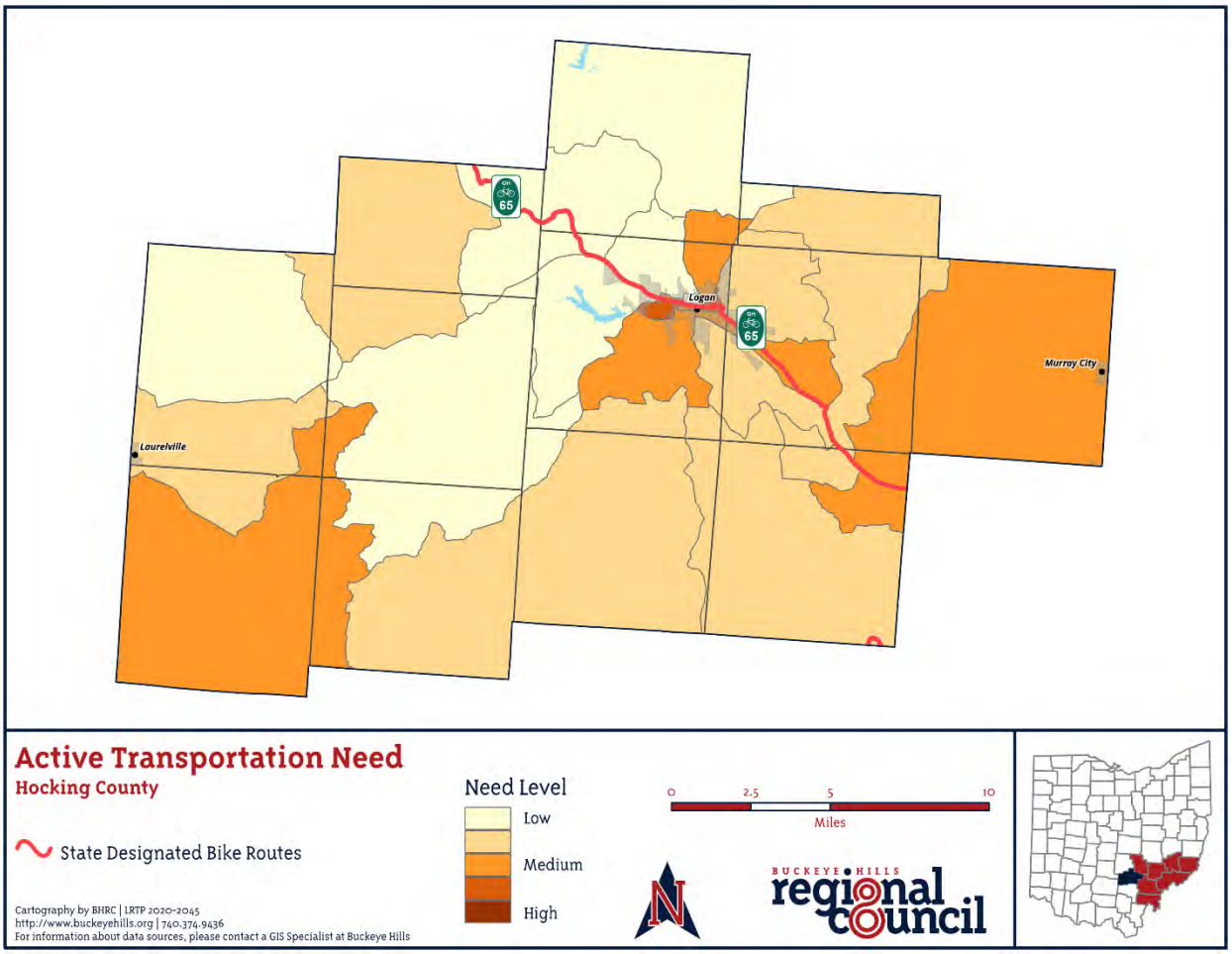
Miles



BUCKEYE HILLS regional council



Cartography by BHRC | LRTP 2020-2045
http://www.buckeyehills.org | 740.374.9436
For information about data sources, please contact a GIS Specialist at Buckeye Hills




# Active Transportation Need

## Hocking County

State Designated Bike Routes

Need Level

Low

Medium

High

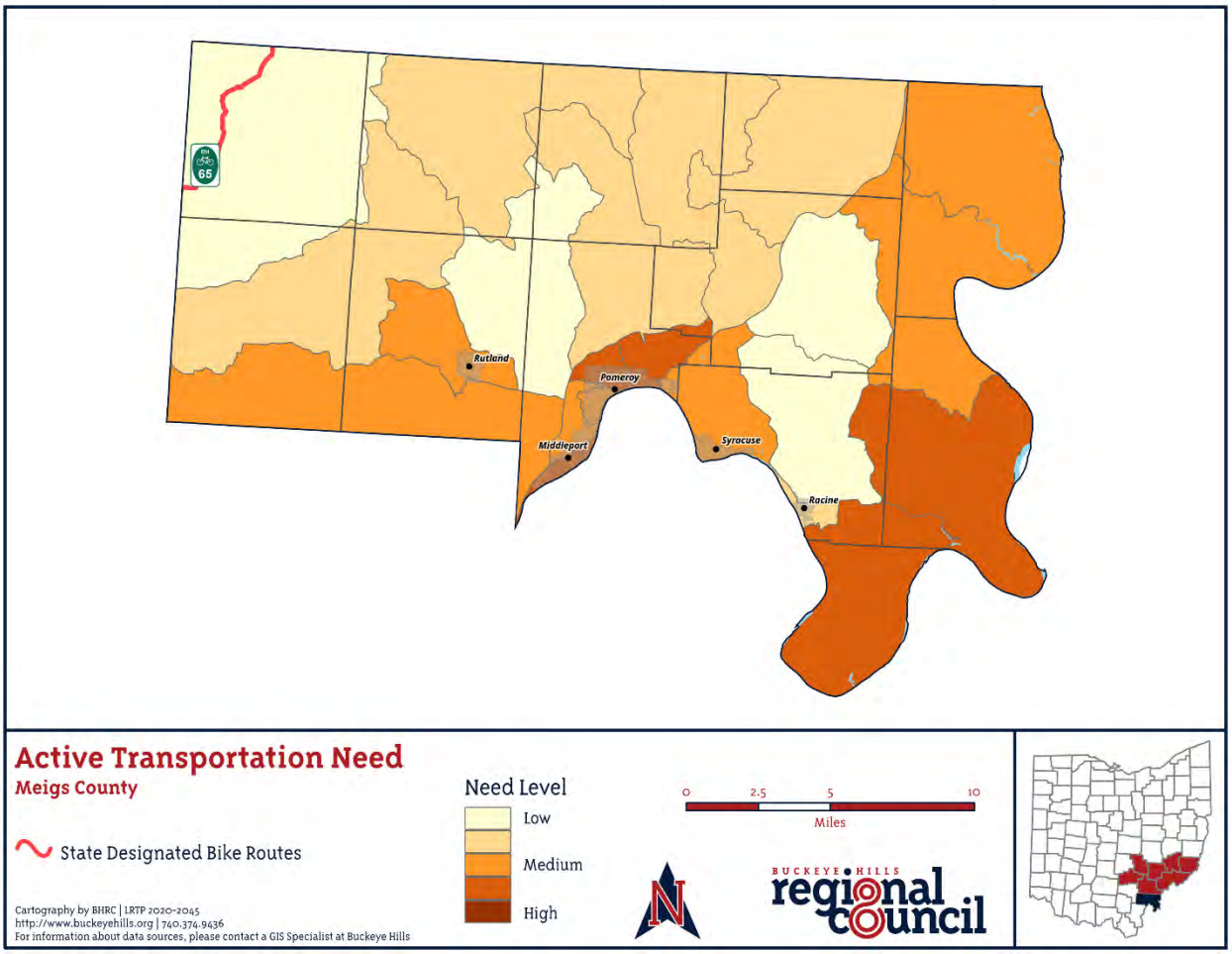
0 2.5 5 10

Miles

BUCKEYE HILLS regional council



Cartography by BHRC | LRTP 2020-2045
http://www.buckeyehills.org | 740.374.9436
For information about data sources, please contact a GIS Specialist at Buckeye Hills




# Active Transportation Need

## Meigs County

State Designated Bike Routes

Need Level

- Low
- Medium
- High

0 2.5 5 10

Miles

BUCKEYE HILLS regional council



Cartography by BHRC | LRTP 2020-2045
http://www.buckeyehills.org | 740.374.9436
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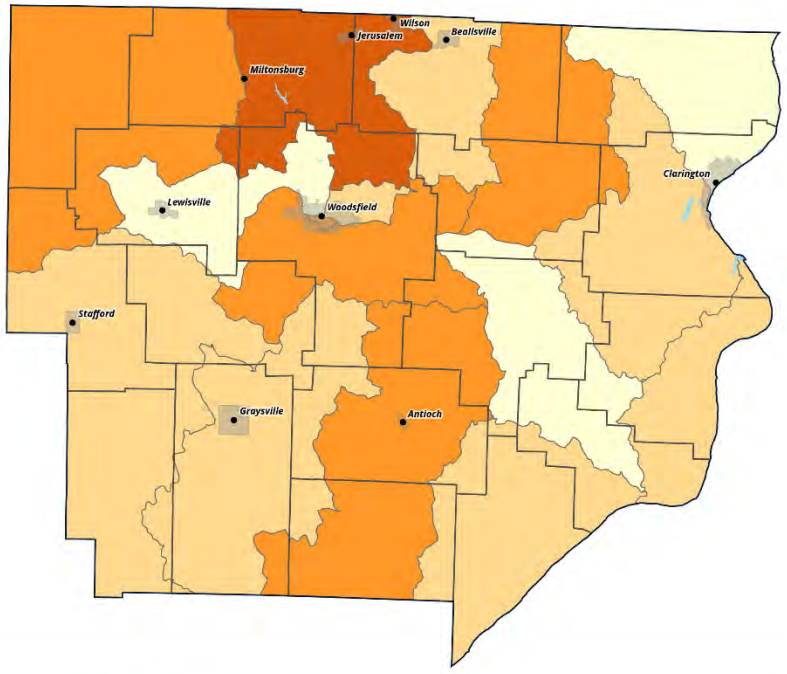



# Active Transportation Need

## Monroe County

State Designated Bike Routes

Need Level

Low

Medium

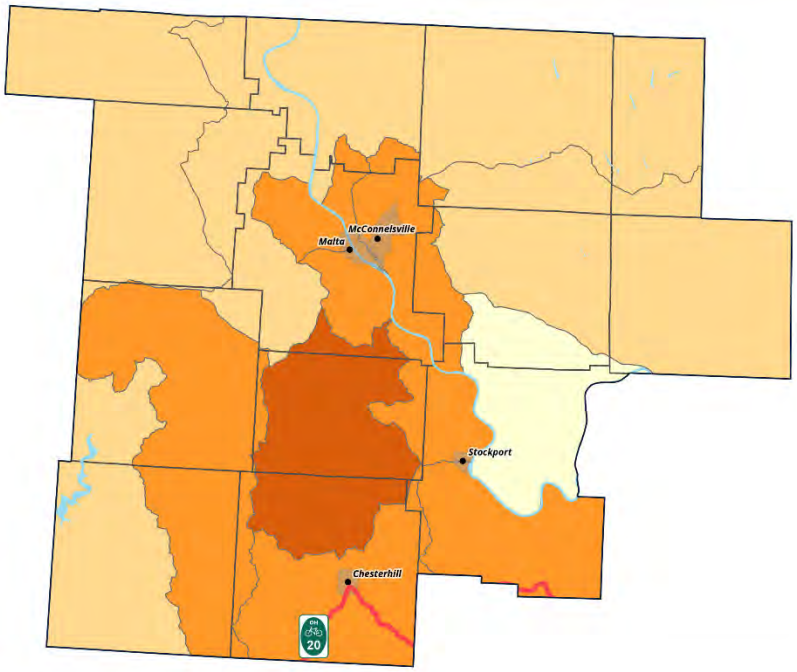
High

0 2.5 5 10

Miles

BUCKEYE HILLS regional council

Cartography by BHRC | LRTP 2020-2045
http://www.buckeyehills.org | 740.374.9436
For information about data sources, please contact a GIS Specialist at Buckeye Hills




# Active Transportation Need

## Morgan County

State Designated Bike Routes

Need Level

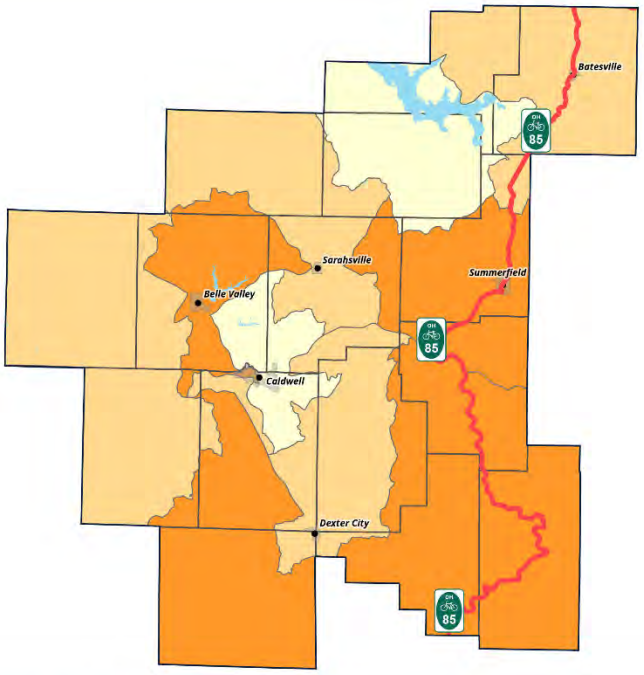
- Low
- Medium
- High

0 2.5 5 10

Miles

BUCKEYE HILLS regional council

Cartography by BHRC | LRTP 2020-2045
http://www.buckeyehills.org | 740.374.9436
For information about data sources, please contact a GIS Specialist at Buckeye Hills




# Active Transportation Need

## Noble County

State Designated Bike Routes

Need Level

Low

Medium

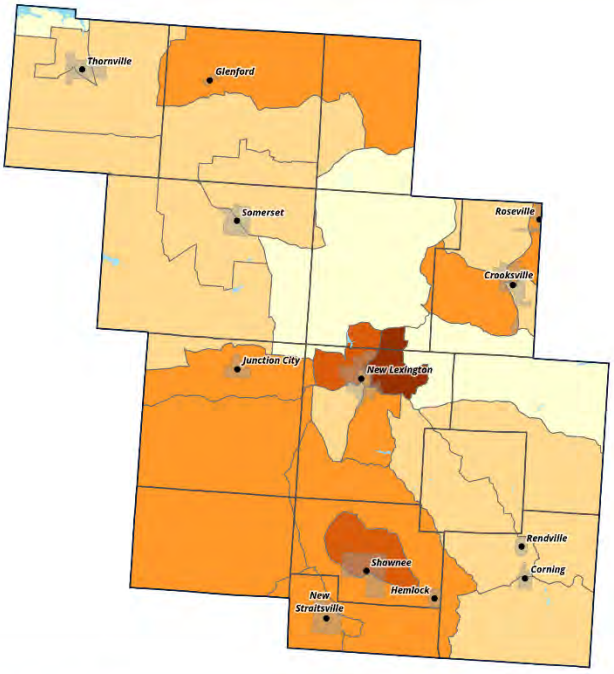
High

0 2.5 5 10

Miles

BUCKEYE HILLS regional council

Cartography by BHRC | LRTP 2020-2045
http://www.buckeyehills.org | 740.374.9436
For information about data sources, please contact a GIS Specialist at Buckeye Hills




# Active Transportation Need

## Perry County

State Designated Bike Routes

Need Level

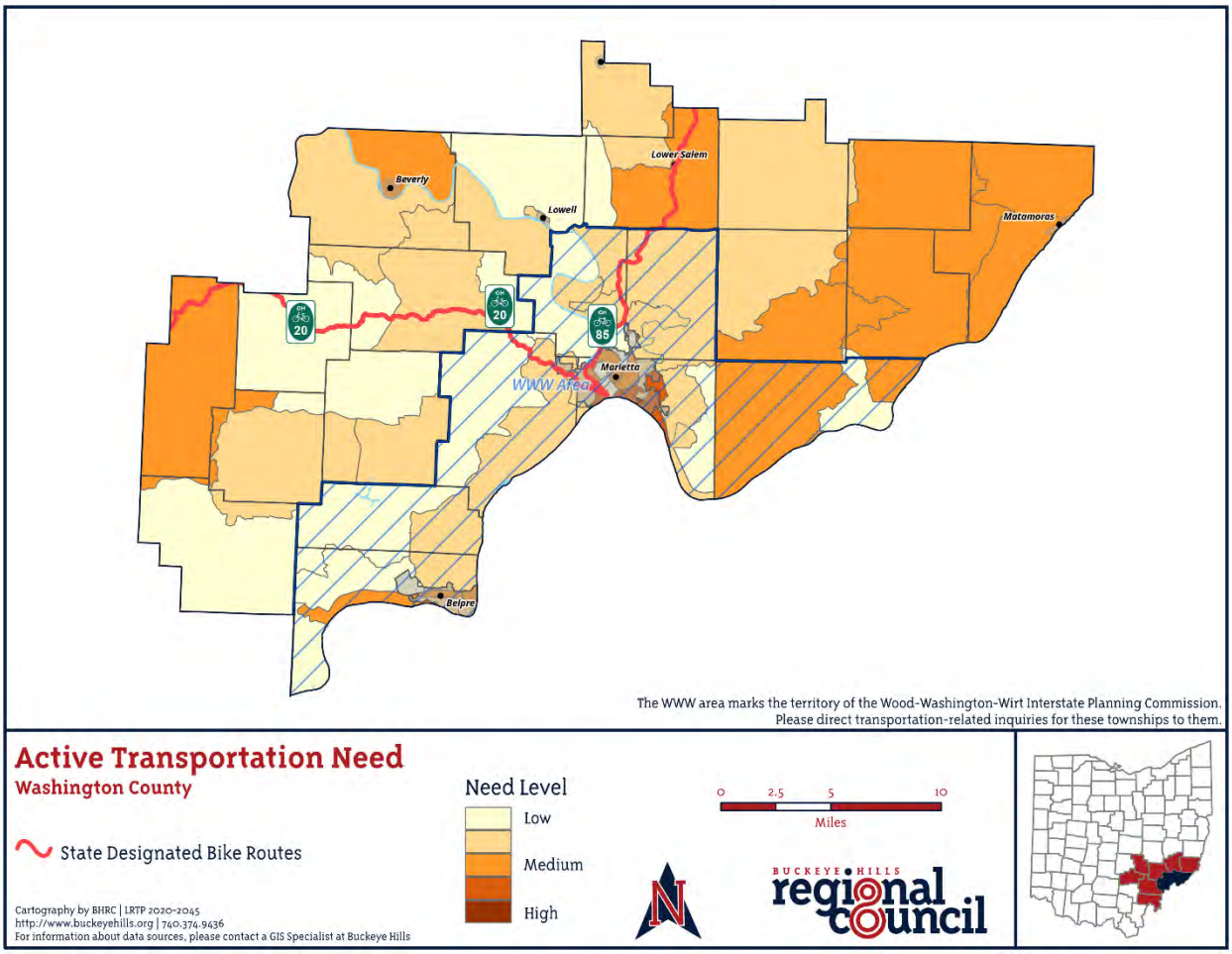
- Low
- Medium
- High

0 2.5 5 10

Miles

BUCKEYE HILLS regional council

Cartography by BHRC | LRTP 2020-2045
http://www.buckeyehills.org | 740.374.9436
For information about data sources, please contact a GIS Specialist at Buckeye Hills




The WWW area marks the territory of the Wood-Washington-Wirt Interstate Planning Commission.
Please direct transportation-related inquiries for these townships to them.

# Active Transportation Need

## Washington County

State Designated Bike Routes

Need Level

Low

Medium

High

0 2.5 5 10

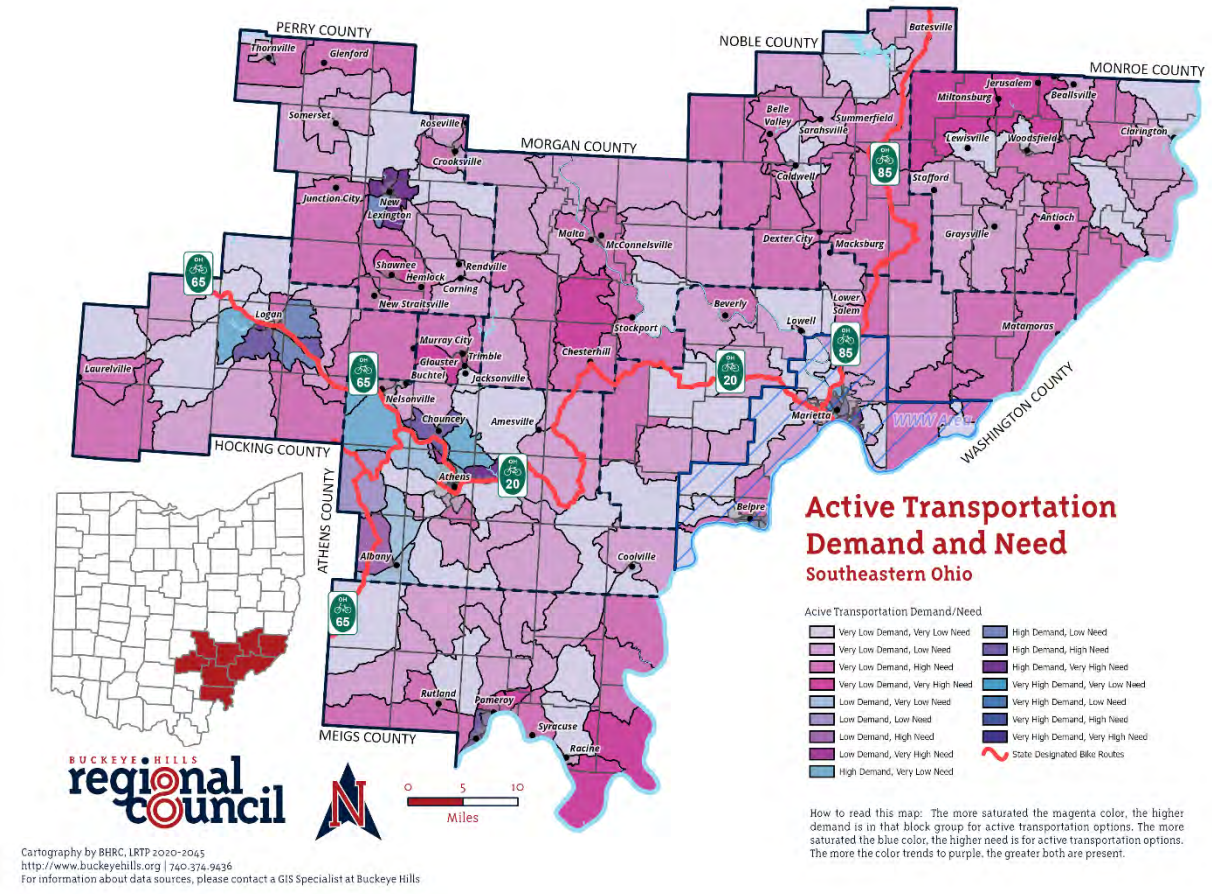
Miles

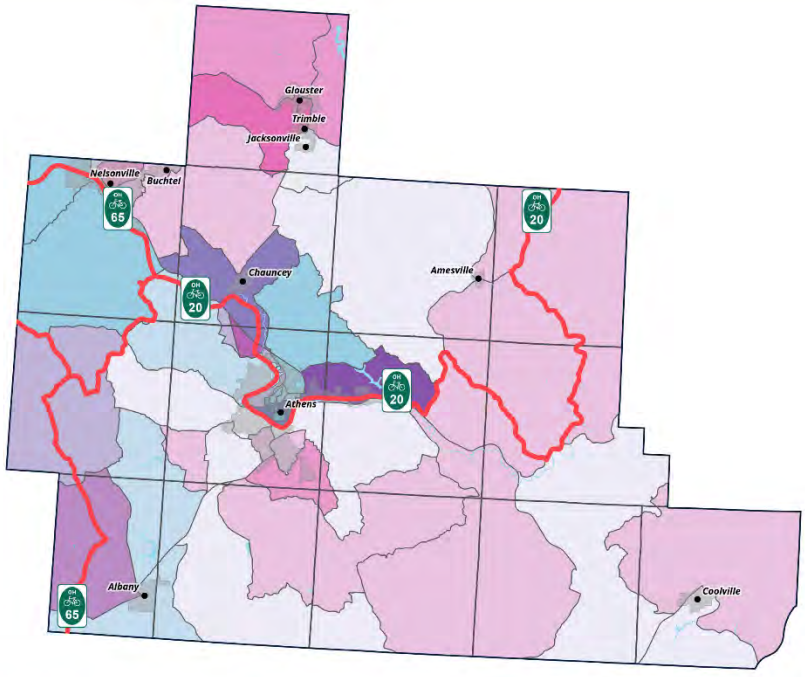
BUCKEYE HILLS regional council



Cartography by BHRC | LRTP 2020-2045
http://www.buckeyehills.org | 740.374.9436
For information about data sources, please contact a GIS Specialist at Buckeye Hills

## Maps: Active Transportation Demand and Need in Each County and the Region as a Whole






# Active Transportation Demand and Need

## Athens County

State Designated Bike Routes

Active Transportation Demand and Need

AT Need

AT Demand

Both High

High - Low

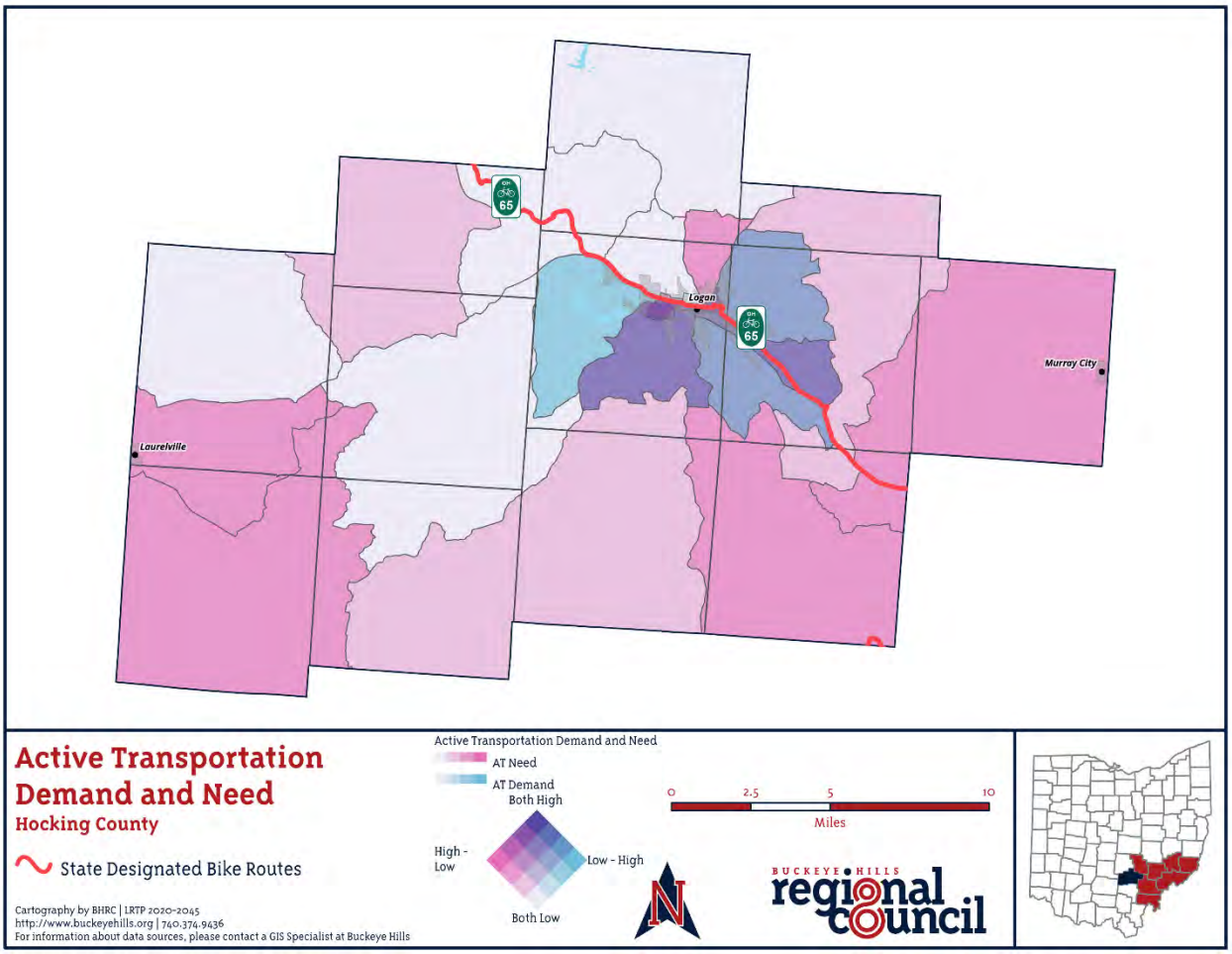
Low - High

Both Low

0 2.5 5 10

Miles

Cartography by BHRC | LRTP 2020-2045
http://www.buckeyehills.org | 740.374.9436
For information about data sources, please contact a GIS Specialist at Buckeye Hills




# Active Transportation Demand and Need

## Hocking County

State Designated Bike Routes

Active Transportation Demand and Need

AT Need

AT Demand

Both High

High - Low

Low - High

Both Low

0 2.5 5 10

Miles

BUCKEYE HILLS regional council



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http://www.buckeyehills.org | 740.374.9436
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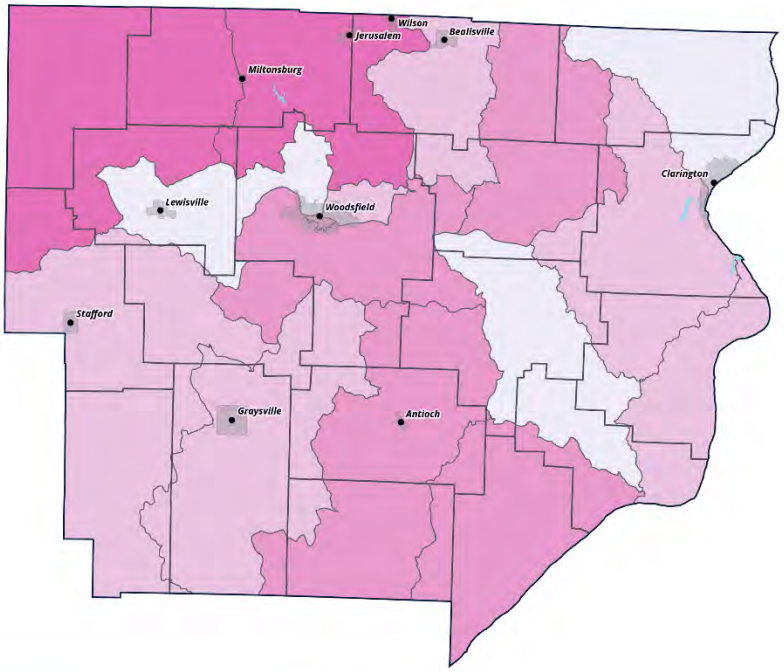


# Active Transportation Demand and Need

## Monroe County

State Designated Bike Routes

Active Transportation Demand and Need

AT Need

AT Demand

Both High

High - Low

Low - High

Both Low

0 2.5 5 10

Miles

BUCKEYE HILLS regional council

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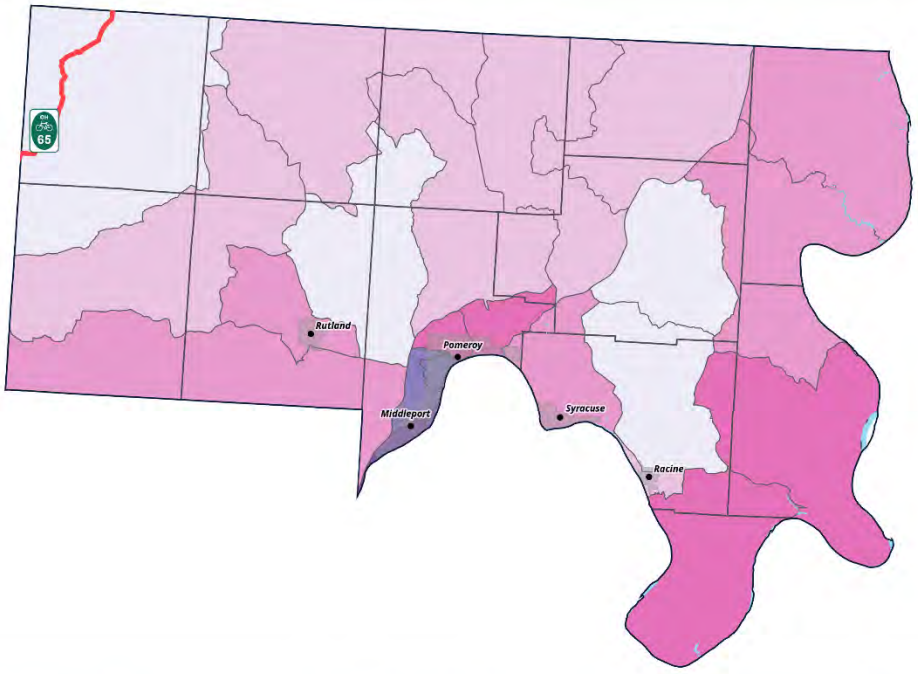


# Active Transportation Demand and Need

## Meigs County

State Designated Bike Routes

Active Transportation Demand and Need

AT Need

AT Demand

Both High

High - Low

Low - High

Both Low

0 2.5 5 10

Miles

BUCKEYE HILLS regional council

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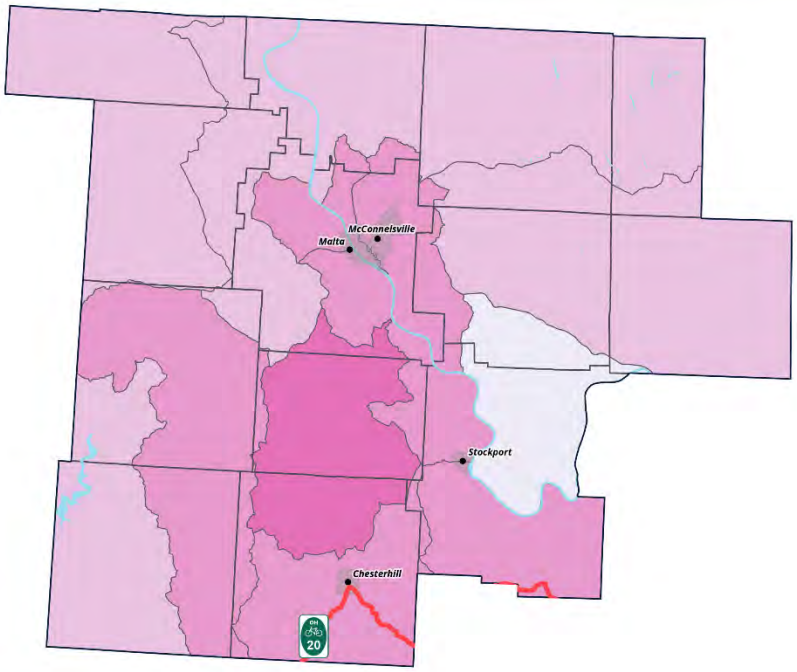



# Active Transportation Demand and Need

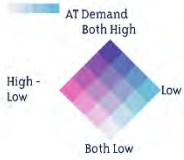
## Morgan County

State Designated Bike Routes

Active Transportation Demand and Need

AT Need

AT Demand





BUCKEYE HILLS regional council

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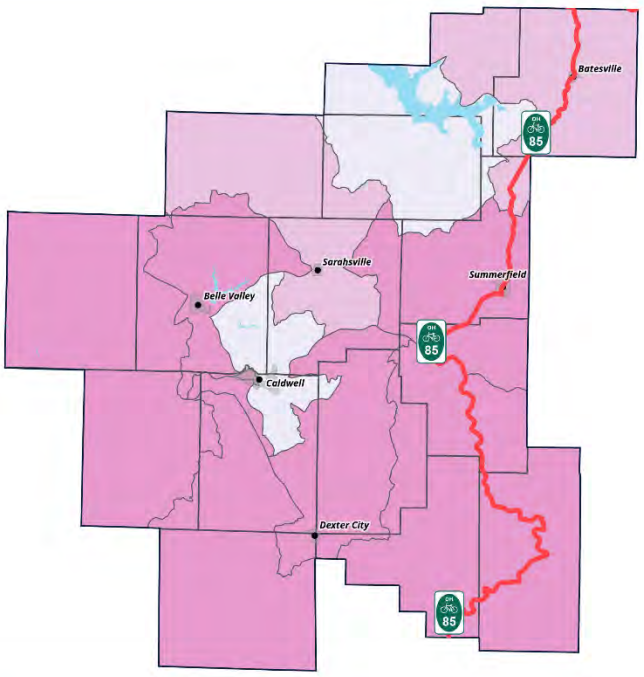


# Active Transportation Demand and Need

## Noble County

State Designated Bike Routes

Active Transportation Demand and Need

AT Need

AT Demand

Both High

High - Low

Low - High

Both Low

0 2.5 5 10

Miles

BUCKEYE HILLS regional council

Cartography by BHRC | LRTP 2020-2045
http://www.buckeyehills.org | 740.374.9436
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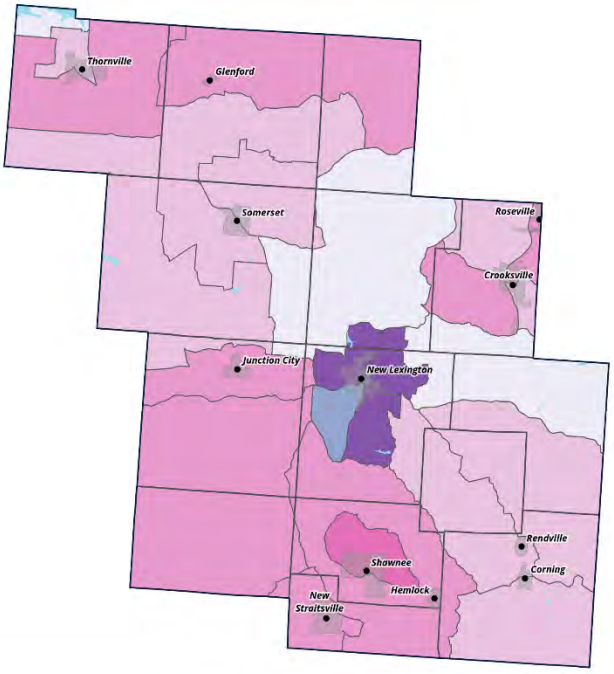


# Active Transportation Demand and Need

## Perry County

State Designated Bike Routes

Active Transportation Demand and Need

AT Need

AT Demand

Both High

High - Low

Low - High

Both Low

0 2.5 5 10

Miles

BUCKEYE HILLS regional council

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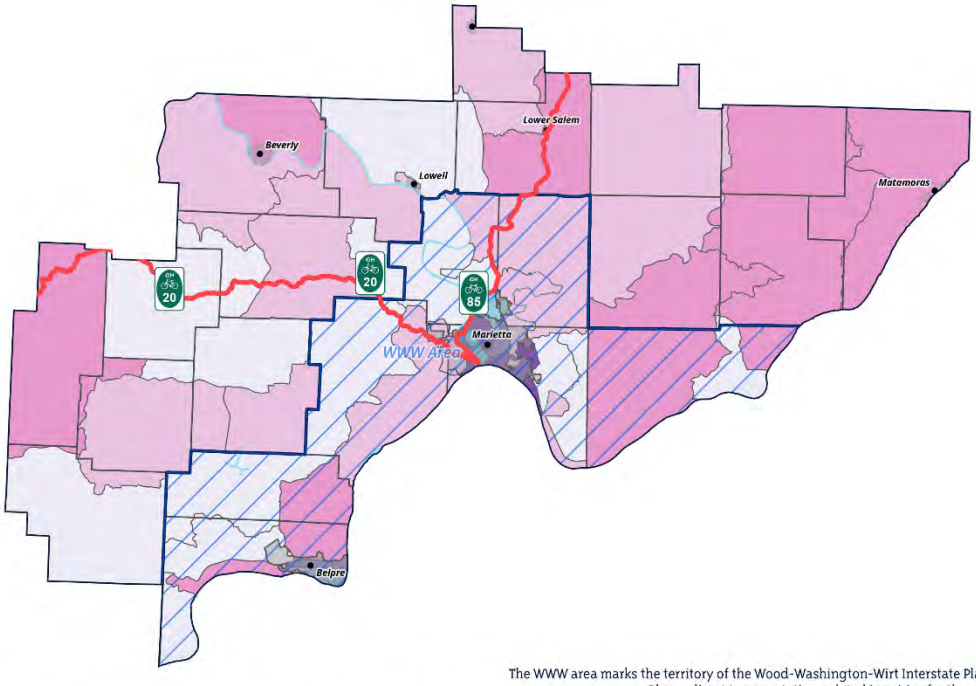



The WWW area marks the territory of the Wood-Washington-Wirt Interstate Planning Commission.
Please direct transportation-related inquiries for these townships to them.

# Active Transportation Demand and Need

## Washington County

State Designated Bike Routes

Active Transportation Demand and Need

AT Need

AT Demand

Both High

High - Low

Low - High

Both Low

0 2.5 5 10

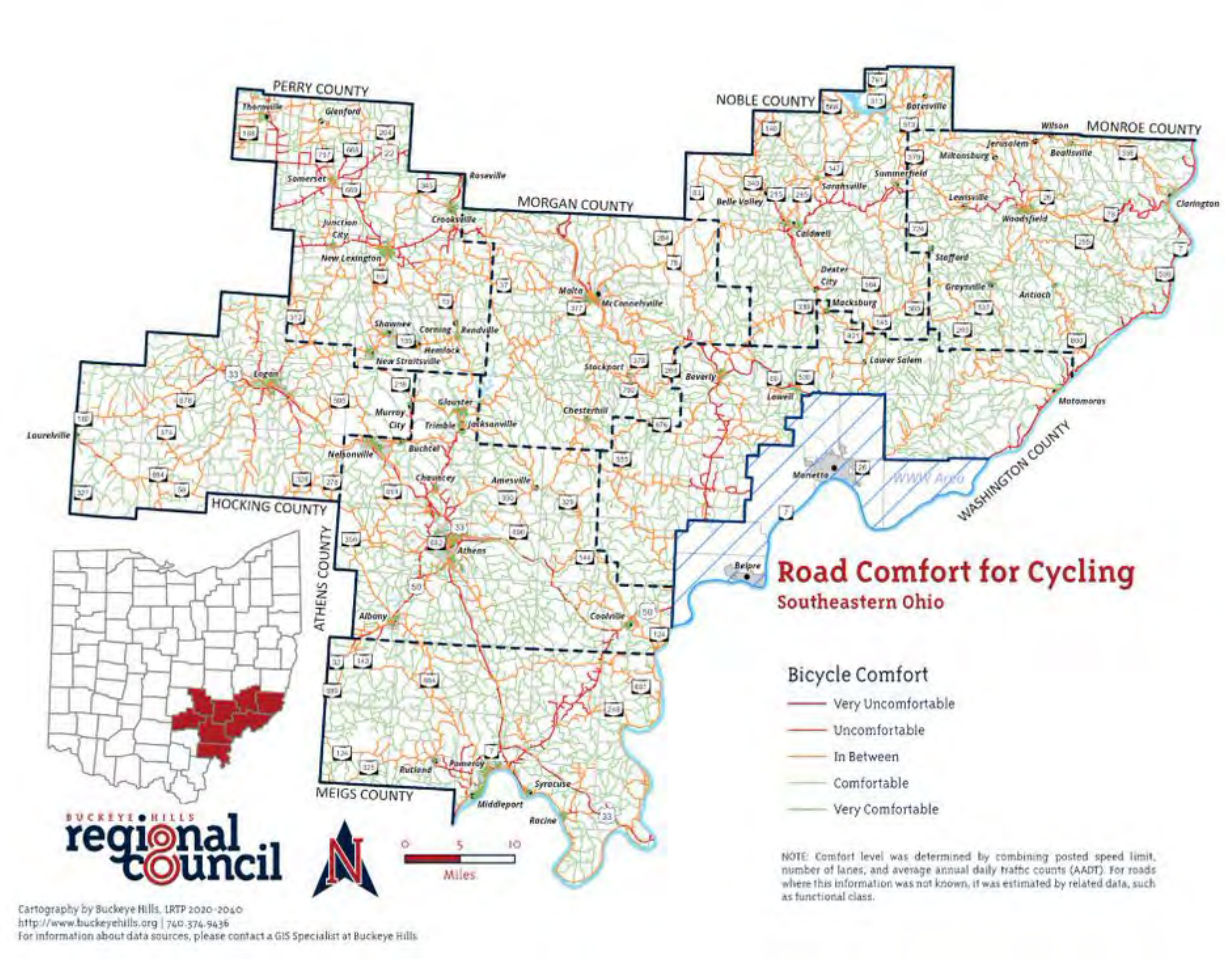
Miles

BUCKEYE HILLS regional council

Cartography by BHRC | LRTP 2020-2045
http://www.buckeyehills.org | 740.374.9436
For information about data sources, please contact a GIS Specialist at Buckeye Hills

## Map: Road Comfort for Cycling

*Description*: The Road Comfort for Cycling map (also available by interactively at: https://buckeyehills.maps.arcgis.com/home/gallery) the road comfort for cycling map and interactive mapping application attempts to depict the likely comfort a cyclist would experience while riding on the roads in the Buckeye Hills region. The data utilized for the map and interactive mapping application is provided by the Ohio Department of Transportation (ODOT) and by the regional counties. The number of lanes, the posted speed limit, and annual average daily traffic counts, when available, were used. When such data was not available, assumptions were made about the road based on neighboring roads and its functional class. The values are assumptions from data and do not take into account real-world experience at this stage of deployment. However, over time new data sources and user experience feedback will be incorporated as they manifest and continue to evolve and improve the Road Comfort for Cycling representations.



# APPENDIX I
# PLAN PUBLIC COMMENTS

*BHRC RTPO Long-Range Transportation Plan 2020-2045*

# Appendix I: Plan Public Comments

The public outreach process was performed as outlined in our Public Participation Plan, which can be found at http://www.buckeyehills.org/transportation-planning. Any public comments received during the public comment period subsequent to the release of this plan will be captured here, as well as any remedies taken to answer those comments.

# APPENDIX J
# PLAN ADOPTION RESOLUTION

*BHRC RTPO Long-Range Transportation Plan 2020-2045*

# Appendix J: Plan Adoption Resolution

Upon completion, the Resolution drafted and signed by the BHRC RTPO Policy Committee (the Buckeye Hills Regional Council Executive Committee) will be attached here.