

Berkshire Regional Transportation Plan

2016



The Berkshire Regional Planning Commission

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2016 REGIONAL TRANSPORTATION PLAN AND AIR QUALITY DETERMINATION

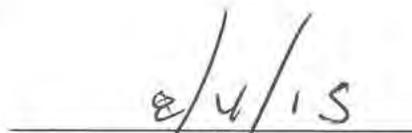
In accordance with 23 CRF Part 450 Section 322 (Metropolitan Transportation Planning Process: Transportation Plan) of the October 28, 1993 Final Rules for Statewide and Metropolitan Planning, the Committee of Signatories representing the Metropolitan Planning Organization (MPO) for the Berkshire Region hereby endorses the 2016 Regional Transportation Plan (RTP).

also

In accordance with Section 176(c)(4) of the Clean Air Act as amended in 1990 [42 USC 7251(a)], the MPO for the Berkshire Region has completed its review and hereby certifies that implementation of the Berkshire MPO 2016 RTP satisfies the conformity criteria specified in both 40 CFR parts 51 and 93 (August 15, 1997), 40 CFR parts 50 and 58 (March 27, 2008), 40 CFR 50, 51, 52, et al (March 6, 2015) and 310 CMR 60.03 (December 30, 1994); furthermore this plan includes all regionally significant transportation projects contained in the Berkshire MPO 2016-2019 Transportation Improvement Program (TIP). The projects in the TIP are of the same design and concept that were analyzed in the RTP. Therefore no new air quality analysis is required for the TIP. Both the Berkshire Region 2016 RTP and the Berkshire MPO 2016-2019 TIP are consistent with the air quality goals of, and in conformity with, the Massachusetts State Implementation Plan.

Signatory Certification:


Stephanie Pollack
MassDOT Secretary and CEO
Berkshire MPO Chairman


Date

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SECTION I

INTRODUCTION

1. PREFACE

Over the next 25 years, the people of Berkshire County will change substantially from the way they exist today. Census data indicates that the County lost population over the past few decades. The majority of this loss is among young adults. The Berkshires are also aging at a faster rate relative to other parts of Massachusetts as well as many parts of the country. We estimate that nearly 30,000 Berkshire County baby boomers will retire within the next 10 to 20 years. These changes to our community means we need to rethink the future transportation needs which are very different from the needs of the past.

The major appeal of Berkshire County is the region's quality of life, cultural attractions and natural environment. While it may mean different things to different people, we can all agree that quality of life encompasses safe and livable communities, affordable housing, employment opportunities, a healthy environment, good schools and community facilities, and a transportation system that provides easy access to work, school, and other activities for everyone. The 2016 Berkshire County Regional Transportation Plan (RTP), is the Berkshire's strategy for improvements to the transportation system that enhance our quality of life and meets our mobility needs now and in the future.

In March 2014, the Berkshire Regional Planning Commission adopted Sustainable Berkshires, a regional plan. Sustainable Berkshires establishes a regional vision and supporting goals, policies and strategies for conservation and recreation, economy, food and agriculture, climate and energy, housing and neighborhoods, historic preservation, infrastructure and services and land use. Transportation plays a role in each element of the sustainability plan and this RTP advances the vision while providing transportation ideas to sustain and improve our region's quality of life for not just today, but for future generations also.

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2. REGIONAL TRANSPORTATION PLANNING OVERVIEW

REGIONAL PLANNING HAS A PURPOSE

The 2016 Berkshire Regional Transportation Plan (RTP) is a document that provides transportation projects and policies consistent with Federal, Commonwealth, and Regional goals. The RTP contains both short and long-range projects and policy ideas. The RTP is the guiding certification document for all federally funded transportation planning and implementation tasks within the Berkshires.

The RTP outlines priority transportation projects and improvements for highways, public transportation, airports (though not air travel), railroads, and bicycle and pedestrian options. Although the MassDOT project development process addresses systems integration, management, and operations on a project-by-project basis, the RTP does discuss how to mitigate project delivery delays as part of the long-range transportation planning process, most notably encouraging BRPC to stay involved throughout the project development process.

The projects in the 2016 RTP originate from technical analysis, input from Berkshire towns, cities and other transportation stakeholders, and a review of information gathered in previous transportation studies and plans. Each program in the fiscally constrained list represents a need identified in the transportation planning process and matches it to available funding. This RTP also provides an illustrative project list that cannot be reasonably completed with the Region's currently identified financial resources. As these projects move toward implementation, they should address the RTP's overarching goals and objectives, Massachusetts statewide priorities, and Federal guidelines.

The 2016 RTP recognizes the diversity of transportation needs throughout the Berkshires, and attempts to balance often-competing transportation needs within fiscal and physical constraints of the region. This RTP introduces performance measures into long-term transportation planning. We also anticipate how the US Department of Transportation will make performance measure rules and what the Commonwealth will do to establish targets for the measures.

We recognize that automobiles will remain the dominant mode of travel for the future but also that we should encourage other ways to move around. The entire region needs to increase mobility for all socioeconomic groups and those with physical impairments, particularly sensitive populations described by Title VI and Environmental Justice. Even the occasional use of public transportation, walking, bicycling or sharing a ride can help the Berkshires conserve energy, provide lifestyle sustainability, and achieve cleaner air and water.

Finally, the RTP is the single document that promotes just how critical our transportation system is to the economic sustainability of the Berkshires. Much of our regional economy depend on the safe and efficient movement of goods and services by truck, railroad, and air, as well as delivering workers safely to employment centers. This plan attempt to balance all of these diverse, and often competing, needs with constrained local, state, and Federal financial resources.

FEDERAL PLANNING CONTEXT

On July 6, 2012, President Obama signed into law the Moving Ahead for Progress in the 21st Century Act (MAP-21). MAP-21 is the first long-term highway authorization enacted since 2005 and funds surface transportation programs at over \$105 billion for fiscal years (FY) 2013 and 2014. MAP-21 provides needed funds and, more importantly, changes the policy and programmatic framework for investments to guide the growth and development of the country's vital transportation infrastructure. Without a successor authorization to MAP-21, we are left to guess about future Federal influence on transportation policy and funding using cpast legislation and the short-term MAP-21 continuations as clues.

MAP-21 tries to address the many challenges facing America's transportation system and groups them into seven areas of emphasis. These challenges include improving safety, improving infrastructure condition, reducing traffic congestion, improving efficiency of the system, moving freight, protecting the environment, and reducing delays in project delivery. This RTP organizes analysis and recommendations, both policy and physical, according to these seven areas of emphasis.

MAP-21 builds on and refines many of the highway, public transportation, bike, and pedestrian programs and policies established in 1991. Ultimately, the law should help local communities build multimodal, sustainable projects ranging from passenger rail and public transportation to bicycle and pedestrian paths.

The main objective of the Federal transportation planning program is the development of a transportation system that optimizes project delivery within the Region's available financial resources. MAP-21 incorporates the intuitive concept of measuring performance against investment into the process. This system of projects and programs is fiscally constrained to our funding sources and those new sources that can be reasonably expected to be available during the horizon planning period. The Berkshire RTP also includes an 'illustrative' list of projects that are needed to maintain the transportation system and make improvements over the duration of the plan. These illustrative projects are not fiscally constrained.

While the RTP defines long-term objectives, the Transportation Improvement Program (TIP) is a list of projects that meet regional needs within a more immediate time frame. The TIP allocates federal funds in the region, is updated annually, and includes a rolling four (4) year program of transportation improvements.

Federal regulations require an adopted RTP for federal funding of transportation capital improvements and transit operating funds. A project must be consistent with the RTP and programmed in the TIP in order to qualify for regional transportation dollars. MAP-21 requires us to update the RTP every four (4) years.

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CONTINUING, COOPERATIVE, and COMPREHENSIVE

In the early 1970's the Commonwealth of Massachusetts adopted the federal government's comprehensive, cooperative, continuing (3-C) transportation planning process. The intent of the 3-C process is to insure that "all reasonable and prudent alternatives to transportation problems are considered and analyzed adequately." Decisions must give full consideration to all impacts, emphasize physical, economic, and social consequences and include the "participation of elected officials, public and private groups and individual citizens."

The BRPC tries to integrate the 3-C process in all facets of the transportation planning program, including alternatives identification and evaluation.

Ultimately, the 2016 RTP provides financially constrained 25-year priorities for road, transit, freight, bicycle and pedestrian improvements, consistent with the federal requirements of MAP-21.

Public participation was an integral component of developing the 2016 RTP. The planning process included opportunities for public input by citizens, local officials, organizations and businesses, and state and federal agencies.

MAP-21 requires that MPOs develop a public participation plan in consultation with interested parties that provides reasonable opportunities for all parties to comment. BRPC's public participation plan includes public information sessions conducted at convenient and accessible locations at convenient times; employ visualization techniques to describe plans; and make public information available in an electronically accessible format, such as on the Internet.

Appendix A provides a description of the 2016 RTP public involvement process.

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PERFORMANCE MANAGEMENT

The cornerstone of MAP-21's highway program transformation is the transition to a performance and outcome-based program. States will invest resources in projects to achieve individual targets that collectively will make progress toward national goals.

MAP-21 establishes national performance goals for federal highway programs:

- ▽ Safety—To achieve a significant reduction in traffic fatalities and serious injuries on all public roads.
- ▽ Infrastructure condition—To maintain the highway infrastructure asset system in a state of good repair.
- ▽ Congestion reduction—To achieve a significant reduction in congestion on the NHS.
- ▽ System reliability—To improve the efficiency of the surface transportation system.
- ▽ Freight movement and economic vitality—To improve the national freight network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development.
- ▽ Environmental sustainability—To enhance the performance of the transportation system while protecting and enhancing the natural environment.
- ▽ Reduced project delivery delays—To reduce project costs, promote jobs and the economy, and expedite the movement of people and goods by accelerating project completion through eliminating delays in the project development and delivery process, including reducing regulatory burdens and improving agencies' work practices.

MAP-21 requires that FHWA and FTA, in consultation with States, MPOs, and other stakeholders, establish performance measures for pavement conditions and performance for the Interstate and National Highway System, bridge conditions, injuries and fatalities, traffic congestion, on-road mobile source emissions, and freight movement on the Interstate System. States and MPOs set performance targets in support of the measures, and State and metropolitan plans will describe how program and project selection will help achieve the targets. This RTP anticipates what the rule makings will require for performance measures and what the Commonwealth will adopt as performance targets. In cases where the MPO feels that the statewide performance target set by the Commonwealth is not appropriate for the Berkshires, this plan will explain why the statewide target does not fit with the Berkshires, establish an alternative target, and document why that alternative target is appropriate.

States and MPOs have to report on whether they achieve the targets they pick. If a State's report shows inadequate progress in some areas – most notably the condition of the NHS or key safety measures – the State must take corrective actions, such as the following:

- ▽ NHPP: If no significant progress is made toward targets for NHS pavement and bridge condition, the State must document in its next report the actions to achieve the targets.
- ▽ HSIP: If no significant progress is made toward targets for fatalities or serious injuries, the State must dedicate a specified amount of obligation limitation to safety projects and prepare an annual implementation plan.
- ▽ States maintain minimum standards for Interstate pavement and NHS bridge conditions. If a State falls below either standard, that State must spend a specified portion of its funds for that purpose until the minimum standard is exceeded.

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**TABLE 1: USDOT Implementation of MAP-21 Performance Provisions:
Eleven Interrelated Rules**

Planning	
Metropolitan and Statewide Planning Rule	<ul style="list-style-type: none"> Establish a performance-based planning process at the metropolitan and state level Define coordination in the selection of targets, linking planning and programming to performance targets.
Highway Safety	
Safety Performance Measure Rule	<ul style="list-style-type: none"> Propose and define fatalities and serious injuries measures, along with target establishment, progress assessment, and reporting requirements. Discuss the implementation of MAP-21 performance requirements.
Highway Safety Improvement Program (HSIP) Rule	<ul style="list-style-type: none"> Integration of performance measures, targets, and reporting requirements into the HSIP. Strategic Highway Safety Plan updates.
Highway Safety Program Grants Rule	<ul style="list-style-type: none"> State target establishment and reporting requirements. Highway safety plan content, reporting requirements and approval.
Highway Conditions	
Pavement and Bridge Performance Measure Rule	<ul style="list-style-type: none"> Propose and define pavement and bridge conditions measures, along with minimum condition standards, target establishment, progress assessment, and reporting requirements.
Asset Management Plan Rule	<ul style="list-style-type: none"> Content and development process for asset management plan. Minimum standards for pavement and bridge management systems.
Congestion/System Performance	
System Performance Measure Rule	<ul style="list-style-type: none"> Define performance of the interstate system, non-interstate National Highway System, and freight movement on the interstate system. Finalize interpretation of scope of CMAQ performance requirements including congestion and on-road mobile source emissions. Summarize MAP-21 highway performance measure rules.
Transit Performance	
Transit Asset Management Rule	<ul style="list-style-type: none"> Define state of good repair and establish state of good repair performance measures. Require transit providers to set targets and report on progress. Summarize MAP-21 highway performance measure rules.
National Transit Safety Program Rule	<ul style="list-style-type: none"> Define transit safety criteria and standards. Include definition of state of good repair.
Transit Agency Safety Plan Rule	<ul style="list-style-type: none"> Transit safety plan content and reporting requirements. Target setting requirements for transit agencies and states.
Transit Safety Management Systems	<ul style="list-style-type: none"> Safety Policy, Safety Assurance, and Safety Promotion. Hazard Analysis and Safety Risk Management

Source: USDOT



Look for symbols like these throughout the RTP where we highlight transportation “performance based planning” measures and targets in the Berkshires.



3. RELEVANT STATE AND REGIONAL PLANNING EFFORTS

The following initiatives guide regional transportation planning in the Berkshires, and the objectives contained in each were reviewed during the preparation of this RTP:

GreenDOT

GreenDOT is a comprehensive environmental initiative that will make MassDOT a leader in “greening” the state transportation system. MassDOT should promote sustainable economic development, protect the natural environment, and enhance the quality of life for all of the Commonwealth’s residents and visitors through the full range of its activities, from strategic planning to construction and system operations. GreenDOT includes three principal goals: reduce greenhouse gas (GHG) emissions; promote healthy transportation options; and support smart growth. Additional information can be found at: http://www.eot.state.ma.us/default.asp?pgid=content/releases/pr060210_GreenDOT&sid=release.

Global Warming Solutions Act (GWSA) Chapter 298 of the Acts of 2008.

The GWSA calls for a 10 to 25 percent reduction of 1990 GHG emissions levels by 2020, and a further reduction to 80 percent below 1990 levels by 2050. The Massachusetts Executive Office of Energy and Environmental Affairs (EOEEA) sets economy-wide greenhouse gas (GHG) emission reduction goals and strategies for Massachusetts. Recent rules adopted by the Commonwealth require the MPO to discuss carbon dioxide reductions in this RTP as a way to implement the GWSA.

The Massachusetts Clean Energy and Climate Plan for 2020

The Massachusetts Executive Office of Energy and Environmental Affairs released the Massachusetts Clean Energy and Climate Plan for 2020 in December of 2010. The Global Warming Solutions Act (GWSA, or the Act) of 2008 requires the Secretary of Energy and Environmental Affairs to establish a statewide limit on greenhouse gas (GHG) emissions of 10% - 25% below 1990 levels for 2020 – on the way toward an 80 % reduction in emissions by 2050.

The Healthy Transportation Compact (HTC)

The HTC is a requirement of the 2009 transportation reform legislation. This inter-agency initiative is designed to facilitate transportation decisions that balance the needs of all transportation users, expand mobility, improve public health, support a cleaner environment and create stronger communities. More information can be found at: <http://www.massdot.state.ma.us/main/HealthyTransportationCompact.aspx>.

Complete Streets

The MassDOT Project Development and Design Guide promotes a Complete Streets design philosophy. Complete Streets calls for project designers to provide accommodations for pedestrians, cyclists, and transit users within the same right-of-way.

Bay State Greenway

The Bay State Greenway (BSG) is MassDOT’s proposed seven-corridor, 740 mile network of bicycle routes that comprise both off-road and on-road bicycle facilities. The BSG connects urbanized areas with the greatest density of trips to maximize the potential for distance travel,

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facilitate increased bicycling, and link to existing shared-use paths. www.massbikeplan.org

Livability is focused on tying the quality and location of transportation facilities to broader opportunities such as access to good jobs, health care, affordable housing, quality schools, safer streets and roads, improving the environment and neighborhoods. As a regional planning agency and MPO, BRPC address livability in its planning efforts as a result of continuing interaction with federal agencies such as the Department of Housing and Urban Development (HUD), the Department of Transportation (DOT), and Environmental Protection Agency (EPA) which promote livability in their respective program initiatives. The 2016 RTP supports livability by providing additional transportation choices (walking, biking, transit), supporting neighborhoods/communities equitably with transportation improvement projects and enhancing the economic competitiveness of the region.

REGIONAL PLANNING CONTEXT

The Berkshire Regional Planning Commission (BRPC) coordinates the Federal transportation planning and funding for the region with the Berkshire Regional Transit Authority (BRTA), and the Massachusetts Department of Transportation.

BRPC is the official area-wide planning agency for the Berkshires and is composed of representatives from each of Berkshire County's 32 local governments. Appointed representatives from BRPC, MassDOT and BRTA, along with elected officials from the cities of Pittsfield and North Adams and four sub-regional town representatives, comprise the Berkshire Metropolitan Planning Organization (MPO). The ten-member MPO is responsible for oversight and approval of the RTP, TIP, annual Unified Planning Work Program (UPWP) as well as other transportation policies and plans for the region.

The 2016 RTP needs to be consistent with the broad policies of BRPC's Sustainability Plan for the Berkshires, the region's comprehensive long-range plan which contains policies, approaches, and specific work element recommendations for the Berkshire Regional Planning Commission's MPO activities, its communities, state government, and the private sector. The eight (8) elements of the Regional Plan are:

- ▽ Conservation and Recreation
- ▽ Economy
- ▽ Local Food and Agriculture
- ▽ Climate and Energy
- ▽ Housing and Neighborhoods
- ▽ Historic Preservation
- ▽ Infrastructure and Services
- ▽ Land Use

4. MAP-21 GOALS, PERFORMANCE MEASURES, AND REGIONAL OBJECTIVES

Staff combed through the goals and objectives of each of the Sustainability Plan elements and selected the ones that are applicable to the Berkshires' transportation network. These Sustainable Berkshires objectives, combined with past RTP objectives, MAP-21 performance measures, and MassDOT initiatives, are organized according to the national performance goals established under MAP-21 for federal transportation programs. We consolidated redundant objective statements and placed them under the most appropriate MAP-21 national performance goals. Also, there are not MAP-21 performance measures for each of the 7 areas of emphasis and some of the goals have multiple performance measures. The MPO awaits final, definitive rulemaking on all of the performance measures, which will not be available until after the adoption of this Plan. The Berkshire MPO addresses performance based planning opportunities through this RTP in the following areas of emphasis as possible:

SYSTEM RELIABILITY- To improve the efficiency of the surface transportation system.

OBJECTIVES:

- ▽ Increase public transportation efficiency;
- ▽ Increase mode choice options in both urban and rural portions of the Berkshires;
- ▽ Establish the Berkshires as an age friendly community;
- ▽ Enact development policies that increase overall mobility & improve efficiency;
- ▽ Foster development in existing core communities;
- ▽ Increase mobility and access options for all people and places;
- ▽ Provide sufficient transportation capacity for all modes and goods; and
- ▽ Facilitate system connections to improve efficiency and access.

CONGESTION REDUCTION- To achieve a significant reduction in congestion on the National Highway System.

OBJECTIVES:

- ▽ Minimize the costs associated with traffic congestion and delays
- ▽ Improve the efficiency of traffic operations, reduce vehicle miles traveled (VMT), and manage travel demand;
- ▽ Reduce air pollution and greenhouse gas (GHG) emissions;
- ▽ Integrate alternative travel mode facilities into roadway improvements;
- ▽ Promote the healthy transportation modes of walking, bicycling, and public transit transportation.

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FREIGHT MOVEMENT AND ECONOMIC VITALITY- To improve the national freight network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development.

OBJECTIVES:

- ▽ Minimize impacts of truck traffic and cut-through traffic;
- ▽ Enhance connections with adjacent regions;
- ▽ Enhance aesthetic, cultural, and historic qualities of communities;
- ▽ Provide an investment program for infrastructure improvements;
- ▽ Serve critical regional economic development needs;
- ▽ Improve the availability of public transportation particularly for access to jobs and education.
- ▽ Facilitate goods movement; and
- ▽ Serve Priority Economic Development Areas.

INFRASTRUCTURE CONDITION- To maintain the highway and public transportation asset system in a state of good repair.

PERFORMANCE MEASURES:

- ▽ All NHS pavements shall have data collected for them over the for a 4 year reporting period, regardless of ownership or functional classification. Pavements shall be classified in either good or poor condition. MAP-21 requires that no more than 5% of Interstate Highway lane miles are in poor condition over a 4 year period.
- ▽ Bridges on the NHS shall be classified in either good or poor condition annually. MAP-21 requires that no more than 10% of the NHS bridge deck area can be in poor condition for three consecutive years.
- ▽ The FTA has not proposed a Transit Asset Management Rule as of this writing. BRPC believes that this rule will define “state of good repair” and how BRTA will establish targets and report progress.



PERFORMANCE TARGETS:

- ▽ All NHS pavements shall have data collected for them over the for a 4 year reporting period, regardless of ownership or functional classification. MAP-21 requires that no less than 5% of Interstate Highway lane miles are in poor condition. NHS pavements shall be classified in either good or poor condition.
- ▽ Bridges on the NHS shall be classified in either good or poor condition annually. MAP-21 requires that no more than 10% of the NHS bridge deck area can be in poor condition for three consecutive years.
- ▽ The MPO will support BRTA in the establishment of performance targets according to the FTA’s upcoming Transit Asset Management Rule specifically measuring the system’s “state of good repair”.

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OBJECTIVES:

- ▽ Ensure that long-term planning initiatives include the maintenance, operation, and eventual replacement of existing infrastructure; and
- ▽ Maintain the Region's existing transportation system in a state of good repair.

ENVIRONMENTAL SUSTAINABILITY- To enhance the performance of the transportation system while protecting and enhancing the natural environment.

OBJECTIVES:

- ▽ Incorporate anticipated climate change impacts into the project development process;
- ▽ Reduce air pollution and greenhouse gas (GHG) emissions;
- ▽ Protect the quality of water resources from transportation impacts;
- ▽ Protect sensitive natural features;
- ▽ Optimize the transportation system's use of resources;
- ▽ Minimize energy and chemicals used in maintenance;
- ▽ Minimize collisions with wildlife; and
- ▽ Implement sustainable stormwater management.

SAFETY- To achieve a significant reduction in traffic fatalities on all public roads.



PERFORMANCE MEASURES:

- ▽ 5-year rolling averages for fatality and serious injury numbers and fatality and serious injury rates by 100 million VMT. These measures apply to all public roads regardless of ownership or functional classification.
- ▽ The Federal Transit Administration has not proposed a Transit Agency Safety Plan Rule, however, we anticipate that the rule will be based on reducing preventable transit crashes. These crashes are typically reported as a rate of crashes per 100,000 vehicle miles.

PERFORMANCE TARGETS:

- ▽ The Berkshire MPO targets the same reduction in fatality and serious injury crashes as the Commonwealth . The Berkshire MPO targets a performance equal or better to fatality and serious injury crash rates (per 100 million VMT).
- ▽ BRTA's current rate of preventable crashes per 100,000 miles is 1.2. If the MPO decides to establish a target rate that is different than the Commonwealth's for the Transit Agency Safety Plan Rule, then it should be consistent with BRTA's past performance.

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OBJECTIVES:

- ▽ Implement Massachusetts Strategic Highway Safety Plan recommendations;
- ▽ Maintain the connectivity of critical highway corridors; and
- ▽ Plan for traffic movements during emergencies.

REDUCE PROJECT DELIVERY DELAYS- To reduce project costs, promote jobs and the economy, and expedite the movement of people and goods by accelerating project completion through eliminating delays in the project development and delivery process, including regulatory burdens and improving agencies' work practices.

OBJECTIVES:

- ▽ Mitigate delays to travelers and freight by coordinating infrastructure improvements.
- ▽ Coordinate public transportation with human services transportation providers;
- ▽ Ensure that the maintenance and operation of existing infrastructure is cost effective and new infrastructure is not unduly burdensome;
- ▽ Support smart growth development; and
- ▽ Encourage different ways of providing municipal services that lead to cost savings, like regionalization and procurement consolidation.

SECTION II

SYSTEM RELIABILITY

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SYSTEM RELIABILITY- To improve the efficiency of the surface transportation system.

System reliability in the Berkshires means how easily our people access transportation for where they need to go, as opposed to some sort of physical measure of the infrastructure. We have some very vulnerable populations with severe socioeconomic barriers to mobility. We also face unprecedented challenges over the horizon of this Plan because the Region's population is aging and migrating away. Deaths outnumber births. Certain demographic cohorts, particularly recent immigrants, the elderly, and the impoverished are growing as a share of the Berkshires' population. These groups present needs and opportunities for improving system reliability that makes a regional transportation system successful.

The following objectives may be derived from past planning efforts in the Berkshires, public input for this RTP, Federal legislation, and/or Massachusetts state laws.

OBJECTIVES:

- ▽ Increase public transportation efficiency;
- ▽ Increase mode choice options in both urban and rural portions of the Berkshires;
- ▽ Establish the Berkshires as an age friendly community;
- ▽ Enact development policies that increase overall mobility & improve efficiency;
- ▽ Foster development in existing core communities;
- ▽ Increase mobility and access options for all people and places;
- ▽ Provide sufficient transportation capacity for all modes and goods; and
- ▽ Facilitate system connections to improve efficiency and access.

These objectives direct our system reliability discussion for the 2016 RTP depending on the availability of data and the transportation context of other supporting planning efforts. If BRPC and the Berkshire MPO have performance measures and/or targets then they are reflected in the recommendations at the end of each subsection. The following analyses can point to capital projects and/or plan implementation policies that move the Berkshires closer to attaining the objectives listed above. It is important to remember that all of the RTP discussions should be examined collectively and that different policies and projects can solve single or multiple transportation dilemmas. These outcomes are combined in the 2016 Regional Transportation Plan Summary.

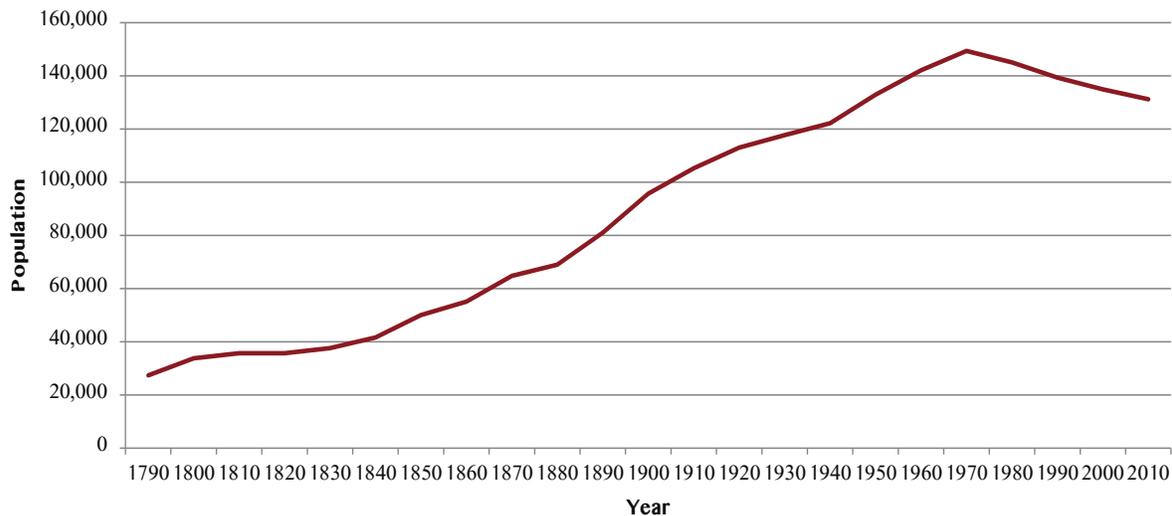
1. Population and Employment Trends help us consider how many people and jobs we need to account for in our planning efforts.
2. Title VI and Environmental Justice apply to Federal laws and regulations that prohibit discrimination.
3. Household Economics play a big factor in helping us understand impediments to mobility for all of our residents.
4. Public Transportation Performance helps us demonstrate improvement opportunities for BRTA bus riders and other services.

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1. Population and Employment Trends

Berkshire County's population is steadily declining since its peak in 1970. The American Community Survey provides statistically accurate interim estimates of population that are based on indicators such as birth and death certificates, and building permit activity.

FIGURE 1: Population Trend for Berkshire County, 1790-2010



Source: U.S. Census Bureau, 1790-2010 Census and 2009 ACS Population Estimates

Regional population declined 13% (19,900) between 1970 and 2010. Most (75%) of the County's population decline between 1970 and now occurred in the three largest communities, Pittsfield, North Adams and Adams. The region's other towns either experienced smaller decreases in population, or in some cases flat or relatively modest growth. This pattern mirrors a national trend: population migration from urban centers to less densely populated areas. Over the last 40 years, the Berkshires average losing almost 450 people a year. If this trend continues it will have a tremendous impact on the sustainability of the region.

In 2010, the median age for Berkshire County was 45.1 compared to 39.2 for all of Massachusetts. This reflects a higher concentration of retirees and a loss of younger working-age population and their children in the region. It is especially contrasting to the Berkshires' average age of 40.5 in 2000. We expected that Berkshire County will continue to be a popular location for retirees. This trend has significant transportation impacts over time.

School enrollment in the Berkshires is declining, a trend supported by Census and Massachusetts Department of Education statistics. A recent study by the Pioneer Institute states "the decline is due to a reduction in the number of school age children – the population is getting older."

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MassDOT, as part of developing a statewide travel demand model, worked with the Donahue Institute at the University of Massachusetts in 2014 to develop population and employment projections for each region in the Commonwealth. These projections go into our travel demand models so we understand how people will be moving in the future based on their homes and jobs.

TABLE 2: Berkshire County 2040 Population Projections

	Census 1990	Census 2000	Census 2010	2020	2030	2040	% Change 1990- 2010	% Change 2010- 2040
Berkshire	139,352	134,953	131,219	129,692	130,446	130,251	-9%	-1%
Statewide	6,016,425	6,349,097	6,547,629	6,808,039	7,069,606	7,230,525	15%	10%

Source: MassDOT and the Donahue Institute

Now although these projections are used for the current iterations of the Commonwealth's travel demand model, BRPC is not sure that they will hold true given the Berkshires' decreasing birth rate, relatively stable death rate, and a net migration loss of over 200 people a year. BRPC's current internal population forecast for 2020 is 126,490, 3,202 fewer than the Commonwealth's estimate. We do not see any meaningful reason to think that the trends we use to calculate our estimate will change within the next five years. However, we do share the Commonwealth's hope that population will stabilize after 2030. The dot map on the following page shows the general population density across the Berkshires. The most populous communities are in the central Berkshire Valley and correlate to our major arterials of US 7, US 20, and Route 8.

TABLE 3: Berkshire County 2040 Employment Projections

	1990 ES- 202	DET/ ES-202 2000	DET/ ES-202 2010	2020	2030	2040	% Change 1990- 2010	% Change 2010- 2040
Berkshire	61,022	61,557	60,150	58,765	55,967	55,650	6%	-7%
Statewide	2,904,572	3,227,286	3,199,467	3,369,800	3,388,045	3,446,340	11%	7%

Source: MassDOT

Projecting employment is an even more arcane task than attempting to understand long term population growth. We believe that the drop in employment that MassDOT indicates occurs from a great share of the Region's population entering retirement. We believe that the majority of job growth will be in cottage-based services, high tech niche manufacturing, and our thriving tourism industry.

Policy Recommendations:

- ▽ Evaluate and implement design components of our transportation system specifically to benefit the accessibility, affordability, and safety for older adults of all abilities; and
- ▽ Encourage the development of regional high-speed internet access to outlying communities as a way to provide accessibility to both the elderly and cottage industries.

Berkshire County Population Density

LEGEND

-  MassDOT Urban Areas
-  Communities

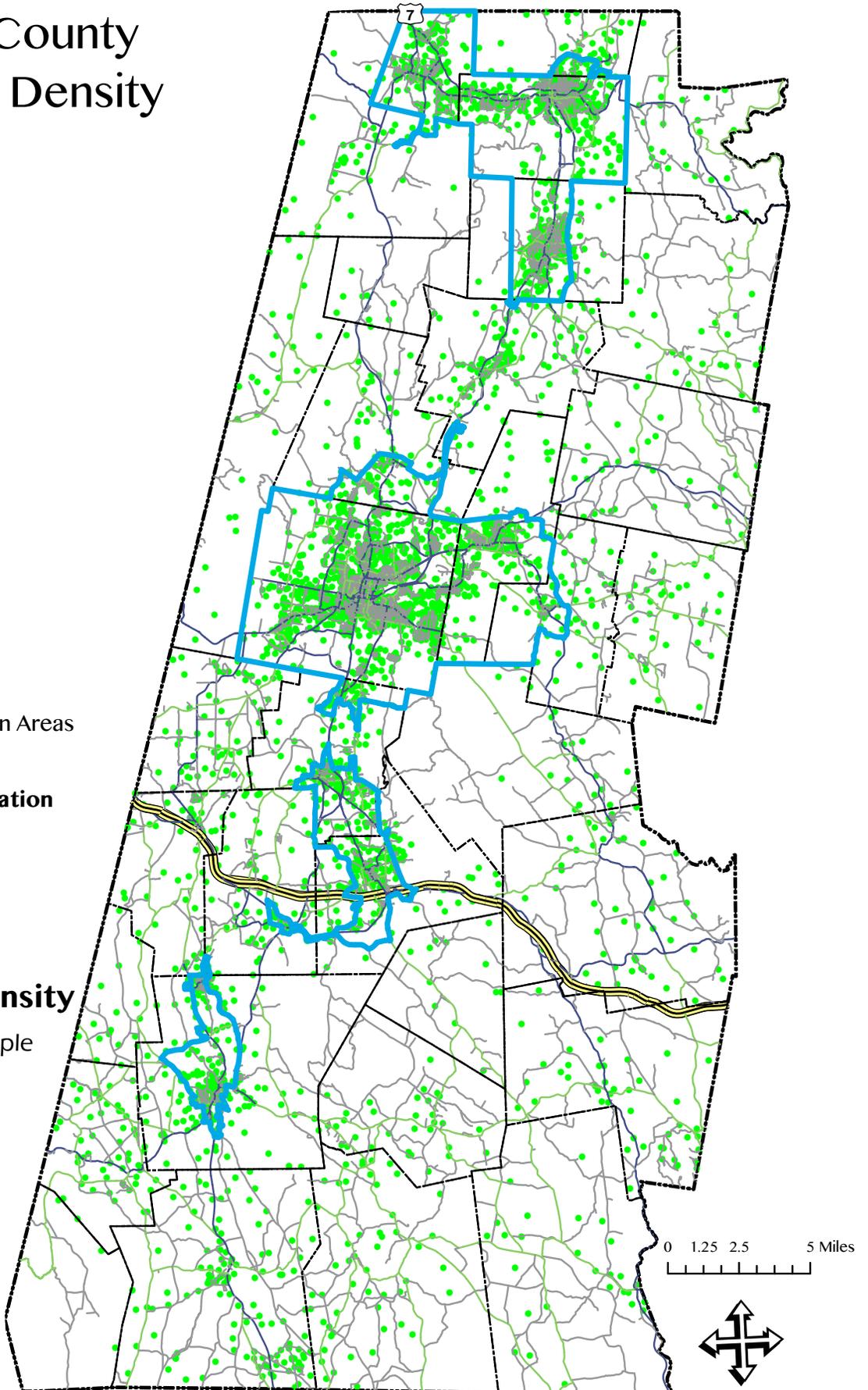
Functional Classification

-  Interstate
-  Arterial
-  Collector
-  Local

Population Density

-  1 Dot = 25 people

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2. Title VI and Environmental Justice

The Berkshire MPO adopted a Title VI Plan in June of 2014 that provides the framework for how we comply with anti-discrimination laws as part of our transportation planning. Our Title VI plan outlines how the Berkshire MPO meets Title VI requirements stemming from the Civil Rights Act of 1964 and Environmental Justice compliance. Key elements of the Title VI Plan include establishing a Title VI Coordinator for BRPC, increasing opportunities for all individuals to be involved in the BRPC's planning and programming processes, procedures for filing complaints, and augmenting outreach efforts to Title VI and Environmental Justice populations.

The Title VI Coordinator

The Title VI Coordinator, designated as the Transportation Program Manager, formalizes several responsibilities that BRPC has always carried out, but not necessarily in such a structured manner. The Title VI Coordinator is specifically charged with carrying out the following tasks:

- ▽ Identify, investigate, and work to eliminate discrimination when it is found to exist;
- ▽ Process discrimination complaints received by the BRPC and Berkshire MPO;
- ▽ Periodically review the Title VI Plan and prepare annual reports that are submitted to MassDOT, FHWA, and FTA;
- ▽ Maintain a list of Interpretation Service Providers that assist with translations in the Region;
- ▽ Disseminate information on Title VI, Environmental Justice, and other Federal Anti-Discrimination laws;
- ▽ Assess communication strategies and address language needs when necessary; and
- ▽ Provide education and training on Title VI, Environmental Justice, and other Federal Anti-Discrimination laws.

Public Outreach

Effective communication and public participation are really important for the Berkshire MPOs anti-discrimination efforts. Rewriting the MPOs public participation plan (PPP) is an important task that should be included in an upcoming Unified Planning Work Program. The focus of the PPP rewrite should ensure that all communications and public participation efforts comply with nondiscrimination requirements. During the PPP rewrite process, the MPO should develop and distribute information on nondiscrimination and MPO programs to the general public. The rewrite should also concretely include services for individuals with special needs including, but not limited to, providing interpretation services. Lastly, the updated PPP should require the following non discrimination language in Berkshire MPO public notices, through future social media efforts, and on the BRPC webpage:

“The Berkshire MPO fully complies with Title VI of the Civil Rights Act of 1964 and related statutes and regulations in all programs and activities and conducts its programs, services and activities in a non discriminatory manner.”

Planning, Programming, and Analysis

The Berkshire MPO has a responsibility to not discriminate just in our public outreach but also into providing benefits to Title VI population communities through our Planning and Programming activities. The three annual MPO certification documents starting with this RTP but also including the TIP and UPWP, should be developed in a nondiscriminatory manner in compliance with all applicable statutory requirements.

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TABLE 4: Berkshire Environmental Justice Thresholds by Census Tract

	Education % Less than High School Diploma > 15%	Language % Speak English Less than Very Well > 3%	Minority % Non White > 10%	Poverty Individuals in Poverty > 10%	Disability Individuals with a Disability > 20%	Thresholds Exceeded
Alford	4.5%	0.4%	2.5%	5.3%	9.1%	0
Becket	6.9%	1.4%	5.4%	9.9%	16.8%	0
Census Tract 9001 (Pittsfield)	25.7%	9.0%	30.1%	39.0%	30.3%	5
Census Tract 9002 (Pittsfield)	18.4%	4.0%	30.4%	23.8%	22.4%	5
Census Tract 9003 (Pittsfield)	10.8%	1.1%	12.0%	11.6%	19.1%	2
Census Tract 9004 (Pittsfield)	9.3%	1.7%	13.1%	23.0%	13.3%	2
Census Tract 9005 (Pittsfield)	7.4%	2.0%	7.1%	3.4%	12.0%	0
Census Tract 9006 (Pittsfield)	13.7%	2.8%	33.0%	35.1%	20.8%	3
Census Tract 9007 (Pittsfield)	8.1%	2.7%	7.0%	14.5%	16.3%	1
Census Tract 9008 (Pittsfield)	4.0%	1.3%	3.7%	5.5%	11.1%	0
Census Tract 9009 (Pittsfield)	7.3%	2.7%	11.8%	13.8%	14.2%	2
Census Tract 9011 (Pittsfield)	6.2%	4.1%	6.3%	2.8%	12.6%	1
Census Tract 9201.01 (Williamstown)	5.9%	1.2%	11.1%	4.9%	10.8%	1
Census Tract 9201.02 (Williamstown)	5.1%	2.8%	13.7%	9.3%	11.0%	1
Census Tract 9213 (North Adams)	14.6%	0.1%	14.9%	29.6%	17.9%	2
Census Tract 9214 (North Adams)	16.9%	2.9%	7.1%	15.4%	18.0%	2
Census Tract 9215 (North Adams)	10.1%	2.2%	8.4%	14.3%	18.4%	1
Census Tract 9221 (Adams)	16.6%	0.0%	4.3%	17.4%	20.4%	3

Source: US Census American Community Survey 2013

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	Education % Less than High School Diploma > 15%	Language % Speak English Less than Very Well > 3%	Minority % Non White > 10%	Poverty Individuals in Poverty > 10%	Disability Individuals with a Disability > 20%	Thresholds Exceeded
Census Tract 9222 (Adams)	15.2%	2.5%	4.6%	6.8%	17.4%	1
Census Tract 9223 (Adams)	11.2%	1.0%	3.3%	11.9%	16.1%	1
Census Tract 9352 (Pittsfield)	7.2%	1.2%	3.7%	15.1%	15.1%	1
Census Tract 9353 (North Adams)	20.7%	0.9%	7.0%	14.6%	21.0%	3
Cheshire	6.7%	1.2%	1.4%	11.8%	13.4%	1
Clarksburg	9.8%	0.8%	1.0%	6.2%	14.5%	0
Dalton	6.4%	1.6%	3.1%	11.4%	12.7%	1
Egremont	7.5%	2.0%	2.0%	4.7%	13.2%	0
Florida	12.7%	0.7%	12.1%	4.9%	11.6%	1
Great Barrington	10.5%	9.8%	21.4%	9.0%	10.1%	2
Hancock	5.0%	0.3%	3.5%	2.1%	5.2%	0
Hinsdale	7.2%	1.4%	2.4%	4.4%	15.9%	0
Lanesborough	7.2%	3.6%	4.4%	2.3%	6.5%	1
Lee	6.2%	2.8%	4.2%	9.5%	14.0%	0
Lenox	5.1%	0.6%	8.8%	14.8%	18.0%	1
Monterey	3.2%	0.0%	5.8%	13.5%	11.8%	1
Mount Washington	1.9%	0.0%	3.9%	10.9%	10.9%	1
New Ashford	8.2%	0.9%	4.1%	4.1%	5.5%	0
New Marlborough	6.5%	1.2%	6.4%	8.9%	16.3%	0
Otis	5.3%	0.4%	6.0%	8.1%	14.3%	0
Peru	7.7%	0.5%	4.4%	7.6%	12.8%	0
Richmond	2.6%	0.0%	3.0%	3.0%	11.9%	0
Sandisfield	15.9%	0.0%	8.9%	4.4%	9.9%	1
Savoy	13.4%	0.0%	7.4%	7.3%	9.6%	0
Sheffield	9.4%	1.8%	4.9%	10.6%	13.2%	1
Stockbridge	4.6%	1.3%	11.4%	9.0%	15.3%	1
Tyringham	2.3%	2.4%	2.0%	12.7%	10.5%	1
Washington	8.9%	0.0%	0.2%	6.3%	10.9%	0
West Stockbridge	2.9%	0.4%	8.1%	4.4%	11.2%	0
Windsor	5.1%	1.0%	2.6%	6.7%	9.8%	0
Berkshire	9.4%	2.4%	9.8%	12.8%	15.0%	1
US	13.9%	8.6%	36.7%	15.4%	12.1%	3
MA	10.6%	8.9%	24.3%	11.4%	11.3%	3

Source: US Census American Community Survey 2013

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All of BRPC's demographic maps discussing Title VI and Environmental should use the most current and appropriate statistical information available on race, income, and other pertinent data. These maps identify areas with high minority, low income, and LEP population groups. It is also important that the data thresholds are meaningful and statistically based. The Title VI coordinator should continue to ensure that staff makes concerted efforts to involve members of all social, economic, and ethnic groups in the planning process.

Perhaps the most important component of BRPC and the Berkshire MPOs Title VI compliance efforts is that the Coordinator shares information and conducts necessary nondiscrimination training for BRPC staff and member communities. This activity ensures up-to-date knowledge of Title VI and other nondiscrimination statutes.

Limited English Proficiency

Limited English Proficiency is an important metric for Title VI because it helps identify people that are more likely to be discriminated against because of a different race and/or nationality and therefore should be more closely analyzed to help focus our efforts. **Executive Order 13166: Improving Access to Services for Persons with Limited English Proficiency** (LEP) requires federal agencies to examine the services they provide, identify any need for services to those with limited English proficiency, and develop and implement a system to provide those services so LEP persons can have meaningful access to them. The MPO, through its federal funding, carries forward this Executive Order through its transportation planning and programming functions. A map depicting the locations of LEP populations is provided on the following page.

Identification of Title VI and Environmental Justice Populations

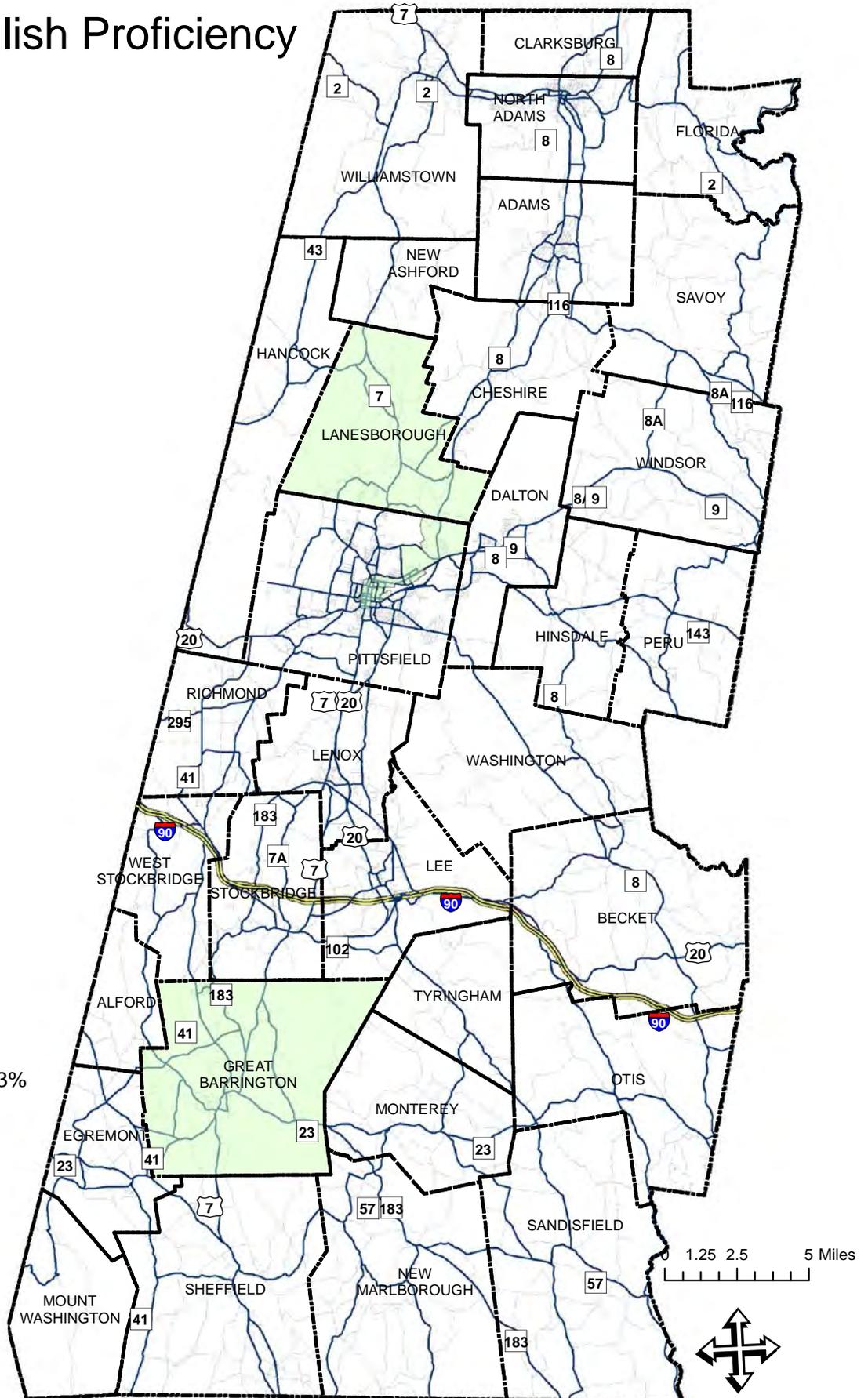
The preceding table shows the factors, by Census tract, that BRPC uses to identify EJ populations in the Berkshires. These factors include the percentages of residents that have not graduated high school, have limited English Proficiency, are ethnic minorities, live below the Census defined poverty level, and have a disability. The number of times each tract exceeds our regional EJ thresholds is in the right column. A map of the Berkshires on the page following the chart portrays each Census Tract according to how many of our regional thresholds are exceeded. The instances where zero or one thresholds are exceeded are generally the areas of the Berkshires with lower population density- the "Hill Towns." Additionally, Williamstown, Lenox, Lee, Dalton, and Lanesborough are more populated Towns with fewer identified EJ populations. Census Tracts with multiple thresholds are in Adams, North Adams, Pittsfield, and Great Barrington- the most populated communities in the Berkshires.

Limited English Proficiency

LEGEND

-  LEP Population >3%
-  Towns

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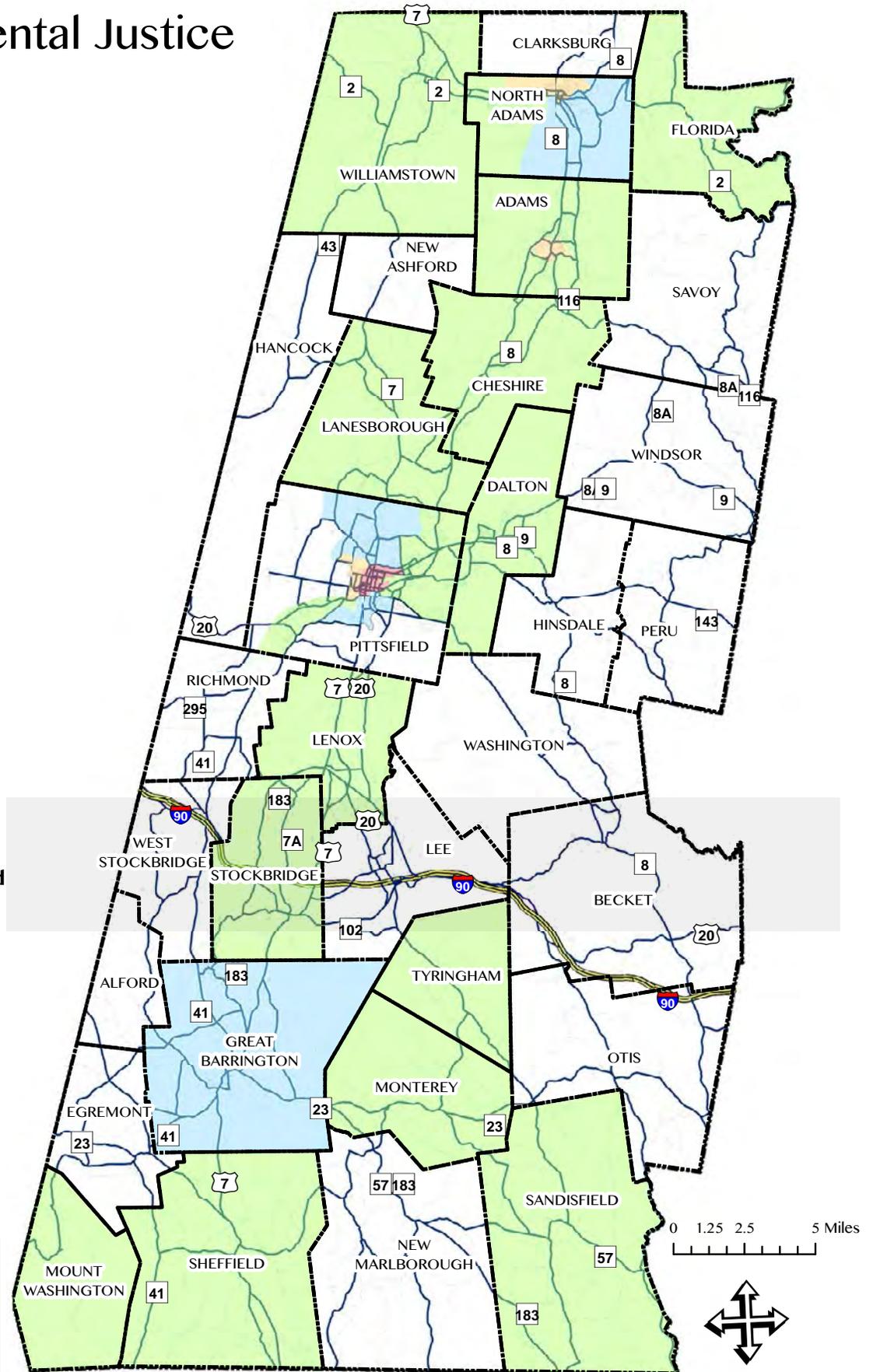
Environmental Justice

LEGEND

Thresholds Exceeded

-  0 Thresholds
-  1 Threshold
-  2 Thresholds
-  3 Thresholds
-  5 Thresholds
-  Towns

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Policy Recommendations:

The Berkshire MPO strives to ensure compliance with all applicable nondiscrimination requirements by implementing specific actions in our Planning and Programming tasks. If the Berkshire MPO maintains compliance with governing laws and rules, the access and reliability of our transportation system is improved. Title VI and Environmental Justice populations, traditionally absent from transportation planning and programming in the Berkshires, could have a greater influence on how tax dollars are spent and services are delivered, improving their collective mobility. Policies that help implement the system reliability goals are:

- ▽ Ensure effective nondiscriminatory communications and public participation by updating our Public Participation Plan and specifically engaging traditionally disenfranchised populations;
- ▽ The Transportation Improvement Program should continue to identify and prioritize projects that have a positive benefit for Title VI and Environmental Justice populations;
- ▽ Closely monitor immigrant communities in the Berkshires as a growing population component to direct additional outreach and translation efforts;
- ▽ Limited English proficiency populations should continue to be a focus of outreach and engagement for BRPC; and
- ▽ BRPC and the Berkshire MPO should continue implementing anti-discrimination practices internally, but also offer education and training opportunities for our regional partners in future Unified Planning Work Program activities.

3. Household Economics

A recent New York Times article (May 7, 2015, ‘Transportation Emerges as Crucial to Escaping Poverty’) cites a Harvard study that indicates that commuting time as a measure of personal mobility is the single greatest factor to escaping poverty. The study establishes that the relationship between transportation and social mobility is stronger than that between mobility and several other factors such as crime or standardized test scores in a community, said Nathaniel Hendren, one of the Harvard researchers. The data used in the Harvard study tracked more than 5 million people over decades.

Given the conclusions from the Harvard economists, we can see the importance of creating an economic ladder out of poverty in the Berkshires where the essential first rung is reliable transportation. The following table shows some data, including household vehicle ownership, that is valuable for understanding the Berkshire’s household economics, broken out by community. It is important to look at this data because it shows just how many people and households are impacted by mobility barriers.

Households with no vehicle depend highly on public transportation or people (friends, family, etc) with cars to get where they need to go. They are very vulnerable to changes in work hours and are very stressed about the lack of individual or household mobility. In Berkshire County, 68.2% of households have one or more person working. Of these households, 3.9% do not own a vehicle. North Adams has the highest percentage, 8.6% of households with one or more person working without a vehicle, followed by Mount Washington (7.7%), and Pittsfield (5.5%).

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TABLE 5: Selected Socioeconomic factors in Berkshire Communities

Community	Total Population	Population in labor Force	Employed	Unemployed	Total Households	Households < County Average Income	Households with 0 Cars	Households with 1 Cars
Adams	8,809	4,486	4,130	356	4,362	2,771	565	1,693
Alford	399	205	199	6	280	92	6	61
Becket	1,755	916	870	46	1,449	373	40	195
Cheshire	3,401	1,828	1,724	104	1,470	775	43	450
Clarksburg	1,686	902	860	42	688	380	43	169
Dalton	6,892	3,529	3,460	69	2,832	1,383	192	898
Egremont	1,345	748	727	21	864	304	21	178
Florida	676	364	356	8	296	139	7	59
Great Barrington	7,527	3,862	3,760	102	3,352	1,655	267	1,364
Hancock	721	393	371	22	474	167	4	102
Hinsdale	1,872	996	955	41	970	420	39	261
Lanesborough	2,990	1,754	1,623	131	1,382	669	68	419
Lee	5,985	3,334	3,221	113	2,927	1,469	178	884
Lenox	5,077	2,472	2,368	104	2,713	1,200	293	865
Monterey	934	567	497	70	832	192	12	146
Mount Washington	130	86	81	5	129	30	0	17
New Ashford	247	145	140	5	105	43	5	14
New Marlborough	1,494	789	758	31	963	309	29	172
North Adams	14,681	7,150	6,745	405	7,088	4,901	1,123	2,890
Otis	1,365	738	702	36	1,569	270	10	175
Peru	821	437	427	10	371	171	5	92
Pittsfield	45,793	22,626	21,266	1,360	21,366	12,973	2,759	8,493
Richmond	1,604	907	878	29	836	253	24	163
Sandisfield	824	418	411	7	650	188	14	104
Savoy	705	374	356	18	324	171	18	85
Sheffield	3,335	1,786	1,741	45	1,634	785	35	429
Stockbridge	2,276	1,239	1,188	51	1,571	472	67	359
Tyringham	350	227	223	4	263	51	4	36
Washington	544	301	287	14	238	93	8	50

Source: US Census and American Community Survey

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Community	Total Population	Population in labor Force	Employed	Unemployed	Total Households	Households < County Average Income	Households with 0 Cars	Households with 1 Cars
West Stockbridge	1,416	761	732	29	769	291	29	184
Williamstown	8,424	3,990	3,738	252	3,053	1,309	229	1,213
Windsor	875	462	459	3	481	159	3	82
Berkshire County	134,953	68,792	65,253	3,539	66,301	34,458	6,140	22,302
Massachusetts	6,349,097	3,312,039	3,161,087	150,952	2,621,989	1,208,415	311,079	903,725

Source: US Census and American Community Survey

Six Berkshire County communities: North Adams, Pittsfield, Adams, Becket, Lee and Monterey are below the county average median household income of \$49,907. North Adams has the lowest median household income of \$35,020 in Berkshire County. Twenty two Berkshire County communities are below the Massachusetts state average median household income of \$64,496. These communities, in particular, are in need of better access to our transportation system in order to increase potential employment options for our neediest residents.

In Berkshire County 88% of population use their personal automobile to go to work. 5.1% walk or bike to work. Only 0.9% uses public transportation to go to work. This statistic, and the fixed route transit ridership trends in the Berkshires, indicates the difficulty we have in unlocking our unmet or latent demand in transit riders given the current funding levels. Rather, the more meaningful insight we can glean from ride to work data is that there are nearly 100,000 work trips per day made by people that use their own car. This represents a potential capacity for ride matching and sharing that the Berkshires must explore. More flexible fixed routes and frequency of service coupled with ride sharing may be the solution to to improving access to transportation to those without their own car.

About 4.5% of the workforce works from home, a share BRPC expects to see increasing in the future. The farther south you go in the Berkshires, the ratio of people working from home increases.

Policy Recommendations:

- ▽ Evaluate the feasibility of reducing under performing fixed route bus service as appropriate. and diverting those resources to make other BRTA routes more flexible.
- ▽ Support legislation and local laws that enable crowd sourced car/van services (e.g. Uber) to use existing vehicle capacity - remember those 100,000 daily single occupant vehicle trips to work- to improve individual mobility and reduce resource consumption by sharing rides.

Project Recommendation:

- ▽ BRPC should help coordinate a regional ride matching or Ridesharing program. BRTA could be the responsible agency for these activities. Ideally, such a program would start with a couple of key employer partners to work out congruent shifts and should also include a “guaranteed ride home” program. A regional ridesharing program could start with a \$3

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million dollar investment in technology and support. MassRides would be a valuable partner in such an initiative.

4. Public Transportation

The Berkshire Regional Transit Authority is the principal community transportation provider in Berkshire County. It was created in 1974 by seven communities as one of the first eight Regional Transit Authorities granted exclusive rights to administer public transportation services in member communities; today BRTA provides fixed route, demand response, and other public transportation services in twenty-four member communities.

Bus Service

BRTA provides fifteen fixed route bus services in twelve member communities spanning Berkshire County from Williamstown in north Berkshire to Great Barrington in south Berkshire. Six routes are operated solely in Pittsfield. Five additional routes originate in Pittsfield and travel to Lanesborough (on Route 7); North Adams via Route 8 through Lanesborough, Cheshire, and Adams; Hinsdale (on Route 8) through Dalton; Lee through Lenox along the Route 7/20 corridor. In September 2013 an express route was introduced along the Route 7 corridor between Pittsfield, Williamstown and to North Adams via Route 2 to accommodate service demand. Another three routes operate within the City of North Adams; one of which links North Adams and Williamstown. An additional route connects Great Barrington and Lee via Stockbridge, Glendale, and Housatonic along Routes 20, 102, 183 and 7.

Of the fifteen fixed route bus services operated by BRTA, all 15 run on weekdays and 12 run on Saturdays. Bus services generally operate from 5:30 a.m. to 7:20 p.m. on weekdays and 7:00 a.m. to 7:00 p.m. on Saturdays. BRTA does not provide fixed route service on Sundays or major holidays. The fixed route services operate at one-hour headways on weekdays. Rider surveys and BRPC's outreach efforts consistently find that the limited service hours and frequency of buses make the current fixed routes service insufficient for our transit dependent population.

Annual ridership on fixed routes in fiscal year 2014 was 570,845 one-way person trips, The ridership graph below shows the BRTA annual ridership since fiscal year 1995. Ridership dropped two percent between 2012 and 2013, but it regained four percent between FY 2013 and 2014. We do note that there was a steady increase of over 16% of riders from 2004 to today.

BRTA's total cost of operating the fixed route services was \$4,656,647 in fiscal year 2014. The operating cost graph below shows the BRTA fixed route operating costs since fiscal year 2010. The three following charts show BRTA's annual cost per passenger, cost per revenue hour, and passenger per revenue miles since fiscal year 2010. The cost per passenger is increasing and is back over \$8 for the first time since 2011. The average cost per revenue hour is static through 2013 and 2014, however, that follows a sharp increase from 2012. The final important metric shows us that for last two fiscal years annual passenger per revenue miles has decreased by about 6% since fiscal year 2012.



FIGURE 2 A-D: BRTA Passenger Data
BRTA Annual Passenger Trips



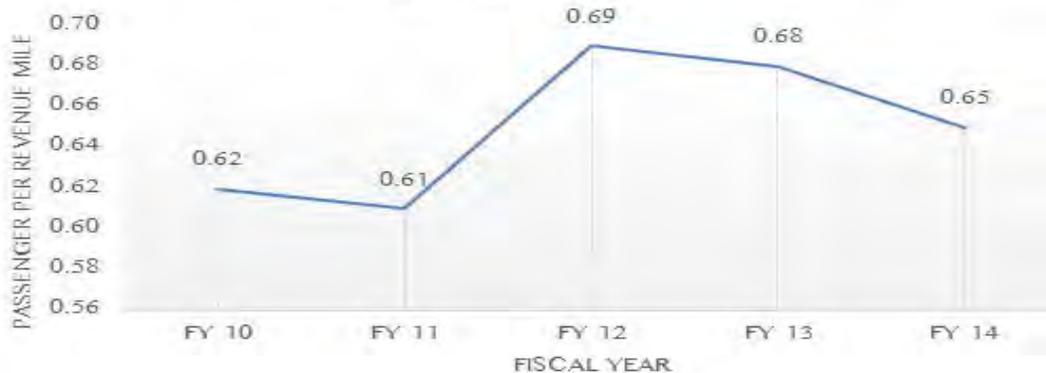
Cost per Passenger



Cost per Revenue Hour



Passenger per Revenue Mile



SOURCE: BRTA

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Demand Response (Paratransit) Services

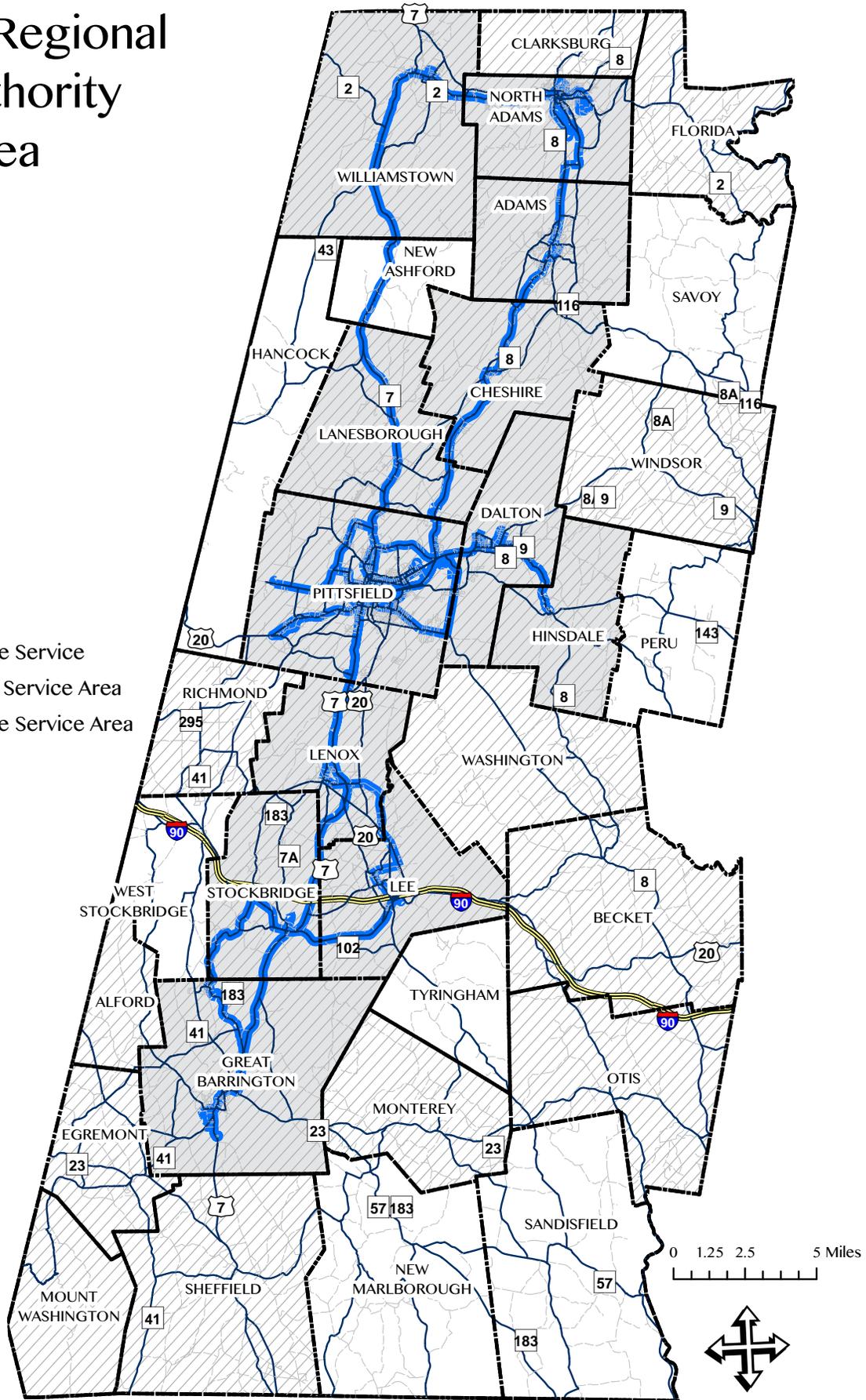
Demand response bus services typically use small buses on fixed routes that are detoured when a user calls in for a ride.. The people that need this paratransit-style service are the people who cannot easily make it to the fixed route service. BRTA either provides or contracts for the following paratransit services to elderly and to people with disabilities:

- ▽ BRTA provides chair car service to its seven member communities (Clarksburg, Florida, Richmond, Washington Monterey, Becket and Otis) which are not served by fixed bus routes;
- ▽ BRTA serves as a broker for Human Service Transportation through contracts with the Executive Office of Health and Human Services (EOHHS). These contracts include transportation starting in the Berkshires, but spanning the length of the Commonwealth. Common destinations include Springfield, Worcester, and Boston;
- ▽ BRTA provides complementary paratransit transportation for the elderly people and people with disabilities as required under the Americans with Disabilities Act (ADA);
- ▽ In addition to complementary ADA paratransit services, the BRTA also provides to the same population a door-to-door accessible service that is not connected with the fixed route bus system. This door-to-door service is offered 24/7. This specialized service has a higher user-fee than the traditional ADA service, but is only available in BRTA member communities;
- ▽ BRTA subsidizes taxi trips for elderly or disabled; and
- ▽ BRTA provides vans to local Councils on Aging (COA) in BRTA member communities to help their elderly or disabled residents. The communities also use of the vehicle when not delivering services on behalf of the BRTA.

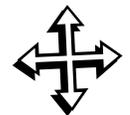
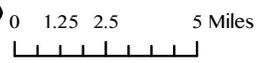
Berkshire Regional Transit Authority Service Area

LEGEND

-  BRTA Fixed Route Service
-  BRTA Paratransit Service Area
-  BRTA Fixed Route Service Area
-  Towns



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The Berkshire Regional Planning Commission

BRTA Revenue and Expenditures

The pie charts below show the revenue and the expenditures for BRTA for 2015. The largest share of revenue comes from the State Government (39%), followed by Federal funding (31%). The next largest contribution to BRTA's revenue comes from BRTA member communities, followed by fixed route fares. The fares collected from passengers only make up about 17% of the fixed route operation costs. This ratio of fares collected versus the operation expenses is typically called the 'farebox recovery ratio'. BRTA and BRPC should review this data against comparable agencies in the Commonwealth and New England as a future performance measure

FIGURE 2A: BRTA Revenue 2015

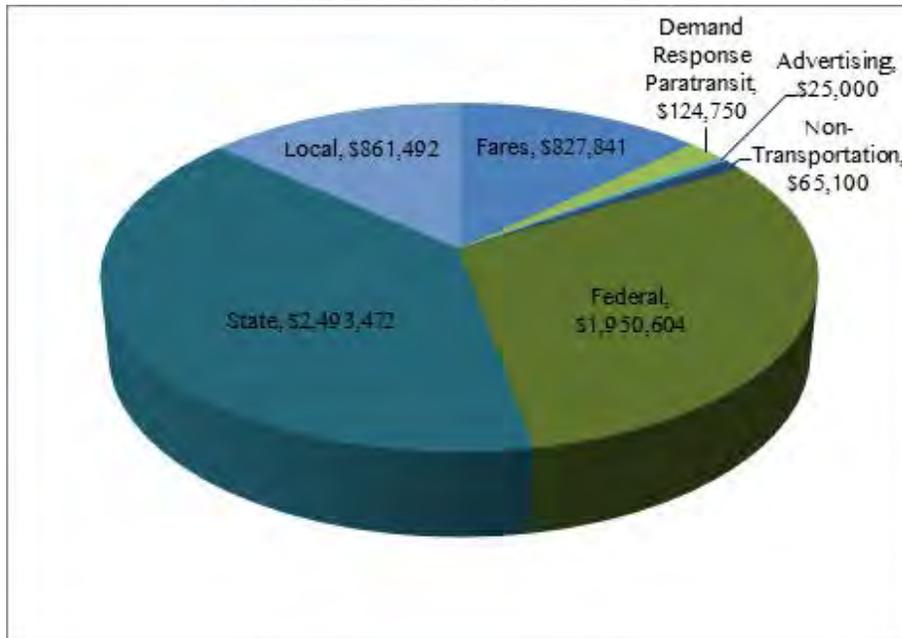
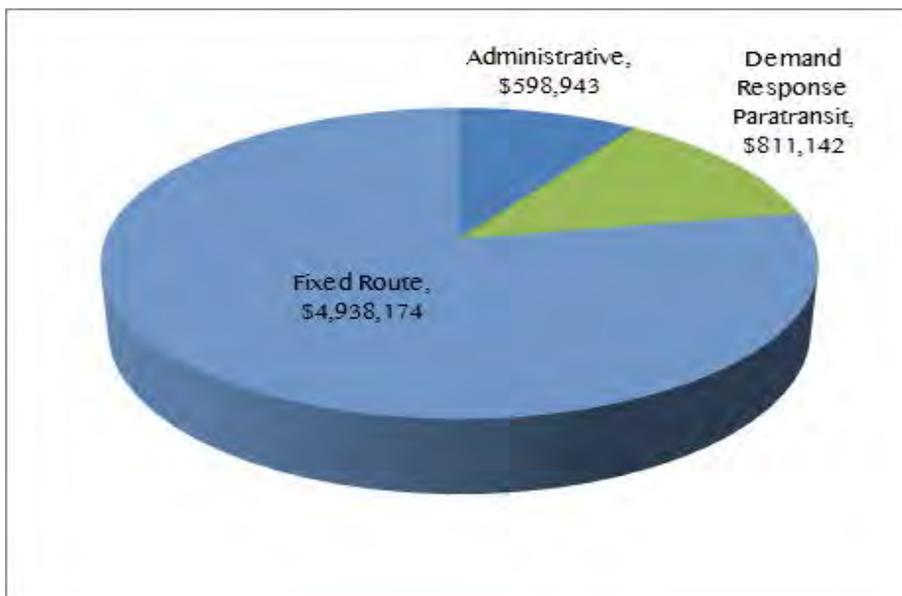


FIGURE 2B: BRTA Expenses 2015



2016 Regional Transportation Plan

There are several other sources of public transportation in Berkshire County. The inventory of Transportation Providers in Berkshire County can be found at http://berkshireplanning.org/images/uploads/initiatives/Berkshire_County_Transportation_Guide_-_April_2015.pdf The complete document is located in Appendix B of this RTP.

The Berkshire County Transportation Guide is a comprehensive list of transportation providers in Berkshire County. This transportation guide is intended to help everyone get around in Berkshire County and to encourage efficient use of existing resources. The services include:

- ▽ Public paratransit service provided by Berkshire Rides a not-for-profit corporation that provides low-cost employment-related van pool service to residents of Adams, Cheshire, Clarksburg, Florida, North Adams, Savoy, and Williamstown. Berkshire Rides coordinates its vanpool service with the BRTA bus system, providing BRTA route information and subsidizing BRTA fares for qualified riders. To qualify for a fare subsidy, the rider must be resident of one of the seven towns listed above and their ride must be related to employment. In January 2015 Berkshire Rides became part of Berkshire County Action Council. As a result of the merger, the Berkshire Rides service could later be available in other parts of Berkshire County.
- ▽ Another provider of public paratransit services is the Southern Berkshire Elderly Transportation Council (SBETC). SBETC is a non-profit agency based in Great Barrington that operates with vehicles provided by the BRTA and provides transportation services to elderly residents and persons with disability in nine southern Berkshire towns. SBETC receives operational funds from BRTA for ADA trips provided in their respective communities;
- ▽ Services provided by Councils on Aging in Adams, Cheshire, Clarksburg, Dalton, Great Barrington, Lanesborough, Lee, Lenox, North Adams, Pittsfield, Savoy, Stockbridge, Tyringham, Washington, West Stockbridge, Williamstown, and Windsor;
- ▽ Intercity bus service to larger towns and cities, provided by Peter Pan/Greyhound Bus Lines;
- ▽ Taxi and limousine services;
- ▽ Chaircar services for people in need by private transportation service providers;
- ▽ Transportation for targeted populations provided by community and state agencies; and
- ▽ Publicly supported ride-sharing services operated throughout Massachusetts by CARAVAN for Commuters.

The Berkshire Regional Planning Commission

Berkshire Regional Coordinated Public Transit Human Services Transportation Plan

In November of 2015, the Berkshire MPO adopted the Berkshire Regional Coordinated Public Transit Human Services Transportation Plan (CHST). The CHST develops ways to improve the transportation needs of our most vulnerable residents: disabled people, older adults, and the impoverished. The CHST identifies strategies to improve the quality and availability of transportation services for these three demographic cohorts. The CHST retains the Berkshire's eligibility to receive federal funding. The CHST also tries to describe the growing needs of human services transportation users in our region. The CHST fulfills the federal transit law requirements as amended by the Moving Ahead for Progress in the 21st Century Act (MAP-21).

MAP-21 stipulates that beginning in October, 2012, all projects selected for funding under the Section 5310: Enhanced Mobility for Seniors and Individuals with Disabilities Program be "included in a locally developed, coordinated public transit – human services transportation plan" and that the plan be "developed and approved through a process that included participation by seniors, individuals with disabilities, representatives of public, private, and nonprofit transportation and human services providers and other members of public." The Federal Transit Administration (FTA) maintains flexibility in how projects appear in the coordinated plan. Projects may be identified as strategies, activities, and/or specific projects addressing an identified service gap or transportation coordination objective articulated and prioritized within the plan.

Assessment of Transportation Needs

In the process of updating the CHST, BRPC assessed transportation service gaps in the Berkshires. We specifically examined three demographic groups; seniors, persons with disabilities, and persons with low income. An assessment of transportation service gaps was done based on:

- Available transportation services in Berkshire County;
- Berkshire County demographics; and
- Social and economic characteristics of Berkshire County Communities.

The maps on the following three pages illustrate service gaps for senior, disabled, and low income populations in the Berkshires. In summary:

- ▽ Several of our outlying towns have no access to senior transportation. Seniors in these communities depend on their family members and friends to go to medical appointments or pay higher costs for transportation services. These high cost transportation options include private taxis and ambulance services which are not subsidized;
- ▽ The next map shows the transportation services available for persons with disabilities living in Berkshire Communities. Disabled people have access to transportation through BRTA paratransit services, and public, private, and non-profit human services transportation; and
- ▽ The last map shows the transportation services available for persons with low income living in Berkshire County Communities. There is a significant transportation service gaps for this demographic group in Berkshire County. Persons with low income living in seventeen Berkshire County Communities (remote towns in southern Berkshire County) do not have access to any public transportation. This demographic group tend to have reliance on public transportation as they don't own personal automobiles and cannot afford to pay higher cost for transportation services provided by private taxis.

Public Transportation Services & Gaps Senior Services

Providers:
 BRTA
 Berkshire Rides
 SBETC/COA

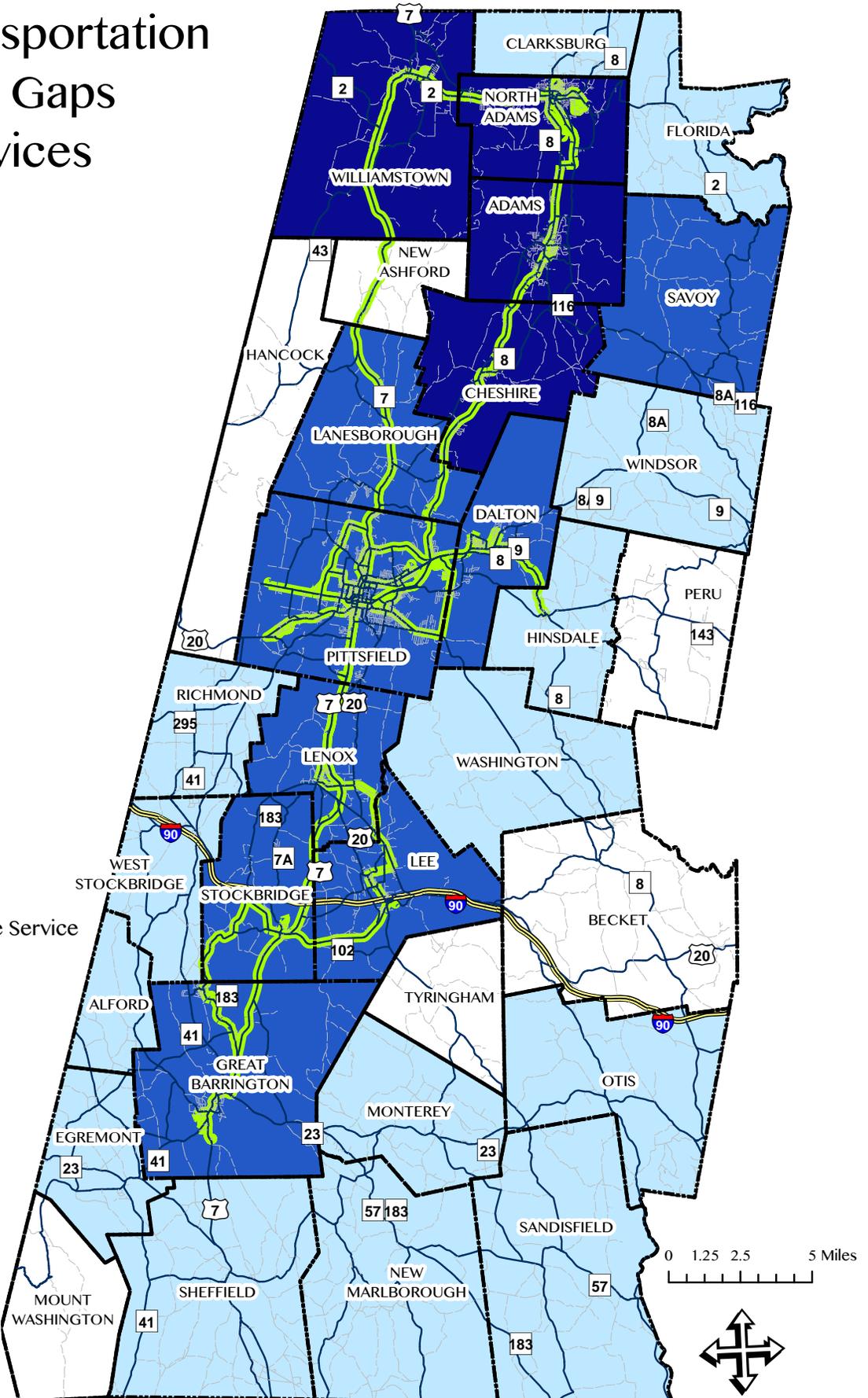
LEGEND

-  Towns
-  BRTA Fixed Route Service

Providers

-  No Providers
-  1 Provider
-  2 Providers
-  3 Providers

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Public Transportation Services & Gaps ADA/Disability Services

Providers:
Ad-Lib
BRTA
BC-ARC
SBETC/COA
MRC

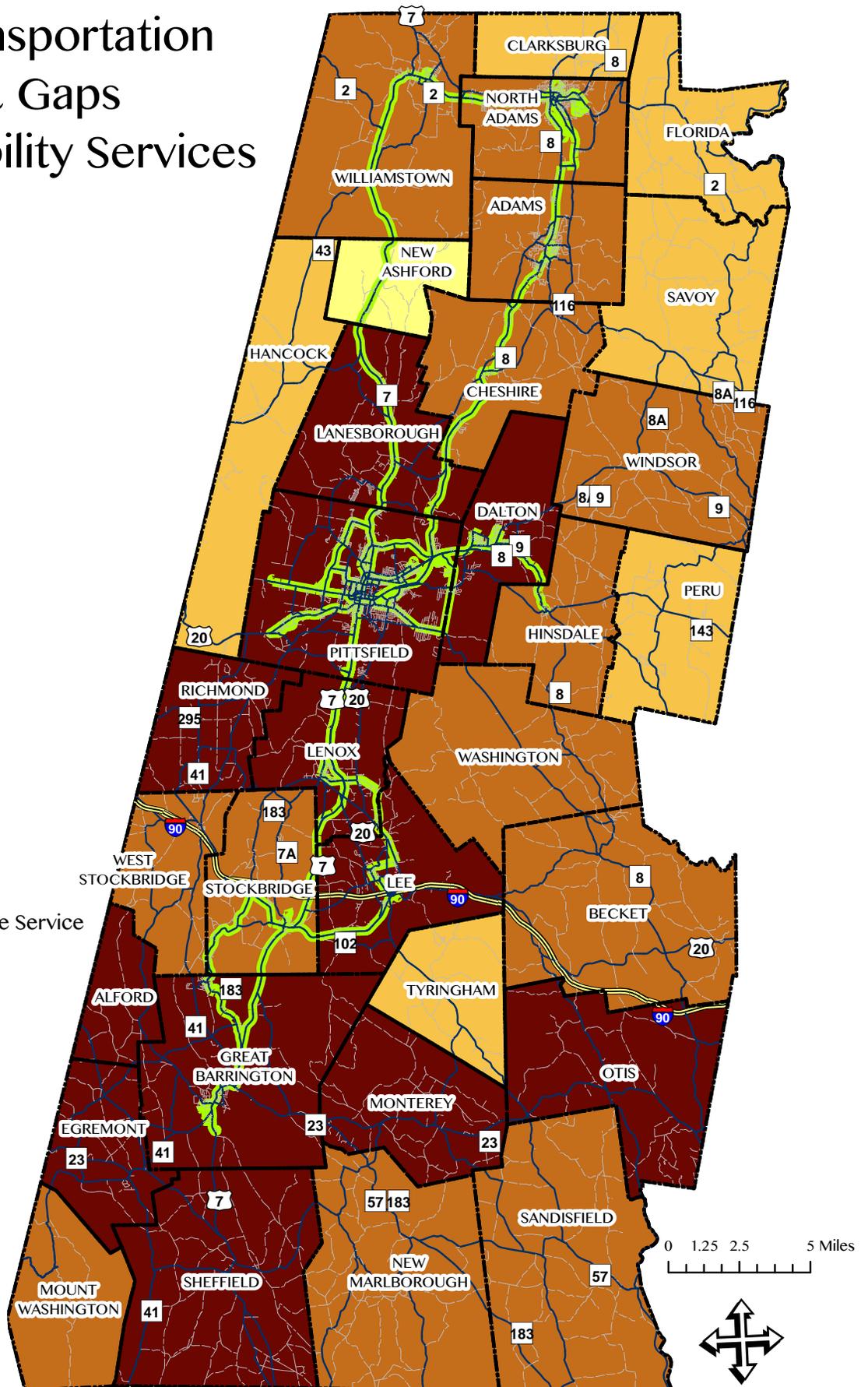
LEGEND

-  Towns
-  BRTA Fixed Route Service

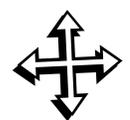
Providers

-  2 Providers
-  3 Providers
-  4 Providers
-  5 Providers

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0 1.25 2.5 5 Miles



Public Transportation Services & Gaps Low Income Services

Providers:

BRTA

Berkshire Rides

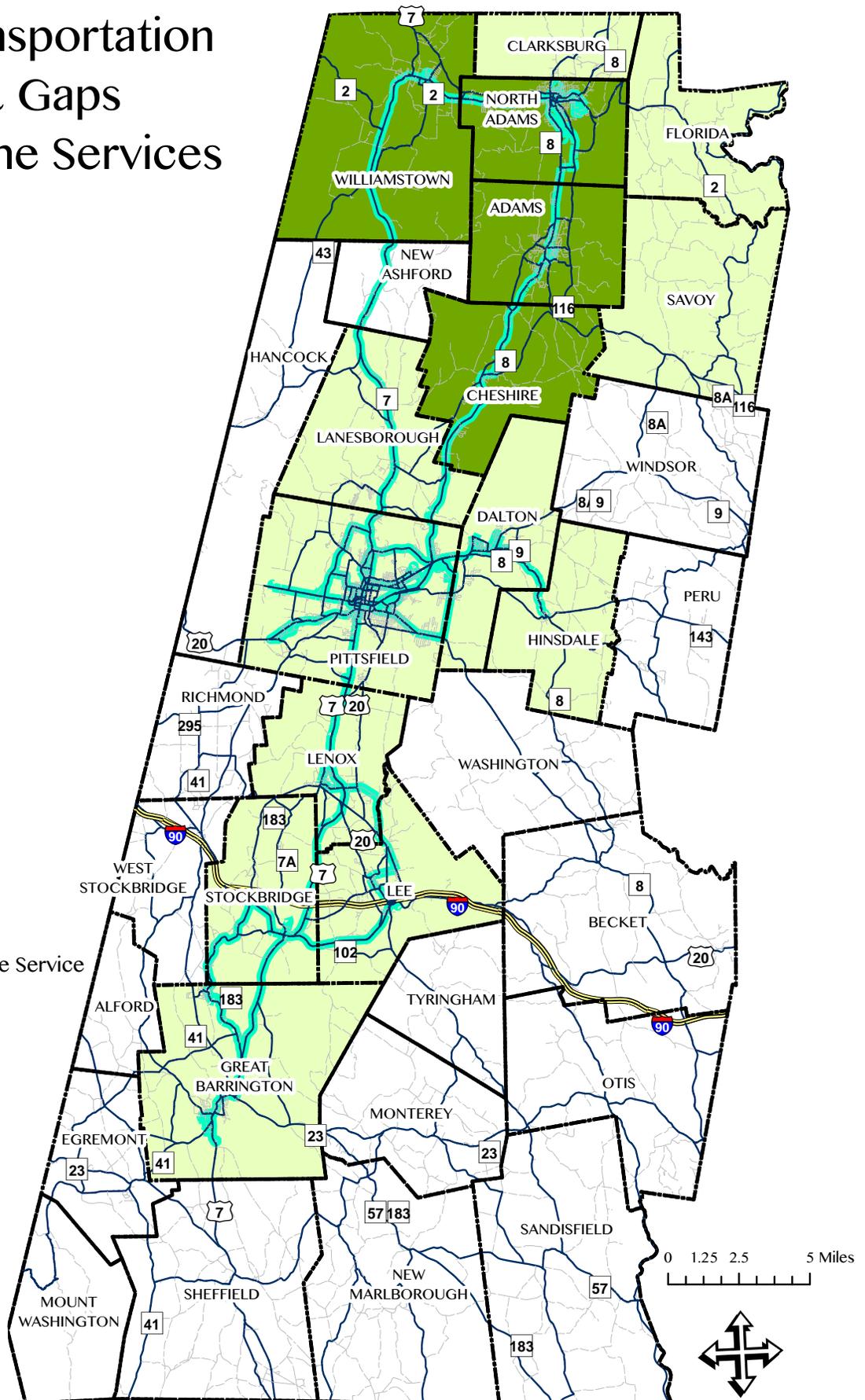
LEGEND

-  Towns
-  BRTA Fixed Route Service

Providers

-  No Providers
-  1 Providers
-  2 Providers

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Collectively, the series of figures on the preceding pages illustrate the transportation service gaps within Berkshire County.

Policy Recommendations:

- ▽ Modify/expand fixed route bus service to major employment centers similar to the circulator routes 12/14 in Pittsfield while modifying or contacting under performing fixed route services;
- ▽ Specifically promote transit for workers with both traditional and non-traditional work schedules with ridesharing and guaranteed ride home programs;
- ▽ Improve fixed route service by reducing headways during peak periods, offering weekend hours, and Sunday service;
- ▽ Expand services for older adults and disabled population (assist nonprofit organizations with accessing operating funding to expand transportation services, provide travel trainings to increase access to existing transportation services);
- ▽ Reduce quantity and size of gaps in the transit needs: availability ratio (encourage smaller communities to join BRTA);
- ▽ Encourage employer subsidy for journey to work;
- ▽ Coordinate social service public transportation providers (e.g. encourage Council's on Aging in smaller communities to coordinate trips with other service agencies);
- ▽ Help public, private and nonprofit human services transportation providers to acquire and operate accessible taxis; and
- ▽ Address the mobility needs of veterans and their families. Seek the assistance of the regional Red Cross and Soldier On representatives to review the current coordinated plan and provide their expertise to formulate the solutions for their needs.

Project Recommendations:

- ▽ Establish a multimodal transportation hub in North Adams that includes ride service, BRTA public transportation, intercity bus service, non-motorized access, and the reintroduction of AMTRAK service to North County. Estimated cost: \$25 million dollars;
- ▽ Develop a transit hub in Great Barrington that provides facilities for BRTA, non-motorized access, connections to the Berkshire Line proposed passenger rail service, access for intercity bus service and local ride/taxi service. Estimated cost: \$10 million dollars;
- ▽ Expand service headways on BRTA routes to 30 minutes, \$12 million dollars capital plus \$5 million dollars per year operating is \$87 million dollars in 2015 currency;
- ▽ Replace every vehicle operating in the BRTA system over the life of this plan. Estimated cost: \$15 million dollars;
- ▽ Upgrade and expand the ability to coordinate ride dispatch across multiple platforms including potential new crowd-based ride sourcing like Uber and existing, taxi, van, and chaircar services from a central location. Estimated Cost: \$10 million dollars; and
- ▽ Replace and/or upgrade and expand BRTA's existing maintenance facility for new technology and service growth. Estimated Cost: \$20 million dollars.

5. Conclusion

System reliability, and its inherent efficiency means for the Berkshires that our residents, businesses, and visitors can move where they need to go. At a minimum, our day-to-day travels require a certain level of access to our transportation. Public transportation is important because it can provide a minimum level of mobility for even our most economically challenged people. We devise improvements to our system by looking at characteristics of our future population and employment trends, our sensitive minority, elderly, and impoverished populations, our future household economics, and our existing public transportation options. Ultimately, as these broad improvement concepts are refined using much more specific and targeted information then we can address at a Regional Transportation Plan level of scrutiny.

This section provides many policy recommendations to enhance how we plan for improved transportation system reliability, access and personal movement in the Berkshires. This section also suggests \$170 million dollars in upgrades, new services, and facilities for facilitating how Berkshire people get where they need to go. Operationally, it is extremely important to extend the fixed route bus system's hours and days of service as well as developing enhanced non-fixed route services. Some of our vital capital expenditures are related to system reliability are the implementation of multimodal transportation hubs in the northern and southern Berkshires. We anticipate that BRTA will expend the nearly \$52 million dollars in anticipated Section 5307 revenues over the life of this plan on vehicle replacement, capital preventative maintenance, and other capital upgrades. BRTA will also spend about \$8.3 million dollars in operations subsidy and equipment purchases for service exclusively in the rural areas of Berkshire County between now and 2040.

SECTION III

CONGESTION REDUCTION

CONGESTION REDUCTION- To achieve a significant reduction in congestion on the National Highway System.

The kinds of traffic congestion that occur in the Berkshires is not typical of more heavily populated regions. In general, we do not have gridlock on our major arterials or routine back-ups at problem intersections. Our traffic problems, when they show up, are usually from particular land uses like schools or cultural attractions (e.g. Tanglewood), special events, construction or emergencies like traffic crashes. Also, poorly timed traffic lights, limited passing opportunities, and poor roadway geometry hamper smooth traffic operations. This section considers how to reduce traffic congestion by improving operations and incorporating walking and bicycling into Berkshire roads more systemically. Notice that public transportation is included in an earlier section of this RTP that addresses the National MAP-21 goal for system reliability. We believe public transportation 'fits' more appropriately in the system reliability because it means more to personal mobility and access for our population than as a regional congestion reduction tool.

The following objectives are derived from past planning efforts in the Berkshires, public input for this RTP, Federal legislation, and/or Massachusetts state laws.

OBJECTIVES:

- ▽ Minimize the costs associated with traffic congestion and delays;
- ▽ Improve the efficiency of traffic operations, reduce vehicle miles traveled (VMT), and manage travel demand;
- ▽ Reduce air pollution and greenhouse gas (GHG) emissions;
- ▽ Integrate alternative travel mode facilities into roadway improvements;
- ▽ Promote the healthy transportation modes of walking and bicycling.

These objectives direct our congestion reduction discussion for the 2016 RTP depending on the availability of data and the transportation context of other supporting planning efforts. If BRPC and the Berkshire MPO have performance measures and/or targets that can be reflected in the outcomes then they are included at the end of each subsection. The following analyses can point to capital projects and/or plan implementation policies that move the Berkshires closer to attaining the objectives listed above. It is important to remember that all of the RTP discussions should be examined collectively and that different policies and projects can solve single or multiple transportation dilemmas. These outcomes are combined in the 2016 Regional Transportation Plan Summary.

1. Travel Patterns show us how our people move into, out of, and around the Berkshires.
2. Regional Bottlenecks, identified from public involvement or past studies, are areas that are congested now or will be with continued growth and development.
3. Bicycling means our regional concept of a north-south designated US Bicycle Route 7 that includes on and off road facilities.
4. Complete Streets is a philosophy of accommodating multiple modes of transportation and functions within existing public right-of-ways.

The Berkshire Regional Planning Commission

1. Travel Patterns

MassDOT provided BRPC with current commuting data from a company called AirSage that tracks how people move from their mobile devices. The data is tracked then calibrated against known commuter patterns, similar to how a conventional origin destination study would work. This data may be sufficient for statewide travel demand modeling, but is very flawed for our regional analytical needs given the numbers of suggested commuter trips to Massachusetts Counties remote to the Berkshires. The data is summarized in the table below:

TABLE 6: 2014 Berkshire County Commuting Data

Trips FROM the Berkshires			Trips TO the Berkshires		
Home	Destination	Count	Home	Destination	Count
Berkshire	Berkshire	94,853	Berkshire	Berkshire	94,853
Berkshire	Hampden	1,121	Hampden	Berkshire	919
Berkshire	Middlesex	695	Hampshire	Berkshire	760
Berkshire	Hampshire	509	Middlesex	Berkshire	223
Berkshire	Suffolk	425	Franklin	Berkshire	170
Berkshire	Worcester	332	Worcester	Berkshire	128
Berkshire	Norfolk	227	Barnstable	Berkshire	96
Berkshire	Essex	223	Essex	Berkshire	93
Berkshire	Franklin	127	Norfolk	Berkshire	87
Berkshire	Barnstable	87	Plymouth	Berkshire	55
Berkshire	Bristol	67	Bristol	Berkshire	39
Berkshire	Dukes	0	Dukes	Berkshire	0
Berkshire	Nantucket	0	Nantucket	Berkshire	0
Berkshire	Plymouth	0	Plymouth	Berkshire	0
Berkshire	New York	3,679	New York	Berkshire	3,139
Berkshire	Connecticut	1,165	Connecticut	Berkshire	788
Berkshire	Vermont	513	Vermont	Berkshire	995
Berkshire	Other states	824	Other states	Berkshire	336
Berkshire	C o m m u t e total	104,847	C o m m u t e total	Berkshire	102,681
Berkshire	O u t s i d e Berkshire	9,994	O u t s i d e Berkshire	Berkshire	7,828
Berkshire	Western MA (3 Counties)	1,757	Western MA (3 Counties)	Berkshire	1,229
Berkshire	Eastern MA	2,056	Eastern MA	Berkshire	1,341
Berkshire	O u t s i d e Mass.	6,181	O u t s i d e Mass.	Berkshire	5,258

Source: AirSage



We do find valuable pieces of information within this trove of commuting data. First, and not surprising given the relative remoteness of the Berkshires, 84% of commuting trips are within the Region. Secondly, the remaining trips are split about evenly between people that commute from outside the Berkshires to jobs here and people that commute from the Berkshires to jobs in other areas. These conclusions are consistent with those drawn from commuting data in prior RTP's, in spite of the seeming There are, however, some project concepts that can still facilitate commuter movements in, out, and around the Berkshires.

BRPC produced several different studies over the years that yielded a variety of proeject recommendations. The study areas include South Street in Pittsfield, the Lee Area traffic study that focused on I-90 access, and the North Central Berkshire Access study. Some of the project recommendations below result from these past studies.

Project Recommendations

- ▽ Access into and out of the Berkshires from I-90 remains a significant issue. Starting with an interchange analysis report and seeing a new access through to construction could well exceed \$100 million dollars.
- ▽ Adding passing lanes on Route 8 through Cheshire and Lanesborough could significantly alleviate congestion and delays on the Berkshires' busiest corridor between north and central Berkshire County. \$10 million dollars.
- ▽ The West Side connector project in Pittsfield, the result of the South Street alternatives analysis, between West Housatonic Street and West Street, adjacent to the Housatonic Rail Road, could cost upwards of \$8 million dollars.
- ▽ The Berkshires need an integrated traffic control center that monitors and controls most, if not all of the traffic signals in major population areas. This system should be consistent with the Western Massachusetts ITS architecture. An early estimate for such a system, split between MassDOT and the pertinent communities, could be \$25 million dollars with equipment upgrades and inter-connectivity.

The Berkshire Regional Planning Commission

2. Regional Bottlenecks

Regional Bottlenecks are areas identified from public involvement or past studies that are congested now or will be with continued growth and development. FHWA asked the MPO to identify areas for future study and/or that may have low-cost improvements that incrementally improve traffic flow. The regional bottlenecks are reevaluated annually and were first introduced in then 2012 RTP.

Location	ADT	Problem Intersection(s)
BMC Area	Varies between 15,000 and 18,000 on North, First, and Tyler Streets	Tyler @ First

The Berkshire Medical Center (BMC) generates significant traffic because it provides healthcare services and is the largest employer in Berkshire County. In addition to BMC traffic, First and North Streets are designated US 7 and provides access to Pittsfield from the northwest. Tyler Avenue is a developed commercial arterial that intersects with the BMC area from the east. The Downtown Pittsfield Circulation Study (2006) discusses intersection improvement and street modifications in the BMC area.

Location	ADT	Problem Intersection(s)
Downtown Pittsfield US 7 and 9	Route 9 (East St.) – 25,000. US 7 (South Street and First St.) varies between 15,000 and 20,000	Park Square , First @ East

Park Square in central downtown Pittsfield serves regional traffic from all directional orientations, and is a key intersection for local access to the downtown. The intersection of First St. and East St. is the main truck route (Route 7) through downtown. Vehicles bypassing downtown and North Street use First St. as an alternative. Recent improvements to Park Square addressed sub-standard geometrics of the pre-existing traffic circle and improved safety.

Location	ADT	Problem Intersection(s)
US 7/20 South Street in Pittsfield	24,000	South @Housatonic

Route 7/20 is the primary north-south artery to Pittsfield from the south. Traffic congestion in the corridor is exacerbated by poor access management and an uncoordinated signal system. A recently completed project from the 2008 TIP made upgrades to the signalization and intersection geometrics at South Street and Housatonic Street. The 2011/12 South Street project improved several intersections between Housatonic Street and Berkshire Life . Four traffic signals were upgraded to improve safety and ease congestion through the corridor.

2016 Regional Transportation Plan

Location	ADT	Problem Intersection(s)
Route 9: East St. between Fourth Street and Merrill Rd. in Pittsfield	18,000 east of the Fourth Street intersection	East @ Fenn, East @ Silver Lake

East Street (Route 8) connects the hart of Pittsfield with the industrial and retail centers to the east. The Merrill Road overpass was expanded to 4 lanes in 2000, creating a bottleneck where East St. drops to 2 lanes. The East Street corridor provides access to large industrial centers including the William Stanley Business Park, General Dynamics, and Sabic. LOS on the corridor will deteriorate if additional industrial development occurs without eliminating the bottleneck. The Fenn Street intersection with East Street operates at a level of service ‘F’.

Location	ADT	Problem Intersection(s)
Routes 8 and 9: Coltsville	18,000 on Dalton Ave., 20,000 on Merrill Rd. and Cheshire Rd.	Dalton/Merrill/Cheshire/Crane

This five-legged confluence is a regional travel destination and had approach volumes similar to Park Square. Uncoordinated signals and driveways complicate traffic operations in the area, particularly with new developments to the east on Hubbard Ave.

Location	ADT	Problem Intersection(s)
Hubbard Ave. Corridor: Pittsfield/Dalton	20,000 on Dalton Ave.	Dalton @ Hubbard, Hubbard @ Berkshire Crossing

BRPC completed the Hubbard Ave. Corridor traffic analysis in 2009. According to the study, Hubbard Avenue needs widening from two lanes to four lanes and the Dalton/Hubbard intersection will fail if zoning was built-out. The study recommends new arterial streets, particularly a new connection between Merrill Road and Hubbard Avenue, decreasing traffic loads at intersections along Dalton Avenue. The CSX viaduct creates a ‘choke’ point on the corridor.

Location	ADT	Problem Intersection(s)
US 7: Great Barrington	15,000 to 17,000 with significant seasonal variation	Main @ Maple, Main @ Taconic, Main @ Bridge, Main @ Cottage, Main @ State, State @ Stockbridge

US 7 follows Stockbridge Road, State Road and Main Street through Great Barrington. Inter-regional traffic conflicts with local traffic, often causing congestion. Several semi-actuated traffic signals on Main Street contribute to traffic queuing. A 2013 TIP project coordinated the signals along the corridor and improves overall traffic flow.

The Berkshire Regional Planning Commission

Location	ADT	Problem Intersection(s)
US 20: Downtown Lee	15,000 to 18,000 with significant seasonal variation	Significant side street delay at non-signalized locations

The Lee Area Traffic Study examined traffic in the vicinity of I-90 Exit 2 and on US 20 through downtown Lee. The study notes documented delay for traffic entering US 20 from side streets because of inadequate gaps. US 20 also has generally slow travel speeds, inadequate turning radii for trucks, and intense development that snarls the interregional through traffic (in particular, truck traffic). The BRPC, MassDOT, and the Town are identifying solutions that are technically and financially feasible with minimal community impacts.

Location	ADT	Problem Intersection(s)
Route 8: Adams	15,000 to 18,000	Commercial Street.. @ Center Street..

Route 8 through downtown Adams has similarities to other congested downtown routes, though it has less truck traffic than downtown Lee and less influx of tourist traffic than Great Barrington. Traffic impact studies for Greylock Glen in Adams and Wal-mart in North Adams indicate that increases in peak hour traffic associated with development furthers degrades LOS at the Commercial Street and Center Street intersection.

Location	ADT	Problem Intersection(s)
Route 8: Cheshire	15,000 to 18,000	Route 8 and @ Lanesborough Road

Route 8, the Region's busiest north-south connector between the north and central Berkshires, has limited east-west crossings to US 7. Lanesborough Road is the northernmost collector between the two major highways. Often the stop controlled intersection experiences significant peak period delays for this locally known short cut.

Policy Recommendations:

- The Berkshire MPO should consider how to incorporate opportunities to minimize bottlenecks into the project scoring for the Transportation Improvement Program.
- The Berkshire MPO should continue to monitor and update these regional bottlenecks as part of its annual activities in the Unified Planning Work Program.

Project Recommendations:

- Allocate \$1.5 million dollars per regional bottleneck for signage and signal upgrades. \$15 million dollars total. These solutions are limited to intersection upgrades and signage improvements or relatively low cost fixes. Some of the 'regional bottlenecks' are included in developing road projects across the Berkshires, however, incremental improvements are likely necessary before those larger projects are funded.
- The Berkshire Medical Center Area improvements, a project BRPC identified in the Downtown Pittsfield Circulation Study, realigns and improves several intersections around the BMC campus. The current estimated cost is \$7.5 million dollars
- Improvements to Allendale area intersections to improve traffic flow and safety. Current estimated cost is \$1.7 million dollars.

3. Bicycling

The Ashuwillticook Rail Trail, an 11.2 mile bike path facility (Class I), extending from the Berkshire Mall in Lanesborough north to downtown Adams, is the gem of the Region's non-motorized assets. A northward 1 mile extension of the Trail will start construction in 2017. The Berkshires have just a handful of Class II and Class III share-the-road segments sprinkled throughout the region. The 2009 Berkshire Bike Path Implementation Plan is the regional guiding plan for a Vermont to Connecticut bikeway 'spine' that will be formally designated a part of US bicycle Route 7, also known as the Western New England Greenway.

Town bikeway committees planned segments of the spine with BRPC assistance. The Berkshire Bike Path Council, with representatives from many communities, is the region's advisory committee for non-motorized planning. The north-south Berkshire Bike Path is a priority route within the Commonwealth's Bay State Greenways planning effort.

Policy Recommendations:

- ▽ The Berkshire MPO should consider how to facilitate the development of bicycle path projects that are context sensitive, easy to develop using MassDOT's project development guidelines, and will not encounter substantial delays in the construction process;
- ▽ The Berkshire MPO should continue to support the development of the regional Berkshire Bike Path and US Bicycle Route 7; and
- ▽ Encourage and provide technical assistance to community bike groups and subregional collectives like Bike North Berkshires.

Project Recommendations:

A number of bicycle path projects are both funded and conceptual across the Berkshires. This partial list should establish a fair understanding of the financial needs to build out the Path. We should point out that the Berkshires are fortunate in that we have more miles of bike path funded in our TIP than many comparable areas of the United States.

- ▽ Lee Bikeway from Pleasant Street north to Park Street. Estimated Cost: \$4 million dollars;
- ▽ Lee Bikeway from Park Street to Lenoxdale. Estimated Cost: \$10 Million Dollars;
- ▽ Extend the Existing Ashuwillticook Train South into Pittsfield to Crane Avenue. Expand parking and new trail head. Estimated Cost: \$3 million dollars;
- ▽ Build Ashuwillticook Trail north from Hoosac Street to Lime Street. Estimated Cost: \$3.5 million dollars;
- ▽ Extend Ashuwillticook Trail north from Lime Street to Hodges Cross Road in Adams and North Adams. Estimated Cost: \$4 million dollars;
- ▽ Connect Hodges Cross Road to Western Gateway Heritage State Park in North Adams. Estimated Cost: \$10 million dollars;
- ▽ Connect Western Gateway Heritage State Park to Williamstown following Route 2 corridor and replace pedestrian bridge over railroad. Estimated Cost: \$9 million dollars;
- ▽ Connect US 7 to Route 2 Mohawk Trail path in Williamstown. Estimated Cost: \$5 million dollars, and
- ▽ Construct a path between Housatonic and Great Barrington, approximately 4 miles. Estimated Cost: \$10 million dollars.

The Berkshire Regional Planning Commission

Proposed Berkshire Bike Path

LEGEND



Communities

Functional Classification



Interstate



Principal Arterial



Minor Arterial



Major Collector

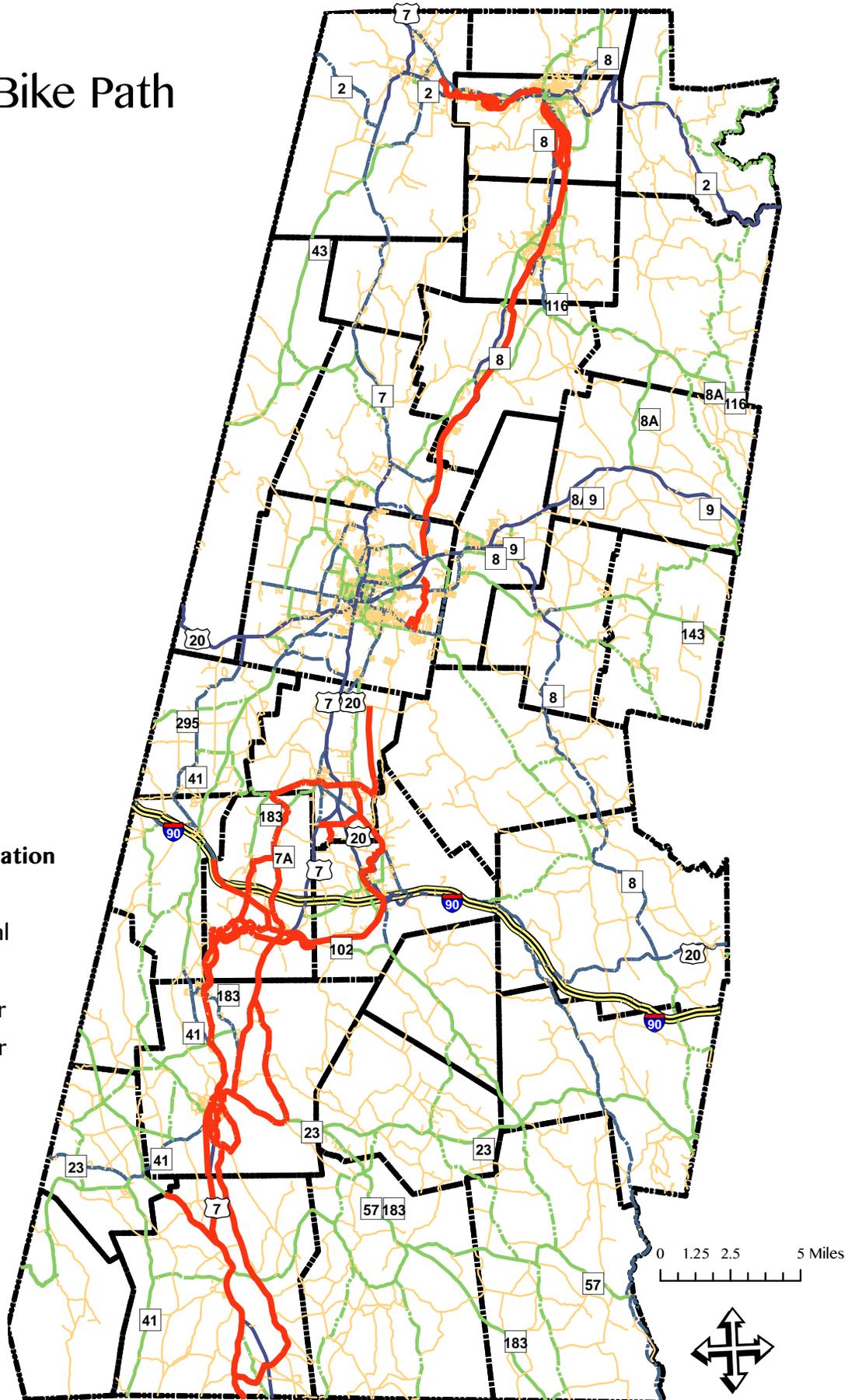


Minor Collector



Local

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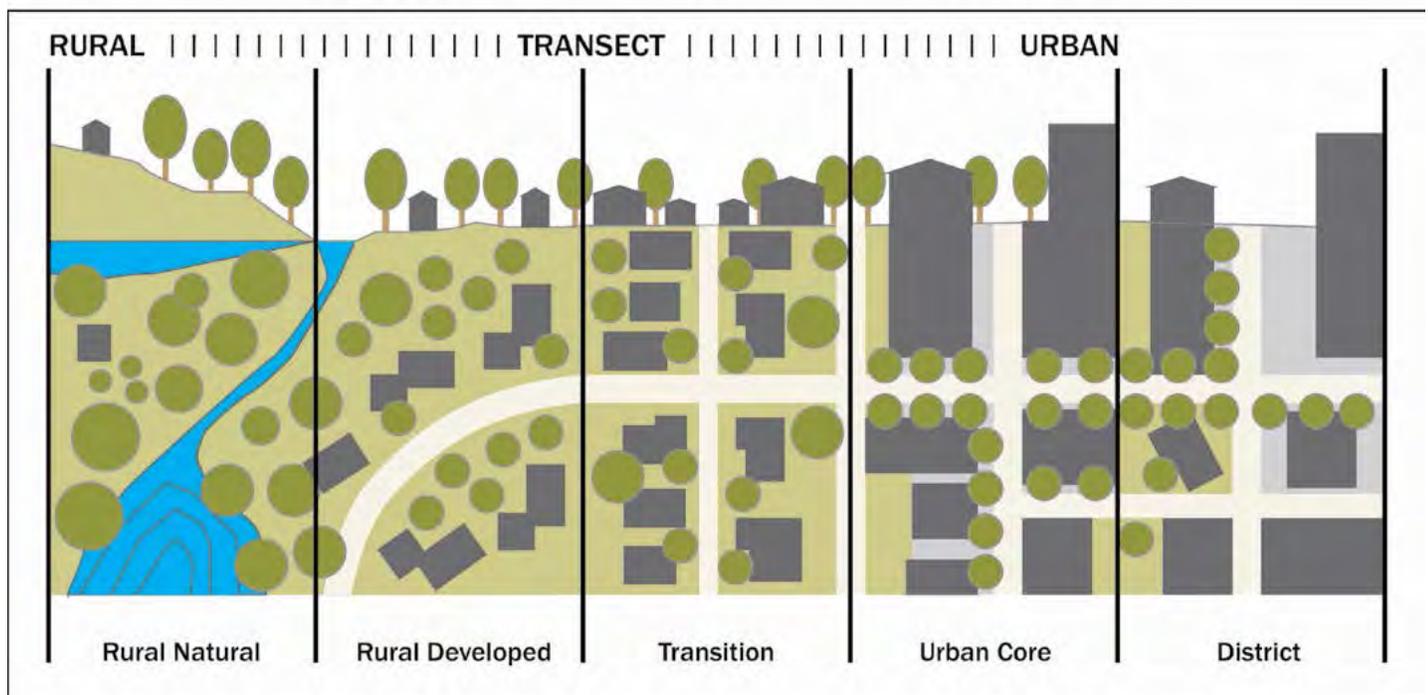
4. Complete Streets

The Berkshire MPO is incorporating ‘Complete Streets’ into our discussion on reducing congestion because of several national and state initiatives. The need for complete streets is one of the most frequently cited needs through our public input and by our community delegates to the BRPC. Complete Streets are not only important to Berkshire communities, we anticipate that the concept may become a part of the regulatory process for Chapter 90 state road funding and projects that are funded through grant programs under MassWorks.

Complete Streets is a philosophy and approach to planning, design, construction and maintenance of our roads that considers all users, including pedestrians, bicyclists and public transportation riders. Context and current or potential travel patterns need to be considered in determining the appropriate way to meet the needs of all modes of transportation. Not every street or road will be used by ALL of the modes, but a complete streets approach considers all users, and seeks desirable, practical and affordable improvements that will be accepted by the community. A Complete Streets project does not need to be ‘all or nothing’ because incremental improvements may contribute meaningfully to a multi-modal system.

MassDOT has a number of policies and design guidelines that support Complete Streets. MassDOT defines Complete Streets as “a design approach that focuses on the safety and comfort of all roadway users, including pedestrians, bicyclists, and public transit.” Through a series of administrative directives, MassDOT incorporated the Commonwealth’s Complete

FIGURE 4: Complete Streets Context Zones



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Streets approach into their Project Development and Design Guide. Specifically, all MassDOT construction projects (and other projects like federal-aid projects) must be reviewed to ensure that appropriate pedestrian, bicycle, and public transit accommodations are provided. Projects that do not meet these standards require justification and review by the Massachusetts Secretary of Transportation.

Complete Streets is an ambitious concept. The cost to improve all of our roads in the Berkshires to fully accommodate every user with dedicated spaces would be astronomical. While there is merit to building new or reconstructed roads “right”, the reality is that creating whole new or rebuilt roads comprises a miniscule percentage of the road miles in the Berkshires’ transportation system. Federally funded and MassDOT projects that require roadway rebuilding usually consist of a couple of miles of work annually, even if they are a large part of the regional yearly transportation financial expenditures.

The question becomes how do we incorporate Complete Streets into our roads without completely rebuilding and widening them all to accommodate all users and activities? At the same time, there are complete streets best practices and emerging technologies that may be appropriate in certain parts of the Berkshires but not in others.

The process for constructing a complete streets plan includes defining the roadway users, establishing a series of context zones appropriate for the area that is under examination, gathering data on existing road conditions, figuring out other influences to roadway use, and applying appropriate complete streets design elements based on all these factors

Defining Complete Streets Users

The best way to functionally and effectively implement Complete Streets starts with a list of all the potential roadway users. Pedestrians, bicyclists, public transportation, personal vehicles, and special vehicles like tractor trailers may all use roads in the Berkshires to varying degrees. The next step establishes the different land use context zones. These context zones are loosely based on the Rural to Urban Transect that the Institute for Traffic Engineers adopted. The Transect provides a graphical and intuitive way to understand and describe an area’s characteristics, and can also be linked to appropriate development and land use standards.

Complete Streets Context Zones

There can be a variety of levels or zones in a Rural to Urban Transect. In the Berkshires, we have a relatively uncomplicated set of existing and future land uses according to the Sustainable Berkshires future land use plan that BRPC adopted in 2014. Since we are looking forward for

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future transportation improvements, it is ideal to use our regional future land use concepts to develop a rural to urban transect guide for the Berkshires. We developed the following five transect “context zones” from the Sustainable Berkshires Future Land Use Map. The context zones are listed in order from least intense/developed to most intense/developed.

- ▽ **Rural Natural** incorporates the Resource Conservation and Rural Residential future land use categories. Those categories are typically either permanently protected from land development or intended for very sparse residential development across the region;
- ▽ **Rural Developed** includes the future land use categories of Outdoor Recreation Neighborhood and Villages. These areas are more developed than the Rural Natural areas. They are focused on traditional developed areas in outlying communities or natural feature attractions like ski areas and lakes.
- ▽ **Transition** zones are the generalized residential areas around the more intensely developed core communities in the Berkshires. There are a mixture of uses intended in these zones, but they should be to a scale of neighborhood development. This context zone represents the Residential Neighborhood future land use.
- ▽ Downtown Commercial and Highway Commercial future land uses makeup the **Urban Core** transect zone. The Urban Core Zone has the most intense development in the Berkshires and also the widest variety of land uses. The Urban Core has the greatest need for incremental complete streets improvements of all the zones because it is where the most people move around.
- ▽ **Districts** represent Industrial and Special Use Areas of our Future Land Use Map. Industrial areas are limited and typically include the regions largest employers. Special Use Areas have land uses like education, hospitals, airports, and cultural institutions with larger land holdings.

Roadway Features

After BRPC establishes regional context zones, we can look at roadway features. Roadway features and data that we have access to include:

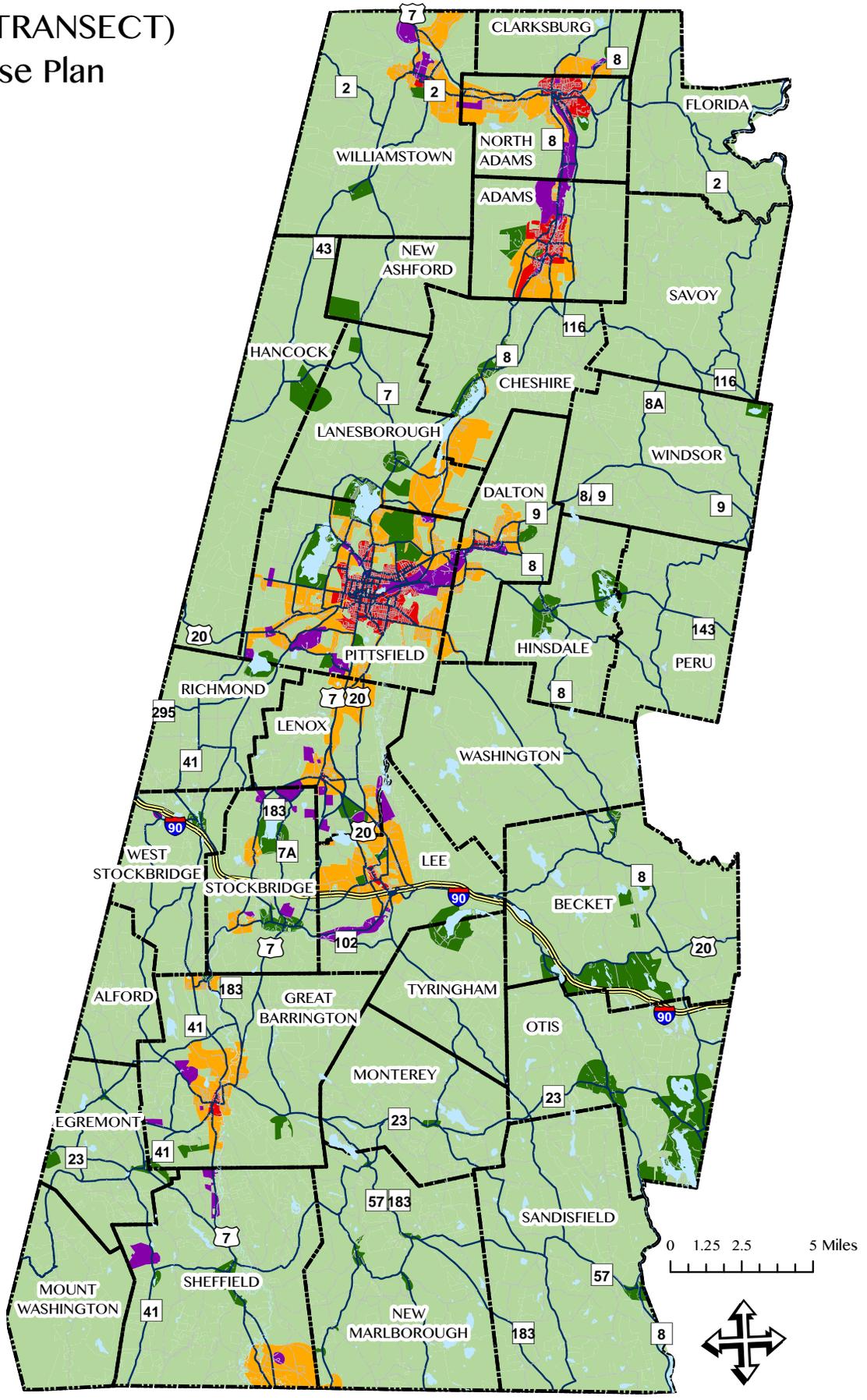
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Form Based (TRANSECT) Future Land Use Plan

LEGEND

-  Rural Natural
-  Rural Developed
-  Transition
-  Urban Core
-  Districts
-  Towns
-  Water Bodies

This map was created by the Berkshire Regional Planning Commission and is intended for general planning purposes only. This map shall not be used for engineering, survey, legal, or regulatory purposes. MassGIS, MassDOT, or BRPC may have supplied portions of this data.



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- ▽ **Functional Classification** organizes the roadway network into Arterials, the primary routes for long distance travel; Collectors, serving intermediate length trips or feeding arterials; and local roads, which are intended primarily to provide access to land uses;
- ▽ **Roadway Surfaces** are generally paved or unpaved, however, the condition of the surface is an important consideration;
- ▽ The **street cross section** refers to the specific dimensions of the street components;
- ▽ The **right-of-way width** is the area that the municipality or state has for transportation use, either by ownership or a permanent easement. The adjacent property owner may have use of the area that is not currently being used for transportation purposes, and many homeowners believe their front yards extend into the public right-of-way, as they may have been mowing and maintaining the area for years. Business owners believe the same about parking areas that may extend into the publicly owned right-of-way;
- ▽ For people walking and biking, **traffic speed** may be the single most important factor when traveling, for both perceived comfort and actual safety. High-speed traffic is fundamentally incompatible with safe and comfortable walking and biking along a road or street, whereas relatively high volumes can be tolerable if speed is low;
- ▽ **Traffic volumes** have an influence on pedestrian and bicycle safety, but less so than speed. High volume roadways do not require high speeds to accommodate their flow. In fact, the most efficient speed for traffic flow is about 35 mph. A road designed for a slower and steady flow is safer for all users and less frustrating for drivers than a road designed for higher speed segments interrupted by traffic signals;
- ▽ An important component in understanding the current operations of a street is its **crash history**. It is also valuable to audit individual roadways for pedestrian and bicyclist hazards prior to settling on particular improvements because there may be problems that are not reflected in the crash history.
- ▽ Roadway features should also describe how potential improvements fit into a larger **network plan**?

Other Contextual Influences

The remaining information needed before selecting complete streets improvements for particular areas includes other factors that may make a place unique compared to the surrounding region. Are there important environmental features? Are there economic development opportunities

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available for adjacent workplace concentrations or is it a streetscape project to attract additional consumers? Is it adding to public space to make it an identifiable place? Is the area part of a historic or culturally important attraction in the Berkshires? The information that answers these questions is important for selecting the appropriate complete streets improvements.

Complete Streets Design Elements

There is a vast variety of potential design tools and strategies that can be used in complete street design. The following sections describe many that have been found useful in Massachusetts and similar areas, but are by no means the only options.

Pedestrian Facilities

Although the complete streets philosophy is to accommodate all users, the pedestrian is perhaps the most fundamental. Essentially all trips by any mode, including the private auto or transit, must begin and end as a pedestrian. Pedestrians are the lifeblood of any vital downtown, and walking is an economical, equitable, environmentally friendly means of transport. Support for pedestrians is the core of a complete streets transportation strategy. The pedestrian environment consists of two essential elements: channels of movement (sidewalks) and street crossings.

Sidewalks are critical components of the street and often are the principal ingredient of public space, especially in downtowns and village centers. Sidewalks provide adequate space and a well-designed environment for pedestrians. Sidewalks can also include refuge areas, furniture and accessory areas, frontage areas, and pedestrian through channels.

Marked crosswalks are most often located at intersections, and may be delineated by a variety of patterns. Massachusetts law grants pedestrians right of way at all marked crosswalks, unless they are controlled by a signal. Achieving this right of way is often something of a different matter. MassDOT follows standard MUTCD signal warrants for signalized crosswalks. However, there is not a specific warrant for unsignalized crosswalks. Generally, there is consideration for the elderly or schoolchildren users, potential crossings from existing uses that might generate more pedestrian traffic with a safer network, and/or increased pedestrian traffic from planned development.

Bicycle Facilities

There are a variety of types of facilities that can accommodate bicycles in our transportation networks, including the following:

Shared lanes (sharrows) are particularly appropriate in two circumstances. The first is on low-speed, low-volume neighborhood streets that are designated as primary bicycle corridors, with speed humps and other controls to discourage vehicle through traffic, the second is in the downhill lane of a street that has a bicycle lane in the climbing direction, and where vehicle speeds are low enough that a typical downhill bicyclist is traveling at the same speed as cars.

Plain (unbuffered) bicycle lanes are appropriate a variety of conditions. Unbuffered lanes go well on streets with low speeds and moderate volumes (such as secondary city through streets), and on roads with higher speeds but low volumes (secondary rural and suburban roads).

On high-speed, high-volume streets and roads, safety demands more separation from traffic. **Buffered bicycle lanes** are preferred on any street that is appropriate for bicycle lanes, serves a disproportionate share of vulnerable users (in particular, along routes to school), has higher traffic speed or volume than is ideal for a non-buffered lane, and where an additional measure of safety would make a big difference in terms of level of user comfort.

Separated paths are very popular across a wide range of bicycling abilities. However, they have several important limitations that must be taken into account, in particular their high cost (especially right-of-way for the path), as well as the danger that a path with curb cuts poses to bicyclists. Separated paths in developed areas are appropriate when the path runs along a major corridor with high demand (actual or latent) for bicycle travel, where on-road conditions are so dangerous that only a separated path can provide a reasonable measure of safety, and where vehicle crossings of the path are relatively infrequent.

Additional Design Elements for Complete Streets

Effectively implementing complete streets also incorporates small features that apply to all sorts of roadway users. Examples of these design elements are:

- ▽ Selecting the appropriate **curbing**;
- ▽ Developing the right **landscaping/greenbelt** between the roadway and separated path;
- ▽ Providing adequate and smartly scaled **lighting**;
- ▽ Pedestrian amenities like benches and trash receptacles;
- ▽ **Wayfinding**, including technology like Radio Frequency tags and geofencing;
- ▽ Incorporating **public transportation amenities** on bus lines; and
- ▽ Including **on-street parking** where needed.

In summary, the key steps to effectively planning complete streets in the Berkshires are defining our community of road users, understanding the existing conditions and functions of our road infrastructure, establishing our context zones, and then incorporating design elements. Once the complete streets process is developed for the Berkshires, we should understand how to incrementally make improvements to make our road system more comfortable for all users.

Policy Recommendations

- ▽ Conduct a Complete Streets assessment as outlined in this section for the Berkshires as a specific task of an upcoming UPWP. This analysis can develop a list of project recommendations for future RTP and TIP development;
- ▽ Provide materials, like checklists, that local communities can use to assess individual street improvements for incremental complete streets upgrades;
- ▽ Craft a Complete Streets policy resolution that local communities can adopt to help them fulfill future prerequisites for transportation funding that require a commitment to complete streets; and
- ▽ Continue to implement MassDOT's Safe Routes to Schools program as a way to improve the safety of Berkshire school children around educational facilities.

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5. Conclusion

Congestion in the Berkshires is more a matter of perception than a lack of roadway capacity to carry vehicles. There are also seasonal special events like music festivals in North Adams, concerts at Tanglewood, and downtown events in Great Barrington and Lee that cause temporary traffic backups. There are a variety of large and small projects that will help reduce congestion in the Berkshires.

We know that we have a couple of significant projects from past BRPC studies. These projects include addressing a new or expanded I-90 interchange, implementing a west side connector in Pittsfield, passing lanes on Route 8 in Lanesborough and Cheshire, and a regional traffic signal operations center. Additionally, BRPC monitors 10 smaller occasionally congested points in the Berkshires that we call “regional bottlenecks” that are examined annually as part of our UPWP. We can probably fix regional bottleneck problems with relatively low cost, incremental signal and signage upgrades, even if there are more significant projects under development that include them. There are tens of millions of dollars of bicycle and pedestrian improvements throughout the Berkshires that will facilitate regional travel and recreation. We also see value in a series of developed context-based ‘complete streets’ tools that encourage communities to incrementally improve roads so that all potential road users can travel more safely.

The total of the potential projects BRPC devised to relieve congestion is \$216.5 million dollars. These projects are on the illustrative list (unfunded but identified) in this RTP.

SECTION IV

FREIGHT MOVEMENT AND ECONOMIC VITALITY

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FREIGHT MOVEMENT AND ECONOMIC VITALITY- To improve the national freight network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development.

The Berkshires continue to suffer from barriers to access the major freight networks that cross New England and the broader northeast United States. Specifically, the major population and employment centers in the region lack access to I-90. Our poor access to the interstate highway system remains the singular most significant hurdle to attracting more industry other than tourism to the Central and Northern Berkshires.

The following objectives are derived from past planning efforts in the Berkshires, public input for this RTP, Federal legislation, and/or Massachusetts state laws.

OBJECTIVES:

- ▽ Minimize impacts of truck traffic and cut-through traffic;
- ▽ Enhance connections with adjacent regions;
- ▽ Enhance aesthetic, cultural, and historic qualities of communities;
- ▽ Provide an investment program for infrastructure improvements;
- ▽ Serve critical regional economic development needs;
- ▽ Improve the availability of public transportation particularly for access to jobs and education.
- ▽ Facilitate goods movement; and
- ▽ Serve Priority Economic Development Areas.

These objectives direct our Freight Movement and Economic Vitality discussion for the 2016 RTP depending on the availability of data and the transportation context of other supporting planning efforts. The following analyses point to capital projects and/or plan implementation policies that move the Berkshires closer to attaining the objectives listed above. It is important to remember that all of the RTP discussions should be examined collectively and that different policies and projects can solve single or multiple transportation dilemmas. These outcomes are combined in the 2016 Regional Transportation Plan Summary.

1. Freight Movements describes how freight moves into, around, and through the Berkshires.
2. Economic Development Priority Areas are opportunities for manufacturing and traditional industry that are integral parts of the Berkshire Comprehensive Economic Development Strategy.
3. Passenger Rail Station Locations are also key to the Berkshire's most significant value-added industry, tourism. The 2014 BRPC study identified station locations that should be supported with investments in rail, road, non-motorized and public transportation interfaces through the horizon of this RTP.

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1. Freight Movements

Freight movements are arranged into a hierarchy based on the materials and goods shipped. Bulkier, low-value goods are usually sent via slower modes like pipelines, ships, or trains. Generally, there is a mode shift to a faster and more secure mode (e.g. trucks and air) for finished goods.

There are specific enterprises in the Berkshire economy that rely on rail services. However, rail access to industrial property is vanishing because some former industrial sites are converted into higher value commercial centers. The Commonwealth Freight and Rail Plan is a framework of investment and policy modifications to strengthen rail freight operations including protecting industrial lands with rail access, public-private partnerships to expand and improve direct rail access, and creation of straightforward environmental permitting guidelines.

Trucks and railroads are the primary carriers of freight for advanced materials manufacturers. The majority of trucks with unfinished goods are passing through the region although paper mills, plastic injection and molding, and quarrying operations are significant value added operations. The remainder of pass-through freight represents opportunities for industrial development in the Berkshires. Future planning efforts may identify sites suitable for consolidation and rail access expansion in order to accommodate moderate users in an effort to assist the attraction, expansion, and retention of industry.

Truck traffic primarily consists of goods proceeding to market for consumption within the Berkshires. Truck movements and a lack of effective bypass routes impact our urban downtowns and rural village centers. Pedestrian safety is of particular concern because of the increased braking distance required for truck traffic. The BRPC addresses these concerns through corridor studies. Examples of corridor studies include the 7/20 Access Management Study, the Pittsfield Downtown Circulation Study, and the Lee Area Traffic Study.

Most freight rail travels through the region on CSX Transportation's 33 mile main east-west line through Pittsfield. Known as the Boston-Albany Main Line, this is the most heavily used line in Massachusetts, serving all freight traffic destined for CSX points in New England, except Southwestern Connecticut. The second most heavily used railroad serving the region is the Boston and Maine Pan Am/Norfolk Southern line, which travels 14 miles through Williamstown, North Adams, and Florida and also spurs 5 miles from North Adams to Adams in order to service Specialty Minerals.

The Housatonic Railroad Company (HRRC) operates approximately thirty eight (38) miles in the Berkshires. The Berkshire Line passes through Pittsfield, Lenox, Lee, Stockbridge, Housatonic, Great Barrington and Sheffield. HRRC serves a paper company, a limestone quarry, a manufacturer of plastic sheeting, a distribution center, a public warehouse, a lumberyard, a concrete manufacturer and a fertilizer receiver (the last three by using a public team track). There are rail-served sites in Massachusetts available for industrial development. Future improvements to the Housatonic line directly benefit freight rail.

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We believe that truck traffic is growing and shifting all over the Berkshires. In 2013 BRPC examined some specific traffic counts that were taken in the Town of Lee to see if we could glean some conclusions about potential changes in freight patterns from examining this small area adjacent to Exit 2 on I-90.

The average daily traffic (ADT) data at seven locations in Lee were collected in 2006 and in 2011 using Automatic Traffic Recorders (ATR). The ATR's recorded the number of vehicles, vehicle type, and the direction of vehicle travel at the seven locations. The below table compares the 2006 and 2011 adjusted ADT and the average daily truck traffic at the seven study locations. The ADT's were adjusted using the MassDOT's statewide seasonal adjustment factors. The numbers of trucks were derived from the ATR counts collected at those locations.

All four count locations on Route 20 experienced a reduction in average daily traffic between 2006 and 2011 (from -9.2% to -18.5%). This decrease was not unexpected because national trends in vehicle miles travelled were level or declined over the same period. The table also shows the changes in ADT for each of the locations.

More importantly, the table shows the average daily truck traffic on Route 20 through the Town of Lee in 2006 and 2011. Truck counts at six of the seven locations increased (between 7.3% and 68.5%) from 2006 to 2011, with the exception of one count station. The traffic count station showing the highest increase in truck traffic was at the Lee/Lenox town line on US 20.

TABLE 7: 2006 & 2011 ADT and Truck Traffic Comparison

Street	Location	2006 ADT	2011 ADT	% Change	2006 Trucks	2011 Trucks	% Change Trucks
Laurel Street	Lee/Lenox TL	12,400	10,900	-12.1%	744	1,254	68.5%
Main Street	South of Center Street	15,700	12,800	-18.5%	1,884	2,022	7.3%
Center Street	Between High Street and Columbia Street	3,400	3,600	5.9%	269	356	32.3%
West Park Street	Between Marble Street and Housatonic River	6,500	5,800	-10.8%	533	336	-37.0%
Housatonic Street	North of Turnpike Bridges	18,500	16,800	-9.2%	1,906	2,251	18.1%
Water Street	Between Outlets Driveway & Silver Street	6,321	5,500	-13.0%	632	869	37.5%
Pleasant Street	At Stockbridge/Lee TL	6,500	6,600	1.5%	559	607	8.6%

Policy Recommendations

- ▽ In the Berkshires, we have not always considered truck traffic as a key component in our transportation planning except when it impacts our traditional downtowns. The dramatic swings in truck traffic that we detected in Lee are not abnormal within the region. The MPO should proactively plan for truck traffic and develop a better understanding freight movements, specifically by monitoring classification vehicle counts.



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2. Economic Development Priority Areas

In the 1970's, a series of massive industrial layoffs and closures began to impact the Berkshires. As significant employers disappeared, smaller suppliers closed and the services industry contracted proportionally to the area's diminished spending power. Moving to present day, the Berkshires are faced with a continued population decline, retiring baby boomers, and a short supply of educated and skilled young adults. Given this stark reality, the Berkshires are poised to continue the economic struggles of last 40 years.

In order to reverse the trend, economic development is necessary. In order to develop our economy, we must have a mixture of industry, including manufacturing. Numerous studies were conducted over the last 40 years to attract new businesses to the area, without success. A 2014 BRPC study, The Berkshire County Economic Development Sites Strategy, reviewed regional sites for industrial development potential. The Study produced a list of industrial opportunities called Berkshire County Priority Development Areas (BCPDA's).

The principal finding of the study is a lack of large commercial and industrial sites in the Berkshires. Also, many of our potential development sites that are zoned for commercial and industry are environmentally or geologically limited, making them unrealistic for development. Additionally, there are a number of sites that are available for redevelopment and already have buildings on them. However, the buildings tend to be old, potentially contaminated, and obsolete. Mitigating these factors requires significant investment before they could be considered usable.

BRPC used GIS data to identify BCPDA's based on a variety of factors. The initial selection removed floodplains, wetland resource areas, river protection areas and steep slopes from the entire county. The next step removed developed parcels and parcels under 3 acres. Of the remaining 3,762 parcels in the Berkshires that meet those basic requirements, only 91 parcels are zoned for commercial or industrial use.

For already developed properties, BRPC looked at sites with 10,000 square feet or more of commercial or industrial structures, further concentrating on distribution, office, manufacturing or similar uses and excluding retail, automotive, utilities, mining or similar uses. This resulted in 266 additional parcels that were potentially available.

The results of these two analysis were then combined and manually reviewed. Existing buildings that were occupied as well as vacant parcels where the developable land would be a challenge to build on were removed. Staff also considered information like proximity to water, sewer and major roads. After our local communities reviewed the results, 152 parcels totaling 1,373.1 acres, of which 710.97 acres are buildable, as well as 2,609,033 square feet of existing building spaces. They are grouped into 68 BCPDA's, adjacent areas with common characteristics, shown on the following pages as a table and a map.

Transportation access to Berkshire County priority development areas (BCPDA's) is critical for potential developers. Improving access to BCPDA's should be a factor in evaluating projects for funding through the Berkshire MPOs TIP development process.

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TABLE 8: Undeveloped Berkshire Priority Development Areas

Site	Address	Community	Buildable Acres
Pittsfield Airport	Tamarack Road	Pittsfield	34.7
River Road	River Road	Clarksburg	33.6
Pittsfield Road	36 Pittsfield Road	Lenox	31.8
Schnopp/Roberts	899 South Street	Dalton	23.5
Van Deusenville	Van Deusenville Road	Great Barrington	22.6
Housatonic Street	Stone Ledge Road	Lenox	17.9
GE/PEDA	Woodlawn Ave	Pittsfield	16.6
Airport	Tamarack Road	Pittsfield	16.1
Pittsfield Road	Pittsfield Road	Lenox	13.7
Pittsfield Road	Pittsfield Road	Lenox	10.3

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TABLE 9: New Development Berkshire Priority Development Areas

Site	Address	Community	Buildable Acres
Print Works Drive	Print Works Drive	Adams	2.8
Schnopp/Roberts	Off Elaine Ave	Dalton	5.1
Schnopp/Roberts	899 South Street	Dalton	23.5
Van Deusenville Road	Van Deusenville Road	Great Barrington	22.6
Quarry Hill	160 Quarry Hill Road	Lee	6.34
Pittsfield Road	36 Pittsfield Road	Lenox	31.8
Curran Highway	Curran Highway	North Adams	8.97
Brown Street	Brown Street	North Adams	4.42
Pittsfield Airport	Tamarack Road	Pittsfield	34.7
Pittsfield Airport	Tamarack Road	Pittsfield	16.1
GE/PEDA	111 Silver Lake Boulevard	Pittsfield	7.8
GE/PEDA	Woodlawn Ave	Pittsfield	7.0
GE/PEDA	Woodlawn Ave	Pittsfield	16.6
Stearnsville Park	15 Betnr Industrial Drive	Pittsfield	4.3
Stearnsville Park	15 Betnr Industrial Drive	Pittsfield	4.9
Technology Drive	Technology Drive West	Pittsfield	4.3
Technology Drive	Technology Drive West	Pittsfield	3.2
Sheffield Industrial Park	87 Sheffield Business Park – East Stahl Road	Sheffield	4.1

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TABLE 10: Redevelopment Berkshire Priority Development Areas

Site	Address	Community	Building Size (sq. ft.)
10 Harmony	10 Harmony Street	Adams	127,922
5-7 Hoosac	7 Hoosac Street	Adams	182,790
Howland Ave	115 Howland Avenue	Adams	179,082
Stationary Mill	63 Flansburg Avenue	Dalton	70,547
Searles Bryant	79 Bridge Street	Great Barrington	82,501
Columbia-Greylock Mills	715 Columbia Street	Lee	189,670
Columbia-Greylock Mills	157 Columbia Street	Lee	242,585
Eagle Mill	73 West Center Street	Lee	195,151
Niagra Mill	2 Mill Street	Lenox	26,965
121 Union Street	121 Union Street	North Adams	157,807
1470 Massachusetts Ave	1470 Massachusetts Avenue	North Adams	66,730
234 Union Street	234 Union Street	North Adams	243,704
Cariddi Mill	506 State Road	North Adams	237,784
Curran Highway	1600 Curran Highway	North Adams	100,800
1685 West Housatonic	1685 West Housatonic Street	Pittsfield	29,784
Downing	40 Downing Parkway	Pittsfield	28,544
Downing	74 Downing Parkway	Pittsfield	36,850
East Street	1530 East Street	Pittsfield	0
East Street	1644 East Street	Pittsfield	17,250
Pittsfield Plaza	434 West Housatonic Street	Pittsfield	105,411
Technology Drive	10 Conte Drive	Pittsfield	138,744
Steinerfilm	983 Simonds Road	Williamstown	49,839

We note that the BCPDA's are generally in the US Census urban designated areas of Berkshire County. Most of these locations are adjacent to significant highways. These BCPDA's correlate to our "District" rural-urban transect classification that this RTP recommends considering during the development of a regional Complete Streets Plan and model local policies. Communities that want to encourage development of these sites should create projects that enhance access to and around these sites along with meeting other regional transportation goals.

Policy Recommendations



- ▽ Work with the BRPC CEDS Committee to identify specific improvements necessary for each site to be more attractive to development or redevelopment; and
- ▽ Incorporate a measure promoting projects that improve access to BCPDA's in the annual TIP development scoring process.

Project Recommendations

- ▽ Reconstruct 2.75 Miles of Dan Fox Drive and Tamarack Road between South Street and Barker Road in Pittsfield. This project, costing at least \$10 million dollars, will reconstruct the roadway, improve geometrics through a couple of sharp turns, and improve the intersection of Dan Fox Drive and South Street in a manner consistent with BPRC's 7/20 corridor and access management study. This project opens up two significant BCPDA's with easy access to US 7/20, the Berkshire's most significant north-south and east-west arterials.
- ▽ Reconstruct and add capacity to one mile of East Street in Pittsfield, between Fourth Street and Merrill Road. This project improves dangerous intersections at both East Street & Fourth Street and East Street & Fenn Street. Past BRPC studies indicated a need for additional capacity along this roadway, however there should be an additional examination of future corridor capacity needs following the reopening of Woodlawn Avenue. It is anticipated that this project could easily top \$8 million dollars.
- ▽ BRPC should study Improving access to BCPDA's in Housatonic more closely. Housatonic contains three areas included on the BCPDA list. Access to Housatonic is important because it is as equidistant from I-90 as the majority of the sites in Pittsfield. Great Barrington heavily invested in road improvements in Housatonic over the past few years, repaving Vandeuenville Road and many of the local streets. The reconstruction of one mile of Division Street, east of North Plain Road, coupled with geometric improvements to the intersection of Park Street and Stockbridge Road, could facilitate truck movements to the Housatonic BCPDA's. This project conservatively costs \$5 million dollars.
- ▽ Hubbard Avenue in Pittsfield has some of the richest industrial sites in the Berkshires. Access to the industrial park is hampered by a narrow viaduct under the CSX rail line that bisects the City. Replacing this viaduct is likely the most beneficial economic development oriented transportation project, however, is also the most expensive. BRPC estimates the widening of Hubbard Avenue, to three lanes intermittently, along with the viaduct replacement, to run at least \$30 million dollars.
- ▽ In the Northern Berkshires, Route 8, also known as Howland Avenue, offers access to the most BCPDA's that are available. This corridor, north of the newly reconstructed Columbia and Friend Street intersection, is four lanes and is one of the most heavily utilized industrial corridors in the Berkshires. Reconstructing this 2.1 mile, 4 lane stretch of road north of the Columbia and Friend Street intersection, to Hodges Cross Road, will likely cost \$12 million. It is important to note that non-motorized access from the parallel Ashuwillticook Trail is an necessary component of this project and that the Road's present wide configuration could undergo a road diet to accomodate more modes of road users.

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3. Passenger Rail Station Locations

The Housatonic Railroad Company (HRRC) proposed reestablishing passenger rail service between Danbury, Connecticut and Pittsfield, Massachusetts on the former Berkshire Line. The passenger rail service between these two locations last operated in 1971. Conceivably, a passenger boarding the a train at Grand Central Station in New York City could reach Pittsfield, Massachusetts in approximately four (4) hours. For the HRRC proposal to become reality, a significant capital investment by Massachusetts, Connecticut and New York is needed to upgrade the rail infrastructure along the Berkshire Line and install or upgrade stations. Massachusetts made an initial commitment to the project by entering into an agreement to acquire the Berkshire Line from HRRC and committing \$35 million dollars to upgrade the rail infrastructure. Connecticut has not yet made a commitment, but discussions are underway.

The majority of the existing rail infrastructure is nearly a century old in both Connecticut and Massachusetts. The worn-out, jointed rails and ties are not suitable for the safe operation of a passenger rail service. Frequent track failures negatively impact the central and southern Berkshire rail customers that are dependent on delivery from HRRC. These rail dependent customers account for at least 800 manufacturing jobs.

Another essential component of the rail infrastructure are the passenger rail stations. The ideal passenger rail station will meet the needs of the community, the needs of the region and the operational needs of the proposed passenger rail service. In some instances, the historic passenger rail stations may meet these needs with extensive renovation and in other instances new locations may better serve them.

BRPC worked with HRRC to conduct a passenger rail station location and design analysis with the primary objective of identifying the most feasible and advantageous locations for passenger rail stations along the Berkshire Line. Other objectives of this study include developing recommendations for passenger rail station design, facilities and amenities; evaluating and refining the preliminary railroad operations analysis; and assessing the potential economic, environmental, land use and community benefits and impacts of the proposed passenger rail service and the recommended passenger rail station locations.



FIGURE 5: Berkshire County Passenger Rail Logo

2016 Regional Transportation Plan

The development of the passenger rail station location recommendations follow the Sustainable Development Principles of the Commonwealth of Massachusetts and smart growth principles and principles from Sustainable Berkshires regional plan. In accordance with these principles, a conscious effort was made to identify passenger rail station locations in mixed use downtown areas that have existing pedestrian connectivity and existing commercial establishments that would benefit from a passenger rail station. The Passenger rail study identified four locations and offered recommendations for implementation.

The following general guidance pertains to the four (4) Berkshire Line communities for initial passenger rail stations. Specific recommendations can be found in the Station Area Plans for each proposed passenger rail station, included in the Study's final report.

Policy Recommendations

- ▽ Play an active role in the siting and construction of the passenger rail station. In particular, consider engaging the entity responsible for the design and construction of the proposed passenger rail station to ensure the design is compatible with the community;
- ▽ Consider that a passenger rail station might be integrated into a mixed-use building instead of a standalone traditional platform and shelter. The mixed-use building could provide additional revenue to the passenger rail station owner from lease payments;
- ▽ Consider and plan for how the proposed passenger rail station can be an asset and gathering point for the community;
- ▽ Understand the capacity and condition of any public parking infrastructure and the proposed passenger rail stations impact on the parking. Develop a parking strategy to ensure that long term parking and short term parking are available in the passenger rail station area;
- ▽ Plan for additional mixed-use development around the proposed station area through amendments to the land use regulations to encourage Transit Oriented Development (TOD), the adaptive reuse of existing buildings and infill development;
- ▽ Understand the condition and capacity of utility infrastructure (sewer/water/gas/electricity) to support additional development around the proposed passenger rail station locations;
- ▽ Ensure pedestrian and bicycle connectivity and ensure the surrounding area provides safe access to the proposed passenger rail station for pedestrians and cyclists. Place way finding signs to direct people from the passenger rail station to downtown establishments; and
- ▽ Consider circulation patterns and traffic flow to ensure the surrounding areas do not become congested with traffic.

BRPC supports the development of the proposed passenger rail service because in our estimation, the projected benefits to the region's economy and transportation system outweigh the anticipated localized impacts to a relatively small number of areas.

Project Recommendations

- ▽ We anticipate that upgrading the Berkshire Line to support passenger service from the state line to Pittsfield will cost \$50 million dollars.
- ▽ Installing passenger stations and support areas in the four communities will cost \$10 million per location, totaling \$40 million dollars.
- ▽ An additional \$50 million for trains and operational infrastructure is a start to implementing the Berkshire Line service.

The Berkshire Regional Planning Commission

4. Conclusion

Freight movement and economic vitality is a key component to sustaining the Berkshires' people and businesses. Access to I-90 and our major freight railroads is an identified gap that makes accessing materials to feed our industry difficult. The randomness of how freight, whether goods to our markets or raw materials that our industry makes more valuable, will move in the future makes anticipation difficult. We do believe based on our annual traffic counts that trucks as an overall percentage of our traffic are increasing.

We also know that we have a limited supply of traditional industrial and manufacturing lands that are developable or expandable. This RTP identified several projects and corridors that are key to making Berkshire County Priority Development Areas more attractive for industrial development.

Finally, whether it is by whichever buzzwords (knowledge, creative, arts) describe the industries of taking people and enhancing their experiences and ideas, the Berkshires will remain dependent on the concepts for our economic future. Moving people to the Berkshires from New York City and Boston, the more adjacent metropolitan areas in Albany and Springfield, as well as Connecticut via rail is important because many of our visitors and future residents are not auto dependent. Being able to move around the Berkshires without a vehicle helps make our region more attractive. Reintroducing the Berkshire Line passenger rail service to Pittsfield from New York is the single most important transportation project for advancing the desirability of the region for those economic sectors.

The total dollar amount for the conceptual projects to improve freight movements and economic vitality in the Berkshires between now and 2040 is \$205 million dollars. We have not identified any funding resources to advance these projects, although MassDOT has listed \$35 million dollars in the Commonwealth's capital improvement program for upgrades to the Housatonic Railroad.

SECTION V

INFRASTRUCTURE

CONDITIONS

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INFRASTRUCTURE CONDITION- To maintain the highway and public transportation asset system in a state of good repair.

Maintaining our transportation infrastructure is proving to be an insurmountable challenge for many Berkshire communities, particularly the ones with the highest concentrations of Title VI and Environmental Justice populations. Our roads and bridges are in deplorable condition, particularly after our increasingly harsh spring freeze-thaw cycles. These failing roads damage vehicles, are unattractive for industry and tourism, and contribute to slums and blight in our most fragile neighborhoods.

Communities with little ownership of state and US designated highways are generally in a better position to maintain their roads, as are communities that contribute local funding to maintenance beyond the Commonwealth's Chapter 90 program. Bridges are an even greater financial burden for communities, with repair costs routinely entering the millions of dollars per location. Although MassDOT prioritizes all of the bridges in the Commonwealth for repair, sometimes local communities have to fix bridges with local funds because there are other bridges that consume resources

PERFORMANCE MEASURES:

- ▽ All NHS pavements shall have data collected for them over the for a 4 year reporting period, regardless of ownership or functional classification. Pavements shall be classified in either good or poor condition. MAP-21 requires that no more than 5% of Interstate Highway lane miles are in poor condition over a 4 year period.
- ▽ Bridges on the NHS shall be classified in either good or poor condition annually. MAP-21 requires that no more than 10% of the NHS bridge deck area can be in poor condition for three consecutive years.
- ▽ The FTA has not proposed a Transit Asset Management Rule as of this writing. BRPC believes that this rule will define "state of good repair" and how BRTA will establish targets and report progress.

PERFORMANCE TARGETS:

- ▽ NHS pavements shall be classified in either good or poor condition. Our target is that all Berkshire NHS pavements shall be classified in good condition.
- ▽ Bridges on the NHS shall have no more than 10% of the NHS bridge deck area can be in poor condition for three consecutive years.
- ▽ The MPO will support BRTA in the establishment of performance targets according to the FTA's upcoming Transit Asset Management Rule specifically measuring the system's "state of good repair".

The Berkshire Regional Planning Commission

The following objectives are derived from past planning efforts in the Berkshires, public input for this RTP, Federal legislation, and/or Massachusetts state laws.

OBJECTIVES:

- ▽ Ensure that long-term planning initiatives include the maintenance, operation, and eventual replacement of existing infrastructure; and
- ▽ Maintain the Region's existing transportation system in a state of good repair.

These objectives direct our infrastructure condition discussion for the 2016 RTP depending on the availability of data and the transportation context of other supporting planning efforts. Our performance measures and/or targets are reflected in the recommendations included at the end of each subsection. The following analyses point to capital projects and/or plan implementation policies that move the Berkshires closer to attaining the objectives listed above. It is important to remember that all of the RTP discussions should be examined collectively and that different policies and projects can solve single or multiple transportation dilemmas. These outcomes are combined in the 2016 Regional Transportation Plan Summary.

1. Pavement Conditions focuses on understanding the Region's current pavement conditions and the importance of preventative maintenance.
2. Bridge Conditions are provided and prioritized by the Commonwealth. The MPO regularly includes federally funded bridge projects in the TIP. MassDOT prioritizes bridges for repair based on condition, functional class, and access.
3. Public Transportation State of Good Repair is a measure of how we keep our public transportation vehicles well maintained and explains replacement cycles.
4. Freight Rail Condition briefly discusses current conditions of Berkshire Railroads.

1. Pavement Conditions

The crumbling state of the Berkshires's pavement remains one of the region's greatest fiscal challenges and most important transportation issues. Each winter reminds us of the insurmountable challenges of filling potholes and dodging frost heaves. By the time each spring's cycles of freeze and thaw subside, our road crews scramble to fix the worst and our teeth don't stop chattering from jarring impacts until mid-May.

This section of the RTP takes on a couple of specific responsibilities. First we look at the total overall need of our federal aid system pavements including the disparity between the resources available to the roads MassDOT maintains compared to the roads our local communities maintain. Also, we describe the state of our non-federal aid roads, the majority of which Berkshire towns and cities own. The poor repair of many of our local roads harms property values, instills a sense of blight in some of our most downtrodden neighborhoods, and adds unnecessary repairs to vehicles that are so very important as an economic tool for many of our struggling residents.

There are 2,127 miles of roads in Berkshire County. 722 miles of road are eligible for Federal Aid. We can examine our network based on where the roads are, the way they are used, and their physical characteristics according to the National Functional Classification System. The National Functional Classification System (NFCS) categorizes roadway segments by the primary purpose and character of service they provide. Arranging the roadway network into a logical hierarchy ensures the development and maintenance of an efficient level of regional connectivity and land access. The NFCS defines how a particular route serves the flow of people and goods through the roadway system. BRPC did not evaluate the region's portion of the Turnpike because it is not eligible for Federal funding.

How do we establish pavement conditions across an entire region? BRPC conducts pavement assessments across the entire region by driving our roads and entering a windshield road surface score into our Pavement Management System, RoadSOFT. The most practical way to summarize PASER (pavement surface evaluation and rating) ratings according to functional classification is by the level of needed maintenance (based on condition). A road in good shape needs routine maintenance. A road in fair shape needs capital preventative maintenance, and a road in poor shape requires some level of structural improvement or reconstruction.

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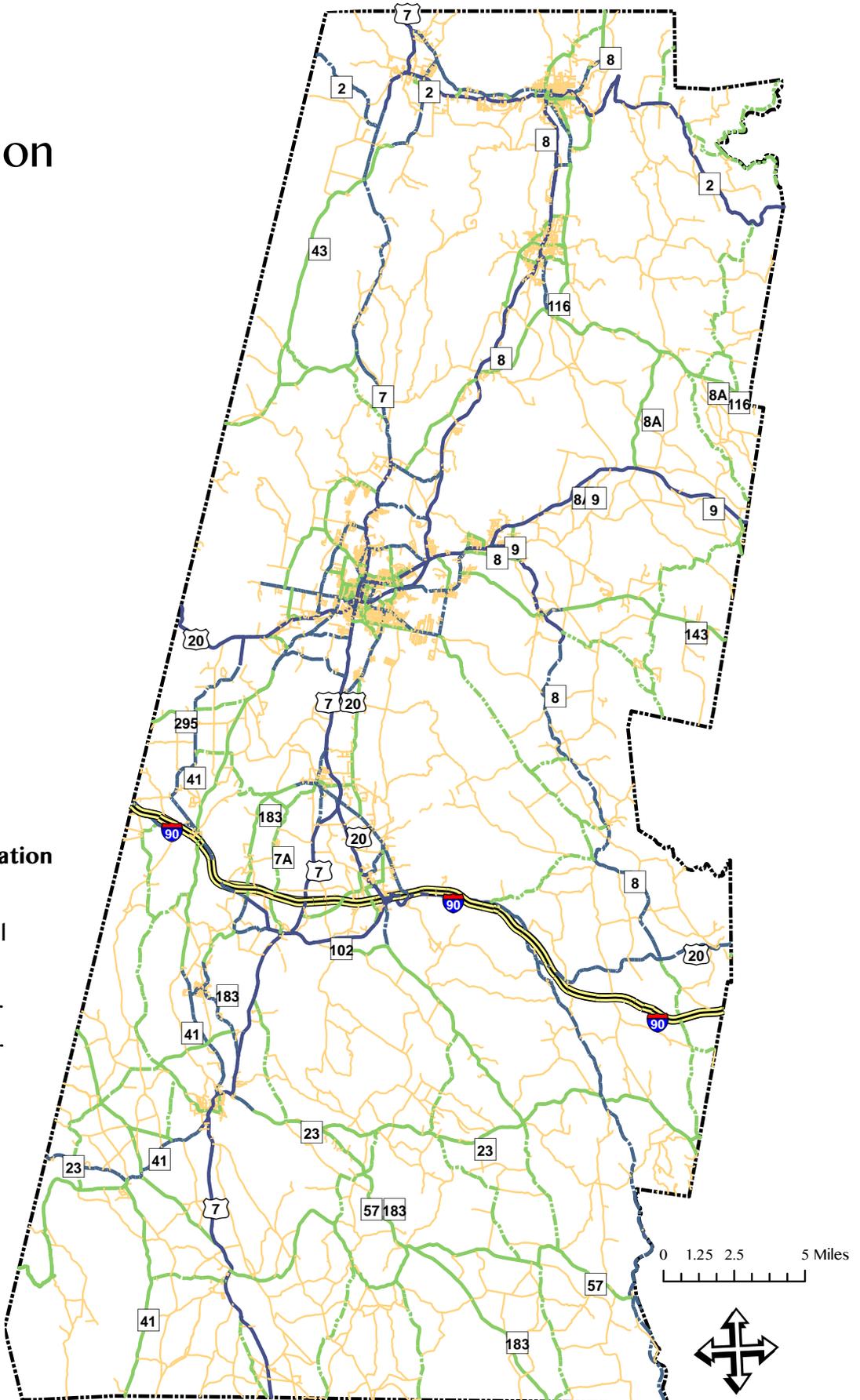
Federal Functional Classification

LEGEND

Functional Classification

-  Interstate
-  Principal Arterial
-  Minor Arterial
-  Major Collector
-  Minor Collector
-  Local

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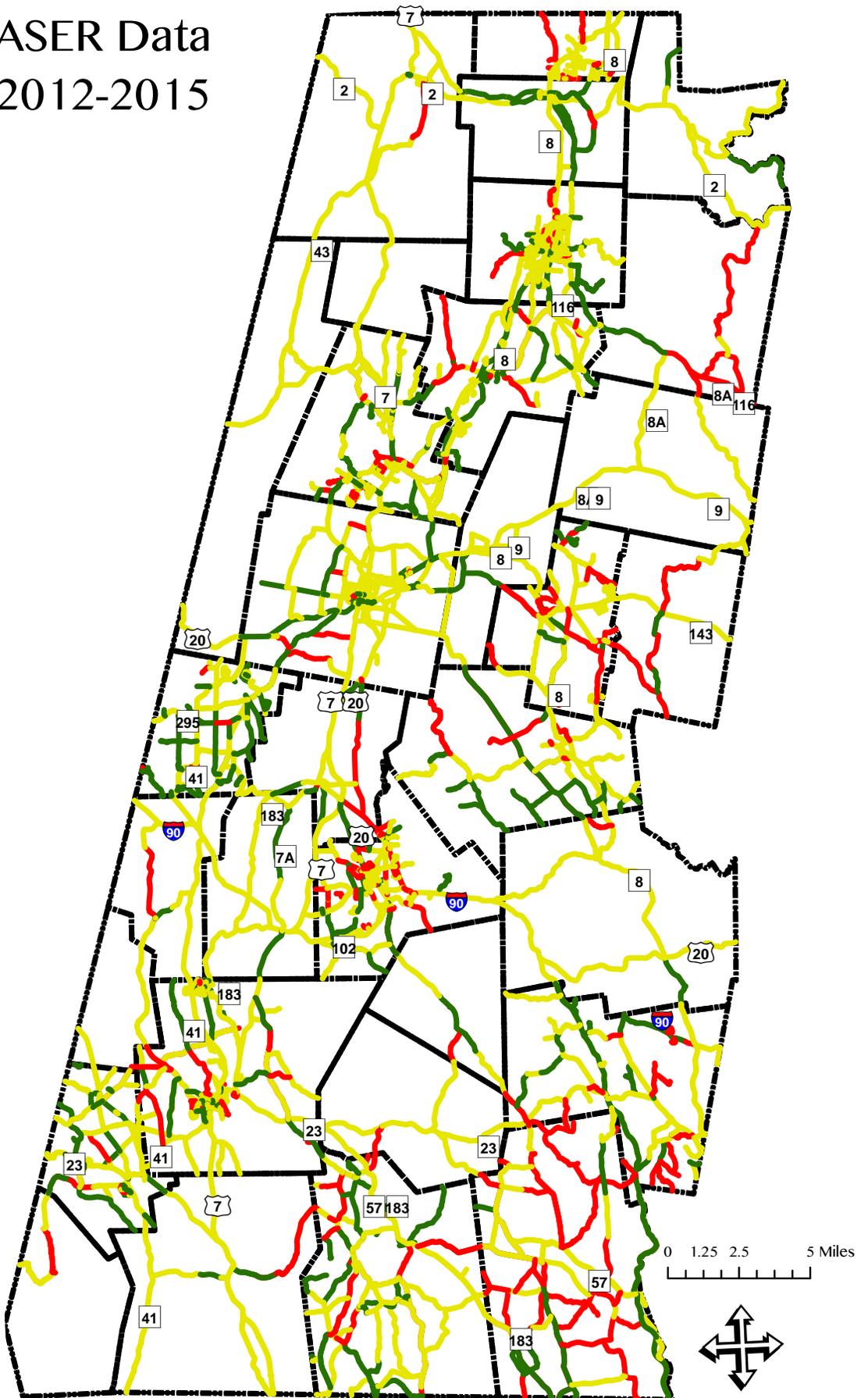


Regional PASER Data Collected 2012-2015

LEGEND

-  Good (8-10)
-  Fair (5-7)
-  Poor (1-4)
-  Communities

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Note, the map on the opposite page indicates the PASER ratings that BRPC collected since the last Regional Transportation Plan. If we consider just the Federal Aid Roads, then we are only looking at roads functionally classified as collector or higher. MassDOT maintains approximately half the Federal Aid road mileage in the Berkshires. MassDOT owned roads are generally the more heavily travelled roads with more intense development. However, most of our local communities own their primary historic downtown streets that are also Federal aid eligible. MassDOT, principally a transportation asset management and implementation agency, is better equipped and funded to maintain roadways in fair and good condition. Berkshire Cities and Towns, responsible for a broad spectrum of local government services, are immensely challenged to keep twice as many road miles passable with less financial backing than the Commonwealth.

Below we break down the cost of maintaining our Federal Aid roads in today's dollars. Please note that we use budget numbers that are not project specific, but we feel they reflect the cost of repairing our roads appropriately. Also, none of our Federal aid eligible roads are unpaved.

TABLE 11: Estimated Repair Costs for Federal Aid Eligible Roads

PASER Rating	Average Cost per Mile of Improvement	Miles Under Community Jurisdiction	Local Cost to Upgrade to 8+ PASER	Miles Under MassDOT Jurisdiction	MassDOT Cost to Upgrade to 8+ PASER
10	\$0	20.81	\$0	7.91	\$0
9	\$2,000	27.4	\$54,800	7.41	\$14,820
8	\$15,000	23.65	\$354,750	14.68	\$220,200
7	\$75,000	57.53	\$4,314,750	84.57	\$6,342,750
6	\$250,000	98.97	\$24,742,500	90.24	\$22,560,000
5	\$500,000	126.02	\$63,010,000	38.21	\$19,105,000
4	\$1,000,000	66.41	\$66,410,000	2.43	\$2,430,000
3	\$2,000,000	33.59	\$67,180,000	1.82	\$3,640,000
2	\$3,000,000	17.09	\$51,270,000	0.1	\$300,000
1	\$4,000,000	2.8	\$11,200,000	0	\$0
		474.27	\$288,536,800	247.37	\$54,612,770

Source: BRPC

As you can see through this exercise, updated with the escalating project costs that BRPC documented since 2011, there is a substantial need to keep the imperfect system we have from

2016 Regional Transportation Plan

falling apart. Also, our local Berkshire communities have nearly 5 times the financial need of MassDOT for road repair funding.

Unfortunately, when we begin to look at our non-Federal aid paved roads, the local roads, the neighborhood streets, the winding country roads that pass by farms and second homes and country cottages in the hilltowns, the state of road maintenance is more dire. BRPC had the privilege of conducting road condition inventories for Adams, Clarksburg, Cheshire, Hinsdale, Otis, Egremont, Great Barrington, Richmond, Sandisfield, and New Marlborough over the past four years. These communities all have their individual challenges with road funding. They, just like every Berkshire community, are served by dedicated highway superintendents, foremen, and laborers and elected officials that understand the need for good roads. If we conduct the same extrapolation as we did above with potential project costs applied to the total local paved roads in the Berkshires, the following results:

TABLE 12: Estimated Repair Costs for Local Functional Class Roads

PASER Rating	Average Cost per Mile of Improvement	Miles of Local Roads	Local Cost to Upgrade to 8+ PASER
10	\$0	30.646	\$0
9	\$2,000	32.166	\$83,392
8	\$15,000	45.698	\$888,559
7	\$75,000	90.806	\$8,828,230
6	\$250,000	134.615	\$43,624,585
5	\$500,000	117.861	\$76,390,257
4	\$1,000,000	66.201	\$85,814,840
3	\$2,000,000	20.474	\$53,079,954
2	\$3,000,000	1.487	\$5,782,692
1	\$4,000,000	0.054	\$279,996
		540.008	\$274,772,506

Source: BRPC

Policy Recommendations

- ▽ Encourage the prioritization of capital preventative maintenance projects like non-structural resurfacing and thin overlays to stretch our limited road dollars farther. Recent reconstruction projects, although necessary and valuable projects, have hugely increased costs to the several millions of dollars per mile;
- ▽ The MassDOT project development process and construction of full AASHTO standard roads are not appropriate in all contexts of the Berkshires. Minimize roadway expansion as a cost savings strategy whenever possible;
- ▽ Work with MassDOT District 1 to update BRPC pavement condition

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databases and survey local communities annually to capture information on local projects;

- ▽ Advocate regionally to increase transportation dedicated revenue from the Commonwealth and for local or regional tax capturing options. \$6 million dollars of Chapter 90 annually, plus whatever the Commonwealth's "Way Forward" program provides to the Berkshires, will not make a substantive dent in our \$563 million dollar local shortfall in road funding needs;
- ▽ The 2016 RTP survey responses show that respondents are willing to contribute financially to repairing our roads. If an additional \$50 per year were levied for each vehicle registered in the Berkshires, it could generate at additional \$2.5 to 3 million dollars dedicated to local road repairs.
- ▽ Provide an annual report to the MPO on the pavement performance of the Berkshire National Highway System roads.



2. Bridge Conditions

There are 431 bridges in the Berkshires (177 MassDOT and 254 local), defined as spans in excess of twenty (20') feet. These structures provide vital links in our transportation network. MassDOT is responsible for achieving compliance with the National Bridge Inspection Standards (NBIS) and ensuring the safe condition of all motor vehicle bridges, regardless of jurisdiction. MassDOT maintains a Bridge Inspection Program and is responsible for the inspection of MassDOT and city or town owned bridges every two years.

Berkshire County's bridges average about sixty (60) years in age. The typical service life of bridge structures is fifty (50) years. Unfortunately, bridges require substantial investment just to maintain existing conditions, and significantly more investment to improve bridge conditions to non-deficient status. Capital preventative maintenance can extend the service life of a bridge span by twenty (20) or more years.

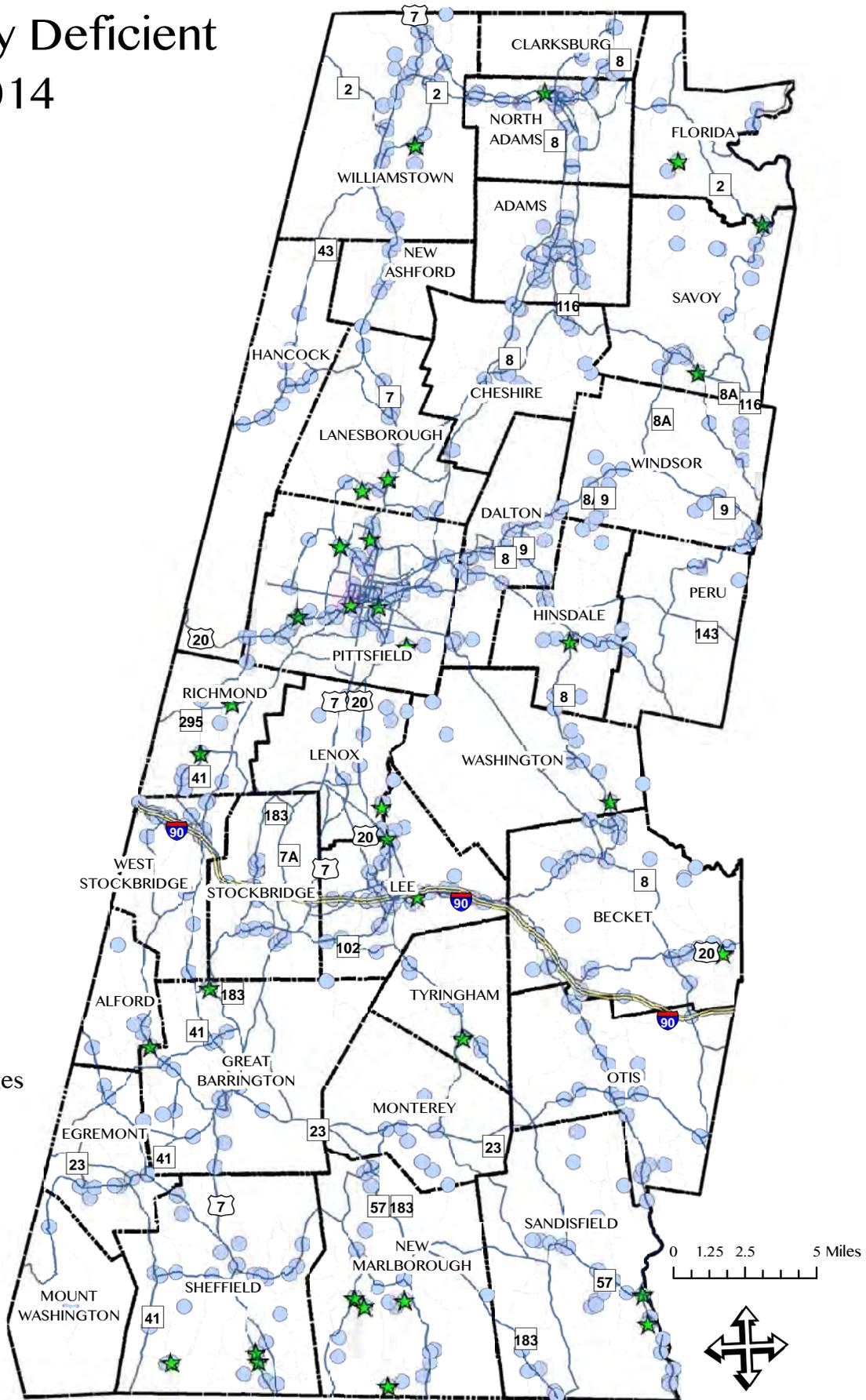
In 2009 the Commonwealth began an Accelerated Bridge Program providing an additional \$2.9 billion in funding to reconstruct bridges across the state. The ABP should potentially reduce the number of structurally deficient

Structurally Deficient Bridges 2014

LEGEND

-  SD Bridges
-  Berkshire Bridges
-  Towns

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0 1.25 2.5 5 Miles



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bridges to 450 and complements the Statewide Bridge Program, which is part of MassDOT's regular work program.

MassDOT prioritizes bridge repairs based upon the seriousness of the structural problems, the structure's regional and local importance, geographic equity, and cost and budgetary considerations. The final consideration is the complexity of each repair because timeliness is an important for transportation investment. In addition to repairing structurally deficient bridges, we have to maintain and preserve other bridges so they do not deteriorate into structural deficiency using preventative maintenance techniques. Currently, there are 37 structurally deficient bridges in the Berkshires. The Berkshire MPO should work with MassDOT to ensure that there are no structurally deficient bridges on our arterial and collector roadways, including the National Highway System. We estimate that with an average price tag of \$5 Million dollars, repairing these structurally deficient bridges will cost at least \$185 million dollars within the life of the RTP. BRPC should work with MassDOT to analyze more data on bridges including condition, physical dimensions, functional classification, and maintenance/repair costs.



Policy Recommendations

- ▽ Work with local communities to perform capital bridge maintenance to help avoid costly structure replacement;
- ▽ Annually report on the condition of our NHS bridge decks to the MPO;
- ▽ Advocate for a portion of the accelerated bridge fund, under the supervision of MassDOT to be dedicated specifically to routine and capital preventative maintenance on bridges; and
- ▽ Include the MPO in the prioritization of Berkshire bridge needs as MassDOT develops its annual bridge lists and moves bridge replacement and rehabilitation projects forward through the design guidelines process.

National Bridge Inspection Standards

Biannual bridge inspections are required for all bridges for examine various structural and functional aspects, focusing primarily on the condition of the deck, the superstructure (beams supporting the deck), and the substructure (piers and abutments). Each of these components is rated on a scale from 0 to 9 with 9 representing an excellent condition.

These condition ratings, along with other information, classify bridges into one of three categories. A non-deficient bridge is in good repair and adequately carries its daily traffic. A functionally obsolete bridge is one that has no serious defects, but has outdated or sub-standard geometric features (lane or shoulder width, etc) but can still carry legal loads. A bridge is structurally deficient when the combination of its major components (deck, substructure and superstructure) have measurably deteriorated to the point at which action is needed or when any individual component is rated at four or below on the nine-point scale (4 = poor, 3 = serious, 2 = critical, 1 = imminent failure, and zero = failed).

3. Freight Railroad Conditions

Within Berkshire County, rail plays an important role in terms of freight and goods movement. Class I and Class II lines are typically maintained in a good state of repair by the national and regional carriers who have operational rights to these lines. However, the tracks used by Shortline railroad's to provide access to the national rail network are in a poor state of repair. The rail was manufactured in the early 1920's and is in a serious state of failure and needs to be replaced. There are approximately 42 miles of Class III rail lines which support industrial manufacturers and play an important role in providing employment opportunities. Improving the condition of these Class III lines and bringing them up to a good state of repair is crucial. Providing these long overdue improvements will also provide for the planned reintroduction of passenger rail service in southern Berkshire County.

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4. Conclusion

Maintaining our existing roads and bridges is the most costly component of this RTP and the one that we are most likely to have to pay for locally. MassDOT estimates that the Berkshire MPO will have nearly \$180 million dollars over the 25 years of this RTP to fix our worst federal aid eligible roads. BRPC estimates that, in 2015 dollars, we have \$343.1 million dollars in needed reconstruction and capital maintenance to bring the Federal aid road system up to a point of only needing routine maintenance. Our estimated cost of road improvements in inflated dollars over the 25 year life of the plan is a 1.5 % inflation rate would be over \$540 million dollars.

We estimate our local paved roads, those not eligible for Federal Aid, need \$275 million dollars in fixes. With the same 1.5% inflation rate, the cost to fix our local roads would be \$412.5 million dollars over the 25 years of this RTP.

Bridges, defined as structures crossing features like water, railroads, and other roads, are also in alarmingly poor condition across the entire Commonwealth. There are 37 structurally deficient bridges in the Region. These bridges are posted with weight restrictions and need significant repairs. With an estimated cost of \$5 million dollars to repair a bridge, repairing our structurally deficient bridges could cost as much as \$185 million dollars. This cost estimate does not include functionally obsolete bridges or capital preventative maintenance.

Improving our infrastructure conditions (public highways, bridges and transit vehicles) is the single largest financial component of this RTP \$528.1 million dollars. This staggering dollar amount reinforces the need to change our current strategies from fixing the worst infrastructure we have first to an approach that includes capital preventative maintenance for both roads and bridges.

SECTION VI

**ENVIRONMENTAL
SUSTAINABILITY**

2016 Regional Transportation Plan

ENVIRONMENTAL SUSTAINABILITY- To enhance the performance of the transportation system while protecting and enhancing the natural environment.

Berkshire County, Massachusetts is a 946 square mile natural resource with 342 square miles of protected lands, both working and preserved. We depend on our natural environment because it drives our economic productivity through tourism and developing natural resources from mining, agriculture, and forestry operations. Our transportation system both impacts and is impacted by our natural environment. The importance of nature to the Berkshires' sense of place cannot be overstated as a part of our economic sustainability

The following objectives are derived from past planning efforts in the Berkshires, public input for this RTP, Federal legislation, and/or Massachusetts state laws:

OBJECTIVES:

- ▽ Incorporate anticipated climate change impacts into the project development process;
- ▽ Protect the quality of water resources from transportation impacts;
- ▽ Protect sensitive natural features;
- ▽ Minimize collisions with wildlife; and
- ▽ Implement sustainable stormwater management.

These objectives direct our environmental sustainability discussion for the 2016 RTP depending on the availability of data and the transportation context of other supporting planning efforts. We try to relate the the following analyses to capital projects and/or plan implementation policies that move the Berkshires closer to attaining the objectives listed above. It is importation to remember that all of the RTP discussions should be examined collectively and that different policies and projects can solve single or multiple transportation dilemmas. These outcomes are combined in the 2016 Regional Transportation Plan Executive Summary.

1. Climate Change discusses how weather events have increased in frequency and intensity. More sever weather events through precipitation or freeze-thaw cycles negatively impact travel in and out of the Berkshires and increase maintenances costs for our bridges and roads. The regional Hazard Mitigation Plan contributes to the regional conversation on climate change.
2. Stormwater and subsequent drainage issues in our roads are a significant portion of repair and maintenance costs. New EPA stormwater regulations are poised to change how several Berkshire communities address stormwater runoff in their physical infrastructure.
3. Energy Consumption focuses on stationary energy use in the region as opposed to transportation energy consumption which is addressed in Section 2 - Congestion Reduction. The Sustainability Plan for the Berkshires contributes the data and research to develop transportation oriented policies for energy consumption.
4. Wildlife Linkages are critical for how animals move thought the Berkshires The Nature Conservancy and the Berkshire Environmental Action Team dedicated resources and data to provide insight that prioritize wildlife road crossing areas and culverts or bridges that should be upgraded to facilitate animal travel.

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1. Climate Change

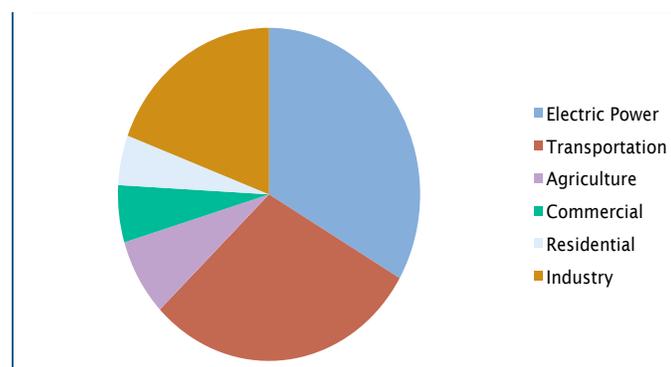
Climate change means a shift in long-term global weather patterns influenced by greenhouse gases created by human activity. Common greenhouse gas (GHG) components include carbon dioxide (CO₂), methane, nitrous oxide, ozone, water vapor and chlorofluorocarbons. These greenhouse gases form a “blanket” of pollution that traps heat in the atmosphere and causes climate instability characterized by severe weather events such as storms, droughts, floods, heat waves, and rising sea levels. Unlike some atmospheric contaminants, which create local or drifting plumes, such as acid rain, GHGs are global, mixing easily and broadly. In addition they are long-lived component, taking years or decade to disassemble or leave the atmosphere. CO₂, which makes up approximately 95% of the GHG emissions from transportation, has an estimated lifetime of 50-200 years.

The Berkshires are expected to experience warmer temperatures, less snow pack / ice retention and cycles of subsequent drought and flooding impacts as changes in weather patterns. These conditions increase storm severity, increase the frequency and severity of heat waves, and shifts and alterations in the distribution of natural plant and animal habitats.

According to FHWA, the U.S. accounts for 5% of the world population and contributes more than 20% of global CO₂ emissions. The U.S. transportation sector is responsible for 33% of global transportation CO₂ emissions. On-road vehicles accounted for 70% of US emissions. These include “tailpipe” emissions from burning fossil fuels, not including the life cycle emissions involved in manufacturing vehicles, extraction of fossil fuels, maintenance of transportation infrastructure or other related processes or activities.

A greater number of vehicle miles traveled (VMT), along with an increase in the number of light-duty vehicles (pickups and SUV's) on the roads (from 20% of vehicles sold in the 1970's to more than 50% sold by 2004) increase overall emissions. Since 1990 GHG emissions from medium and heavy-duty trucks increased three times the rate of lighter vehicles. Freight trucking increased dramatically while fuel efficiency per ton carried decreased.

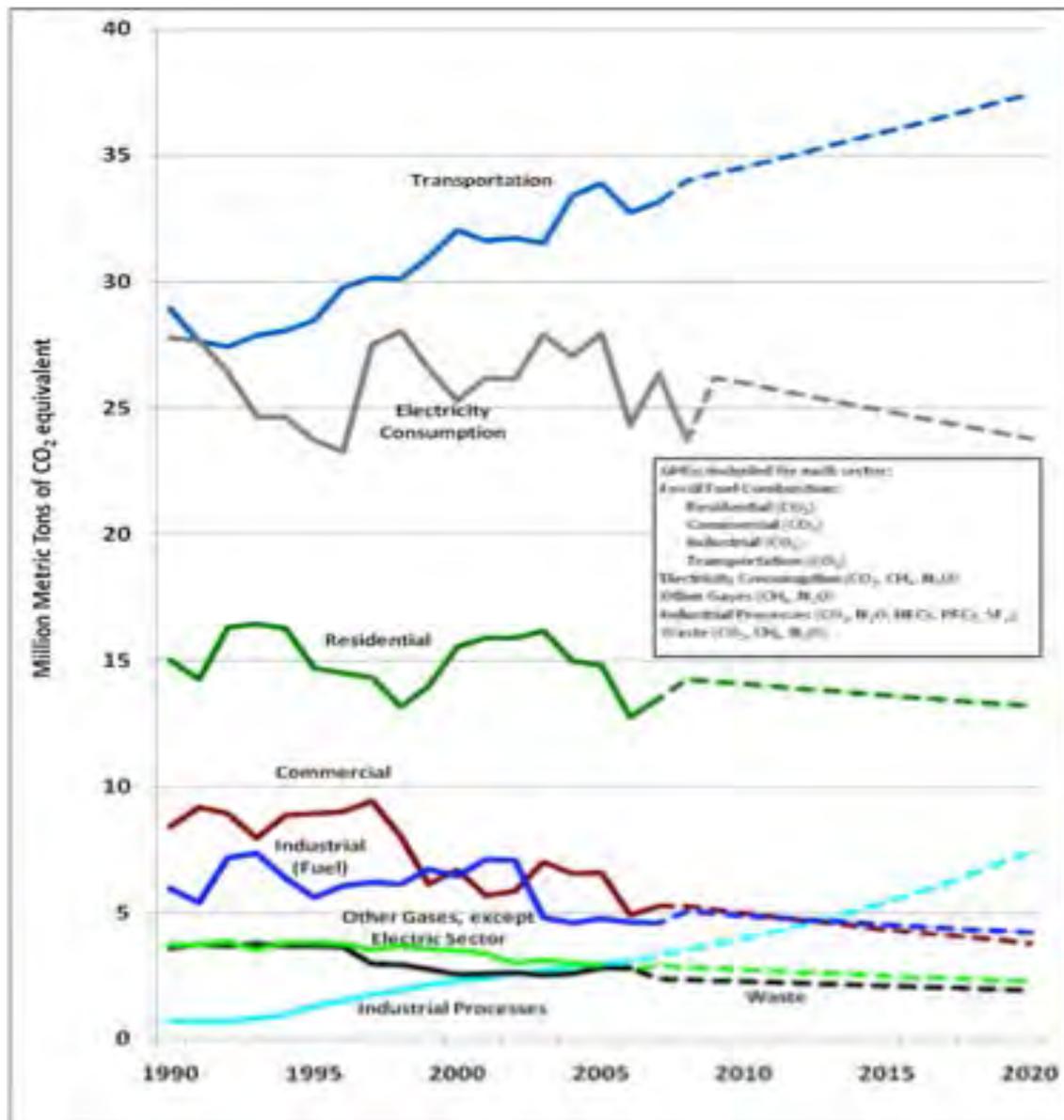
FIGURE 6: US Greenhouse Gas Emissions by Sector



Source: FHWA 2006

2016 Regional Transportation Plan

FIGURE 7: Massachusetts GHG Emissions, 1990-2020



Source: MassDEP, 2009

The DEP's 2009 Statewide Greenhouse Gas Emissions Level: 1990 Baseline and 2020 Business As Usual Projection stated transportation accounted for 35% of the total in 2005. Unlike most other sectors in Massachusetts, transportation GHG emissions are expected to continue to increase, reaching 40% of the total by 2020. A preliminary study of GHG emissions in Berkshire County suggests that the transportation sector here accounts for 39% of GHG emissions.

The Berkshire Regional Planning Commission

Regional GHG Tracking and Evaluation in RTP's

MassDOT coordinated with MPOs and regional planning agency (RPA) staffs on the implementation of GHG tracking and evaluation in development of each MPOs 2035 RTP's, which were adopted in September 2011. This collaboration continued for the MPOs 2040 RTP's and 2016-19 TIP's.

Working together, MassDOT and the Berkshire MPO attained the following milestones:

- Modeling and long-range statewide projections for GHG emissions resulting from the transportation sector. Using the Boston MPOs regional model and the statewide travel demand model for the rest of the state outside the Boston MPO, GHG emissions were projected for 2020 no-build and build conditions, and for 2040 no-build and build conditions.
- All of the MPOs included these GHG emission projections in their RTP's, along with a discussion of climate change and a statement of MPO support for reducing GHG emissions as a regional goal.

RTP Projects - Major capacity expansion projects would be expected to have a significant impact on GHG emissions. However, these projects are included in the RTP's and analyzed using the statewide model or Boston regional model, which would reflect their GHG impacts. Therefore, no independent TIP calculations are required.

Quantified Decrease in Emissions - We expect some projects to produce a measurable decrease in emissions. The approach for calculating these impacts is described below. These projects should be categorized in the following manner:

- Quantified Decrease in Emissions from Traffic Operational Improvement - An intersection reconstruction or signalization project that is projected to reduce delay and congestion.
- Quantified Decrease in Emissions from Pedestrian and Bicycle Infrastructure - A shared-use path that would enable increased walking and biking and decreased vehicle-miles traveled (VMT).
- Quantified Decrease in Emissions from New/Additional Transit Service - A bus or shuttle service that would enable increased transit ridership and decreased VMT
- Quantified Decrease in Emissions from a Park and Ride Lot A park-and-ride lot that would enable increased transit ridership/ increased ride sharing and decreased VMT
- Quantified Decrease in Emissions from Bus Replacement A bus replacement that would directly reduce GHG emissions generated by that bus service.
- Quantified Decrease in Emissions from Complete Streets Improvements- Upgrades to roadway networks that include the addition of bicycle and pedestrian accommodations where none were present before.
- Quantified Decrease in Emissions from other improvements.

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BERKSHIRE MPO DETERMINATION OF AIR QUALITY CONFORMITY

All the Massachusetts MPOs and MassDOT continue to meet the requirements of air quality conformity according to the Code of Federal Regulations, and as evaluated through inter-agency consultation. Specifically:

On March 6, 2015, (80 FR 12264, effective April 6, 2015) EPA published the Final Rulemaking, “Implementation of the 2008 National Ambient Air Quality Standards (NAAQS) for Ozone: State Implementation Plan Requirements; Final Rule.” This rulemaking removed transportation conformity to the 1997 Ozone NAAQS (the standard referenced by CLF and the subject of a 12/23/14 DC Circuit Court decision).

Link to Final EPA Rulemaking: <http://www.gpo.gov/fdsys/pkg/FR-2015-03-06/pdf/2015-04012.pdf>

Since the RTPs have been developed, reviewed, and will be approved after April 6, 2015, air quality conformity determinations to the 1997 Ozone NAAQS are no longer required, as those standards and all associated area designations have been permanently replaced by the 2008 NAAQS, which (with actually a stricter level of allowable ozone concentration than the 1997 standards) no longer designate Massachusetts as a non-attainment area(s) for ozone (except for Dukes County – see below).

Through the Interagency air quality consultation process (involving U.S. DOT, EPA, MassDEP, MassDOT, and the MPOs) the latest EPA rulemakings, the referenced court decision, ozone standards and area designations were all reviewed. Specific transportation conformity requirements in Massachusetts for this RTP round are as follows:

- No conformity determination is required for the 2008 Ozone NAAQS, as Dukes County (the only designated non-attainment area) is classified as an “isolated rural nonattainment area” and therefore only needs to evaluate transportation conformity when the Martha Vineyard Commission has a “regionally significant” project that would trigger conformity.
- The Boston carbon monoxide attainment area with a current maintenance plan in place (with a carbon monoxide motor vehicle emission budget) will prepare a carbon monoxide air quality analysis for the Boston Area (nine communities).
- The Lowell, Waltham, Worcester and Springfield Areas are classified attainment with a limited maintenance plan in place. No regional air quality analysis is required in limited maintenance plan areas as emissions may be treated as essentially not constraining for the length of the maintenance period because it is unreasonable to expect that such areas will experience so much growth in that period that a violation of the carbon monoxide NAAQS would result. Therefore, in areas with approved limited maintenance plans, Federal actions requiring conformity determinations under the transportation conformity rule are considered to satisfy the “budget test.” All other transportation conformity requirements under 40 CFR

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93.109(b) continue to apply in limited maintenance areas, including project level conformity determinations based on carbon monoxide hot spot analyses under 40 CFR 93.116.

In consideration of the comments received, combined with MassDOT's greenhouse gas (GHG) reporting requirements for the Commonwealth's Global Warming Solutions Act (310 CMR 60.05), MassDOT will conduct a "conformity-related" emissions analysis for ozone precursors, consistent with the 1997 NAAQS standards (currently superseded by the 2008 NAAQS). This emissions analysis will be for informational purposes only (as it is currently NOT federally required), and will be contained in a separate air quality document (also to include GHG emissions analysis) that will be completed at the end of August 2015 – the results of which will then be available to the MPOs, the Massachusetts Executive Office of Energy and Environmental Affairs (and affiliate agencies), and all other interested parties.

Metropolitan Planning Organizations and the Global Warming Solutions Act

The Commonwealth's Global Warming Solutions Act (GWSA) of 2008 requires statewide reductions in greenhouse gas (GHG) emissions of 25 percent below 1990 levels by the year 2020, and 80 percent below 1990 levels by 2050. As part of the GWSA, the Executive Office of Energy and Environmental Affairs developed the Massachusetts Clean Energy and Climate Plan that outlines programs to attain the 25 percent reduction by 2020 – including a 7.6 percent reduction attributed to the transportation sector.

The Commonwealth's thirteen metropolitan planning organizations (MPOs) are integrally involved in helping to achieve greenhouse gas reductions mandated under the GWSA. The MPOs work closely with MassDOT and other agencies to develop common transportation goals, policies, and projects that would help to reduce GHG emission levels statewide. For example, one of the programs in the CECP is MassDOT's sustainability initiative known as GreenDOT. GreenDOT policy goals were developed in accordance with the GWSA, and are as follows:

- Reduce greenhouse gas (GHG) emissions
- Promote the healthy transportation modes of walking, bicycling, and public transit
- Support smart growth development

The Berkshire MPO shares in these goals and is working to meet the specific requirements of the GWSA regulation – Global Warming Solutions Act Requirements for the Transportation Sector and the Massachusetts Department of Transportation (310 CMR 60.05). The purpose of this regulation is to assist the Commonwealth in achieving their adopted GHG emission reduction goals by:

- Requiring MassDOT to demonstrate that its GHG reduction targets are achieved;
- Requiring each MPO to evaluate and track the GHG emissions and impacts of its Regional Transportation Plan and Transportation Improvement Program; and
- Requiring each MPO, in consultation with MassDOT, to develop and utilize procedures to prioritize and select projects in its RTP and TIP based on factors that include GHG emissions.

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Meeting the requirements of this regulation are achieved through the transportation goals and policies contained in the 2016 Regional Transportation Plan, the major projects planned in the RTP, and the mix of new transportation projects that are programmed and implemented through the Transportation Improvement Program. The GHG tracking and evaluation processes enable the MPOs to identify the anticipated GHG impacts of the planned and programmed projects, and also to use GHG impacts as a criterion in prioritizing transportation projects. This approach by the MPO is consistent with the greenhouse gas reduction policies of promoting healthy transportation modes through prioritizing and programming an appropriate balance of roadway, transit, bicycle and pedestrian investments; as well as supporting smart growth development patterns through the creation of a balanced multi-modal transportation system. All of the MPOs and MassDOT are working toward reducing greenhouse gases with plans, actions, and strategies that include:

- Reducing emissions from construction and operations
- Using more fuel-efficient fleets
- Implementing and expanding travel demand management programs
- Encouraging eco-driving
- Providing mitigation for development projects
- Improving pedestrian, bicycle, and public transit infrastructure and operations (healthy transportation)
- Investing in higher density, mixed use, and transit-oriented developments (smart growth)

Regional GHG Tracking and Evaluation in the RTP

Working together, MassDOT and the MPOs have attained the following milestones:

- Modeling and long-range statewide projections for GHG emissions resulting from the transportation sector for use before final RTP endorsement. Using the statewide travel demand model for the non-Boston portion of the state, GHG emissions will be projected for 2020 no-build and build conditions, and for 2040 no-build and build conditions. The results of this modeling will be available before the endorsement of this RTP and the MPO staff will present on the results to the MPO membership before a vote on endorsement.
- The Berkshire MPO includes GHG emission reduction projections in the RTP, along with a discussion of climate change and a statement of MPO support for reducing GHG emissions as a regional goal.

MassDOT, using its statewide travel demand model, will provide the Berkshire MPO with statewide estimates of CO₂ emissions resulting from the collective list of all recommended projects in all the Massachusetts RTP's combined (and supplemented by CO₂ emission reduction results for smaller, "off-model" projects supplied by the MPO). Emissions are estimated using the 2014 MOVES model, and incorporate the latest planning assumptions including updated socioeconomic projections for the Commonwealth.

The project mix from this RTP modeled for both 2020 and 2040 using an Action (Build) vs. Baseline (No-Build) analysis to determine the CO₂ emissions attributed to the MPOs mix of projects and smart-growth land use assumptions is expected to show a neutral shift toward meeting the statewide greenhouse gas emissions reduction goal of 25 percent below 1990 levels by the year 2020, and 80 percent below 1990 levels by 2050. The reason for the anticipated neutral

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shift is that early indicators have shown that major infrastructure projects do not significantly change GHG emission levels.

Working closely with MassDOT, the (Region) MPO continues to make efforts toward progress through planning activities to meet the GHG reductions targets and complying with the requirements of the GWSA. As part of this activity, the MPO will provide further public information on the topic and will continue to advocate for steps needed to accomplish the MPOs and Commonwealth's goals for greenhouse gas reductions.

2. Stormwater Management

Census defined Urban Areas in the Berkshires are required to comply with certain rules governing stormwater runoff. These rules come from the EPA under authority of the federal Clean Water Act. Communities that fall within the Pittsfield Urbanized Area, as defined by the 2010 Census, are subject to MS4 small community permitting requirements.

The National Pollution Discharge Elimination System (NPDES) permit program regulates the discharge of stormwater from each community in order to improve the quality of stormwater runoff. A number of obvious connections exist between transportation and stormwater quality. Road construction projects have the potential to exacerbate run off and the existing road network conveys stormwater to drainage devices and infrastructure which are part of the roadway.

Because of this nexus and the desire to improve and protect water quality in the Berkshires, the Regional Transportation Plan logically references this initiative and provide guiding policies. NPDES permits and requirements have evolved since the first phase of regulations were promulgated in 1990. The NPDES Phase II requires development and implementation of Best Management Practices (BMPs) satisfying the following six minimum control measures:

1. Public education and outreach
2. Public involvement
3. Illicit discharge detection and elimination
4. Construction site runoff control
5. Post construction runoff control
6. Pollution prevention/good housekeeping

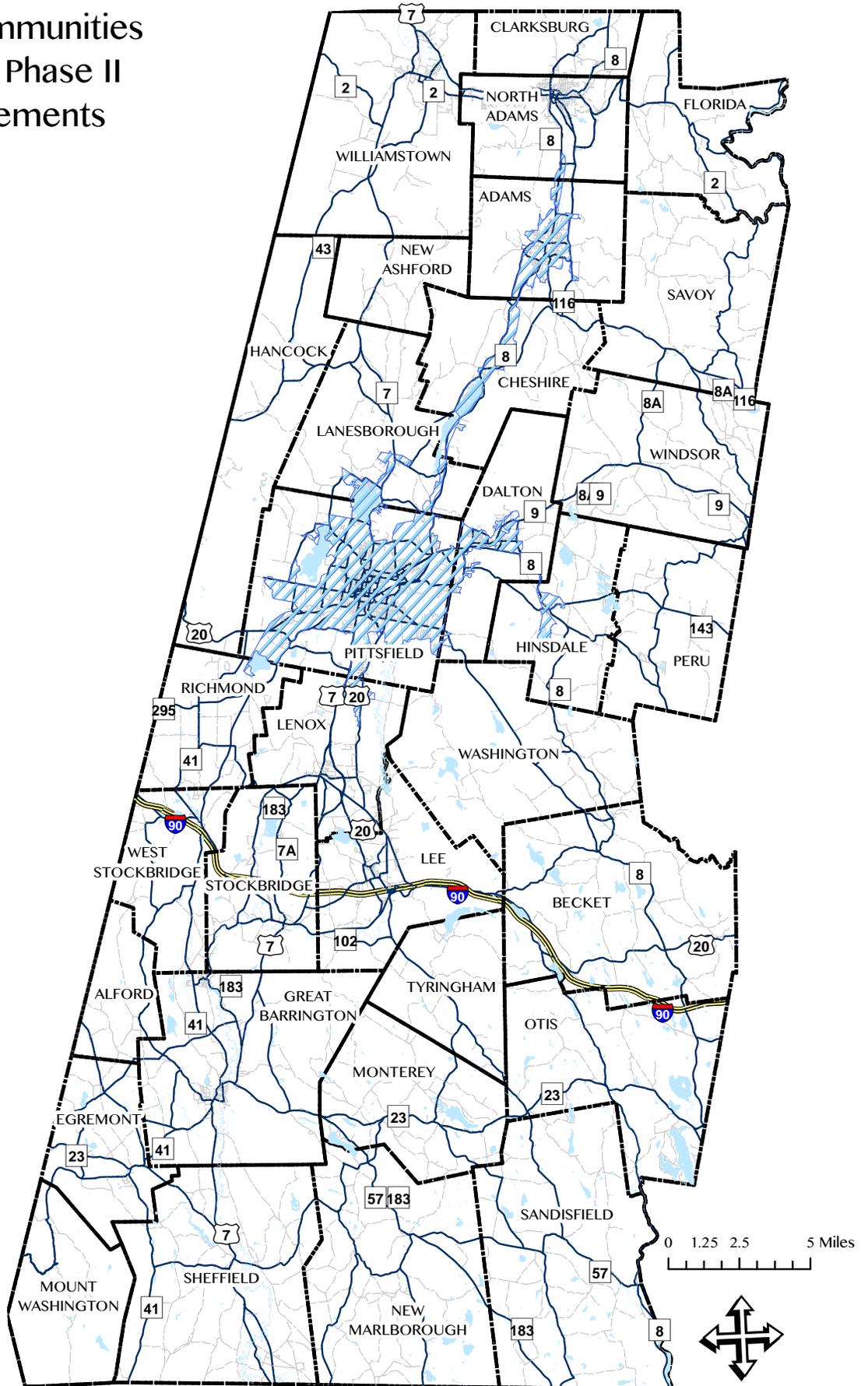
Although the primary purpose of the permit relates to water quality, BMPs actually serve to benefit the region in a number of other, less obvious, ways. Uncontrolled or polluted stormwater runoff can result in: flooding; increased stream bank erosion; destruction of aquatic life; premature filling of our streams, rivers and reservoirs with sediment; and increases in the cost of treating potable water supplies. A number of these additional benefits will serve to protect transportation infrastructure and therefore justify including NPDES requirements as part of the Regional Transportation Plan.

Policy Recommendations

- Road construction projects will incorporate best management practices to minimize runoff. BRPC should work with local communities to determine the overall effectiveness of the control measures and practices as part of construction management. This information along with any recommendations to improve the measures/practices, shall be shared with the Phase II permit holder.
- In support of the goals of NPDES, BRPC should work to identify special studies that can contribute to improve storm water quality.
- Efforts shall be taken to identify funding sources such as MAP -21's Transportation Alternatives Program "TAP" to implement measures that will provide benefits of improving stormwater quality.
- The MPO should prioritize TIP scoring based on a project's documented potential to satisfy Best Management Practices, even if the project is not in the Pittsfield Urbanized Area.

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Berkshire Communities Under NPDES Phase II Permit Requirements



LEGEND

Urbanized Area

- Pittsfield
- Towns
- Water Bodies

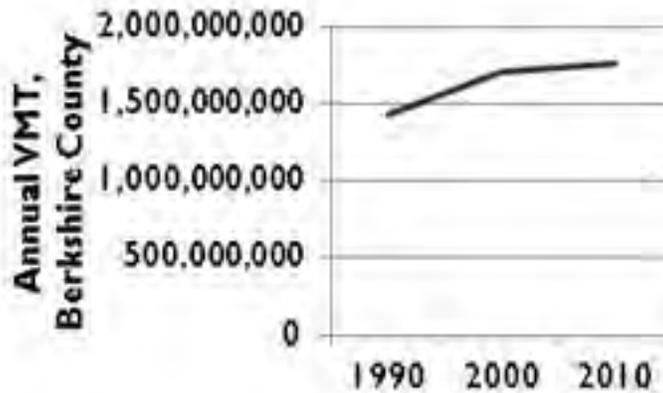
This map was created by the Berkshire Regional Planning Commission and is intended for general planning purposes only. This map shall not be used for engineering, survey, legal, or regulatory purposes. MassGIS, MassDOT, or BRPC may have supplied portions of this data.



3. Reduced Energy Consumption

In the Berkshires rural terrain, economic disparity, and limited access to convenient public transportation necessitates most of the us to drive by ourselves to jobs, education, goods and services. 39% of our CO2 emissions are transportation-related. As illustrated below, the annual VMT increased over the past two decades, even as the total number of residents declined.

FIGURE 8: Berkshire Annual Vehicle Miles Traveled (1990-2010)



Source, MassDOT 2013

CO2 emissions from transportation activities are derived by dividing the total number of vehicle miles traveled for each type of fuel (gasoline or diesel) vehicle by their corresponding average fuel efficiencies to provide a total number of gallons of each fuel used annually in the region. The number of gallons is then multiplied by the CO2 emission factors for each fuel type to yield the total emissions from travel in the Berkshires. Ultimately, transportation emission reductions are achieved by a mixture of investing in non-auto transportation options to reduce vehicle miles traveled (conservation) and continuing to raise the average mpg of the vehicles in the fleet (efficiency).

Project Recommendation:

- As electric vehicles become more common, the need for recharging stations will grow. The Commonwealth promotes municipal use of electric vehicles and the siting of public charging stations, particularly for designated green communities. These grants can and should be used to ensure the region has an adequate supply and distribution of electric vehicle charging stations. BRPC should develop a plan for implementing 10 public electric vehicle charging stations, with an estimated price of \$2 million dollars.

4. Wildlife Crossings

The Berkshires' rural and undeveloped environment is ideal for a diverse ecosystem where some species of animals move significant distances. Unfortunately, our road system fragments these habitats and creates physical barriers to animal movement. There are two significant resources that are poised to help us better understand opportunities to minimize those barriers. The Nature Conservancy and the Berkshire Environmental Action Team each have valuable

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initiatives for prioritizing projects and policies that enhance the safe passage of wildlife across our roads. A performance measure for this topic of analysis is the number of road/stream crossings improved to current standards.

The Berkshire Linkage

The Massachusetts portion of the Appalachian Trail stretches 90 miles from Vermont to Connecticut and crosses 40 roads. A corridor of long distance animal movements also stretches across this north-south route, connecting Vermont's Green Mountains to New York's Hudson Highlands. The Nature Conservancy (TNC) calls this wildlife corridor the Berkshire Linkage. The Berkshire Linkage project hopes to facilitate both long and short distance animal movements.

TNC analyzed land cover and a TNC/UMass-Amherst model called Critical Linkages to prioritize locations for ensuring connectivity. The priority locations will provide the greatest benefit to wildlife when barriers are removed or mitigated and are also critical for maintaining a permeable landscape of habitat protection and management. Ultimately, wildlife will more easily pass between core habitats.

The TNC analysis developed a system of nodes, linkages, and links. Nodes are defined as areas with a high conservation value for animal habitat. Examples of nodes include core forests and vernal pools. Links are paths or connections between habitat nodes. Linkages are portions of roadways that separate habitat nodes where links cross. Ideally wildlife passage structures would be constructed at priority linkages. Essentially, the researchers created a gravity model that ranked nodes, links, and linkages on their relative importance. The resulting outputs divided links and linkages into priority tiers with 1 being the highest. These results are shown on the map on the following page. TNC also analyzed specific linkages along Route 23 and US 7 to collect species specific data and incorporate information on animal-vehicle collisions into a more site specific project development process.

The Berkshire Environmental Action Team's Stream Crossing Survey

The Berkshire Environmental Action Team's (BEAT) volunteers, interns, and partners are surveying Berkshire County stream crossings as part of a project organized by the University of Massachusetts, The Nature Conservancy, and the Massachusetts Division of Ecological Restoration (formerly Riverways). BEAT is a partner with The Housatonic Valley Association and the Hoosic River Watershed Association to survey stream crossings in Berkshire County. The information is entered into a UMass database that includes culvert details and photos of the inlet and outfall. The culvert evaluation specifically indicates whether the culvert is an impairment to aquatic or terrestrial animal movements. This detailed culvert information can help BRPC and local communities estimate financial needs and prioritize culvert replacements.

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New standards ensure that culverts will not create artificial waterfalls that hinder aquatic migration. Also, they should be open-bottomed wherever possible so the substrate within the culvert matches the substrate of the streambed. Culverts must be wider than the actual streambed. Specifically, culverts must be 1.2 times the width of the streambed. This extra width, which will be dry except in times of very high water, provides a path for non-aquatic wildlife such as raccoons, mink, porcupines, and in some of the larger waterways, deer and bear. There are also other guidelines within the new regulations. The idea is that a fish swimming upstream should not notice any difference in the stream when it swims under the road, other than a passing shadow. The additional culvert capacity also helps prevent washouts and associated disruption and expense.

Project Recommendation:

- Construct a dedicated wildlife overpass adjacent to the existing Appalachian Trail overpass of the Massachusetts Turnpike. The Appalachian Trail corridor is a wide, protected natural corridor ideal for facilitating animal movements across I-90. We estimate this project to cost upwards of \$15 million dollars from planning, design, construction, and restoration.

Policy Recommendations:

- Using TNC's research and prioritization of linkages across roadways, incorporate physical improvements that mitigate or eliminate the physical barriers to animal movement created by the roads, to the extent feasible, during road improvement design in priority segments;
- Proactively identify the culverts that will provide the greatest ecological flood reducing benefits if replaced to the newest Army Corps of Engineers standards for stream crossings. There are funding opportunities through state and Federal programs to pay for a portion of the construction expenses;
- Facilitate environmental reviews associated with culvert replacements and educate local communities, most notably Conservation Commissions, on the benefits of upgrading to the newest Army Corps of Engineers standards for stream crossings; and
- Where removal or mitigation of physical barriers to animal movement are unlikely, BRPC should help municipalities work with land owners to keep naturally vegetated corridors preserved to facilitate animal travel. There are opportunities to tailor easement language with specific ecological goals for wildlife corridors.

5. Environmental Sustainability

Environmental sustainability is about making decisions and taking actions that are focused on protecting the natural environment with a particular emphasis on preserving the capability of the environment to support life. The information and discussion in the previous sections provides insight to the environmental mitigation measures and strategies which will provide the desired outcomes of assisting with environmental sustainability efforts. The BPRC is actively involved with environmental planning activities and as part of the planning process, effective working relationships have been created with federal and state agencies including the US EPA, FEMA, Mass Department of Environmental Protection, the Mass Historical Commission and Mass Department of Conservation and Recreation. Consultation with these environmental and state resource agencies occurs on a regular ongoing basis as sustainability efforts are a priority for the region.

6. Conclusion

Protecting and enhancing our natural environment as we improve our transportation system is critical for the Berkshires because nature is a quintessential part of our regional identity and the underpinning for our future economy.

There are many opportunities for us to protect our lakes and streams by improving the way we manage stormwater running off our roads. With best management practices we can slow down water and remove sediment and pollutants from it before it reaches our wetlands and water habitats. We can protect our wildlife by making the transportation system less of a barrier for them to move with strategically prioritized culvert and bridge replacements. We can reduce greenhouse gas emissions and improve our air quality by increasing access to alternate fuel vehicles.

We only have \$17 million dollars in conceptual projects listed in this section of this RTP's unfunded illustrative projects list. However, we anticipate that our understanding of our needs will improve through future planning studies like culvert data collection and refined greenhouse gas modeling.

SECTION VII

SAFETY

2016 Regional Transportation Plan

SAFETY- To achieve a significant reduction in traffic fatalities on all public roads.

Berkshire County, Massachusetts averages 12 fatalities from vehicle crashes each year. Unfortunately, access to data involving all of our vehicle crashes is difficult and time-consuming to review. The majority of our fatal crashes involve a single vehicle.

The following objectives may be derived from past planning efforts in the Berkshires, public input for this RTP, Federal legislation, and/or Massachusetts state laws:

OBJECTIVES:

- ▽ Implement Massachusetts Strategic Highway Safety Plan recommendations;
- ▽ Maintain the connectivity of critical highway corridors; and
- ▽ Plan for traffic movements during emergencies.

These objectives direct our safety discussion for the 2016 RTP depending on the availability of data and the transportation context of other supporting planning efforts. If BRPC and the Berkshire MPO have performance measures and/or targets that can be reflected in the outcomes then they are included in the discussion. The following analyses yield capital projects and/or plan implementation policies. These outcomes are combined in the 2016 Regional Transportation Plan Executive Summary.

1. Highway Safety Improvement Program TOP 50 Intersections provides a listing of intersections that are eligible for Federal transportation safety funding.
2. Crash Types help us explore regional trends about characteristics of individual crashes.
3. Dangerous Segments and Curves are found throughout the Berkshires. A MassDOT program specifically targets these locations. Region-wide identification and improvement is necessary.

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1. Top 50 Berkshire County Crash Intersection Locations

The most fiscally powerful resource to target road safety improvements in the Berkshires is funding through the Federal Highway Safety Improvement Program (HSIP). The top 50 (conveniently Berkshire County's most hazardous 5%) of intersections- as ranked by crash severity (EPDO is the MassDOT metric for crash severity) are eligible for HSIP funding. At BRPC we identify the most hazardous intersections in the Berkshires so that available safety project money provides the highest benefit.

TABLE 13: TOP 50 CRASH INTERSECTIONS BY EPDO

EPDO	# OF CRASHES	INTERSECTION	FATAL CRASHES	INJURY CRASHES	NON INJURY CRASHES	COMMUNITY
100	36	LINDEN STREET @ CENTER STREET	0	16	20	PITTSFIELD
92	32	TYLER STREET @ FIRST STREET	0	15	17	PITTSFIELD
90	30	DALTON AVENUE @ BENEDICT ROAD	0	15	15	PITTSFIELD
79	34	NORTH STREET @ LINDEN STREET	1	9	24	PITTSFIELD
71	43	SOUTH STREET @WEST HOUSATONIC STREET	0	7	36	PITTSFIELD
65	29	FENN STREET @ FIRST STREET	0	9	20	PITTSFIELD
57	25	EAST STREET @ SECOND STREET	0	8	17	PITTSFIELD
54	26	DALTON AVENUE @ CHESHIRE ROAD	0	7	19	PITTSFIELD
54	30	DALTON AVENUE @ MERRILL ROAD	0	6	24	PITTSFIELD
49	25	NORTH STREET @ DEPOT STREET	0	6	19	PITTSFIELD
47	19	RIVER STREET @ HOUGHTON STREET	0	7	12	NORTH ADAMS
47	27	MAIN STREET @ RAILROAD STREET	0	5	22	GREAT BARRINGTON
46	14	DIVISION STREET@ NORTH PLAIN ROAD	0	8	6	GREAT BARRINGTON
46	14	SOUTH STREET @ TACONIC STREET	0	8	6	PITTSFIELD
44	20	SOUTH STREET @ CROFUT STREET	0	6	14	PITTSFIELD
Indicates intersections recently improved or currently in the TIP for improvement.						
Source: MassDOT						

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EPDO	# OF CRASHES	INTERSECTION	FATAL CRASHES	INJURY CRASHES	NON INJURY CRASHES	COMMUNITY
43	27	MAIN STREET@ HADLEY OVERPASS	0	4	23	NORTH ADAMS
43	23	WILLIAMS STREET @ HOLMES ROAD	0	5	18	PITTSFIELD
43	19	POMEROY AVENUE @ EAST HOUSATONIC STREET	0	6	13	PITTSFIELD
43	15	HOLMES ROAD @ CHAPMAN ROAD	0	7	8	PITTSFIELD
42	14	PARK STREET @ COMMERCIAL STREET	0	7	7	ADAMS
40	20	NORTH STREET @ CRANE AVENUE	0	5	15	PITTSFIELD
40	20	ELM STREET @ EAST STREET	0	5	15	PITTSFIELD
38	18	BARTLETT AVENUE @ EAST HOUSATONIC STREET	0	5	13	PITTSFIELD
38	18	NORTH STREET @ MELVILLE STREET	0	5	13	PITTSFIELD
38	18	LENOX PITTSFIELD STATE ROAD @ HOLMES ROAD	0	5	13	LENOX
38	18	CHURCH STREET @ NORTH STREET	0	5	13	CHESHIRE
38	18	FENN STREET @ FOURTH STREET	0	5	13	PITTSFIELD
38	14	NORTH STREET @ MAIN STREET	0	6	8	DALTON
38	18	EAST STREET @ EAST MAIN STREET	0	5	13	STOCKBRIDGE
37	17	CHESHIRE ROAD@ CRANE AVENUE	0	5	12	PITTSFIELD
37	13	DALTON AVENUE @ MEADOWVIEW DRIVE	0	6	7	PITTSFIELD
37	13	MERRILL ROAD @ PLASTICS AVENUE	0	6	7	PITTSFIELD
36	16	NORTH STREET @ TYLER STREET	0	5	11	PITTSFIELD
35	11	TYLER STREET @ FOREST PLACE	0	6	5	PITTSFIELD
35	15	NORTH STREET @ WHITE TERRACE	0	5	10	PITTSFIELD
35	15	TYLER STREET @ BROWN STREET	0	5	10	PITTSFIELD

Indicates intersections recently improved or currently in the TIP for improvement.

Source: MassDOT

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EPDO	# OF CRASHES	INTERSECTION	FATAL CRASHES	INJURY CRASHES	NON INJURY CRASHES	COMMUNITY
34	18	MERRILL ROAD @ JUNCTION ROAD	0	4	14	PITTSFIELD
33	17	EAGLE STREET @ VETERANS MEMORIAL DRIVE	0	4	13	NORTH ADAMS
33	13	TYLER STREET @ BURBANK STREET	0	5	8	PITTSFIELD
33	17	TYLER STREET @ CHERRY STREET	0	4	13	PITTSFIELD
33	17	VETERANS MEMORIAL HIGHWAY @ WALKER STREET	0	4	13	LENOX
32	20	NORTH STREET @ COLUMBUS AVENUE	0	3	17	PITTSFIELD
32	16	WEST HOUSATONIC STREET @ CENTER STREET	0	4	12	PITTSFIELD
31	11	CRANE AVENUE CONNECTOR @ DALTON AVENUE	0	5	6	PITTSFIELD
31	15	VETERANS MEMORIAL DRIVE @ HOLDEN STREET	0	4	11	NORTH ADAMS
30	10	ELM STREET @ LIVINGSTON AVENUE	0	5	5	PITTSFIELD
30	10	CENTER STREET @ SOUTH CHURCH STREET	0	5	5	PITTSFIELD
30	18	MAIN STREET @ BRIDGE STREET	0	3	15	GREAT BARRINGTON
30	14	EAST STREET @ ELM STREET	0	4	10	PITTSFIELD
30	14	WILLIAMS STREET @ ELM STREET	0	4	10	PITTSFIELD
Indicates intersections recently improved or currently in the TIP for improvement.						
Source: MassDOT						

Of the top 50 most crash prolific intersections, 16 are accounted for with recent projects that improved geometrics or are currently slated for improvement in the TIP. All of our intersections that rank in the Top 50 are on some of our busiest streets, and usually in developed areas like downtowns or commercial corridors.

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Improving these intersections is complicated and disruptive. They are often vitally important for not just vehicle traffic, but pedestrians and bicyclists too. It is typical that traffic signals are operating the intersection and that there is not a whole lot of room for needed accessories like ADA compliant ramps, push button pedestrian actuators, and appropriate lighting. Buying the space for these items can add significant cost to an intersection improvement.

Given that we typically spend over a million dollars for each intersection we improve we believe a budget estimate of \$1.5 million dollars per intersection is reasonable. Thirty six intersection improvement projects, to make the top 34 remaining intersections safer for our residents, carry a price tag of \$54 million dollars.

Once a project is proposed and programmed into the TIP for HSIP funding it is required to undergo a Road Safety Audit (RSA). The RSA is a multidisciplinary effort that reviews individual crashes, tours the project location, and picks the best ways to fix any problems with the road. The RSA is summarized, then given to the project designers to incorporate into the plans before the 25% design submission. If a local community wants to use HSIP funding to fix a problem intersection or area, they are responsible for organizing and completing the RSA, working closely with MassDOT and BRPC.

Policy Recommendations

- ▽ Work with local communities to coordinate safety improvements at Top our 50 least-safe intersections with other infrastructure repair projects;
- ▽ Weight project prioritization in the TIP according to an intersection's three year EPDO measure and/or crash rate including VMT; and
- ▽ Assist local communities in conducting the required Road Safety Audit to access HSIP funds.

Project Recommendations

- ▽ The Linden Street and Center Street intersection is consistently at the top of our Top 50 list. This intersection is very busy with foot traffic, especially in the summer months when the Barrington Stage operates its location on the northeast corner. This intersection should be one of the next ones to be improved with HSIP funds.
- ▽ The intersection of Dalton Avenue and Benedict Road suffers from poor lane alignment and confusingly positioned signal heads. This intersection should be improved both geometrically and aesthetically - it is a logical gateway to the Dalton Avenue/Tyler Street commercial corridor.
- ▽ The intersection of Fenn Street and First Street in Pittsfield is the site of current and future redevelopment. Geometric modifications to the intersection should be coordinated with redevelopments to improve visibility and traffic flow, and also consistent with BRPC's past recommendations for the First Street corridor.
- ▽ The intersection of East Street and Second Street, the site of a horrific crash in 2013 that avoided harming any students at the adjacent Pittsfield High School, suffers from poor pedestrian circulation. While that crash was attributed to impaired driving, the conditions around the school remain a significant local concern. Improvements to this intersection should go in tandem with channelizing pedestrian flows around the school.

2. Crash Types

It is important to analyze regional trends about vehicle crashes. The data used for this analysis is from the MassDOT Registry of Motor Vehicles (RMV).

Existing safety conditions were identified through an analysis of state crash records for Berkshire County between January 1, 2010, to December 31, 2012. Over this three-year period, there were 7,339 crashes reported in Berkshire County – a yearly average of 2,446. Of these crashes:

- ▽ 0.005% resulted in fatalities (36 crashes; an average of 12 accident-related deaths per year) and one less fatality than the previous three year analysis period;
- ▽ 23% resulted in non-fatal injury (1,679 crashes; an average of 560 accident-related injuries per year), a reduction of nearly 3% from the previous three year analysis period;
- ▽ Of the 36 fatal crashes, only 11 involved multiple vehicles. The other 25 involved vehicles striking a fixed roadside object, pedestrians or bicyclists, or overturning with occupants being ejected;
- ▽ 73% resulted in property damage only (5,367 crashes);
- ▽ 32% were single vehicle crashes (2,331 crashes);
- ▽ 4% of reported crashes involved deer or other wildlife (286 crashes);
- ▽ 13% of crashes were on roads impacted by wintry weather like snow, slush, or ice; and
- ▽ 3% of reported crashes involved a non motorist like a skateboarder, pedal cyclist, wheelchair user, and/or pedestrian.

This regional crash data analysis helps us understand what general factors are detrimental to roadway safety in the Berkshires. There are also pieces of data that are missing from what the RMV provides to us that could be helpful for future crash prevention projects and programs. We have no idea what the frequency or severity of crashes are that result from impaired driving or distracted driving. These two factors alone are more likely to contribute to crashes than any others like weather or time of day, yet are not resolvable through road geometric changes.

There are also details about individual crashes that are only available if you have the physical report at the local police department. This level of detailed analysis is necessary only after an intersection (or any location) is selected for improvement and it is time to pick out crash reducing countermeasures.

Policy Recommendations

- ▽ Work with MassDOT's RMV to obtain more complete regional data so that we can monitor crash trends and crash reduction through performance based planning;
- ▽ Support programs that focus on eliminated distracted and/or impaired driving; and
- ▽ Offer context oriented guidance to local communities for improvements based on regional crash trends.

Project Recommendations

- ▽ The Berkshires, as a whole, would benefit through crash reductions by thoroughly evaluating our existing road sign inventory and upgrading signage, particularly on rural high speed roads, to the newest standard signs;

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- ▽ Add red reflective strips to all stop sign posts and yellow reflective strips to all caution sign posts in the Berkshires; and
- ▽ The cost of these two initiatives is hard to estimate, however, \$10 million dollars for signage upgrades would be a good start. MassDOT should work with local highway departments to count and locate their signs. Once the inventory is complete, local crews can install the upgrades while the region could benefit from bulk purchase.

3. Dangerous Segments and Curves

The Commonwealth traditionally focuses on reducing the risk of crashes at intersections. This is a sound strategy that pays dividends in developed areas that have a lot of traffic and a lot of intersections. In the Berkshires many of our crashes, particularly ones that result in severe injuries and fatalities, occur when a car departs the roadway and strikes a fixed object or something like a ditch or slope. These kinds of crashes are likely to occur on rural stretches of road with higher speeds, particularly curvy sections.

MassDOT is working with BRPC and our communities to reduce crashes along curves in roadways. The program involves communities completing an application and three years of crash reports for the location. MassDOT will evaluate each curve location and then sketch up a sign plan and submit it to the city/town for review and approval. Once the plan is approved, MassDOT provides the signs and posts for communities to install. The communities are required to submit photos upon completion of the installation. The communities also agree to provide updated data (crash, volume, speed) 3 years after the improvements are completed.

Policy Recommendations

- ▽ BRPC should work with MassDOT and local communities to identify dangerous curve locations, complete program applications, and provide the complete documentation to MassDOT; and
- ▽ Any road resurfacing project in the region should be accompanied with an updated signage plan that meets or exceeds the requirements in the most current Manual of Uniform Traffic Control Devices.

Project Recommendations

- ▽ Rumble strips, although the bane of bicyclists, are an important countermeasure for reducing vehicles from departing their lanes. If available, each arterial or collector road with a speed limit 45 MPH or above should have fog line rumble strips in curvy areas. \$5 Million would begin the process of installing these important prevention measures
- ▽ Regionally, for this RTP, any non-standard guardrail should be replaced and attenuators should be modified to meet current safety standards. \$20 Million is a good budget number to include for the life of this RTP. BRPC and MassDOT should work to determine a more accurate guardrail replacement and repair cost with a regional guardrail inventory.

4. Conclusion

Our Commonwealth usually is one of the top three safest states for vehicle travel when measuring fatal crashes per 100 million vehicle miles traveled. We have a modern vehicle fleet, good law enforcement, and our seat belt use rate is above average. In the Berkshires, many of our problem intersections remain on our top 50 least safe list year after year because they are expensive to fix and we do not receive much aid to specifically target those locations. Additionally, we need to improve guardrails, signage and rumble strips across the entire region to help prevent the lane departure crashes that cause the majority of our fatal crashes. We estimate a need of \$89 million dollars for these important safety projects, yet we anticipate only about \$13.6 million in dedicated safety funding over the 25 year life of this RTP.

SECTION VIII

REDUCE PROJECT DELIVERY DELAYS & FISCAL ANALYSIS

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REDUCED PROJECT DELIVERY DELAYS- To reduce project costs, promote jobs and the economy, and expedite the movement of people and goods by accelerating project completion through eliminating delays in the project development and delivery process, including regulatory burdens and improving agencies' work practices.

The Berkshire MPO always funds projects that deliver results. The MPO programmed Federal funding to a variety of projects in both urban and rural areas of the Berkshires since the 2012 RTP adoption. Significant projects included South Street in Pittsfield, Tyringham Road in Lee, and Housatonic Street in Dalton. Main Street in Great Barrington was reconstructed incorporating safety, traffic flow, and non-motorized improvements. MassDOT projects during the same period include the resurfacing of portions of US 20 through Lee and Becket, US 7 through Sheffield, and resurfacing parts of Route 2 in Williamstown.

The following objectives may be derived from past planning efforts in the Berkshires, public input for this RTP, Federal legislation, and/or Massachusetts state laws:

OBJECTIVES:

- ▽ Mitigate delays to travelers and freight by coordinating infrastructure improvements.
- ▽ Coordinate public transportation with human services transportation providers;
- ▽ Ensure that the maintenance and operation of existing infrastructure is cost effective and new infrastructure is not unduly burdensome;
- ▽ Anticipate the need for transportation improvements in advance of their actual need or the degradation of existing transportation infrastructure;
- ▽ Support smart growth development; and
- ▽ Encourage different ways of providing road construction services that lead to cost savings, like regionalization and procurement consolidation.

These objectives direct our reducing project delivery delays discussion for the 2016 RTP depending on the availability of data and the transportation context of other supporting planning efforts. If BRPC and the Berkshire MPO have performance measures and/or targets that can be reflected in the outcomes then they are included in the discussion. The following analyses yield capital projects and/or plan implementation policies. These outcomes are combined in the 2016 Regional Transportation Plan Executive Summary.

1. Future land use planning related to transportation context helps BRPC perform environmental reviews of projects as they develop through the MassDOT project development guidelines and the Massachusetts Environmental Policy Act.
2. Fiscal Constraint is the concept that we cannot realistically plan for projects that we cannot fund over the life of this RTP, but does discuss the types of projects that we can afford to implement.
3. The Unfunded Projects Illustrative List contains all the projects that this RTP conceived of, yet we cannot reasonably pay for given the Berkshires' limited transportation revenue.

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1. Future Land Use Plan

The Sustainable Berkshires Plan, adopted in 2014, includes a future land use component. This future land use, constructed from existing land use, zoning, and other regulatory tools, provides the underpinning for reviewing the appropriateness of proposed transportation projects. BRPC derived its Rural to Urban Transect, introduced as a guide to the context sensitivity of Complete Streets implementation, from the Sustainable Berkshires' Future Land Use Plan. Understanding these Future Land Use categories helps BRPC provide better input for successful and expedient transportation projects. These Future Land Use categories are:

- ▽ **Resource Conservation** This extremely low density land use category includes lands protected from development. Lands protect from development are mostly state owned or protected by conservation restrictions held by towns and non-profit organizations like land trusts. These lands contain critical habitats, provide biodiversity, and have recreation resources. They provide connectivity between resource areas and provide corridors for wildlife travel. The Berkshires are a tourist destination because of the scenic nature of many of these areas, including viewsheds and landscapes.
- ▽ **Rural Residential** This land use category represents areas where low-density residential development either exists or could occur. They serve as important agricultural areas. They generally lack public utilities and residents should not expect a high level of public services. These areas include most of the sparsely populated towns outside of the urban areas and contribute to the rural character of the region. These areas are targets for conservation protection. Rural Residential areas maintain a distinct rural identity. They employ best practices for wildlife-friendly landscaping, stormwater management, and resource protection.
- ▽ **Outdoor Recreation Neighborhood** These areas are medium to high density neighborhoods around areas like lakes and ski resorts. They are important assets to the recreational economy of the Berkshires and frequently contain many second homes. Future development in these areas needs to be sensitive to the recreational asset and not impair associated environmental qualities.
- ▽ **Residential Neighborhood** This land use category represents areas of medium to high density residential development. This is the Berkshires version of suburbia. These areas provide transition zoned between rural land uses and Downtown and Urban Areas. They are primarily single family neighborhoods. They are largely auto-dependent and do not contain a broad mix of services or retail opportunities for residents.
- ▽ **Urban Neighborhood** This land use category contains predominantly high density residential development in an urban environment. Only found in Pittsfield, North Adams and Adams, they contain single and multi-family residences in close proximity to each other. A diverse mix of residents populates these areas. Residents feel closely linked to the activities happening downtown and to the associated neighborhood-style retail, service and employment opportunities. Services such as corner stores provide the opportunity for social engagement. Non-motorized infrastructure helps connect residents to opportunities and assets in their neighborhood. Served by municipal infrastructure, these areas can accommodate a large number of residents and offer dense infill and redevelopment opportunities.
- ▽ **Villages** Mixed use neighborhoods are what are commonly referred to as village centers in rural areas. Though primarily residential in nature, these areas contain an eclectic mix of uses that can provide for many of the needs of the residents without the use of cars. Generally pedestrian friendly, these areas encourage a sense of community connectedness.

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- ▽ **Highway Commercial** These areas provide retail, commercial, and professional services to Berkshire County residents. Close proximity to and along major highways allows easy access to these sites. Most are served by infrastructure including public transportation. Some of our largest shopping areas are located in this designation. While serving an important function, consideration will need to be given to the design so as not to impede the flow of traffic. Appropriate reuse of the buildings in these areas can reduce development of previously untouched lands.
- ▽ **Downtown Commercial** These areas are high energy urban centers. They contain high density mixed use multi-story buildings in close proximity to each other. A wide mix of land uses is contained within these areas offering basic as well as specialized services along with municipal services and cultural opportunities. Residential opportunities, especially on upper floors, are provided. There is a space for residents and visitors of all ages and backgrounds to enjoy social engagement, recreational activities, and cultural events. Pedestrian accessibility is a strength in these areas.
- ▽ **Industrial** These areas serve as employment centers. They have major infrastructure needs. Arterial highway access is very important. Public transportation should be available. There may be a variety of development types – larger single-user sites and campuses; multiple users on planned or individual sites; wide variety of non-retail uses; retail should not be major component. They generally are provided with the full range of public utilities and other infrastructure (rail, gas, arterial highway access, water & sewer). There are a wide variety of sites and buildings, including the Berkshire County Priority Development Areas.
- ▽ **Special Use Area** These areas contain educational institutions, hospitals, airports and cultural institutions with relatively large land holdings (frequently prior “Great Estates”.) They are areas that are relatively self-contained but exert a strong influence on the surrounding land uses. They are activity centers used by relatively large numbers of people on a regular basis.

Policy Recommendations

- ▽ BRPC should tailor its reviews and comments through the MassDOT project development guidelines and Massachusetts Environmental Policy Act for consistency with the future land use designations in the Sustainable Berkshires Plan.
- ▽ BRPC should provide the Future Land Use designations of potential projects as information for the MPO TIP project evaluation process.

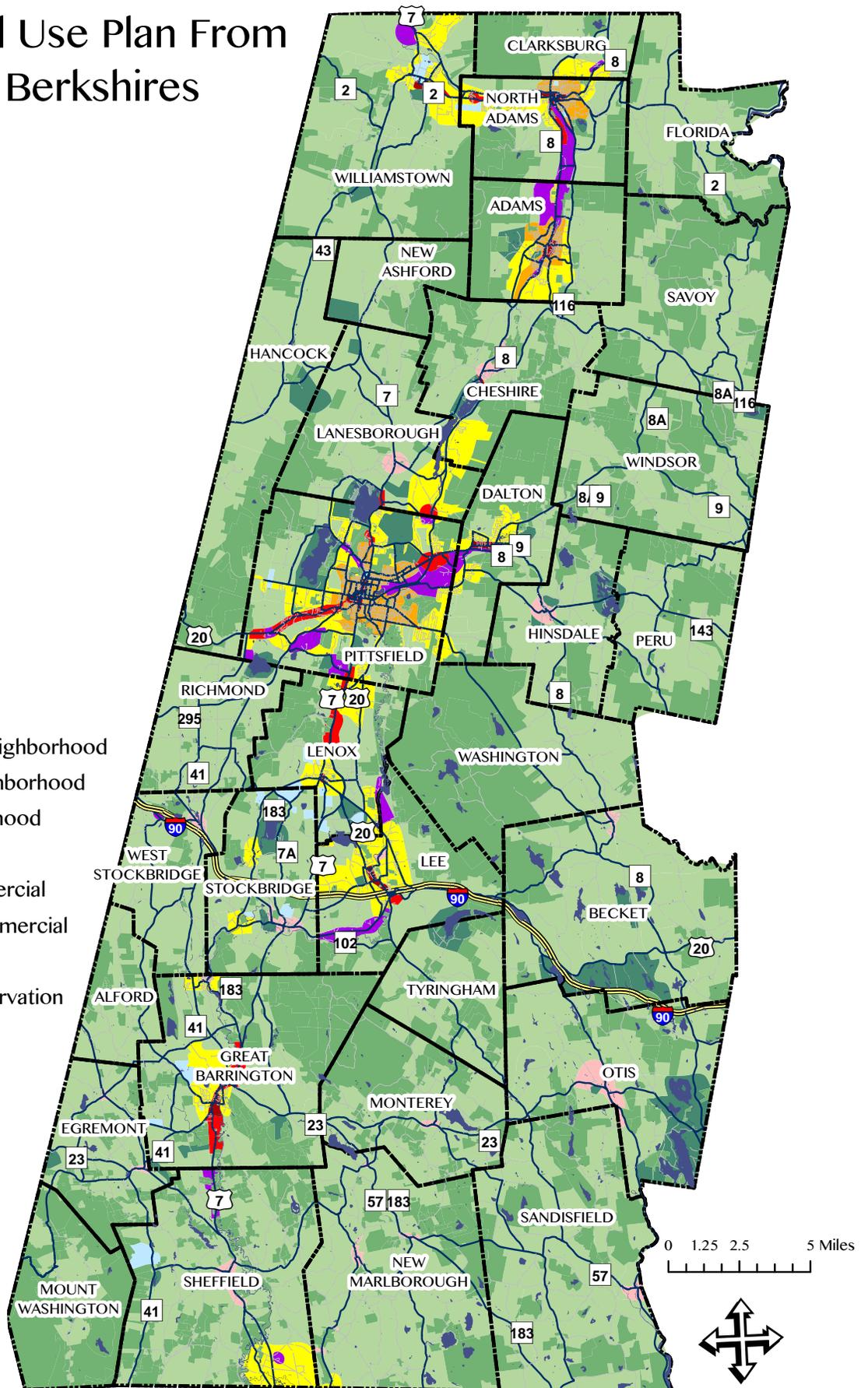
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Future Land Use Plan From Sustainable Berkshires

LEGEND

- Rural Residential
- Outdoor Rec Neighborhood
- Residential Neighborhood
- Urban Neighborhood
- Rural Village
- Highway Commercial
- Downtown Commercial
- Industrial
- Resource Conservation
- Special Use Area
- Towns
- Water Bodies

This map was created by the Berkshire Regional Planning Commission and is intended for general planning purposes only. This map shall not be used for engineering, survey, legal, or regulatory purposes. MassGIS, MassDOT, or BRPC may have supplied portions of this data.



2. Fiscal Constraint

Highway Funding

MAP-21 requires that the Regional Transportation Plan shows ‘fiscal constraint’. The term ‘fiscal constraint’ means that the costs of projects and program improvements do not exceed reasonably expected revenues. Forecasting the amount of Federal and state revenues that can reasonably be expected over a twenty-five year planning horizon is difficult at best. Policy shifts at the state and federal levels, new federal transportation authorization, and state transportation bond bills are some of the factors that influence transportation funding.

MassDOT Office of Transportation Planning provided anticipated funding levels (revenue) for the 24 years of the Regional Transportation Plan and are presented in Table 14. These estimates are based on the assumption that federal and state matching funding (core programs and High Priority Projects amounts) for the period of 2016 - 2020 reflect current allocations and are inflated one and one half percent (1.5%) annually from 2021 to 2040. The complete base amount of Federal funds available for the Statewide Road and Bridge Program includes the required match and represent totals for each 5-year period. This funding summary combines Surface Transportation Program, Highway Safety Improvement Program, and Congestion Mitigation Air Quality funding. Over the life of the plan, just over \$1 billion is expected to be available for the region for highway and bridge projects.

TABLE 14: 2016-2104 Estimated Highway and Bridge Funding

	2016-2020	2021-2025	2026-2030	2031-2035	2036-2040	Total
Statewide National Highway System	\$13,030,503	\$12,619,886	\$15,769,861	\$17,856,627	\$19,236,659	\$78,513,536
Statewide Bridge	\$68,689,942	\$66,525,382	\$83,130,390	\$94,130,720	\$101,405,519	\$413,881,953
Statewide Infrastructure	\$1,389,390	\$1,345,607	\$1,681,477	\$1,903,980	\$2,051,127	\$8,371,581
Remaining Statewide Programs	\$31,625,375	\$33,420,997	\$41,763,015	\$47,289,357	\$50,944,068	\$205,042,812
Non Federal Aid (Bridges & Roadways)	\$17,798,000	\$18,064,970	\$18,331,940	\$18,598,910	\$18,865,880	\$91,659,700
Regional Discretionary Funding	\$36,588,239	\$38,511,930	\$48,124,665	\$54,492,821	\$58,704,244	\$236,421,899
Available for Programing	\$169,121,449	\$170,488,772	\$208,801,348	\$234,272,415	\$251,207,497	\$1,033,891,481

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This funding is prioritized annually through the Berkshire MPOs Transportation Improvement Program development process. The MPO is not going to change the historic programming of funding for the different kinds of projects we encounter including safety improvements, congestion reduction through signal upgrades, to road repairs. If a project is identified that will cost more than \$20 million dollars, then the Regional Transportation Plan should be amended to specify the larger project(s). Since we do not anticipate projects of that scale and size to use MPO programable funds, it is best to illustrate this fiscally constrained RTP by “Program Accounts” that reflect the associated repair expenditures.

TABLE 15: BERKSHIRE MPO FISCALLY CONSTRAINED PROJECT ACCOUNTS 2016 - 2040

	2016-2020	2021-2025	2026-2030	2031-2035	2036-2040	Total
Total Funds Available for Programing (including State match)	\$36,588,239	\$38,511,930	\$48,121,665	\$54,492,821	\$58,704,244	\$236,421,899
Road Construction and resurfacing	\$27,933,175	\$29,401,811	\$36,738,333	\$41,602,372	\$44,817,570	\$180,495,552
Safety Improvements at Intersections	\$2,095,844	\$2,206,037	\$2,756,501	\$3,121,453	\$3,362,691	\$13,542,698
Intersection Signal Coordination, Minor Capacity Modifications and Bike Paths	\$6,559,219	\$6,904,082	\$8,626,831	\$7,458,109	\$10,523,983	\$42,383,649

The Berkshire MPO currently has a backlog of well over \$86 million dollars in road rehabilitation projects that are not currently programmed (Table 18). These unprogramed projects are currently in the early stages of development and/or design and are recommended for implementation and have been included in our illustrative RTP project listing in the following subsection.

Policy Recommendations

The Berkshire MPO should balance funding of approximately \$86 million dollars of unprogramed projects included in the 2016-2019 TIP with other future projects that address regional needs.

Transit Funding

MassDOT provided transit program Federal revenue over the life of this plan for the 5307 Urbanized Area Funding Resources and 5311 Formula Grants in other than Urbanized Areas. 5307 eligible activities include planning, engineering design and evaluation of transit projects and other technical transportation-related studies; capital investments in bus and bus-related activities such as replacement of buses, overhaul of buses, rebuilding of buses, crime prevention and security equipment and construction of maintenance and passenger facilities; and capital investments in including rolling stock, overhaul and rebuilding of vehicles, signals, communications, and computer hardware and software. All preventive maintenance and some

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Americans with Disabilities Act complementary paratransit service costs are capital costs.

BRTA can use 5311 funding for capital, operating, and administrative expenses for public transportation projects that meet the needs of rural communities. Examples of eligible activities include: capital projects; operating costs of equipment and facilities for use in public transportation; and the acquisition of public transportation services, including service agreements with private providers of public transportation services.

BRTA uses 5307 funds to upgrade capital assets like vehicles, maintenance, and transit facilities. BRTA uses 5311 funding to offset operating costs in the Berkshires' rural areas. We do not anticipate the manner in that they use their funding to change from how they used it in the past. MassDOT indicates that BRTA, has \$52,210,836 in 5307 funding to continue with capital projects and \$8,047,867 in 5311 rural service operating and capital funding over the life of this RTP. In addition to these revenue projections, BRTA provided reasonable estimates contract assistance, RTA CAP, local assessments, farebox and other revenue sources. Over the 24 years of the the RTP, transit revenue is estimated at \$207,846,828. Financial information for transit and operating revenue is presented in the table below.

TABLE 16: Estimated BRTA Transit Operating Revenue 2016-2040

	2016-2020	2021-2025	2026-2030	2031-2035	2036-2040	Total
State Contract Assistance	\$10,562,147	\$11,378,432	\$12,257,803	\$13,205,135	\$14,225,681	\$61,629,198
RTA CAP	\$1,250,000	\$1,250,000	\$1,250,000	\$1,250,000	\$1,250,000	\$6,250,000
Local Assessments	\$4,757,372	\$5,382,529	\$6,089,838	\$6,890,092	\$7,795,507	\$30,915,338
5307 Federal Urbanized Area	\$8,948,002	\$9,639,540	\$10,384,552	\$11,187,080	\$12,051,662	\$52,210,836
5311 Federal Rural Area	\$1,379,261	\$1,485,856	\$1,600,689	\$1,724,396	\$1,857,665	\$8,047,867
Farebox	\$4,332,845	\$4,533,863	\$4,786,156	\$5,030,298	\$5,286,894	\$23,970,056
Advertising/other revenue	\$4,254,311	\$4,583,101	\$4,937,301	\$5,318,876	\$5,729,940	\$24,823,529
Available for Programing	\$35,483,938	\$38,253,321	\$41,306,339	\$44,605,877	\$48,197,349	\$207,846,824

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TABLE 17: BRTA Cost Financials 2016-2040

	2016-2020	2021-2025	2026-2030	2031-2035	2036-2040
State Contract Assistance	\$10,562,147	\$11,378,432	\$12,257,803	\$13,205,135	\$14,225,681
RTA CAP	\$1,250,000	\$1,250,000	\$1,250,000	\$1,250,000	\$1,250,000
5307 Federal Urbanized Area	\$8,948,002	\$9,639,540	\$10,384,552	\$11,187,080	\$12,051,662
5311 Federal Rural Area	\$1,379,261	\$1,485,856	\$1,600,689	\$1,724,396	\$1,857,665
Operating and Capital Costs	\$22,139,410	\$23,753,828	\$25,493,044	\$27,366,611	\$29,385,008
Projected Revenue	\$35,483,938	\$38,253,321	\$41,306,339	\$44,605,87	\$48,197,349
Available for Programing	\$13,344,528	\$14,499,493	\$15,813,295	\$17,239,266	\$18,812,341

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Highway and Transit Costs

The following tables (TABLES 18 and 19) identify both highway and transit projects that are currently unfunded but which financial capacity (revenue) exists based on the financial prjections provided by MassDOT. With regards to highway projects, this RTP provides direction for the programing of \$85,819,688 in projects over the life of the plan. With respect to transit projects, the RTP provides direction in the programing of \$10,256,250.

TABLE 18: Unprogramed road rehabilitation/reconstruction projects, 2016-2019 TIP

FACILITY	TYPE OF WORK	LOCATION	COST
EAST STREET	IMPROVEMENT/ WIDENING	PITTSFIELD	\$6,571,000
ROUTE 8	REHABILITATION	ADAMS	\$5,600,000
ROUTE 8	ADD PASSING LANE	CHESHIRE/LANESBOROUGH	\$8,876,000
SKYLINE TRAIL	RECONSTRUCTION, REHABILITATION	HINSDALE	\$4,700,000
ROUTE 20	REHABILITATION	HANCOCK	\$4,258,000
STOCKBRIDGE ROAD	REHABILITATION	LEE	\$3,500,000
ROUTE 43	RESURFACING & RELATED WORK	WILLIAMSTOWN	\$1,500,000
WEST ROAD	REALIGNMENT, RECONSTRUCTION	ADAMS	\$3,016,000
EAST STREET	RESURFACING, WIDENING	PITTSFIELD	\$750,000
HUBBARD AVE	REHABILITATION	PITTSFIELD	\$580,000
MAIN/ WEST CENTER/ WEST PARK STREET	RECONSTRUCTION	LEE	\$5,000,000
HOLMES ROAD	REHABILITATION, PAVEMENT MARKINGS, SIGNAGE, CURBING	LENOX	\$2,410,000
RIVER ROAD - NORTH	RECONSTRUCTION	FLORIDA	\$1,700,000
OLD BLANDFORD ROAD	RECONSTRUCTION	OTIS	\$108,544
ROUTE 57	REHABILITATION,	NEW MARLBOROUGH	\$8,000,000
FRIEND STREET	RECONSTRUCTION/ WIDENING	ADAMS	\$2,044,442
HOUSATONIC BIKE PATH	DESIGN & CONSTRUCTION	GREAT BARRINGTON	\$4,500,000
ROUTE 41/102, MAIN STREET	REHABILITATION, WIDENING	WEST STOCKBRIDGE	\$1,250,000
COLD SPRING ROAD SOUTH	RECONSTRUCTION	OTIS	\$99,726
ROUTE 7/ NORTH STREET & SOUTH STREET	COMPLETE STREET IMPROVEMENTS	PITTSFIELD	\$14,150,000

Source: BRPC

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FACILITY	TYPE OF WORK	LOCATION	COST
EAST STREET	IMPROVEMENT/ WIDENING	PITTSFIELD	\$3,675,000
DAN FOX DRIVE & TAMARACK ROAD	RECONSTRUCTION	PITTSFIELD	\$2,800,000
SUMMER STREET	REHABILITATION	LANESBOROUGH	\$470,000
COLD SPRING ROAD WEST	RECONSTRUCTION	OTIS	\$90,976
NORTH BLANDFORD ROAD	REHABILITATION, RESTORATION	OTIS	\$170,000.
		TOTAL:	\$85,819,688

Source: BRPC

TABLE 19: Unprogramed Transit Projects

PROJECTS	COST
New parking area, new buses & ADA fleet & paratransit dispatch area	\$1,740,000
Purchase 7 30ft buses expansion fleet; 4 CNG, 3 hybrid	\$3,865,800
Purchase 9 expansion vans; 5 CNG, 4 hybrid	\$1,234,200
Construction: Upgrade facility to CNG	\$700,000
Satellite facility North County	\$1,150,000
Satellite facility South County	\$1,150,000
Purchase 3 expansion FR vans; 2 CNG, 1 hybrid	\$416,250
Total	\$10,256,250

Fiscal Constraint

For financial planning purposes and to comply with 23 CFR Part 450, Regional Transportation Plans are required to show that there is sufficient funding projected to be available to cover the costs of projects anticipated to be constructed over the horizon of the plan. Within Berkshire County, there is no significant project having a cost in excess of \$20 million that is recommended by this RTP. The financial analysis presented above has addressed the revenue sources reasonably expected to be available from both federal and state sources and the cost associated with operations and maintenance needs of the existing transportation system. According to MassDOT projections, it is estimated that \$1,033,891,481 in funds will be available for highway projects. Transit funding is estimated at \$207,846,824. As expenditures do not exceed the projected available funds, the plan meets financial constraint requirements.

This RTP utilizes “Program Accounts” to direct the expenditure of federal funds for roadway improvements. Therefore, no specific projects are reflected in a financial plan. The “Program Accounts” are specific in their purpose and are intended to allocate funding for reconstruction and resurfacing, safety improvements and projects which reduce congestion and improve air quality such as intersection/signal improvements, minor capacity modifications and bike paths. Projects which demonstrate a nexus with any of these characteristics will be deemed as being consistent. A similar approach will be taken with regards to transit funds and the determination of consistency will be based upon the project meeting the requirements on Sections 5307 and 5311. As future TIPs are developed, consistency will be addressed as part of the TIP development process. The RTP with its goals, objectives and policy recommendations will serve to provide guidance to staff. This subject of consistency between the TIP and RTP will also be part of the discussions with the MPO as TIPs are developed.

3. Illustrative Project List

Throughout this RTP development process we learned that many kinds of projects are needed and wanted in the Berkshires. Unfortunately, we also learned that many of these projects are prohibitively expensive and we do not have funding to begin their planning, design, and implementation. We do anticipate that including them in this RTP will raise the awareness of our regional transportation funding shortfall and the importance of these individual projects. **Please note, the projects shaded in gray in the following table positively enhance Berkshire County Environmental Justice and Title VI populations.**

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TABLE 20: Unfunded Illustrative Transportation Projects 2016-2040 RTP

MAP 21 National Performance Areas	Project Description	2015 Estimated Cost
SYSTEM RELIABILITY	Regional Ridesharing Program	\$3,000,000
	Northern Berkshire Transportation Hub/ Intermodal Center	\$25,000,000
	Intermodal Center in Great Barrington to share with Passenger Rail Station	\$10,000,000
	Shorten BRTA fixed route services to 30 minutes from an hour. Bus acquisitions and 25 years operations.	\$87,000,000
	BRTA fleet replacements	\$15,000,000
	Regional dispatch upgrades and coordination	\$10,000,000
	BRTA upgrade or replaced maintenance facility	\$20,000,000
CONGESTION REDUCTION	I-90 new or expanded interchange	\$100,000,000
	Route 8 passing lanes in Cheshire and Lanesborough	\$10,000,000
	Pittsfield west side connector between West Street and West Housatonic Street	\$8,000,000
	Regional traffic control center	\$25,000,000
	Regional bottleneck improvements	\$15,000,000
	Expand the regional bike system through 9 projects in Williamstown, North Adams, Adams, Pittsfield, Lee and Great Barrington.	\$58,500,000

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MAP 21 National Performance Areas	Project Description	2015 Estimated Cost
FREIGHT MOVEMENT AND ECONOMIC VITALITY	Reconstruct Dan Fox Drive and Tamarack Road in Pittsfield.	\$10,000,000
	Reconstruct East Street between Fourth Street and Merrill Road in Pittsfield.	\$8,000,000
	Reconstruct Division Street and realign connection to Route 7 in Great Barrington.	\$5,000,000
	Hubbard Avenue viaduct replacement and capacity expansion.	\$30,000,000
	Reconfiguration and rehabilitate Howland Avenue between Hodges Cross Road and Friend Street.	\$12,000,000
	Upgrade the Berkshire portion of the Housatonic Railroad in preparation for passenger service.	\$50,000,000
	Install four passenger rail stations and other amenities in advance of passenger service on the Housatonic Railroad.	\$40,000,000
	Purchase rolling stock and engines for passenger service on the Housatonic Railroad.	\$50,000,000
INFRASTRUCTURE CONDITION	Repair the road surfaces of all Federal aid eligible roads to a good condition, only needing routine maintenance.	\$343,149,570
	Repair 37 structurally deficient bridges across the Berkshires	\$185,000,000

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MAP 21 National Performance Areas	Project Description	2015 Estimated Cost
ENVIRONMENTAL SUSTAINABILITY	Replace Appalachian Trail structure with combined pedestrian and wildlife crossing.	\$15,000,000
	Install 10 public electric vehicle charging stations around the Berkshires.	\$2,000,000
SAFETY	Make the remaining 34 intersections on the Berkshire top 50 least safe list more safe with signage, signal, and geometric upgrades.	\$51,000,000
	Signage upgrade program beginning with stop signs, and eventually including caution signs through the Berkshires.	\$10,000,000
	Regional centerline and edge line rumble strips on major arterials, beginning with US and Massachusetts designated routes.	\$5,000,000
	Regional guardrail replacement program including attenuator replacement and eliminating post and loop cable rails.	\$20,000,000
REDUCED PROJECT DELIVERY DELAYS	Implementing the unfunded projects in the proposed 2016-2019 TIP.	\$85,819,688
TOTAL ILLUSTRATIVE PROJECTS COST:		\$1,304,893,258

We estimate that at least \$340 million dollars of these unfunded illustrative projects are completely within areas that have an above average concentration of Title VI and/or Environmental Justice populations. The majority of the other illustrative projects have at least an indirect benefit for these populations.

Policy Recommendations

- ▽ The Berkshire MPO should continue to program projects that are Federally funded from resources that are not available to the MPO, such as the Federal Bridge Program, the Transportation Alternatives Program, The National Highway System Program, etc. These funding resources are important and should be included in the fiscally constrained elements of future Regional Transportation Plans.
- ▽ The MPO should monitor projects and performance by only programming projects that are reasonably likely to be bid in the appropriate TIP year.

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4. Conclusion

The Berkshires face a tremendous funding disparity that separates us between the transportation system we have and the one we want and need. BRPC, with the help of our communities and partner agencies, conceived of projects that address each MAP-21 national emphasis area and address our Region's glaring transportation needs.

MassDOT estimates that over the next 25 years we will have substantial Federal revenue that the Berkshire MPO will program, as it traditionally has, on the following:

- ▽ \$1,033,891,481 for overall highway improvements including reconstruction and resurfacing;
- ▽ \$52,210,836 for public transportation vehicle replacement and other capital items; and
- ▽ \$8,047,867 for rural transit operation and capital purchases.

The available Federal funding (including a 20% state match) for this RTP. The Berkshire MPO annually scores projects that are submitted for the TIP. The projects selected for funding will be the most beneficial projects that are ready to be built in the year the funding is awarded. We await to see how statewide funding resources like the Transportation Alternatives funding, National Highway System funding, and state funds for the Commonwealth's 5-year plan are distributed over the life of this RTP.

BRPC also identified conceptual projects that address Regional goals. This illustrative list of projects include a new or expanded I-90 interchange, replacing the Hubbard Avenue viaduct in Pittsfield, and cutting the headways of BRTA fixed route service in half, to 30 minutes. They address all modes of transportation, improve safety, enhance economic development, protect our environment, and promote public transportation.

Overall, there are about \$1.3 billion (2015 dollars) in illustrative projects. If we adjust this unmet need for inflation consistent with our revenues, then the unfunded illustrative project total reaches \$1.962 billion dollars over the 25-year life of this plan. In other words, the 25 year shortfall is \$1.662 billion dollars. In relative terms, our transportation revenue will need to grow nearly six-fold to meet our needs and provide a system that will sustain the Berkshires for the future.

BRPC, in addition to supporting the Berkshire MPO, is responsible for regional planning and project review through various environmental laws. Consistent and contextually appropriate reviews will help the Berkshires have expedient and successful projects that meet the objectives of this RTP.

SECTION IX

SUMMARY

TRANSPORTATION PLANNING AND CONTEXT REGIONAL SETTING

This RTP reflects changes to the Federal regulations that govern regional transportation planning across the country. BRPC organized the document according to the national priority areas that are prescribed in the current authorizing legislation, MAP-21. We also discuss performance measures throughout the RTP, although we remain challenged with a limited budget for collecting data. The following summary highlights each of the national priority areas, our regional objectives, projects and policies to try to achieve those objectives, and important conclusions for each priority area.

We do not believe the Berkshire MPO will change their approach to developing the annual Transportation Improvement Program. Surface Transportation Program funds will continue to rebuild some of our Region's worst roads, Congestion Mitigation Air Quality will continue to upgrade traffic signals and extend the Region's trail system, and Highway Safety Improvement Program funds will fix our most hazardous intersections. BRTA will use its Federal funding for capital purchases and subsidizing rural operations.

The Berkshire MPO has a backlog of over \$80 million dollars in projects that await funding in the TIP. We anticipate that many of these projects will advance to construction with the projected funding available in the life of this RTP. **This RTP also identifies illustrative projects that are unfunded but address significant gaps in our transportation system.** Once any illustrative projects over \$20 million dollars receive funding, the MPO should amend the RTP to include them in the fiscally constrained portion of the Plan.

Over the next 25 years, the Berkshires' transportation system must change significantly from the way it moves people now. Census data indicates that the County lost population over the past few decades, particularly, among young adults. The Berkshires are also aging at a faster rate relative to other parts of Massachusetts, as well as many parts of the country. We estimate that nearly 30,000 Berkshire County baby boomers will reach retirement age in the next 20 years. These changes to our community means we need to rethink the future transportation needs which are very different from the needs of the past.

The Berkshire's appeal is our quality of life, cultural attractions and natural environment. While it may mean different things to different people, we can all agree that quality of life encompasses safe and livable communities, affordable housing, employment opportunities, a healthy environment, good schools and community facilities, and a transportation system that provides easy access to these features for everyone. This document is our strategy for improvements to the transportation system that enhances our quality of life and meets our mobility needs for the future.

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SYSTEM RELIABILITY- To improve the efficiency of the surface transportation system.

System reliability in the Berkshires means how easily our people access transportation for where they need to go, as opposed to some sort of physical measure of the infrastructure. We have some very vulnerable populations with severe socioeconomic barriers to mobility. We also face unprecedented challenges over the horizon of this Plan because the Region's population is aging and migrating away. Deaths outnumber births. Certain demographic cohorts, particularly recent immigrants, the elderly, and the impoverished are growing as a share of the Berkshires' population. These groups present needs and opportunities for improving system reliability that a successful regional transportation system has.

OBJECTIVES:

- ▽ Increase public transportation efficiency;
- ▽ Increase mode choice options in both urban and rural portions of the Berkshires;
- ▽ Establish the Berkshires as an age friendly community;
- ▽ Enact development policies that increase overall mobility & improve efficiency;
- ▽ Foster development in existing core communities;
- ▽ Increase mobility and access options for all people and places;
- ▽ Provide sufficient transportation capacity for all modes and goods; and
- ▽ Facilitate system connections to improve efficiency and access.

In order to understand the types of policies and projects the Berkshire MPO needs to implement to meet these objectives, BRPC looked at the following regional issues as they apply to our system reliability:

1. Population and Employment Trends help us consider how many people and jobs we need to account for in our planning efforts.
2. Title VI and Environmental Justice apply to Federal laws and regulations that prohibit discrimination.
3. Household Economics play a big factor in helping us understand impediments to mobility for all of our residents.
4. Public Transportation Performance helps us demonstrate improvement opportunities for BRTA bus riders and other services.

BRPC developed the following policy and project recommendations to address system reliability in the Berkshires, specifically to improve individual mobility and access to the transportation network.

POLICY RECOMMENDATIONS

- ▽ Evaluate and implement design components of our transportation system specifically to benefit the accessibility, affordability, and safety for older adults of all abilities;
- ▽ Encourage the development of regional high-speed internet access to outlying communities as a way to provide accessibility to both the elderly and ‘cottage’ or home-based industry.;
- ▽ Ensure effective nondiscriminatory communications and public participation by updating our Public Participation Plan and specifically engaging traditionally disenfranchised populations;
- ▽ The Transportation Improvement Program should continue to identify and prioritize projects that have a positive benefit for Title VI and Environmental Justice populations;
- ▽ Limited English proficiency populations should continue to be a focus of outreach and engagement for BRPC;
- ▽ BRPC and the Berkshire MPO should continue implementing anti-discrimination practices internally, but also offer education and training opportunities for our regional partners in future Unified Planning Work Program activities;
- ▽ Evaluate the feasibility of reducing under performing fixed route bus service as appropriate. and diverting those resources to make other BRTA routes more flexible;
- ▽ Support legislation and local laws that enable crowd sourced car/van services (e.g. Uber) to use existing vehicle capacity - remember those 100,000 daily single occupant vehicle trips to work- to improve individual mobility and reduce resource consumption by sharing rides;
- ▽ Modify/expand fixed route bus service to major employment centers similar to the circulator routes 12/14 in Pittsfield while modifying or contracting under performing fixed route services;
- ▽ Improve fixed route service by partially reducing headways during peak periods, offering weekend hours, and Sunday service;
- ▽ Expand services for older adults and disabled population (assist nonprofit organizations with accessing operating funding to expand transportation services, provide travel trainings to increase access to existing transportation services);
- ▽ Reduce quantity and size of gaps in the transit needs: availability ratio (encourage smaller communities to join BRTA);
- ▽ Encourage employer subsidy of work related public transportation;
- ▽ Coordinate social service public transportation providers (e.g. encourage Councils on Aging in smaller communities to share vehicles) through the Berkshire Regional Coordination Council;
- ▽ Help public, private and nonprofit human services transportation providers to acquire and operate accessible taxis; and
- ▽ Address the mobility needs of veterans and their families. Seek the assistance of the regional Red Cross and Soldier On representatives to review the current coordinated plan and provide their expertise to formulate the solutions for their needs.

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PROJECT RECOMMENDATIONS

- ▽ BRPC should help coordinate a regional ride matching or Ridesharing program. BRTA or Berkshire Rides could be the responsible agency for these activities. Ideally, such a program would start with a couple of key employer partners to work out congruent shifts and should also include a “guaranteed ride home” program. A regional ridesharing program could start with a \$3 million dollar investment in technology and support. MassRides would be a valuable partner in such an initiative;
- ▽ Establish a multimodal transportation hub in North Adams that includes potential to service, BRTA public transportation, intercity bus service, non-motorized access, and reintroduce of AMTRAK service to Northern Berkshire County. Estimated cost: \$25 million dollars;
- ▽ Develop a transit hub in Great Barrington that provides facilities for BRTA, non-motorized access, connections to the Berkshire Line proposed passenger rail service, access for intercity bus service and local ride/taxi service. Estimated cost: \$10 million dollars;
- ▽ Expand service headways on BRTA routes to 30 minutes, \$12 million dollars capital plus \$5 million dollars per year operating is \$87 million dollars in 2015 currency;
- ▽ Replace every vehicle operating in the BRTA system over the life of this plan, estimated cost of \$15 million dollars;
- ▽ Upgrade and expand the ability to coordinate ride dispatch across multiple platforms including potential new crowd-based ride sourcing like Uber and existing, taxi, van, and chaircar services from a central location. Estimated cost: \$10 million dollars; and
- ▽ Replace and/or upgrade and expand BRTA’s existing maintenance facility for new technology and service growth. \$20 million dollars.

CONGESTION REDUCTION- To achieve a significant reduction in congestion on the National Highway System.

The kinds of traffic congestion that occur in the Berkshires is not typical of more heavily populated regions. In general, we do not have gridlock on our major arterials or routine back-ups at problem intersections. Our traffic problems, when they show up, are usually from particular land uses like schools or cultural attractions (e.g. Tanglewood), special events, construction or emergencies like traffic crashes. Other traffic related issues include poorly timed traffic lights, limited passing opportunities, and poor geometices at intersections.

OBJECTIVES:

- ▽ Minimize the costs associated with traffic congestion and delays;
- ▽ Improve the efficiency of traffic operations, reduce vehicle miles traveled (VMT), and manage travel demand;
- ▽ Reduce air pollution and greenhouse gas (GHG) emissions;
- ▽ Integrate alternative travel mode facilities into roadway improvements; and
- ▽ Promote the healthy transportation modes of walking and bicycling.

In order to understand the types of policies and projects the Berkshire MPO needs to implement to meet these objectives, BRPC looked at the following regional issues as they apply to reducing congestion:

1. Travel Patterns show us how our people move into, out of, and around the Berkshires.
2. Regional Bottlenecks are areas identified from public involvement or past studies that are congested now or will be with continued growth and development.
3. Bicycling means our regional concept of a north-south designated US Bicycle Route 7 that includes on and off road facilities.
4. Complete Streets is a philosophy of accommodating multiple modes of transportation and functions within existing public right-of-ways.

BRPC developed the following policy and project recommendations to reduce congestion in the Berkshires:

POLICY RECOMMENDATIONS

- ▽ The Berkshire MPO should consider how to incorporate opportunities to minimize bottlenecks into the project scoring for the Transportation Improvement Program;
- ▽ The Berkshire MPO should continue to monitor and update these regional bottlenecks as part of its annual activities in the Unified Planning Work Program. The Berkshire MPO should consider how to facilitate the development of bicycle path projects that are easy to develop using MassDOT's project development guidelines and construction;
- ▽ The Berkshire MPO should continue to support the development of the regional Berkshire Bike Path and US Bicycle Route 7;
- ▽ Encourage and provide technical assistance to community bike groups and subregional collectives like Bike North Berkshires. Conduct a Complete Streets assessment as outlined in this section for the Berkshires as a specific task of an upcoming UPWP;
- ▽ Provide materials, like checklists, that local communities can use to assess individual street improvements for incremental complete streets upgrades;
- ▽ Craft a Complete Streets policy resolution that local communities can adopt to help them

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- fulfill future prerequisites for transportation funding that commit to complete streets; and
- ▽ Continue to implement MassDOT's Safe Routes to Schools program as a way to improve the safety of Berkshire school children around educational facilities.

PROJECT RECOMMENDATIONS

- ▽ Access into and out of the Berkshires from I-90 remains a significant issue. Starting with an interchange analysis report and seeing a new access through to construction could well exceed \$100 million dollars;
- ▽ Adding passing lanes on Route 8 through Cheshire and Lanesborough could significantly alleviate congestion and delays on the Berkshires' busiest corridor between north and central Berkshire County. \$10 million dollars;
- ▽ The West Side connector project in Pittsfield, the result of the South Street Alternatives Study, between West Housatonic Street and West Street, adjacent to the Housatonic Rail Road, could cost upwards of \$8 million dollars;
- ▽ The Berkshires need an integrated traffic control center that monitors and controls most, if not all of the traffic signals in major population areas. This system should be consistent with the Western Massachusetts ITS architecture. An early estimate for such a system, split between MassDOT and the pertinent communities, could be \$25 million dollars with equipment upgrades and inter-connectivity;
- ▽ Allocate \$15 million dollars to address regional bottlenecks for signage and signal upgrades.
- ▽ Lee Bikeway from Pleasant Street north to Park Street, Estimated cost: \$4 million dollars;
- ▽ Lee Bikeway from Park Street to Lenoxdale; Estimated cost: \$10 Million Dollars;
- ▽ Extend the Existing Ashuwillticook Train South into Pittsfield to Crane Avenue. Expand parking and new trail head. Estimated cost: \$3 million dollars;
- ▽ Build Ashuwillticook Trail north from Hoosac Street to Lime Street in Adams. Estimated cost: \$3.5 million dollars;
- ▽ Extend Ashuwillticook Trail north from Lime Street in Adams to Hodges Cross Road in North Adams, Estimated cost: \$4 million dollars;
- ▽ Construct a trail Hodges Cross Road to Western Gateway Heritage State Park in North Adams, Estimated cost: \$10 million dollars;
- ▽ Connect Western Gateway Heritage State Park to Williamstown following Route 2 corridor and replace pedestrian bridge over railroad, Estimated cost: \$9 million dollars;
- ▽ Connect US 7 to Route 2 Mohawk Trail path in Williamstown, \$5 million dollars, and
- ▽ Construct a path between Housatonic and Great Barrington, approximately 4 miles, Estimated cost: \$10 million dollars.

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FREIGHT MOVEMENT AND ECONOMIC VITALITY- To improve the national freight network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development.

The Berkshires continue to suffer from barriers to access the major freight networks that cross New England and the broader northeast United States. Specifically, we lack adequate convenient access to I-90. Our poor access to the interstate highway system remains the singular most significant hurdle to attracting more industry other than tourism to the Central and Northern Berkshires.

OBJECTIVES:

- ▽ Minimize impacts of truck traffic and cut-through traffic;
- ▽ Enhance connections with adjacent regions;
- ▽ Enhance aesthetic, cultural, and historic qualities of communities;
- ▽ Provide an investment program for infrastructure improvements;
- ▽ Serve critical regional economic development needs;
- ▽ Improve the availability of public transportation particularly for access to jobs and education.
- ▽ Facilitate goods movement; and
- ▽ Serve Priority Economic Development Areas.

In order to understand the types of policies and projects the Berkshire MPO needs to implement to meet these objectives, BRPC looked at the following regional issues as they apply to improving freight movements:

1. Freight Movements talks about how trucks move into, around, and through the Berkshires.
2. Economic Development Priority Areas are opportunities for manufacturing and traditional industry that are integral parts of the Berkshire Comprehensive Economic Development Strategy.
3. Passenger Rail Station Locations are also key to the Berkshire's most significant value-added industry, tourism. The 2014 BRPC study identified station locations that should be supported with investments in rail, road, non-motorized and public transportation interfaces through the horizon of this RTP.

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BRPC developed the following policy and project recommendations to improve freight movement and economic vitality in the Berkshires:

POLICY RECOMMENDATIONS

- ▽ In the Berkshires, we have not always considered truck traffic as a key component in our transportation planning except when it impacts our traditional downtowns. The dramatic swings in truck traffic detected in Lee are not abnormal within the region. The MPO should proactively plan for truck traffic and develop a better understanding freight movements, specifically by monitoring classification vehicle counts.
- ▽ Work with the BRPC CEDS committee to identify specific improvements necessary for each site to be more attractive to development or redevelopment; and
- ▽ Incorporate a measure promoting projects that improve access to BCPDA's in the annual TIP development scoring process.
- ▽ Play an active role in the siting and construction of the passenger rail stations. In particular, consider engaging the entity responsible for the design and construction of the proposed passenger rail station to ensure the design is compatible with the community;
- ▽ Consider that a passenger rail station might be integrated into a mixed-use building instead of a standalone traditional platform and shelter. The mixed-use building could provide additional revenue to the passenger rail station owner from lease payments;
- ▽ Consider and plan for how the proposed passenger rail station can be an asset and gathering point for the community;
- ▽ Understand the capacity and condition of any public parking infrastructure and the proposed passenger rail stations impact on the parking. Develop a parking strategy to ensure that long term parking and short term parking are available in the passenger rail station area;
- ▽ Plan for additional mixed-use development around the proposed station area through amendments to the land use regulations to encourage Transit Oriented Development (TOD), the adaptive reuse of existing buildings and infill development;
- ▽ Understand the condition and capacity of utility infrastructure (sewer/water/gas/electricity) to support additional development around the proposed passenger rail station locations;
- ▽ Ensure pedestrian and bicycle connectivity and ensure the surrounding area provides safe access to the proposed passenger rail station for pedestrians and cyclists. Place way finding signs to direct people from the passenger rail station to downtown establishments; and
- ▽ Consider circulation patterns and traffic flow to ensure the surrounding areas do not become congested with traffic.

PROJECT RECOMMENDATIONS

- ▽ Reconstruct 2.75 Miles of Dan Fox Drive and Tamarack Road between South Street and Barker Road in Pittsfield. This project, costing at least \$10 million dollars, will reconstruct the roadway, improve geometrics through a couple of sharp turns, and improve the intersection of Dan Fox Drive and South Street in a manner consistent with BPRC's 7/20 corridor and access management study. This project opens up two significant BCPDA's with easy access to US 7/20, the Berkshire's most significant north-south and east-west arterials.
- ▽ Reconstruct and add capacity to one mile of East Street in Pittsfield, between Fourth Street and Merrill Road. This project improves dangerous intersections at both East Street & Fourth Street and East Street & Fenn Street. Past BRPC studies indicated a need for additional capacity along this roadway, however there should be an additional examination of future corridor capacity needs following the reopening of Woodlawn Avenue. It is anticipated that this project could easily top \$8 million dollars.
- ▽ BRPC should study improving access to BCPDA's in Housatonic more closely. Housatonic contains three areas included on the BCPDA list. Access to Housatonic is important because it is as equidistant from I-90 as the majority of the sites in Pittsfield. Great Barrington heavily invested in road improvements in Housatonic over the past few years, repaving Vandeusenville Road and many of the local streets. The reconstruction of one mile of Division Street, east of North Plain Road, coupled with geometric improvements to the intersection of Park Street and Stockbridge Road, could facilitate truck movements to the Housatonic BCPDA's. This project conservatively costs \$5 million dollars.
- ▽ Hubbard Avenue in Pittsfield has some of the richest industrial sites in the Berkshires. Access to the industrial park is hampered by a narrow viaduct under the CSX rail line that bisects the City. Replacing this viaduct is likely the most beneficial economic development oriented transportation project, however, is also the most expensive. BRPC estimates the widening of Hubbard Avenue, to three lanes intermittently, along with the viaduct replacement, to run at least \$30 million dollars.
- ▽ In the Northern Berkshires, Route 8, also known as Howland Avenue, offers access to the most BCPDA's that are available. This corridor, north of the newly reconstructed Columbia and Friend Street intersection, is four lanes and is more of the most heavily utilized industrial corridors in the Berkshires. Reconstructing this 2.1 mile, 4 lane stretch of road north of the Columbia and Friend Street intersection, to Hodges Cross Road, will likely cost \$12 million. It is important to note that non-motorized access from the parallel Ashuwillticook Trail is an necessary component of this project.
- ▽ We anticipate that upgrading the Berkshire Line to maintain freight service and support passenger service from the state line to Pittsfield will cost \$50 million dollars.
- ▽ Installing passenger stations and support areas in the four communities will cost \$10 million per location, totaling \$40 million dollars.
- ▽ An additional \$50 million is necessary for trains and operational infrastructure for implementing the Berkshire Line service.

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INFRASTRUCTURE CONDITION-To maintain the highway and public transportation asset system in a state of good repair.

Maintaining our transportation infrastructure is proving to be an insurmountable challenge for many Berkshire communities, particularly the ones with the highest concentrations of Title VI and Environmental Justice populations. Our roads and bridges are in deplorable condition, particularly after our increasingly harsh spring freeze-thaw cycles. These failing roads damage vehicles, are unattractive for industry and tourism, and contribute to slums and blight in our most fragile neighborhoods.

OBJECTIVES:

- ▽ Ensure that long-term planning initiatives include the maintenance, operation, and eventual replacement of existing infrastructure; and
- ▽ Maintain the Region's existing transportation system in a state of good repair.

In order to understand the types of policies and projects the Berkshire MPO needs to implement to meet these objectives, BRPC looked at the following regional issues as they apply to repairing our infrastructure:

1. Pavement Conditions focuses on understanding the Region's current pavement conditions and the importance of preventative maintenance.
2. Bridge Conditions are provided and prioritized by the Commonwealth. The MPO regularly includes federally funded bridge projects in the TIP. MassDOT prioritizes bridges for repair based on condition, functional class, and access.
3. Public Transportation State of Good Repair is a measure of how we keep our public transportation vehicles well maintained and explains replacement cycles.

BRPC developed the following policy recommendations we think will help improve infrastructure conditions in the Berkshires:

POLICY RECOMMENDATIONS

- ▽ Encourage the prioritization of capital preventative maintenance projects like non-structural resurfacing and thin overlays to stretch our limited road dollars farther. Recent reconstruction projects, although necessary and valuable projects, have hugely increased costs to the several millions of dollars per mile;
- ▽ The MassDOT project development process and construction of full AASHTO standard roads are not appropriate in all contexts of the Berkshires. Minimize roadway expansion as a cost savings strategy whenever possible;
- ▽ Work with MassDOT District 1 to update BRPC pavement condition databases and survey local communities annually to capture information on local projects;
- ▽ Advocate regionally to increase transportation dedicated revenue from the Commonwealth and for local or regional tax capturing options. \$6 million dollars of Chapter 90 annually, plus whatever the Commonwealth's "Way Forward" program provides to the Berkshires, will not make a substantive dent in our \$563 million dollar local shortfall in road funding needs;
- ▽ The 2016 RTP survey responses show that respondents are willing to contribute financially to repairing our roads. If an additional \$50 per year were levied for each vehicle registered in the Berkshires, it could generate at additional \$2.5 to 3 million dollars dedicated to local road repairs.
- ▽ Provide an annual report to the MPO on the pavement performance of the Berkshire National Highway System roads.
- ▽ Work with local communities to perform capital bridge maintenance to help avoid costly structure replacement;
- ▽ Annually report on the condition of our NHS bridge decks to the MPO;
- ▽ Advocate for a portion of the accelerated bridge fund, under the supervision of MassDOT to be dedicated specifically to routine and capital preventative maintenance on bridges; and
- ▽ Include the MPO in the prioritization of Berkshire bridge needs as MassDOT develops its annual bridge lists and moves bridge replacement and rehabilitation projects forward through the design guidelines process.

ENVIRONMENTAL SUSTAINABILITY- To enhance the performance of the transportation system while protecting and enhancing the natural environment.

Berkshire County, Massachusetts is a 946 square mile natural resource with 342 square miles of working and preserved protected lands, . The Berkshires depend on our natural environment because it supports our economic productivity through tourism and developing natural resources from mining, agriculture, and forestry operations. The regions's ability to add value to products and materials from outside the County is severely hampered because of our limited access to interregional freight networks. This makes protecting out internal resources from negative impacts even more important.

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OBJECTIVES:

- ▽ Incorporate anticipated climate change impacts into the project development process;
- ▽ Protect the quality of water resources from transportation impacts;
- ▽ Protect sensitive natural features;
- ▽ Minimize collisions with wildlife; and
- ▽ Implement sustainable stormwater management.

In order to understand the types of policies and projects the Berkshire MPO needs to implement to meet these objectives, BRPC looked at the following regional issues as they sustain our natural environment:

1. Climate change discusses how weather events have increased in frequency and intensity. More severe weather events through precipitation or freeze-thaw cycles negatively impact travel in and out of the Berkshires and increase maintenance costs for our bridges and roads. The regional Hazard Mitigation Plan contributes to the regional conversation on climate change.
2. Stormwater and subsequent drainage issues in our roads are a significant portion of repair and maintenance costs. New EPA stormwater regulations are poised to change how several Berkshire communities address stormwater runoff in their physical infrastructure.
3. Energy Consumption focuses on stationary energy use in the region as opposed to transportation energy consumption which is addressed in Section 2 - Congestion Reduction. The Sustainability Plan for the Berkshires contributes the data and research to develop transportation oriented policies for energy consumption.
4. Wildlife Linkages are critical for how animals move through the Berkshires. The Nature Conservancy and the Berkshire Environmental Action Team dedicated resources and data to provide insight that prioritize wildlife road crossing areas and culverts or bridges that should be upgraded to facilitate animal travel.

BRPC developed the following policy and project recommendations we think will protect and sustain our environment:

POLICY RECOMMENDATIONS

- ▽ We do not expect any projects in the Berkshires to increase quantifiable mobile source emissions. We do expect to indicate the transit projects in the fiscally constrained list to offer some GHG reductions. Road projects in our RTP with potential costs over \$20 million dollars are submitted to MassDOT for GHG modeling.
- ▽ Road construction projects will incorporate best management practices to minimize runoff. BRPC should work with local communities to determine the overall effectiveness of the control measures and practices as part of construction management. This information

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along with any recommendations to improve the measures/practices, shall be shared with the Phase II permit holder.

- ▽ In support of the goals of NPDES, BRPC should work to identify special studies that can contribute to improve storm water quality.
- ▽ Efforts shall be taken to identify funding sources such as MAP -21's Transportation Alternatives Program "TAP" to implement measures that improve stormwater quality.
- ▽ The MPO should prioritize TIP scoring based on a project's documented potential to satisfy Best Management Practices, even if the project is not in the Pittsfield Urbanized Area.
- ▽ Using TNC's research and prioritization of linkages across roadways, incorporate physical improvements that mitigate or eliminate the physical barriers to animal movement created by the roads, to the extent feasible, during road improvement design in priority segments;
- ▽ Proactively identify the culverts that will provide the greatest ecological flood reducing benefits if replaced to the newest Army Corps of Engineers standards for stream crossings. There are funding opportunities through state and Federal programs to pay for a portion of the construction expenses;
- ▽ Facilitate environmental reviews associated with culvert replacements and educate local communities, most notably Conservation Commissions, on the benefits of upgrading to the newest Army Corps of Engineers standards for stream crossings; and
- ▽ Where removal or mitigation of physical barriers to animal movement are unlikely, BRPC should help municipalities work with land owners to keep naturally vegetated corridors preserved to facilitate animal travel. There are opportunities to tailor easement language with specific ecological goals for wildlife corridors.

PROJECT RECOMMENDATIONS

- ▽ As electric vehicles become more common, the need for recharging stations will grow. The Commonwealth promotes municipal use of electric vehicles and the siting of public charging stations, particularly for designated green communities. These grants can and should be used to ensure the region has an adequate supply and distribution of electric vehicle charging stations. BRPC should develop a plan for implementing 10 public electric vehicle charging stations, with an estimated price of \$2 million dollars.
- ▽ Construct a dedicated wildlife overpass adjacent to the existing Appalachian Trail overpass of the Massachusetts Turnpike. The Appalachian Trail corridor is a wide, protected natural corridor ideal for facilitating animal movements across I-90. We estimate this project to cost upwards of \$15 million dollars from planning, design, construction, and restoration.

SAFETY- To achieve a significant reduction in traffic fatalities on all public roads.

Berkshire County, Massachusetts averages 12 fatalities from vehicle crashes each year. Unfortunately, access to data involving all of our vehicle crashes is difficult and time-consuming to review. The majority of our fatal crashes involve a single vehicle.

The following objectives may be derived from past planning efforts in the Berkshires, public input for this RTP, Federal legislation, and/or Massachusetts state laws:

OBJECTIVES:

- ▽ Implement Massachusetts Strategic Highway Safety Plan recommendations;

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- ▽ Maintain the connectivity of critical highway corridors; and
- ▽ Plan for traffic movements during emergencies.

In order to understand the types of policies and projects the Berkshire MPO needs to implement to meet these objectives, BRPC looked at the following three ways to consider regional crash trends:

1. Highway Safety Improvement Program TOP 50 Intersections provides a listing of intersections that are eligible for Federal transportation safety funding.
2. Crash Types help us explore regional trends about characteristics of individual crashes.
3. Dangerous Segments and Curves are found throughout the Berkshires. A MassDOT program specifically targets these locations. Region-wide identification and improvement is necessary.

BRPC developed the following policy and project recommendations we think will improve highway safety on our roads:

POLICY RECOMMENDATIONS

- ▽ Work with local communities to coordinate safety improvements at Top our 50 least-safe intersections with other infrastructure repair projects;
- ▽ Weight project prioritization in the TIP according to an intersection's three year EPDO measure and/or crash rate including VMT;
- ▽ Assist local communities in conducting the required Road Safety Audit to access HSIP funds.
- ▽ Work with MassDOT's RMV to obtain more complete regional data so that we can monitor crash trends and crash reduction through performance based planning;
- ▽ Support programs that focus on eliminating distracted and/or impaired driving;
- ▽ Offer context oriented guidance to local communities for improvements based on regional crash trends.
- ▽ BRPC should work with MassDOT and local communities to identify dangerous curve locations, complete program applications, and provide the complete documentation to MassDOT; and
- ▽ Any road resurfacing project in the region should be accompanied with an updated signage plan that meets or exceeds the requirements in the most current Manual of Uniform Traffic Control Devices.

PROJECT RECOMMENDATIONS

- ▽ The Linden Street and Center Street intersection is consistently at the top of our Top 50 list. This intersection is very busy with foot traffic, especially in the summer months when the Barrington Stage operates its location on the northeast corner. This intersection should be one of the next ones to be improved with HSIP funds.
- ▽ The intersection of Dalton Avenue and Benedict Road suffers from poor lane alignment and confusingly positioned signal heads. This intersection should be improved both geometrically and aesthetically - it is a logical gateway to the Dalton Avenue/Tyler Street commercial corridor.
- ▽ The intersection of Fenn Street and First Street in Pittsfield is the site of current and future

redevelopment. Geometric modifications to the intersection should be coordinated with redevelopments to improve visibility and traffic flow, and also consistent with BRPC's past recommendations for the First Street corridor.

- ▽ The intersection of East Street and Second Street suffers from poor pedestrian circulation. Improvements to this intersection should go in tandem with channelizing pedestrian flows around the Pittsfield High School.
- ▽ The Berkshires, as a whole, would benefit through crash reductions by thoroughly evaluating our existing road sign inventory and upgrading signage, particularly on rural high speed roads, to the newest standard signs; and
- ▽ Add red reflective strips to all stop sign posts and yellow reflective strips to all caution sign posts in the Berkshires.
- ▽ The cost of these two initiatives is hard to estimate, however, \$10 million for signage upgrades would be a good start. MassDOT should work with local highway departments to count and locate their signs. Once the inventory is complete, local crews can install the upgrades while the region could benefit from bulk purchase.
- ▽ Rumble strips, although the bane of bicyclists, are an important countermeasure for reducing vehicles from departing their lanes. If available, each arterial or collector road with a speed limit 45 MPH or above should have fog line rumble strips in curvy areas. \$5 Million would begin the process of installing these important prevention measures
- ▽ Regionally, for this RTP, any non-standard guardrail should be replaced and attenuators should be upgraded to meet current safety standards. \$20 million is a good budget number to include for the life of this RTP. BRPC and MassDOT should work to determine a more accurate guardrail replacement and repair cost with a regional guardrail inventory.

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REDUCED PROJECT DELIVERY DELAYS- To reduce project costs, promote jobs and the economy, and expedite the movement of people and goods by accelerating project completion through eliminating delays in the project development and delivery process, including regulatory burdens and improving agencies' work practices.

The Berkshire MPO always funds projects that deliver results. The MPO programmed Federal funding to a variety of projects in both urban and rural areas of the Berkshires since the 2012 RTP adoption. Significant projects included South Street in Pittsfield, Tyringham Road in Lee, and Housatonic Street in Dalton. Main Street in Great Barrington was reconstructed incorporating safety, traffic flow, and non-motorized improvements.

OBJECTIVES:

- ▽ Mitigate delays to travelers and freight by coordinating infrastructure improvements.
- ▽ Coordinate public transportation with human services transportation providers;
- ▽ Ensure that the maintenance and operation of existing infrastructure is cost effective and new infrastructure is not unduly burdensome;
- ▽ Anticipate the need for transportation improvements in advance of their actual need or the degradation of existing transportation infrastructure;
- ▽ Support smart growth development; and
- ▽ Encourage different ways of providing road construction services that lead to cost savings, like regionalization and procurement consolidation.

In order to understand the types of policies and projects the Berkshire MPO needs to implement to meet these objectives for reducing project delivery delays, BRPC looked at the following three topics:

1. Future land use planning related to transportation context helps BRPC perform environmental reviews of projects as they develop through the MassDOT project development guidelines and the Massachusetts Environmental Policy Act.
2. Fiscal Constraint is the concept that we cannot realistically plan for projects that we cannot fund over the life of this RTP, but does discuss the types of projects that we can afford to implement.
3. The Unfunded Projects Illustrative List contains all the projects that this RTP conceived of, yet we cannot reasonably pay for given the Berkshires' limited transportation revenue.

2016 Regional Transportation Plan

BRPC developed the following policy and project recommendations we think will help the Berkshires improve project delivery:

POLICY RECOMMENDATIONS:

- ▽ BRPC should tailor its reviews and comments through the MassDOT project development guidelines and Massachusetts Environmental Policy Act for consistency with the future land use designations in the Sustainable Berkshires Plan.
- ▽ BRPC should provide the Future Land Use designations of potential projects as information for the MPO TIP project evaluation process.
- ▽ The Berkshire MPO should continue to program projects that are Federally funded from resources that are not available to the MPO, such as the Federal Bridge Program, the Transportation Alternatives Program, The National Highway System Program, etc. These funding resources are important and should be included in the fiscally constrained elements of future Regional Transportation Plans.
- ▽ The MPO should monitor projects and performance by only programming projects that are reasonably likely to be bid in the appropriate TIP year.

PROJECT RECOMMENDATIONS

- ▽ The Berkshire MPO should balance funding of developed projects, including the approximately \$86 million dollars of unfunded projects in the 2016-2019 TIP, with developing other projects that address regional needs.

The Berkshire Regional Planning Commission

CONCLUSION

MassDOT estimates that over the next 25 years we will have substantial Federal revenue that the Berkshire MPO will program, as it traditionally has, on the following:

- ▽ \$180,495,552 for road construction and resurfacing;
- ▽ \$13,542,698 for safety improvements at intersections;
- ▽ \$42,383,649 for traffic signal upgrades and coordination;
- ▽ \$52,210,836 for public transportation vehicle replacement and other capital items; and
- ▽ \$8,047,867 for rural transit operation and capital purchases.

The available Federal funding (including a 20% state match) for this RTP is \$1,033,891,481. The Berkshire MPO annually scores projects that are submitted for the TIP. The projects selected for funding will be the most beneficial projects that are ready to be built in the year the funding is awarded. We await to see how statewide funding resources like the Transportation Alternatives funding, National Highway System funding, and state funds for the Commonwealth's 5-year plan are distributed over the life of this RTP.

BRPC also identified conceptual projects that address Regional goals. This illustrative list of projects include a new or expanded I-90 interchange, replacing the Hubbard Avenue viaduct in Pittsfield, and cutting the headways of BRTA fixed route service in half, to 30 minutes. They address all modes of transportation, improve safety, enhance economic development, protect our environment, and promote public transportation.

The projects in this plan include \$85.8 million dollars of work entering into the MassDOT project development process that was submitted to our 2016-2019 TIP development committee. Overall, there are about \$1.3 billion (2015 dollars) in illustrative projects. If we adjust this unmet need for inflation consistent with our revenues, then the unfunded illustrative project total reaches \$1.962 billion dollars over the 25-year life of this plan. In other words, the 25 year shortfall is \$1.662 billion dollars. In relative terms, our transportation revenue will need to grow nearly six-fold to meet our needs and provide a system that will sustain the Berkshires for the future.

Again, it is important to reiterate that the **project recommendations included herein are currently not funded and should not be considered a part of the financially constrained RTP**. These recommendations resulted as part of the RTP's planning process whereby the identification of problems and needs analyses typically follow with recommendations. Many of these projects will provide significant mobility benefits but are currently relegated to the unfunded transportation project list because of limited funded directed to Berkshire County. The inclusion of these projects in the RTP not only demonstrates the lack of funding for transportation improvements in Berkshire County but it also serve as an illustrative list of candidate projects which can be implemented in the future when funding becomes available.

APPENDIX A

PUBLIC INVOLVEMENT

2016 Regional Transportation Plan

1. Outreach Efforts

The 2016 Regional Transportation Plan started outreach efforts in November, 2014. BRPC publicized a round of information workshops in the Commission's newsletter 'Common Ground'. The workshops were held at the Lee Library (November 18, 2014), the Adams Visitor Center (November 25, 2014), and the Pittsfield Intermodal Center (December 16, 2014).

The workshops consisted of BRPC staff explaining why we create long range transportation plans and which regional characteristics we look at while developing them. The presentations began with what the Federal and Commonwealth requirements are for long range transportation plans. We explained what encompasses the transportation system and what the different modes mean, like walking, bicycling, personal vehicles, and buses. Staff then specifically described how population attributes, traffic characteristics, freight and goods movements, land uses, and other topics that influence our transportation system.

We took the feedback from the workshop attendees and used it for two different tasks. The first was to develop the public input survey that is described in the following section. The second task was to take the input and affirm the objectives from the previous 2012 Regional Transportation Plan.

Once we released the public input survey for responses, staff made additional presentations on the RTP processes and objectives to the Berkshire Regional Planning Commission (January 15, 2015), the Berkshire Metropolitan Planning Organization (February 2, 2015), the Berkshire Regional Coordinating Council (February 26, 2015) the Great Barrington Senior Services Triad (March 11, 2015), and the Northern Berkshire Community Coalition in North Adams (March 13, 2015). At each of these meetings we briefly discussed the Regional Transportation Plan goals and the kinds of analysis that the planning process uses to develop solutions like transportation projects, policies, and more refined future studies.

During the public comment period, three public information meetings were scheduled to provide the general public the opportunity to become more familiar with the regional transportation plan and to provide any comment. These meetings were held on July 9th at the Adams Library, July 15th at the BRPCs Offices in downtown Pittsfield and on July 28th at the Lee Library. The final opportunity for public input on the RTP was August 4th at the MPO meeting when the plan was considered and subsequently endorsed by the MPO.

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2. Public Survey

Summary of RTP Survey

In developing the 2016 RTP, a survey was undertaken to gain additional input on transportation issues from Berkshire County residents. The survey consisted of 31 questions which sought information on items needing attention, commute characteristics, improvement preferences and basic demographic information of the respondents. A copy of the survey results follows. The RTP survey was administered on-line from December 2014 through March 2015. Outreach for the survey occurred via press releases, e-mail distribution and cards containing QR codes that were distributed at public meetings. A total of 89 responses were received. This summary was prepared to highlight the response that were received and these responses will also serve to guide the development of recommendations in the RTP.

Current Conditions/Satisfaction

The majority of respondents (78.5%) are satisfied or very satisfied with the overall levels of roadway congestion. Fifty three percent voiced dissatisfaction with maintenance or condition of roads and 67% were dis-satisfied with the availability and/or frequency of public transit. The survey also sought information on locations experiencing traffic back ups or bottle necks. The locations which were identified via responses did not reveal any new locations which would require attention in the future but did serve to confirm known problem areas.

Commute Characteristics

Of the respondents that did not indicate they were retired or work from home, the average commute time was 15 minutes. The primary means of traveling to work was driving alone followed by public transit and car pooling. Forty seven percent of the respondents share the opinion that public transportation is not convenient enough for regular use such as commuting. Ten percent of respondents were from households that did not have access to a car.

Potential Funding Options

The survey includes a number of question related to the funding of transportation infrastructure. Some of the new sources supported by respondents include tolls, gas tax increase and vehicle registration fees. When asked about how much of an increase they are willing to pay, 35% would pay up to \$50, 27% would agree to paying \$50-\$100 and 28% are willing to pay \$100 or more per year.

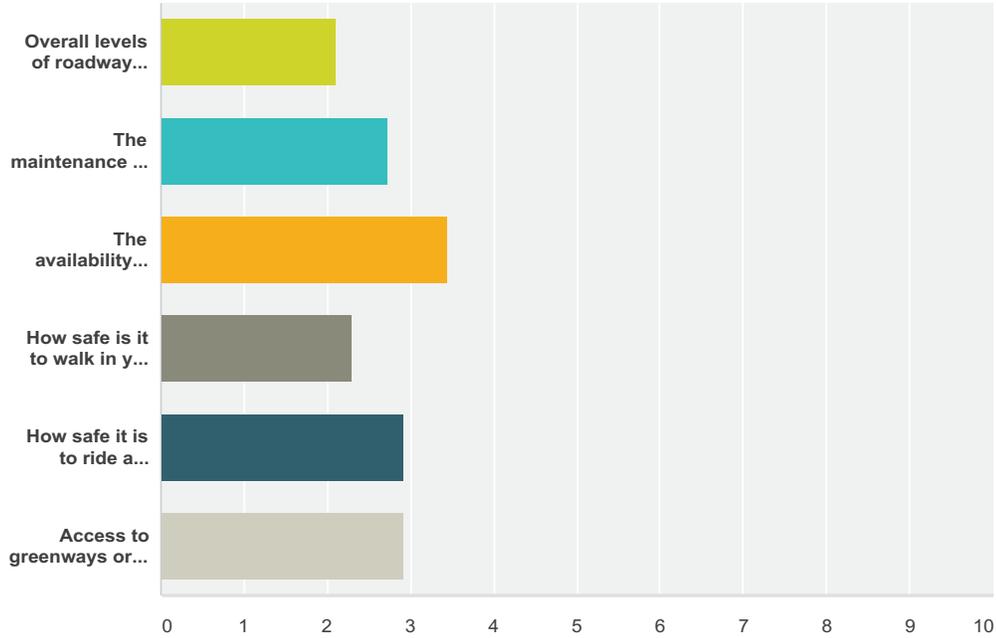
Based on the survey responses, Berkshire County residents appear supportive of increased taxes and fees to improve transportation infrastructure. Poorly maintained roadways received the second most responses in terms of what should garner more attention. There is also a desire to improve public transit services which could result in a significant increase in ridership. Providing more bicycle facilities and pedestrian enhancements are two additional items that respondents strongly desire. Support also exists for train service with connections to New York and Boston.

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Q1 Please rate your satisfaction with the following:

Answered: 89 Skipped: 0



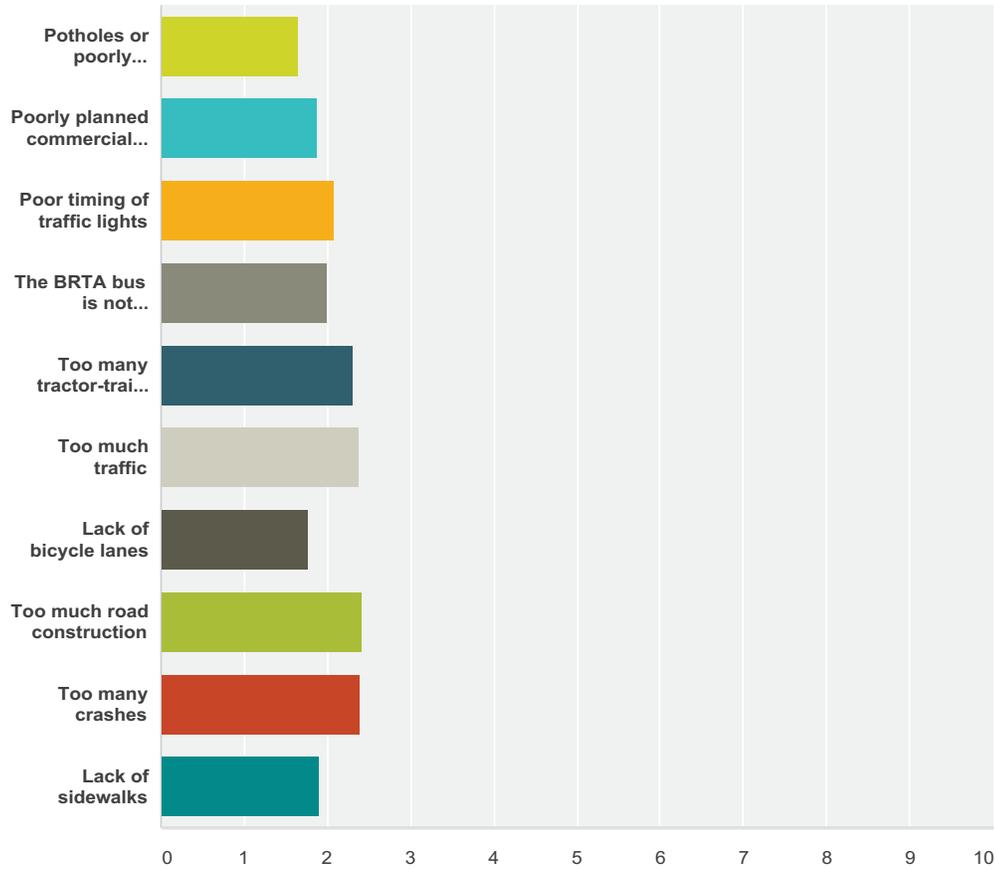
	Very Satisfied	Satisfied	Unsatisfied	Very Unsatisfied	No opinion	Total	Weighted Average
Overall levels of roadway congestion	20.45% 18	57.95% 51	14.77% 13	4.55% 4	2.27% 2	88	2.10
The maintenance or condition of roadways	3.49% 3	41.86% 36	33.72% 29	19.77% 17	1.16% 1	86	2.73
The availability and/or frequency of public transportation services	1.16% 1	17.44% 15	31.40% 27	36.05% 31	13.95% 12	86	3.44
How safe is it to walk in your community	21.59% 19	44.32% 39	19.32% 17	12.50% 11	2.27% 2	88	2.30
How safe it is to ride a bicycle in your community	3.45% 3	34.48% 30	36.78% 32	17.24% 15	8.05% 7	87	2.92
Access to greenways or multi-use trails	8.05% 7	32.18% 28	31.03% 27	16.09% 14	12.64% 11	87	2.93

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Q2 Please let us know if you feel the following are problems

Answered: 89 Skipped: 0



	Major problem	Minor problem	Not a problem	Total	Weighted Average
Potholes or poorly maintained roadways	44.32% 39	46.59% 41	9.09% 8	88	1.65
Poorly planned commercial development	29.76% 25	52.38% 44	17.86% 15	84	1.88
Poor timing of traffic lights	24.42% 21	41.86% 36	33.72% 29	86	2.09
The BRTA bus is not convenient for me.	35.29% 30	28.24% 24	36.47% 31	85	2.01
Too many tractor-trailers	16.47% 14	36.47% 31	47.06% 40	85	2.31
Too much traffic	11.76% 10	38.82% 33	49.41% 42	85	2.38
Lack of bicycle lanes	41.38% 36	40.23% 35	18.39% 16	87	1.77

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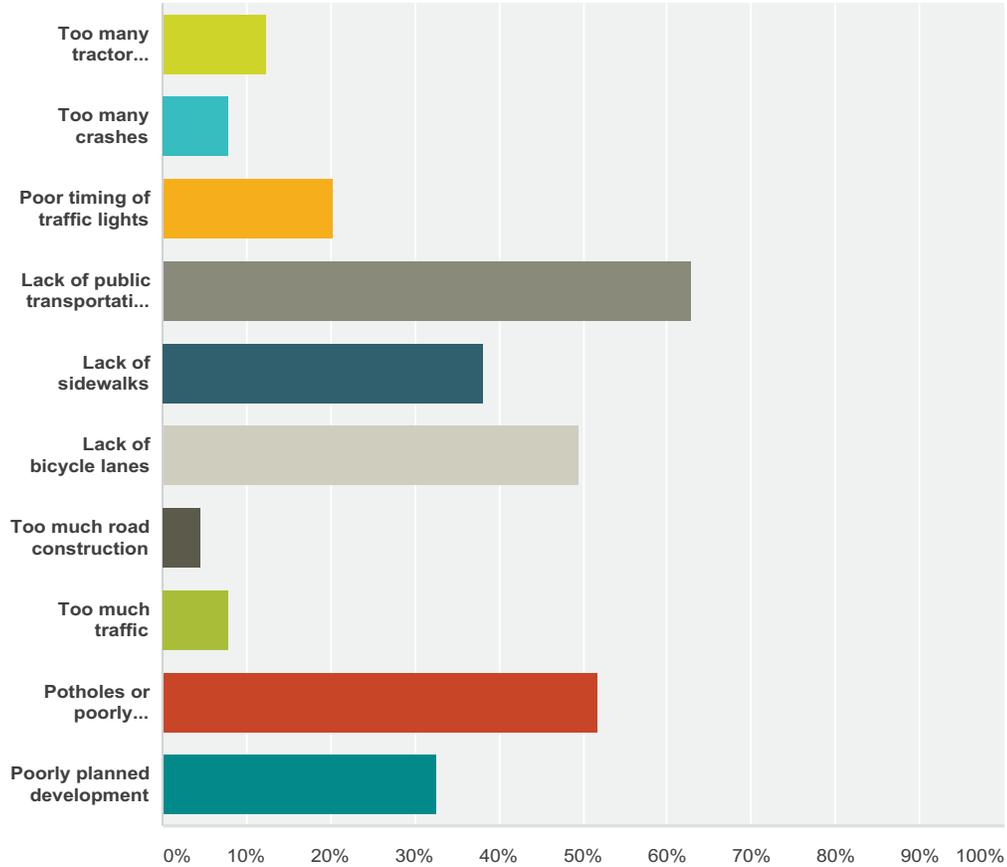
Too much road construction	6.98% 6	43.02% 37	50.00% 43	86	2.43
Too many crashes	11.63% 10	36.05% 31	52.33% 45	86	2.41
Lack of sidewalks	34.88% 30	39.53% 34	25.58% 22	86	1.91

The Berkshire Regional Planning Commission

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Q3 Please pick three of the following problems that we should focus on solving:

Answered: 89 Skipped: 0



Answer Choices	Responses
Too many tractor trailers	12.36% 11
Too many crashes	7.87% 7
Poor timing of traffic lights	20.22% 18
Lack of public transportation options	62.92% 56
Lack of sidewalks	38.20% 34
Lack of bicycle lanes	49.44% 44
Too much road construction	4.49% 4
Too much traffic	7.87% 7
Potholes or poorly maintained roadways	51.69% 46

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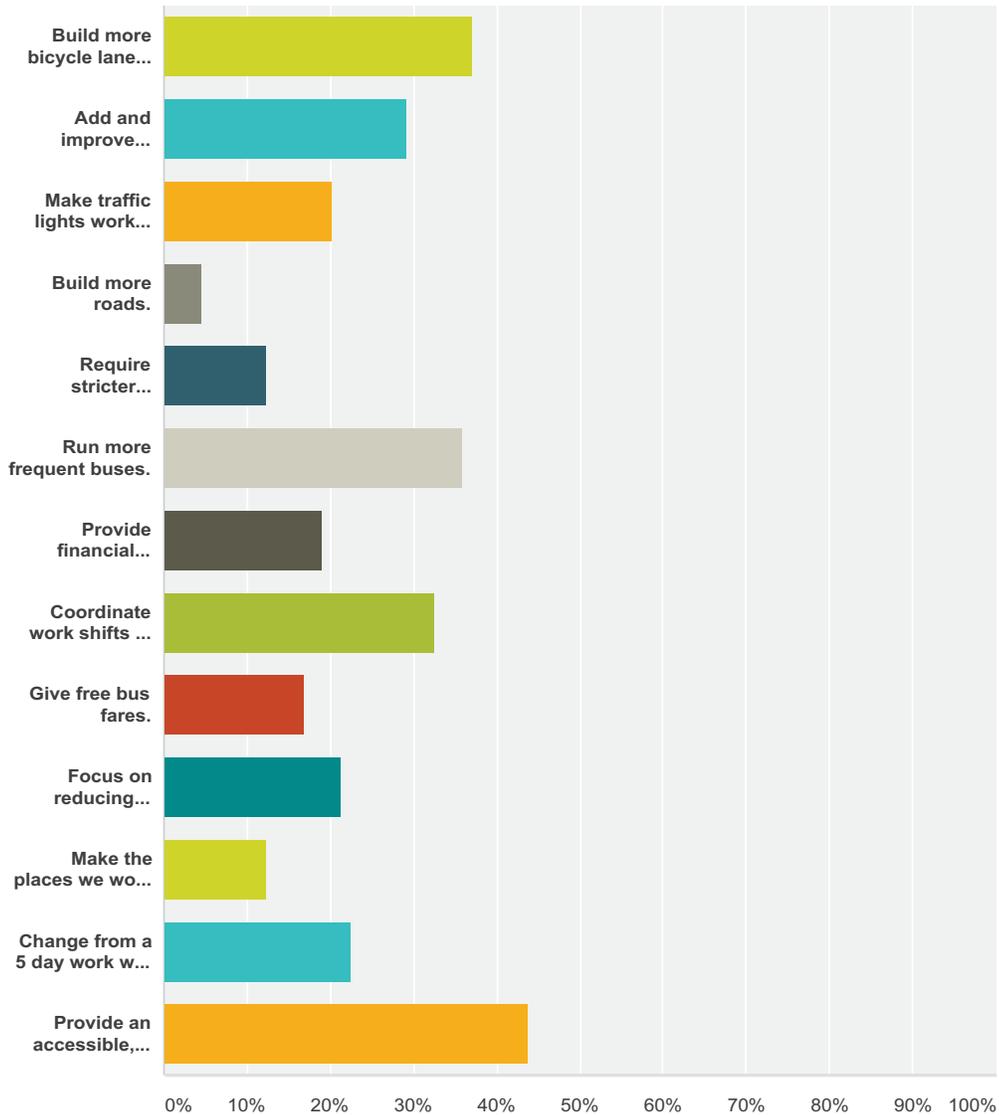
Poorly planned development	32.58%	29
Total Respondents: 89		

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Q4 The Commonwealth passed a law that requires reducing energy consumption and green house gas emissions. Please select three of the following transportation strategies we should use to reduce energy consumption and green house gas emissions.

Answered: 89 Skipped: 0



Answer Choices	Responses
Build more bicycle lanes and paths.	37.08% 33

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Add and improve sidewalks.	29.21%	26
Make traffic lights work better.	20.22%	18
Build more roads.	4.49%	4
Require stricter emission standards for vehicles and take older vehicles off the road.	12.36%	11
Run more frequent buses.	35.96%	32
Provide financial incentives for carpools/vanpools.	19.10%	17
Coordinate work shifts and bus schedules.	32.58%	29
Give free bus fares.	16.85%	15
Focus on reducing non-transportation energy use in homes.	21.35%	19
Make the places we work closer to the places we live.	12.36%	11
Change from a 5 day work week to a 4 day work week.	22.47%	20
Provide an accessible, affordable, and reliable broadband infrastructure to encourage working from home wherever possible.	43.82%	39
Total Respondents: 89		

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Q5 How far is your daily commute to work?

Answered: 88 Skipped: 1

#	Responses	Date
1	15 miles	3/22/2015 11:56 AM
2	3.7ml	3/19/2015 11:15 AM
3	6 miles	3/19/2015 9:54 AM
4	5 miles	3/14/2015 4:43 PM
5	i dont work	3/5/2015 3:50 PM
6	5 minutes	3/4/2015 4:48 PM
7	10 minutes	3/4/2015 4:45 PM
8	1.5 miles to work-25 miles to BCC for school	2/20/2015 11:39 AM
9	1 mile	2/19/2015 1:16 PM
10	15 minutes	2/19/2015 10:51 AM
11	15 miles	2/14/2015 12:53 PM
12	23 miles	2/14/2015 11:56 AM
13	5 minutes	2/10/2015 2:12 PM
14	20 minutes	2/10/2015 12:02 PM
15	1 mile	2/4/2015 11:06 AM
16	5 minutes	1/30/2015 4:17 PM
17	1 mile	1/30/2015 3:03 PM
18	10 Minutes	1/30/2015 11:56 AM
19	four tenths of a mile	1/30/2015 11:44 AM
20	8 miles	1/30/2015 10:10 AM
21	2 miles	1/30/2015 9:53 AM
22	Less than a mile	1/30/2015 9:50 AM
23	5 miles	1/30/2015 9:47 AM
24	2 miles	1/29/2015 4:33 PM
25	10 MILES	1/28/2015 11:59 AM
26	Retired	1/24/2015 3:47 PM
27	Retired	1/24/2015 3:26 PM
28	retired	1/24/2015 6:25 AM
29	5 miles	1/23/2015 5:29 PM
30	retired	1/23/2015 5:17 PM
31	Retired	1/23/2015 3:50 PM
32	15miles	1/22/2015 12:10 PM
33	0	1/21/2015 5:15 PM

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34	6 MILES	1/21/2015 12:07 PM
35	7 miles each way	1/19/2015 12:02 PM
36	10 miles	1/18/2015 1:49 PM
37	3.5 miles	1/17/2015 4:34 PM
38	7 miles	1/17/2015 3:21 PM
39	do not work outside home	1/17/2015 10:48 AM
40	8 miles	1/16/2015 8:05 PM
41	I work from home	1/16/2015 5:03 PM
42	N/A	1/16/2015 3:06 PM
43	3 days a week, 30 miles roundtrip. Otherwise, I work from home.	1/16/2015 2:52 PM
44	0	1/16/2015 2:38 PM
45	12.5 miles	1/16/2015 1:39 PM
46	5 miles	1/16/2015 1:02 PM
47	I am retired but my activities run 10 - 35 miles each way per day	1/16/2015 12:32 PM
48	0	1/16/2015 12:30 PM
49	0	1/16/2015 10:55 AM
50	0 miles	1/16/2015 10:45 AM
51	NA	1/16/2015 10:31 AM
52	25 miles	1/16/2015 10:20 AM
53	5 mles	1/16/2015 10:14 AM
54	Do not commute	1/16/2015 10:13 AM
55	15 mins	1/16/2015 10:10 AM
56	1/2 mile	1/16/2015 9:48 AM
57	1 mile	1/15/2015 7:53 PM
58	20 Miles	1/12/2015 10:31 AM
59	20 miles	1/11/2015 10:38 AM
60	1	1/8/2015 1:17 PM
61	15 miles	1/5/2015 10:42 AM
62	5 minutes	1/5/2015 7:17 AM
63	5 mi.	1/2/2015 7:48 PM
64	40 miles	1/1/2015 2:18 PM
65	2 miles	1/1/2015 8:54 AM
66	1 mile	12/30/2014 1:40 PM
67	6 minutes	12/30/2014 1:17 PM
68	15 mi.	12/30/2014 12:51 PM
69	I work in the building that I live in.	12/30/2014 10:11 AM
70	5 miles	12/29/2014 7:10 PM
71	4 miles	12/16/2014 1:14 PM

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72	one hour	12/15/2014 12:58 PM
73	25 mins	12/13/2014 12:02 AM
74	1/8 of a mile, I should walk but I need my car for work.	12/8/2014 2:15 PM
75	NA retired	12/8/2014 1:53 PM
76	5 Miles	12/8/2014 10:04 AM
77	23 miles	12/6/2014 12:32 AM
78	N/a (work from home)	12/5/2014 5:04 PM
79	4.5 miles	12/5/2014 3:28 PM
80	8 miles	12/5/2014 2:12 PM
81	13 miles	12/5/2014 12:46 PM
82	35 minutes	12/5/2014 10:08 AM
83	20 Milese	12/5/2014 9:15 AM
84	18 miles	12/5/2014 9:13 AM
85	5 min	12/5/2014 8:40 AM
86	3 miles	12/5/2014 8:17 AM
87	15 minutes	12/4/2014 3:12 PM
88	45 min	12/4/2014 1:22 PM

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Q6 Do you run into regular traffic back ups on the way to work? If so, where?

Answered: 88 Skipped: 1

#	Responses	Date
1	Coltsville, pittsfield	3/22/2015 11:56 AM
2	No	3/19/2015 11:15 AM
3	no	3/19/2015 9:54 AM
4	no	3/14/2015 4:43 PM
5	none at all	3/5/2015 3:50 PM
6	no	3/4/2015 4:48 PM
7	yes. North and First street	3/4/2015 4:45 PM
8	No, because I walk to work. Buses to BCC are not timed well for me to use them to get from Williamstown to BCC-and no night service	2/20/2015 11:39 AM
9	never	2/19/2015 1:16 PM
10	no	2/19/2015 10:51 AM
11	No	2/14/2015 12:53 PM
12	No, because I take residential roads through Pittsfield to avoid downtown traffic and poorly timed lights.	2/14/2015 11:56 AM
13	NO	2/10/2015 2:12 PM
14	Down town PITTSFIELD	2/10/2015 12:02 PM
15	No	2/4/2015 11:06 AM
16	no	1/30/2015 4:17 PM
17	no	1/30/2015 3:03 PM
18	No	1/30/2015 11:56 AM
19	No	1/30/2015 11:44 AM
20	No, I do not.	1/30/2015 10:10 AM
21	Nope.	1/30/2015 9:53 AM
22	no	1/30/2015 9:50 AM
23	No	1/30/2015 9:47 AM
24	At Commercial St.-Center St. traffic signals 7:00 AM to 8:00 AM	1/29/2015 4:33 PM
25	NO	1/28/2015 11:59 AM
26	retired	1/24/2015 3:47 PM
27	N/a	1/24/2015 3:26 PM
28	retired	1/24/2015 6:25 AM
29	North Adams near City Hall bridge	1/23/2015 5:29 PM
30	Friend st intersection	1/23/2015 5:17 PM
31	N/A	1/23/2015 3:50 PM
32	No	1/22/2015 12:10 PM

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33	In Stockbridge in the Tourist season	1/21/2015 5:15 PM
34	YES, DUE TO TRAFFIC LIGHTS	1/21/2015 12:07 PM
35	Yes. - upper North Street at Wahconah/Crane Avenue intersection(s) Way home from work - 1st St/North Street - Tyler Street intersection	1/19/2015 12:02 PM
36	no	1/18/2015 1:49 PM
37	no	1/17/2015 4:34 PM
38	N0	1/17/2015 3:21 PM
39	Not applicable	1/17/2015 10:48 AM
40	Holmes Rd & Elm in Pittsfield (minor)	1/16/2015 8:05 PM
41	N/A	1/16/2015 5:03 PM
42	N/A	1/16/2015 3:06 PM
43	No.	1/16/2015 2:52 PM
44	No, I work from home.	1/16/2015 2:38 PM
45	A little bit heading north on 7/20 by the Country Club of Pittsfield.	1/16/2015 1:39 PM
46	Route 7-Stockbridge	1/16/2015 1:02 PM
47	I try to travel to avoid traffic backups but the school bus schedules back up traffic; always a backup going into GB from north to south; going into and out of Pittsfield and always going Rt 20 in and out of Lee.	1/16/2015 12:32 PM
48	no	1/16/2015 12:30 PM
49	no	1/16/2015 10:55 AM
50	NA	1/16/2015 10:45 AM
51	NA	1/16/2015 10:31 AM
52	Occasionally. Usually in Great Barrington and Stockbridge.	1/16/2015 10:20 AM
53	No	1/16/2015 10:14 AM
54	See above	1/16/2015 10:13 AM
55	No	1/16/2015 10:10 AM
56	No	1/16/2015 9:48 AM
57	No.	1/15/2015 7:53 PM
58	Minor backups between Elm & First in Pittsfield	1/12/2015 10:31 AM
59	Yes, Pittsfield	1/11/2015 10:38 AM
60	1	1/8/2015 1:17 PM
61	No	1/5/2015 10:42 AM
62	No	1/5/2015 7:17 AM
63	No	1/2/2015 7:48 PM
64	Bridge to Albany on I90	1/1/2015 2:18 PM
65	no	1/1/2015 8:54 AM
66	no	12/30/2014 1:40 PM
67	No	12/30/2014 1:17 PM
68	Brown bridge, Gt. Barr.	12/30/2014 12:51 PM
69	No	12/30/2014 10:11 AM

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70	No	12/29/2014 7:10 PM
71	No	12/16/2014 1:14 PM
72	yes. Pittsfield. RT 7	12/15/2014 12:58 PM
73	not really	12/13/2014 12:02 AM
74	No	12/8/2014 2:15 PM
75	no	12/8/2014 1:53 PM
76	Usually on Route 7 and 20 North, starting near the Pittsfield Country Club	12/8/2014 10:04 AM
77	rarely	12/6/2014 12:32 AM
78	N/a (work from home)	12/5/2014 5:04 PM
79	no	12/5/2014 3:28 PM
80	No	12/5/2014 2:12 PM
81	Pittsfield High West Housatonic, near So Merriam and Barker Rds.	12/5/2014 12:46 PM
82	Route 8-North Adams to Pittsfield Route 8/9 Intersection-Allendale	12/5/2014 10:08 AM
83	Only very short back ups on East or First in Pittsfield	12/5/2014 9:15 AM
84	No	12/5/2014 9:13 AM
85	No	12/5/2014 8:40 AM
86	no	12/5/2014 8:17 AM
87	Coltsville	12/4/2014 3:12 PM
88	no	12/4/2014 1:22 PM

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Q7 Please enter the town or city where you primarily work.

Answered: 88 Skipped: 1

#	Responses	Date
1	Pittsfield	3/22/2015 11:56 AM
2	willimstown	3/19/2015 11:15 AM
3	Williamstown	3/19/2015 9:54 AM
4	Great Barrington	3/14/2015 4:43 PM
5	01201	3/5/2015 3:50 PM
6	Pittsfield	3/4/2015 4:48 PM
7	Pittsfield	3/4/2015 4:45 PM
8	Williamstown	2/20/2015 11:39 AM
9	clarksburg	2/19/2015 1:16 PM
10	North Adams	2/19/2015 10:51 AM
11	Bennington, Vermont	2/14/2015 12:53 PM
12	Pittsfield	2/14/2015 11:56 AM
13	Adams	2/10/2015 2:12 PM
14	Pittsfield	2/10/2015 12:02 PM
15	Pittsfield	2/4/2015 11:06 AM
16	Adams	1/30/2015 4:17 PM
17	adams	1/30/2015 3:03 PM
18	Adams	1/30/2015 11:56 AM
19	Adams	1/30/2015 11:44 AM
20	Adams, MA	1/30/2015 10:10 AM
21	Adams	1/30/2015 9:53 AM
22	Adams	1/30/2015 9:50 AM
23	Adams	1/30/2015 9:47 AM
24	Adams	1/29/2015 4:33 PM
25	ADAMS	1/28/2015 11:59 AM
26	adams	1/24/2015 3:47 PM
27	Cheshire	1/24/2015 3:26 PM
28	Adams	1/24/2015 6:25 AM
29	North Adams	1/23/2015 5:29 PM
30	Adams	1/23/2015 5:17 PM
31	Adams	1/23/2015 3:50 PM
32	01201	1/22/2015 12:10 PM

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33	Lee	1/21/2015 5:15 PM
34	PITTSFIELD	1/21/2015 12:07 PM
35	Pittsfield	1/19/2015 12:02 PM
36	pittsfield	1/18/2015 1:49 PM
37	lenox	1/17/2015 4:34 PM
38	Pittsfield	1/17/2015 3:21 PM
39	Not applicable	1/17/2015 10:48 AM
40	Pittsfield	1/16/2015 8:05 PM
41	Lenox	1/16/2015 5:03 PM
42	N/A	1/16/2015 3:06 PM
43	Monterey	1/16/2015 2:52 PM
44	Lenox	1/16/2015 2:38 PM
45	Lee	1/16/2015 1:39 PM
46	Stockbridge	1/16/2015 1:02 PM
47	Sheffield	1/16/2015 12:32 PM
48	Lenox	1/16/2015 12:30 PM
49	Lenox	1/16/2015 10:55 AM
50	Lenox	1/16/2015 10:45 AM
51	NA	1/16/2015 10:31 AM
52	Lenox	1/16/2015 10:20 AM
53	Lenox	1/16/2015 10:14 AM
54	Retired	1/16/2015 10:13 AM
55	Pittsfield	1/16/2015 10:10 AM
56	Lenox	1/16/2015 9:48 AM
57	Pittsfield	1/15/2015 7:53 PM
58	Williamstown	1/12/2015 10:31 AM
59	Pittsfield	1/11/2015 10:38 AM
60	1	1/8/2015 1:17 PM
61	Pittsfield	1/5/2015 10:42 AM
62	Williamstown	1/5/2015 7:17 AM
63	Becket	1/2/2015 7:48 PM
64	Albany as no work available in Birkshires	1/1/2015 2:18 PM
65	west Stockbridge	1/1/2015 8:54 AM
66	Clarksburg	12/30/2014 1:40 PM
67	North Adams	12/30/2014 1:17 PM
68	So. Berkshire	12/30/2014 12:51 PM
69	Pittsfield	12/30/2014 10:11 AM
70	Stockbridge	12/29/2014 7:10 PM

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71	Pittsfield	12/16/2014 1:14 PM
72	North Adams	12/15/2014 12:58 PM
73	Great Barrington	12/13/2014 12:02 AM
74	Adams	12/8/2014 2:15 PM
75	na	12/8/2014 1:53 PM
76	Pittsfield	12/8/2014 10:04 AM
77	north adams	12/6/2014 12:32 AM
78	N/a (work from home)	12/5/2014 5:04 PM
79	Lenox	12/5/2014 3:28 PM
80	North Adams	12/5/2014 2:12 PM
81	Dalton	12/5/2014 12:46 PM
82	Pittsfield	12/5/2014 10:08 AM
83	Williamstown	12/5/2014 9:15 AM
84	Lenox	12/5/2014 9:13 AM
85	GB	12/5/2014 8:40 AM
86	Pittsfield	12/5/2014 8:17 AM
87	Pittsfield	12/4/2014 3:12 PM
88	piitsfield	12/4/2014 1:22 PM

2016 Regional Transportation Plan

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Q8 What locations do you avoid while traveling through the Berkshires?

Answered: 84 Skipped: 5

#	Responses	Date
1	Pittsfield, Lenox, Great Barrington	3/22/2015 11:56 AM
2	S county	3/19/2015 11:15 AM
3	downtown Pittsfield	3/19/2015 9:54 AM
4	none	3/14/2015 4:43 PM
5	highways	3/5/2015 3:50 PM
6	Downtown Lee	3/4/2015 4:48 PM
7	Pittsfield North street/main street Great Barrington	3/4/2015 4:45 PM
8	Peck's Rd. in Plttsfield	2/20/2015 11:39 AM
9	pothole riddled roads	2/19/2015 1:16 PM
10	Pitssfield in central area near route 7.	2/19/2015 10:51 AM
11	Downtown Pittsfield, because the traffic lights are untimed, and there are too many of them	2/14/2015 12:53 PM
12	Downtown Pittsfield at busy times of day.	2/14/2015 11:56 AM
13	Main Road.	2/10/2015 2:12 PM
14	Park square	2/10/2015 12:02 PM
15	Stockbridge center	2/4/2015 11:06 AM
16	Lenox, Southern Berkshire County	1/30/2015 4:17 PM
17	none	1/30/2015 3:03 PM
18	Main Streets in Great Barrington, Pittsfield, North Adams, due to excessive traffic/challenging driving, walking and parking conditions	1/30/2015 11:56 AM
19	None	1/30/2015 11:44 AM
20	Route 8 Corridor from Adams to Cheshire; Downtown North Street to South Street, Pittsfield	1/30/2015 10:10 AM
21	I find traffic to not be a problem. There are some areas that have unique road ways where you are not just going strait from point a to point b but thats not a big deal. One thing that might be great for the Berkshires is to look at improving speed limits and the road in general along RT 9 so that getting from the Berkshires to the Amherst area is faster and easier-makes it easier for people in either area to go from one to the other. Rt 9 is not in bad shape per say, but road lengthening/straightening/speed limits, etc that make it faster and easier to travel would open a nice corridor outside using the pike.	1/30/2015 9:53 AM
22	None	1/30/2015 9:50 AM
23	Pittsfield and north adams	1/30/2015 9:47 AM
24	Allendale intersection in Pittsfield, Rte 8 bridge at Main St. intersection in N. Adams and Waconah St. intersection to Rte 7 in Pittsfield (left turn signal is exceptionally long in duration.	1/29/2015 4:33 PM
25	PITTSFIELD	1/28/2015 11:59 AM
26	coltsville	1/24/2015 3:47 PM
27	Constuction areas	1/24/2015 3:26 PM
28	North St. area of Pittsfield	1/24/2015 6:25 AM

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29	Pittsfield downtown	1/23/2015 5:29 PM
30	RT 8	1/23/2015 5:17 PM
31	Pittsfield,Williamstown,Stockbridge	1/23/2015 3:50 PM
32	South St. in Pittsfield	1/22/2015 12:10 PM
33	Great Barrington, Stockbridge and Lee	1/21/2015 5:15 PM
34	CENTER OF PITTSFIELD	1/21/2015 12:07 PM
35	None	1/19/2015 12:02 PM
36	none	1/18/2015 1:49 PM
37	downtown pittsfield, gb, lee and lenox	1/17/2015 4:34 PM
38	Downtown Lee, Stockbridge & Great Barrington in the summer.	1/17/2015 3:21 PM
39	Have no car	1/17/2015 10:48 AM
40	none	1/16/2015 8:05 PM
41	Route 7 during school bus times.	1/16/2015 5:03 PM
42	none	1/16/2015 3:06 PM
43	Stockbridge & Great Barrington during the summer.	1/16/2015 2:52 PM
44	Allendale in Pittsfield.	1/16/2015 2:38 PM
45	none	1/16/2015 1:39 PM
46	downtown Lenox&Stockbridge	1/16/2015 1:02 PM
47	I don't avoid any locations but am extremely mindful of the best times to travel to avoid school and major rush hour jams; also seasonal jams from GB all the way through Lenox - such as all summer and major holiday weekends and school vacations	1/16/2015 12:32 PM
48	downtown Pittsfield	1/16/2015 12:30 PM
49	Pittsfield	1/16/2015 10:55 AM
50	Route 7 and Route 20 as much as possible	1/16/2015 10:45 AM
51	NA	1/16/2015 10:31 AM
52	None. I go where I need to go, and learn to deal with the traffic/conditions.	1/16/2015 10:20 AM
53	None	1/16/2015 10:13 AM
54	downtown Lenox when Twood is in season. Downtown GB during construction	1/16/2015 10:10 AM
55	None	1/16/2015 9:48 AM
56	None.	1/15/2015 7:53 PM
57	Downtown Lee, Stockbridge & Great Barrington in prime tourist season	1/12/2015 10:31 AM
58	Lee, Great Barrington	1/11/2015 10:38 AM
59	1	1/8/2015 1:17 PM
60	Lee and Pittsfield	1/5/2015 10:42 AM
61	I don't avoid them, but Coltsville intersections are dangerous.	1/5/2015 7:17 AM
62	North Adams is very confusing at bridge and MassMOCA	1/1/2015 2:18 PM
63	pittsfield	1/1/2015 8:54 AM
64	Mohawk Trail and Taconic Trail	12/30/2014 1:40 PM
65	North St., Pittsfield in general,	12/30/2014 1:17 PM

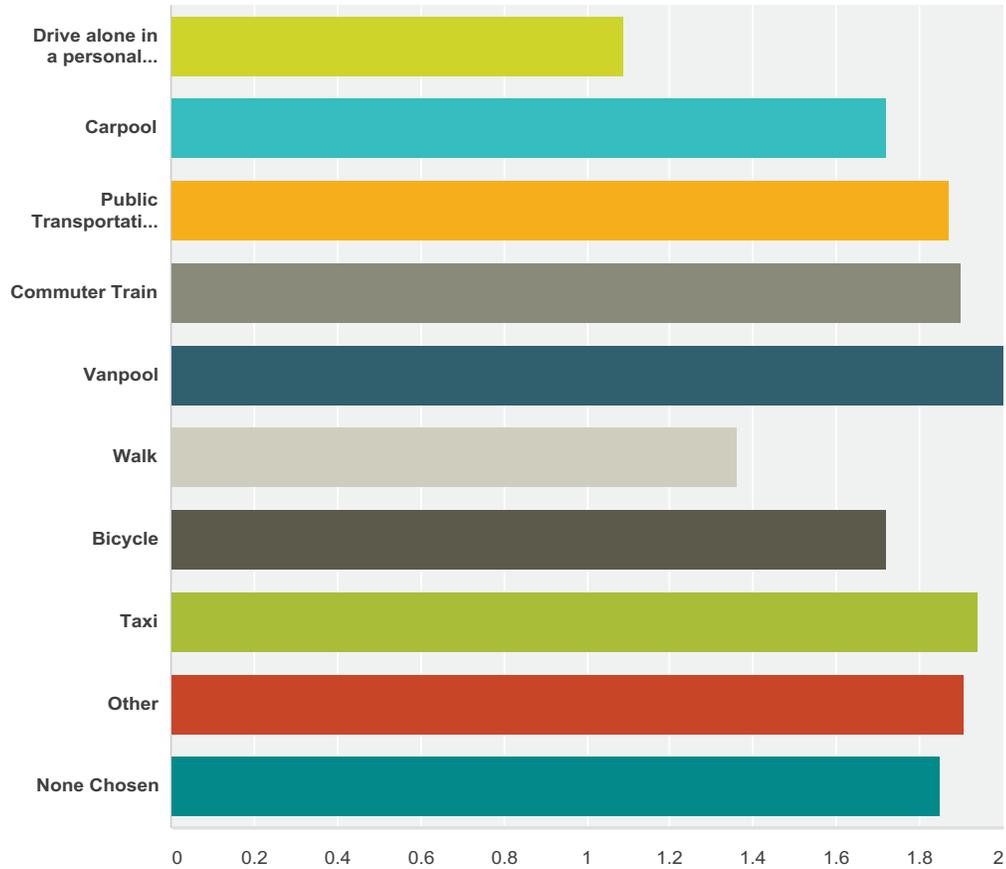
2016 Regional Transportation Plan

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66	Rt.7 from 102/7 to South St. Pitts.	12/30/2014 12:51 PM
67	I avoid Fairfield, Harding, Taylor streets around 3 pm on weekdays. You "fixed" South St and did not fix the one thing all the residents complained about.	12/30/2014 10:11 AM
68	Pittsfield	12/29/2014 7:10 PM
69	Pittsfield, Rt 7	12/15/2014 12:58 PM
70	Tanglewood	12/8/2014 2:15 PM
71	none	12/8/2014 1:53 PM
72	Main Street in Great Barrington and Stockbridge on the weekends in the Summer. However, since I work county-wide, it is not really possible for me to avoid any areas in their entirety.	12/8/2014 10:04 AM
73	Lenox, Lee, Allendale, Adams	12/6/2014 12:32 AM
74	None	12/5/2014 5:04 PM
75	none	12/5/2014 3:28 PM
76	North Street	12/5/2014 2:12 PM
77	Try to avoid North St.East St near Pittsfield high at 2:20pm, Tyler St.	12/5/2014 12:46 PM
78	East St.-Pittsfield South St.-Pittsfield State St./Hadley Overpass-North Adams Downtown Adams Downtown Great Barrington	12/5/2014 10:08 AM
79	Lee, Stockbridge, & Great Barrington downtowns from June to October.	12/5/2014 9:15 AM
80	Pittsfield Downtown Lee	12/5/2014 9:13 AM
81	none	12/5/2014 8:40 AM
82	None	12/5/2014 8:17 AM
83	Park Square / South Street / North Street	12/4/2014 3:12 PM
84	none	12/4/2014 1:22 PM

Q9 Please select the way(s) you travel to work and other destinations

Answered: 82 Skipped: 7



	Yes	No	Total	Weighted Average
Drive alone in a personal automobile	91.03% 71	8.97% 7	78	1.09
Carpool	28.07% 16	71.93% 41	57	1.72
Public Transportation Bus	13.46% 7	86.54% 45	52	1.87
Commuter Train	9.80% 5	90.20% 46	51	1.90
Vanpool	0.00% 0	100.00% 50	50	2.00
Walk	63.93% 39	36.07% 22	61	1.36
Bicycle	28.07% 16	71.93% 41	57	1.72

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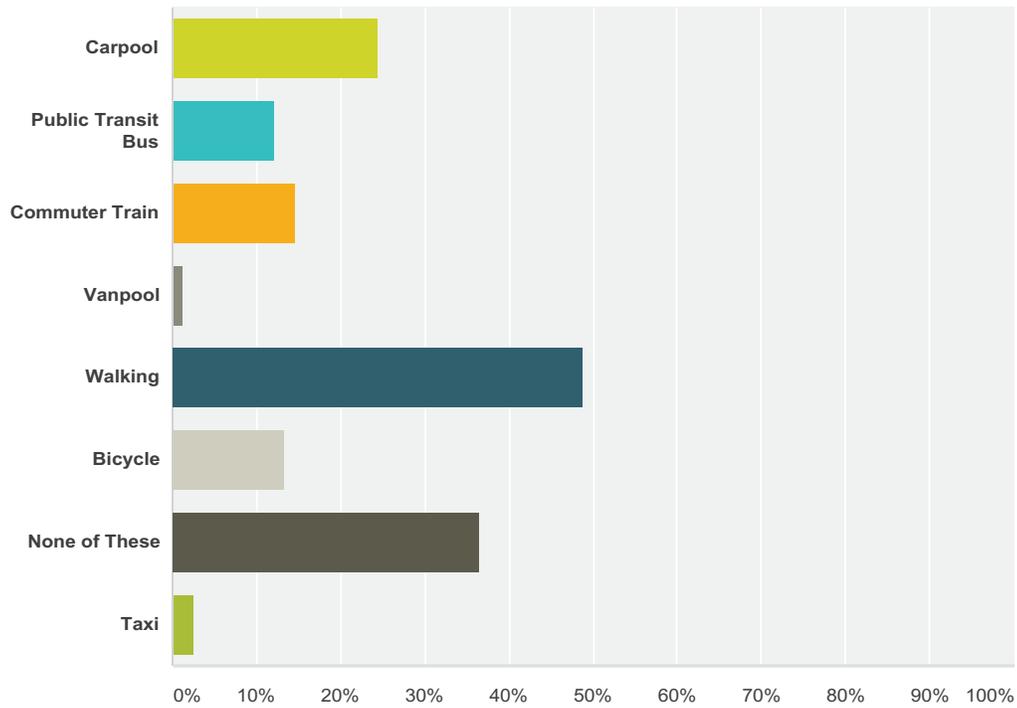
Taxi	6.00% 3	94.00% 47	50	1.94
Other	9.30% 4	90.70% 39	43	1.91
None Chosen	15.00% 3	85.00% 17	20	1.85

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2015 Regional Transportation Plan

Q10 In the past 90 days or 3 months, have you traveled to places you want to go, including work, by any of the following?

Answered: 82 Skipped: 7



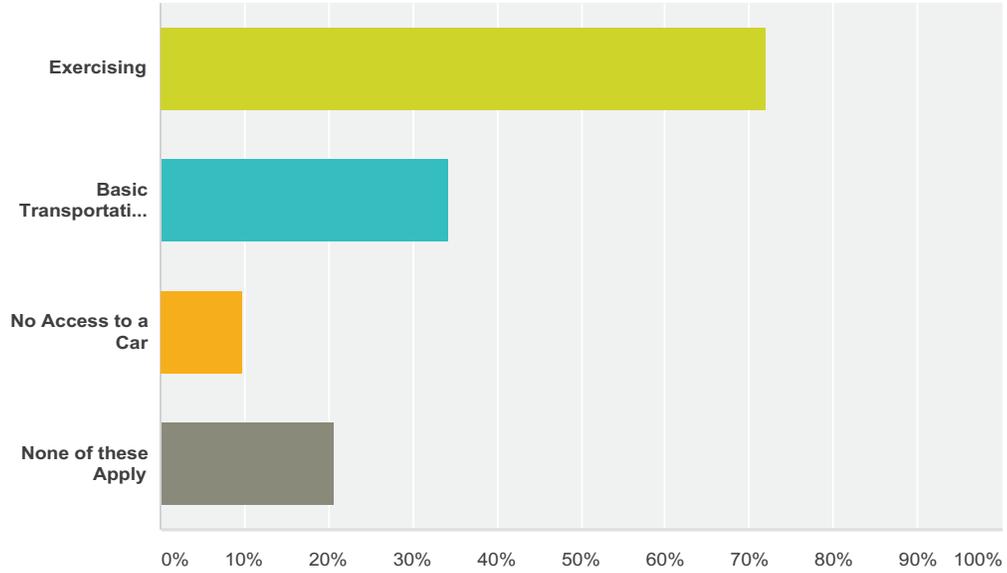
Answer Choices	Responses
Carpool	24.39% 20
Public Transit Bus	12.20% 10
Commuter Train	14.63% 12
Vanpool	1.22% 1
Walking	48.78% 40
Bicycle	13.41% 11
None of These	36.59% 30
Taxi	2.44% 2
Total Respondents: 82	

2016 Regional Transportation Plan

2015 Regional Transportation Plan

Q11 Does anyone in your household walk or bicycle for the following reasons?

Answered: 82 Skipped: 7



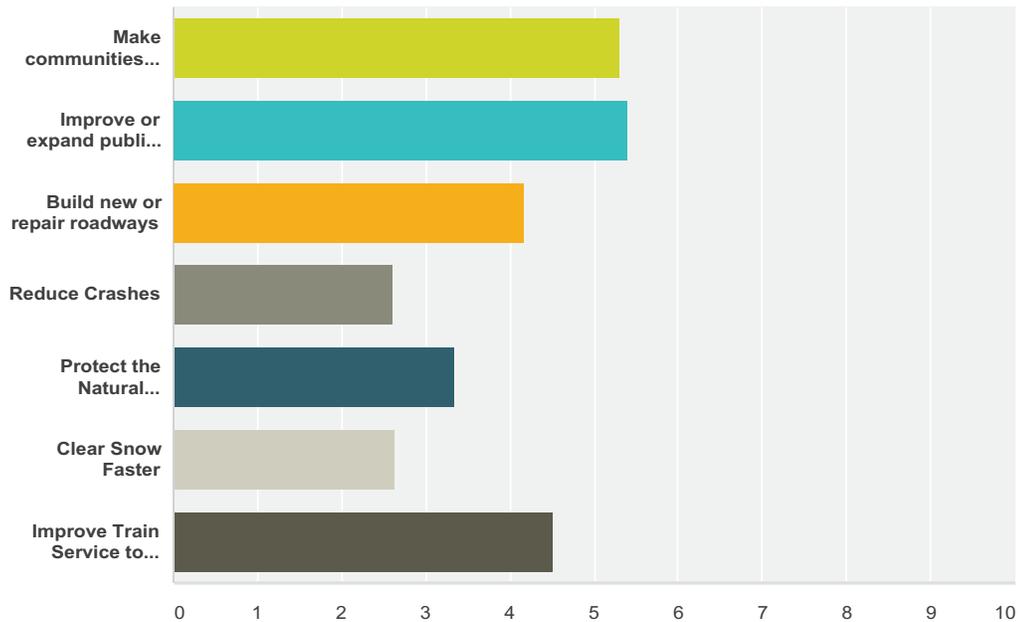
Answer Choices	Responses	Count
Exercising	71.95%	59
Basic Transportation Purposes	34.15%	28
No Access to a Car	9.76%	8
None of these Apply	20.73%	17
Total Respondents: 82		

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2015 Regional Transportation Plan

Q12 If you had to decide an overall strategy for improving transportation in Berkshire County, how would you rank the following strategies?

Answered: 82 Skipped: 7



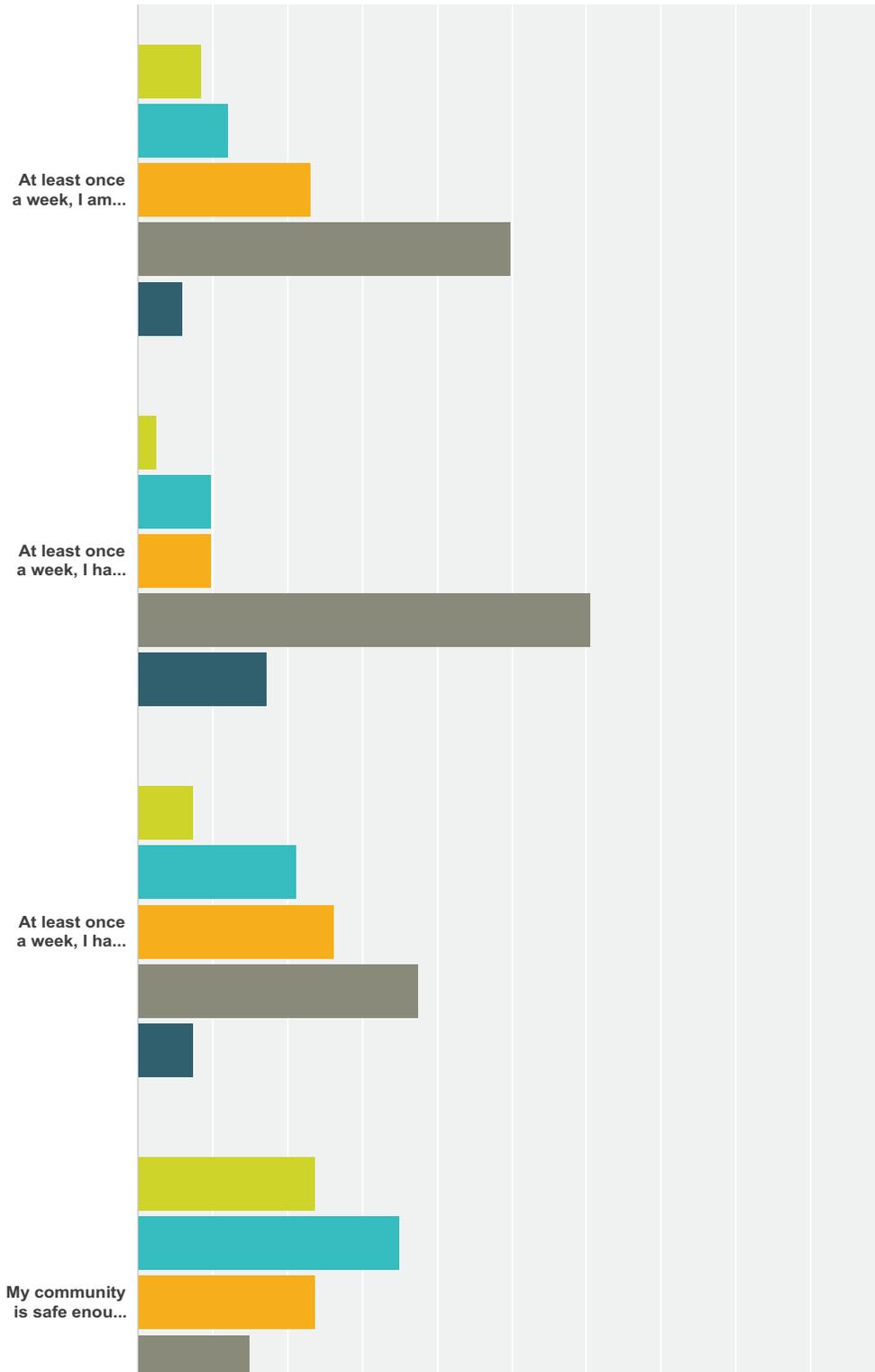
	1	2	3	4	5	6	7	Total	Score
Make communities more walkable or bicycle friendly	19.51% 16	25.61% 21	31.71% 26	15.85% 13	4.88% 4	1.22% 1	1.22% 1	82	5.30
Improve or expand public transportation options like BRTA	32.93% 27	21.95% 18	20.73% 17	9.76% 8	9.76% 8	2.44% 2	2.44% 2	82	5.41
Build new or repair roadways	14.63% 12	13.41% 11	14.63% 12	24.39% 20	12.20% 10	6.10% 5	14.63% 12	82	4.17
Reduce Crashes	2.44% 2	2.44% 2	3.66% 3	15.85% 13	21.95% 18	29.27% 24	24.39% 20	82	2.62
Protect the Natural Environment	8.54% 7	3.66% 3	7.32% 6	19.51% 16	29.27% 24	19.51% 16	12.20% 10	82	3.35
Clear Snow Faster	1.22% 1	7.32% 6	7.32% 6	8.54% 7	15.85% 13	32.93% 27	26.83% 22	82	2.63
Improve Train Service to Albany, New York City, Boston, Connecticut, etc.	20.73% 17	25.61% 21	14.63% 12	6.10% 5	6.10% 5	8.54% 7	18.29% 15	82	4.50

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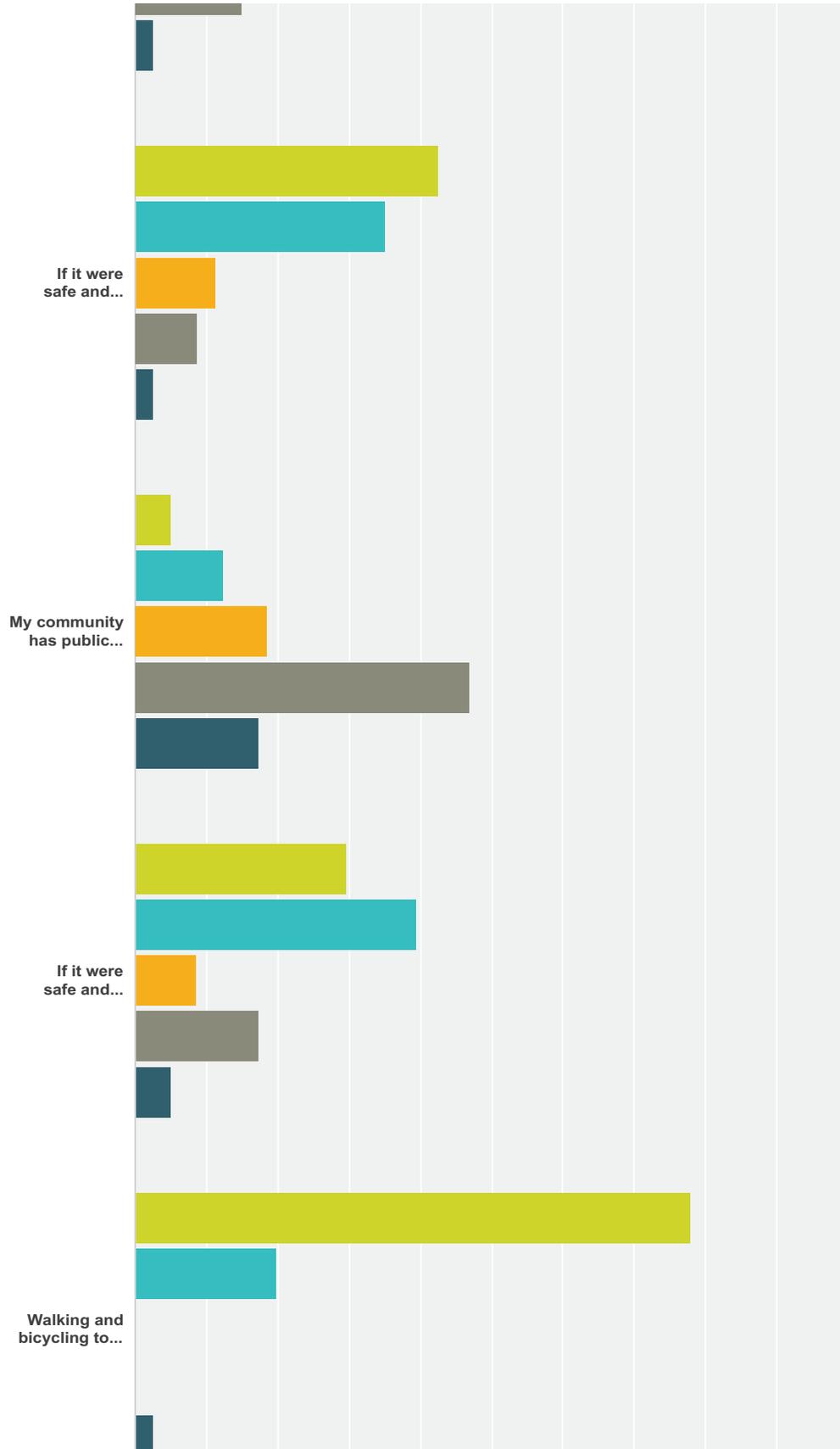
Q13 Please indicate whether you agree or disagree with the following statements:

Answered: 82 Skipped: 7



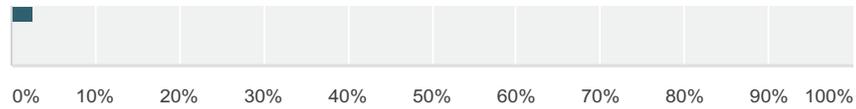
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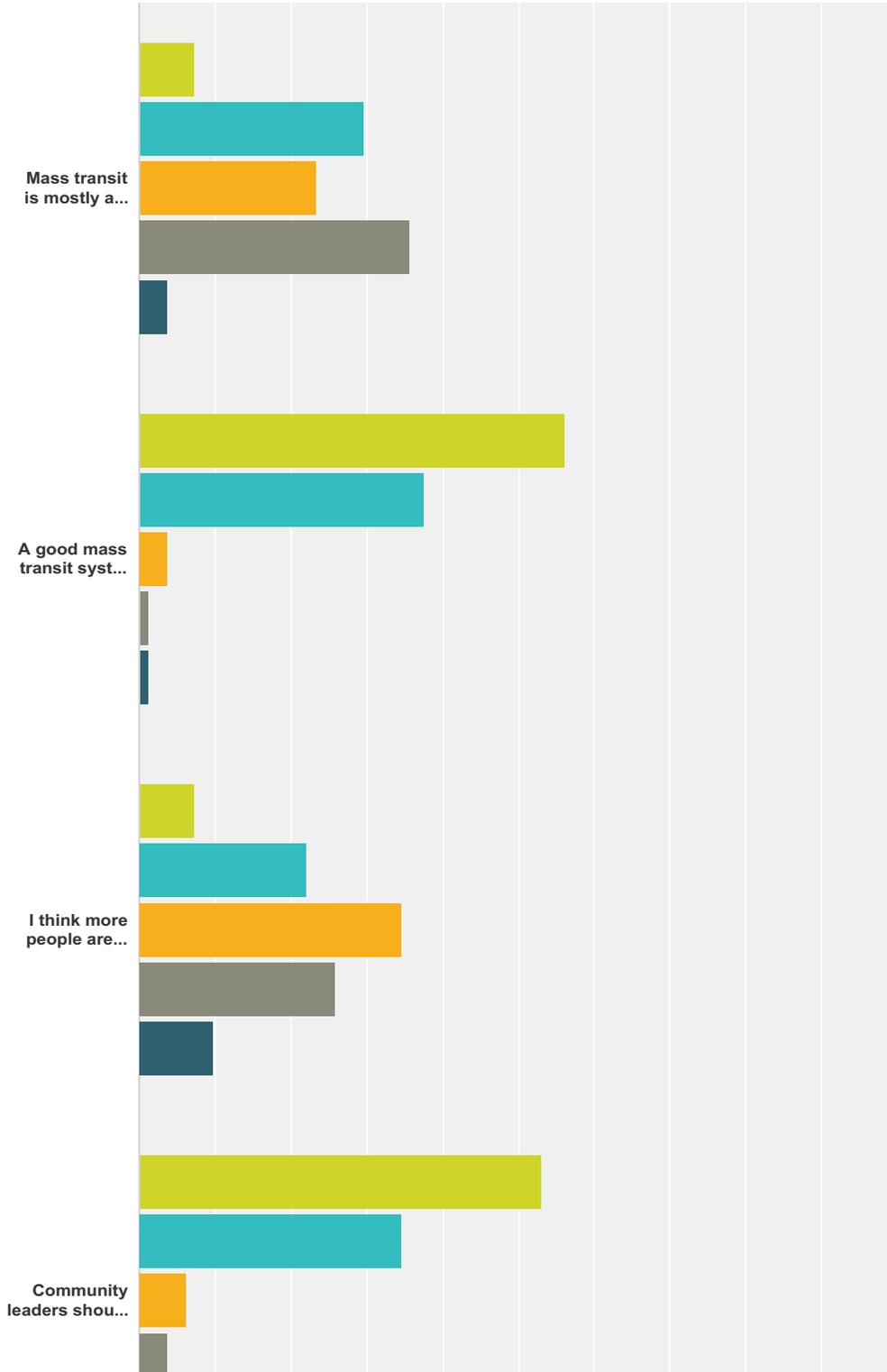
2015 Regional Transportation Plan



	Strongly Agree	Somewhat Agree	Somewhat Disagree	Strongly Disagree	No Opinion	Total
At least once a week, I am seriously delayed by traffic congestion.	8.54% 7	12.20% 10	23.17% 19	50.00% 41	6.10% 5	82
At least once a week, I have problems finding a ride to get where I want to go.	2.47% 2	9.88% 8	9.88% 8	60.49% 49	17.28% 14	81
At least once a week, I have problems finding a place to park.	7.50% 6	21.25% 17	26.25% 21	37.50% 30	7.50% 6	80
My community is safe enough to walk or bicycle to and from places I want to go.	23.75% 19	35.00% 28	23.75% 19	15.00% 12	2.50% 2	80
If it were safe and convenient, I would walk or bicycle to and from places I want to go.	42.50% 34	35.00% 28	11.25% 9	8.75% 7	2.50% 2	80
My community has public transportation services convenient enough to use regularly.	4.94% 4	12.35% 10	18.52% 15	46.91% 38	17.28% 14	81
If it were safe and convenient, I would use public transportation to and from places I want to go.	29.63% 24	39.51% 32	8.64% 7	17.28% 14	4.94% 4	81
Walking and bicycling to go places is a good way to get exercise.	77.78% 63	19.75% 16	0.00% 0	0.00% 0	2.47% 2	81

Q14 Please indicate whether you agree or disagree with the following statements:

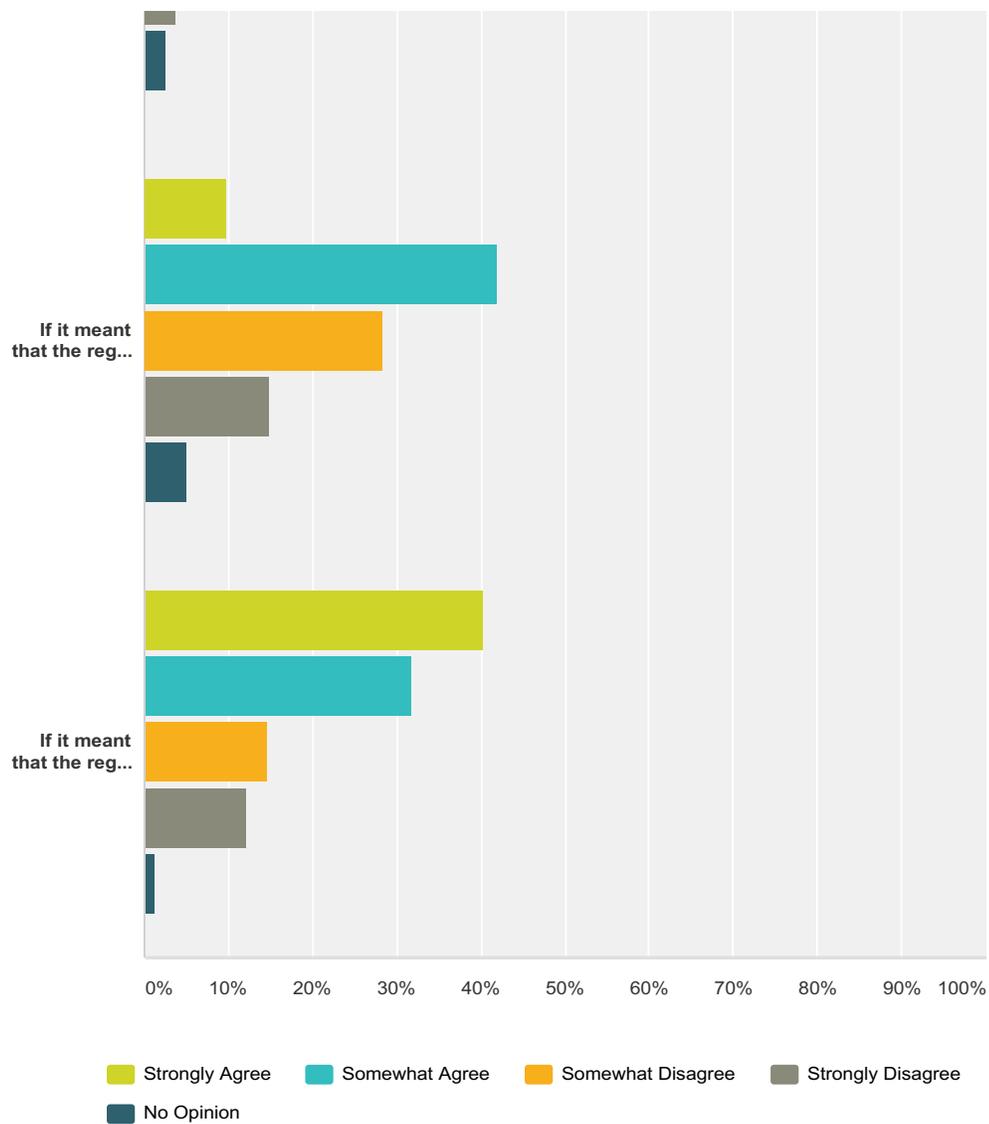
Answered: 82 Skipped: 7



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	Strongly Agree	Somewhat Agree	Somewhat Disagree	Strongly Disagree	No Opinion	Total
Mass transit is mostly a social service for people who cannot afford a car.	7.41% 6	29.63% 24	23.46% 19	35.80% 29	3.70% 3	81
A good mass transit system is important for the local economy.	56.25% 45	37.50% 30	3.75% 3	1.25% 1	1.25% 1	80
I think more people are going to start using transit because of rising fuel prices.	7.41% 6	22.22% 18	34.57% 28	25.93% 21	9.88% 8	81
Community leaders should begin working together to expand the regional transit system and provide bus rapid transit throughout the Berkshires.	53.09% 43	34.57% 28	6.17% 5	3.70% 3	2.47% 2	81
If it meant that the region could significantly expand mass transit choices, most people would be willing to pay slightly more in some type of tax or fee to help pay for it.	9.88% 8	41.98% 34	28.40% 23	14.81% 12	4.94% 4	81

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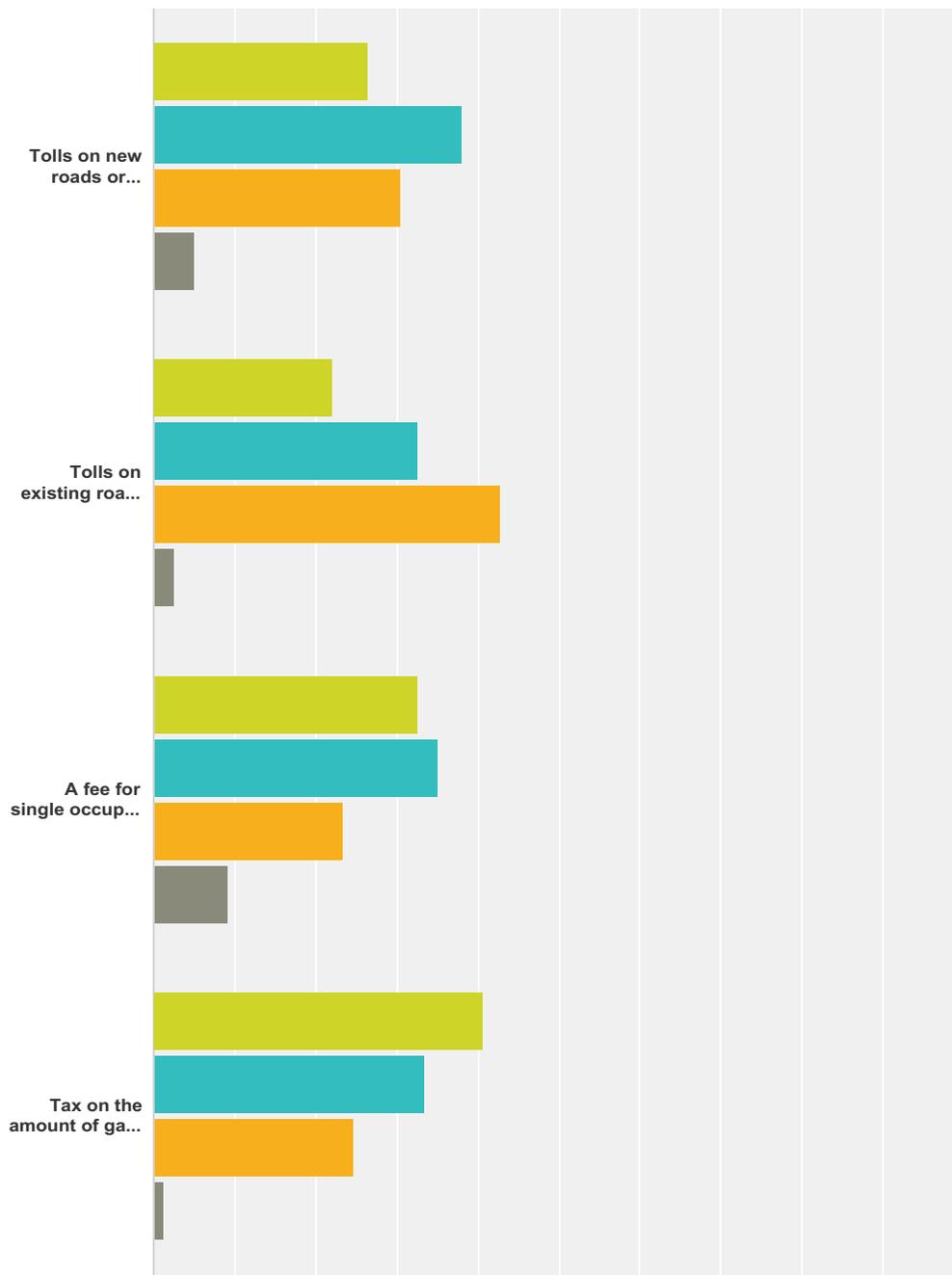
If it meant that the region could significantly expand mass transit choices, I would be willing to pay slightly more in some type of tax or fee to help pay for it.	40.24% 33	31.71% 26	14.63% 12	12.20% 10	1.22% 1	82
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2016 Regional Transportation Plan

2015 Regional Transportation Plan

Q15 Transportation infrastructure is vital for a healthy economy, but also costly. The funding for roads, bridges, transit, and sidewalks come from a variety of sources. Please indicate whether any of the following should be considered as a source of funding for transportation in our area.

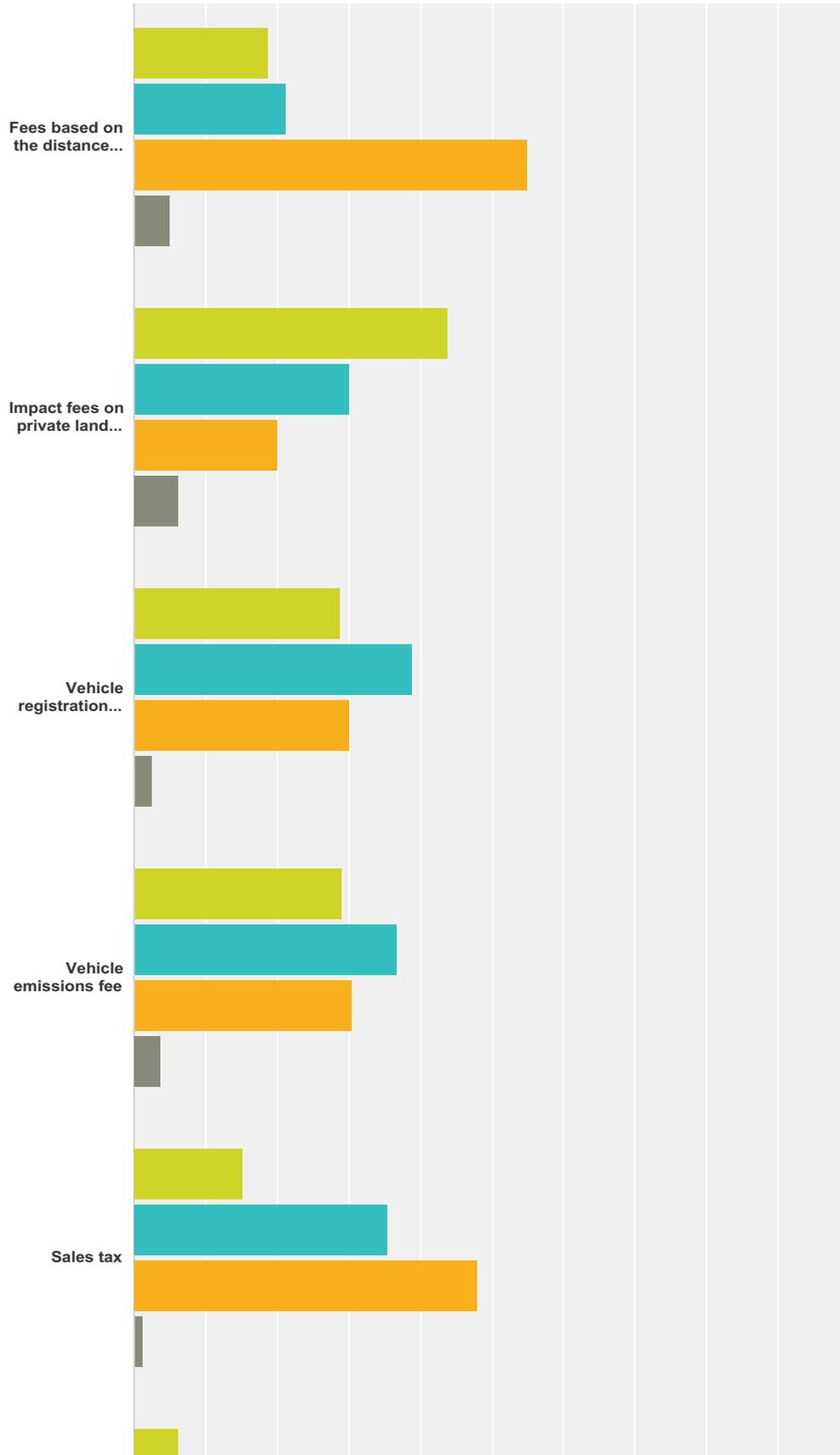
Answered: 82 Skipped: 7



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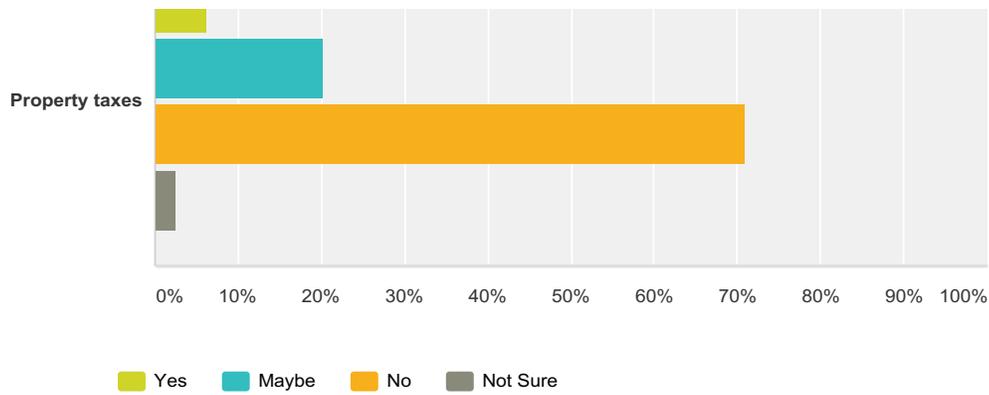
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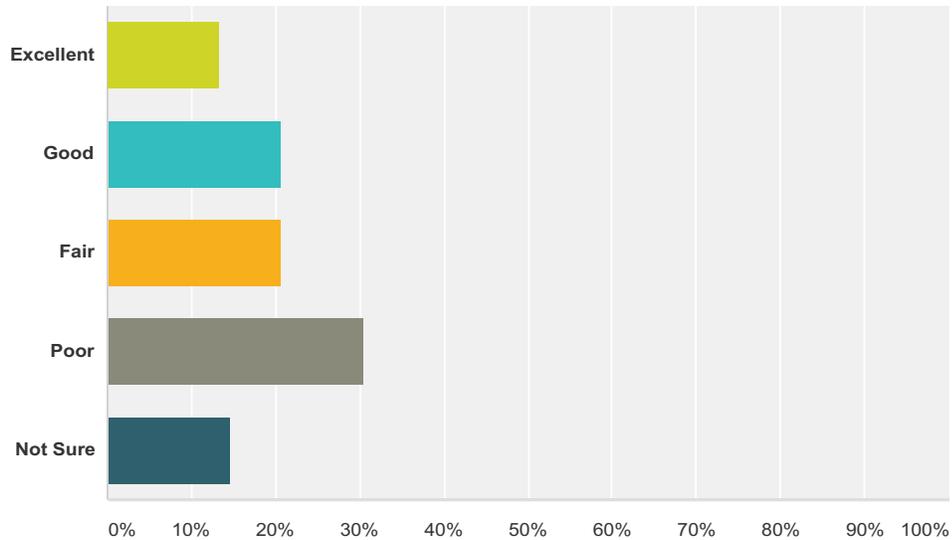
	Yes	Maybe	No	Not Sure	Total
Tolls on new roads or bridges	26.58% 21	37.97% 30	30.38% 24	5.06% 4	79
Tolls on existing roads or bridges	22.08% 17	32.47% 25	42.86% 33	2.60% 2	77
A fee for single occupant cars to use carpool lanes	32.47% 25	35.06% 27	23.38% 18	9.09% 7	77
Tax on the amount of gas you buy	40.74% 33	33.33% 27	24.69% 20	1.23% 1	81
Fees based on the distance you drive instead of the amount of gas you buy	18.75% 15	21.25% 17	55.00% 44	5.00% 4	80
Impact fees on private land developers	43.75% 35	30.00% 24	20.00% 16	6.25% 5	80
Vehicle registration fee or 'wheel tax'	28.75% 23	38.75% 31	30.00% 24	2.50% 2	80
Vehicle emissions fee	29.11% 23	36.71% 29	30.38% 24	3.80% 3	79
Sales tax	15.19% 12	35.44% 28	48.10% 38	1.27% 1	79
Property taxes	6.33% 5	20.25% 16	70.89% 56	2.53% 2	79

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Q16 Currently, the average driver pays less than \$300 per year in state and Federal gasoline taxes to help fund roadways and transit. What kind of value do you feel you get for your contribution through those taxes?

Answered: 82 Skipped: 7



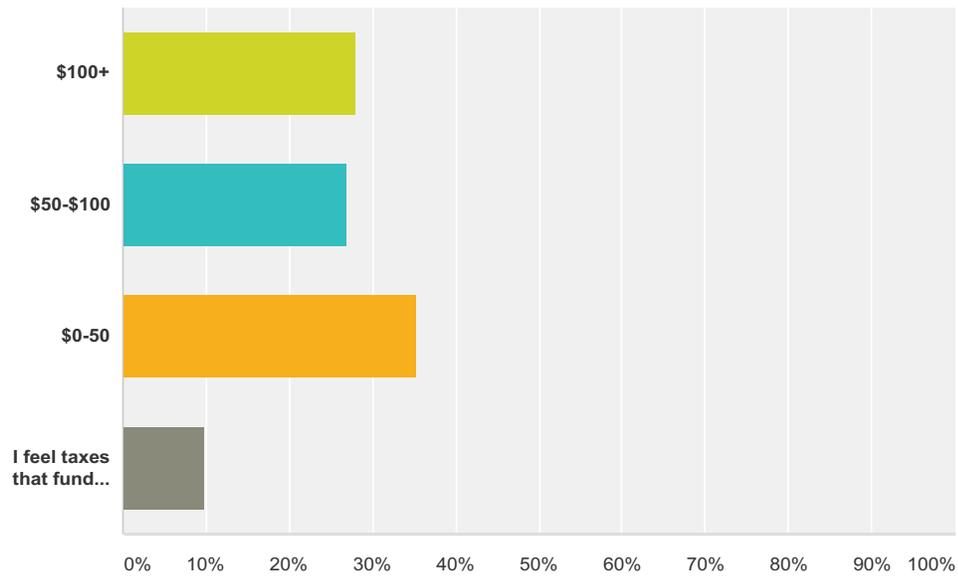
Answer Choices	Responses	Count
Excellent	13.41%	11
Good	20.73%	17
Fair	20.73%	17
Poor	30.49%	25
Not Sure	14.63%	12
Total		82

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Q17 How much more per year would you be willing to pay to increase funding for transportation?

Answered: 82 Skipped: 7

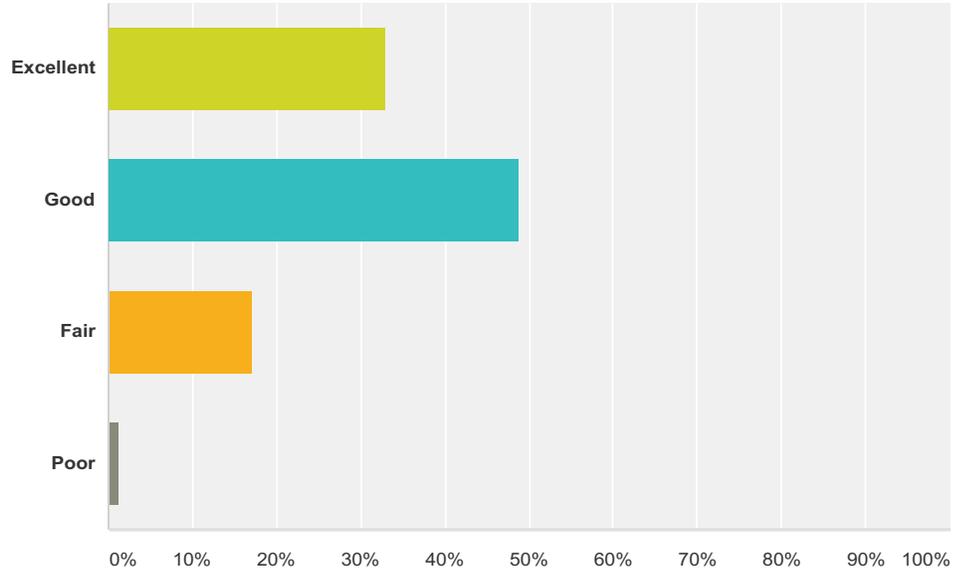


Answer Choices	Responses
\$100+	28.05% 23
\$50-\$100	26.83% 22
\$0-50	35.37% 29
I feel taxes that fund transportation should be reduced.	9.76% 8
Total	82

#	Other (please specify)	Date
1	raise gas tax to 10% capping at \$0.40	2/19/2015 1:22 PM
2	zero, we are overtaxed now. Gov needs to prioritize	1/30/2015 3:12 PM
3	raise the damn gas tax!!	1/22/2015 12:20 PM
4	pay bus fare...most logical	1/17/2015 12:40 PM
5	I feel like tax money in MA mostly goes to Boston area.	1/16/2015 2:45 PM
6	100 if it went to non-carbon emitting transportation improvements	12/30/2014 10:18 AM
7	The money should be spent more wisely	12/5/2014 3:33 PM

Q18 How would you rate the overall quality of life in Berkshire County?

Answered: 82 Skipped: 7



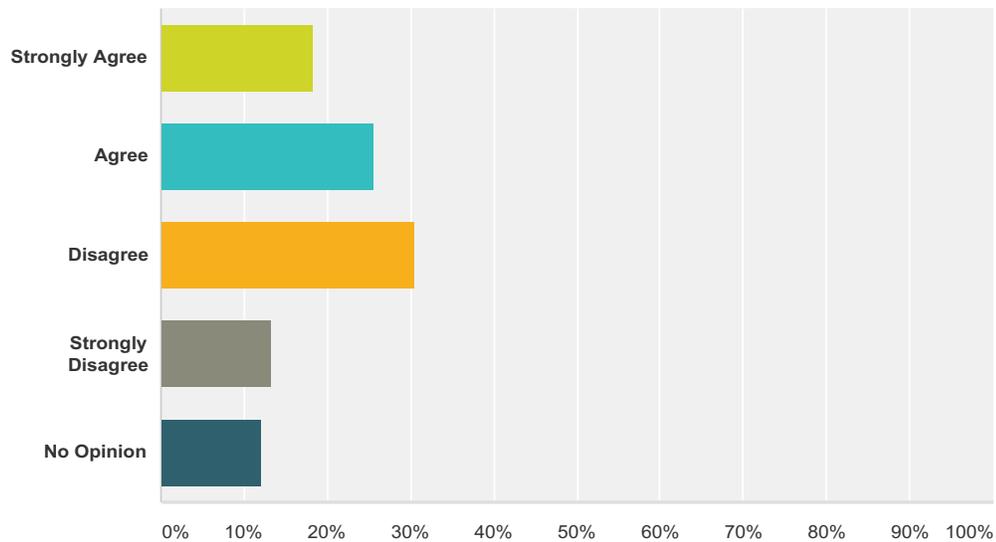
Answer Choices	Responses
Excellent	32.93% 27
Good	48.78% 40
Fair	17.07% 14
Poor	1.22% 1
Total	82

2016 Regional Transportation Plan

2015 Regional Transportation Plan

Q19 Please indicate your agreement or disagreement with the following statement: The lack of transportation options in Berkshire County negatively impacts my quality of life.

Answered: 82 Skipped: 7



Answer Choices	Responses	
Strongly Agree	18.29%	15
Agree	25.61%	21
Disagree	30.49%	25
Strongly Disagree	13.41%	11
No Opinion	12.20%	10
Total		82

#	Comments:	Date
1	Question 13 should be split, I have different answers for walking versus biking. My partner works in Albany and we will be moving there so he can walk/bike/bus to work and I can bus/bike to Hudson Valley Community College.	2/20/2015 11:45 AM
2	An express train should be built between Greenfield and Albany with stops in Charlemont, No. Adams, Bennington, Troy then Albany...THATS WHERE THE JOBS ARE!	2/19/2015 1:22 PM
3	Having the Berkshire Scenic Railway operational will be a great new option for commuting travel also. Looking forward to it!	1/30/2015 12:05 PM
4	Faster train service to Boston and NYC would not only improve quality of life but would be a huge economic boon for the area-that would go a long way to alleviating transportation issues.	1/30/2015 9:58 AM

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5	That doesn't mean I'm not living an excellent quality of life, it's just means that things like shopping are a serious pain in the ass.	1/22/2015 12:20 PM
6	reduce impaired driving	1/18/2015 1:59 PM
7	Wrote and lost it so here I go again. I moved out of Stockbridge in '92 pursuing my music career and have recently returned. I am stunned at the lack of services offered - in addition to no garbage collection, no postal delivery or pick up we have a bus service that serves precious few and infrequently. Perhaps NYC spoiled me - the land of round-the-clock service and connections to just about anywhere, special senior price, ramps that go down to street for wheelchairs. It does spoil one. But here the bus service is a figment of someone's imagination because it hardly serves and when it does it takes the scenic route. Taxis here from Lee or Lenox begin at \$100. just to come pick me up - Monaco is cheaper and more fun! So I came with an illusion only to find a nightmare where my shopping is either courtesy of a ride or online (yes I discovered Berkshire Organic who deliver). Other than that one is pretty much stuck. I want to like life here where I have family and some friends still living from another time. But it won't let me. Without a car one is limited to choosing which of the 4 spots on Main St to visit that day. We have the post office, obligatory pick up of course - the bank, the Elm Street Market and a couple of bakeries although there's a limit to how much I should consume. That's it. Whoever designed the bus schedule decided everyone should awake with the birds and go to sleep before sundown. So if you follow a slightly different schedule as do I you're simply out of luck. At approximately 6pm the last bus leaves Great Barrington so if I should want to shop a bit longer I'm out of luck. If I forget I miss the bus and would have to sleep where I shopped or bother someone asking for a ride home. A service that kills one's sense of independence is a damaging non-service. I'm thrilled my daughter-in-law sent me this survey and I'm happy to cooperate and meet anytime should you need members or interested citizens. I had planned to bring this up at the next Town meeting but there's strength in numbers and perhaps you're better able to do the research. Something needs to be done.	1/17/2015 12:40 PM
8	Poor transportation infrastructure has inhibited economic rehabilitation of our population centers	1/5/2015 10:48 AM
9	The lack negatively impacts the quality of life of many other people, especially lower-income and elderly, but not me, so I'm in an especially favorable situation.	1/5/2015 7:25 AM
10	I grew up in New York City and North Jersey where the buses ran all the time even on Sundays and holidays which is not the case here.	1/1/2015 2:27 PM
11	We need high speed passenger rail service to the Albany/Troy area where there are actually JOBS!!	12/30/2014 1:45 PM
12	Mass transit should be clean, wired, frequent, and on time	12/30/2014 12:58 PM
13	Doesn't negatively impact me personally, but the options could be improved. I think the lack of options does negatively impact people without their own vehicle.	12/5/2014 5:13 PM
14	It is not particularly the lack of in County options that is negative. Owning a car I find that getting anywhere within the County is relatively easy by car. The issue is other transit modes outside of the county. On these longer trips it would be easier to access say Boston or NYC without a car.	12/5/2014 9:19 AM

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Q20 How many registered automobiles (cars, trucks, SUVs, motorcycle) reside at your household?

Answered: 78 Skipped: 11

#	Responses	Date
1	4	3/22/2015 12:05 PM
2	3	3/19/2015 10:08 AM
3	2	3/14/2015 4:53 PM
4	3	3/5/2015 4:05 PM
5	2	3/4/2015 5:01 PM
6	1	3/4/2015 4:52 PM
7	1	2/20/2015 11:48 AM
8	2	2/19/2015 1:23 PM
9	1	2/19/2015 10:58 AM
10	eight	2/14/2015 1:05 PM
11	8	2/14/2015 12:08 PM
12	1	2/10/2015 2:55 PM
13	1	2/4/2015 11:17 AM
14	0	1/30/2015 4:24 PM
15	3	1/30/2015 3:13 PM
16	3	1/30/2015 12:08 PM
17	2	1/30/2015 12:07 PM
18	2	1/30/2015 10:15 AM
19	1	1/30/2015 9:59 AM
20	3	1/30/2015 9:56 AM
21	1	1/29/2015 5:03 PM
22	ONE	1/28/2015 12:12 PM
23	4	1/24/2015 3:56 PM
24	2	1/24/2015 3:33 PM
25	2	1/24/2015 6:34 AM
26	3	1/23/2015 5:39 PM
27	3	1/23/2015 5:25 PM
28	1	1/23/2015 3:57 PM
29	0	1/22/2015 12:26 PM
30	5	1/21/2015 12:18 PM
31	2	1/19/2015 12:09 PM

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32	one	1/18/2015 2:02 PM
33	2	1/17/2015 4:40 PM
34	1	1/17/2015 3:26 PM
35	0	1/17/2015 12:42 PM
36	1	1/16/2015 8:14 PM
37	1	1/16/2015 5:08 PM
38	2	1/16/2015 3:15 PM
39	Three	1/16/2015 2:57 PM
40	3	1/16/2015 2:46 PM
41	2	1/16/2015 1:49 PM
42	2	1/16/2015 1:07 PM
43	2	1/16/2015 12:37 PM
44	2	1/16/2015 12:37 PM
45	2	1/16/2015 11:03 AM
46	2	1/16/2015 10:41 AM
47	1	1/16/2015 10:31 AM
48	2	1/16/2015 10:23 AM
49	2	1/16/2015 10:19 AM
50	2	1/16/2015 10:14 AM
51	4	1/16/2015 9:58 AM
52	2	1/12/2015 10:40 AM
53	5	1/11/2015 10:44 AM
54	4	1/5/2015 10:50 AM
55	2	1/5/2015 7:26 AM
56	3	1/2/2015 7:59 PM
57	3	1/1/2015 2:29 PM
58	2	1/1/2015 8:59 AM
59	2	12/30/2014 1:48 PM
60	2	12/30/2014 1:23 PM
61	3	12/30/2014 1:01 PM
62	1	12/30/2014 10:22 AM
63	2	12/29/2014 7:20 PM
64	1	12/16/2014 1:29 PM
65	2	12/15/2014 1:03 PM
66	1	12/13/2014 12:06 AM
67	3	12/8/2014 4:09 PM
68	1	12/8/2014 1:58 PM
69	3	12/8/2014 10:15 AM

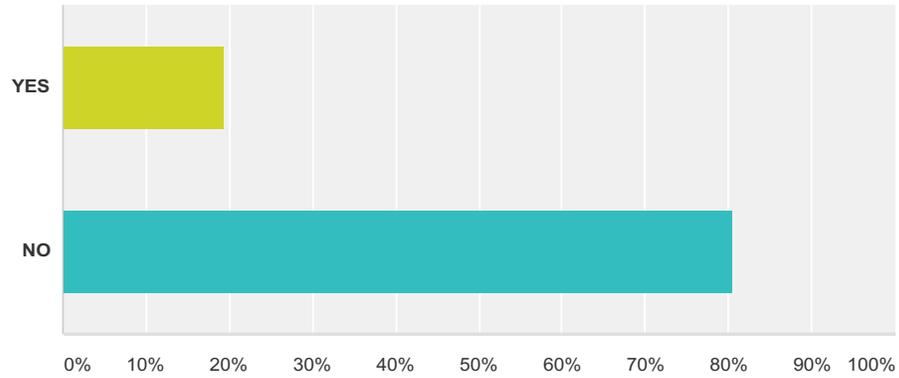
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70	1	12/6/2014 12:40 AM
71	1	12/5/2014 3:34 PM
72	1	12/5/2014 2:20 PM
73	2	12/5/2014 12:53 PM
74	3	12/5/2014 10:33 AM
75	2	12/5/2014 9:21 AM
76	2	12/5/2014 9:19 AM
77	1	12/5/2014 8:45 AM
78	2	12/4/2014 3:18 PM

Q21 Are any members of your household under the age of 16?

Answered: 77 Skipped: 12



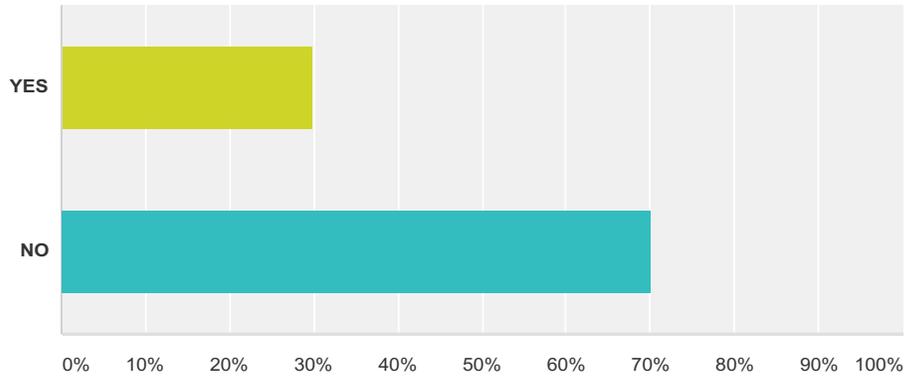
Answer Choices	Responses
YES	19.48% 15
NO	80.52% 62
Total	77

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Q22 Are you or any member of your household 65 years of age or older?

Answered: 77 Skipped: 12



Answer Choices	Responses	
YES	29.87%	23
NO	70.13%	54
Total		77

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Q23 What is your age?

Answered: 72 Skipped: 17

#	Responses	Date
1	55	3/22/2015 12:05 PM
2	56	3/19/2015 10:08 AM
3	62	3/14/2015 4:53 PM
4	18	3/5/2015 4:05 PM
5	42	3/4/2015 5:01 PM
6	29	3/4/2015 4:52 PM
7	50	2/20/2015 11:48 AM
8	53	2/19/2015 1:23 PM
9	58	2/19/2015 10:58 AM
10	56	2/14/2015 1:05 PM
11	64	2/14/2015 12:08 PM
12	31	2/4/2015 11:17 AM
13	37	1/30/2015 4:24 PM
14	46	1/30/2015 3:13 PM
15	46	1/30/2015 12:08 PM
16	47	1/30/2015 12:07 PM
17	26	1/30/2015 10:15 AM
18	30	1/30/2015 9:59 AM
19	25	1/30/2015 9:56 AM
20	85	1/29/2015 5:03 PM
21	80	1/28/2015 12:12 PM
22	64	1/24/2015 3:56 PM
23	66	1/24/2015 3:33 PM
24	65	1/24/2015 6:34 AM
25	43	1/23/2015 5:39 PM
26	69	1/23/2015 5:25 PM
27	64	1/23/2015 3:57 PM
28	41	1/22/2015 12:26 PM
29	58	1/21/2015 12:18 PM
30	62	1/19/2015 12:09 PM
31	82	1/18/2015 2:02 PM
32	53	1/17/2015 4:40 PM
33	52	1/17/2015 3:26 PM

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34	79	1/17/2015 12:42 PM
35	71	1/16/2015 8:14 PM
36	60	1/16/2015 3:15 PM
37	44	1/16/2015 2:57 PM
38	37	1/16/2015 1:49 PM
39	64	1/16/2015 1:07 PM
40	68	1/16/2015 12:37 PM
41	72	1/16/2015 12:37 PM
42	79	1/16/2015 11:03 AM
43	78	1/16/2015 10:41 AM
44	55	1/16/2015 10:31 AM
45	78	1/16/2015 10:19 AM
46	42	1/16/2015 10:14 AM
47	67	1/16/2015 9:58 AM
48	30	1/12/2015 10:40 AM
49	50	1/11/2015 10:44 AM
50	59	1/5/2015 10:50 AM
51	76	1/5/2015 7:26 AM
52	66	1/2/2015 7:59 PM
53	62	1/1/2015 2:29 PM
54	67	1/1/2015 8:59 AM
55	53	12/30/2014 1:48 PM
56	32	12/30/2014 1:23 PM
57	60	12/30/2014 1:01 PM
58	57	12/30/2014 10:22 AM
59	49	12/16/2014 1:29 PM
60	30	12/15/2014 1:03 PM
61	26	12/13/2014 12:06 AM
62	31	12/8/2014 4:09 PM
63	67	12/8/2014 1:58 PM
64	43	12/8/2014 10:15 AM
65	75	12/6/2014 12:40 AM
66	48	12/5/2014 3:34 PM
67	39	12/5/2014 2:20 PM
68	57	12/5/2014 12:53 PM
69	19	12/5/2014 10:33 AM
70	30	12/5/2014 9:21 AM
71	28	12/5/2014 9:19 AM

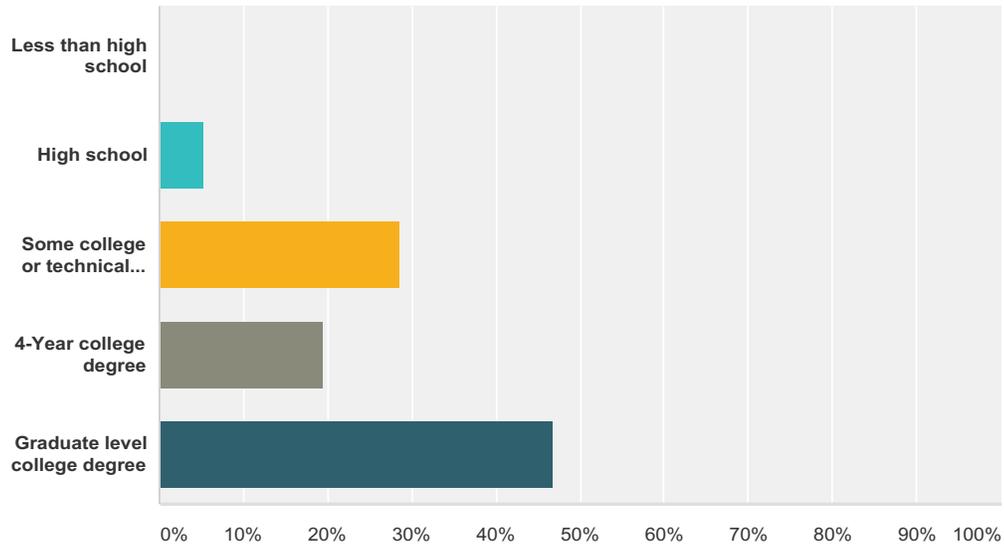
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72	40	12/5/2014 8:45 AM
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Q24 Which of following best describes the highest level of education that you have completed?

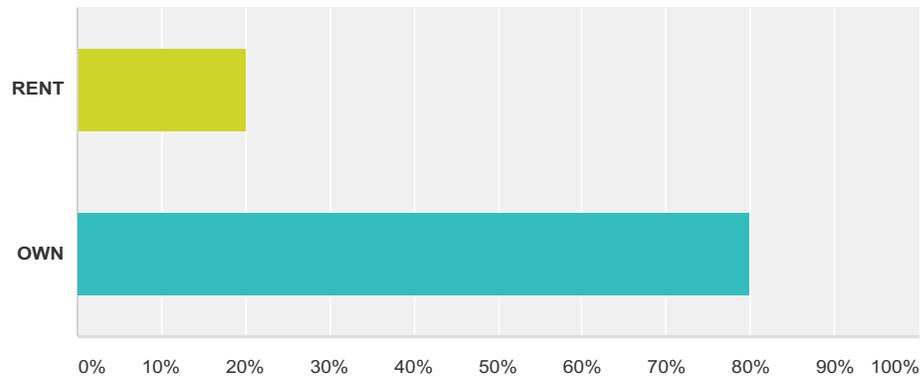
Answered: 77 Skipped: 12



Answer Choices	Responses	
Less than high school	0.00%	0
High school	5.19%	4
Some college or technical school training	28.57%	22
4-Year college degree	19.48%	15
Graduate level college degree	46.75%	36
Total		77

Q25 Do you rent or own your residence?

Answered: 75 Skipped: 14



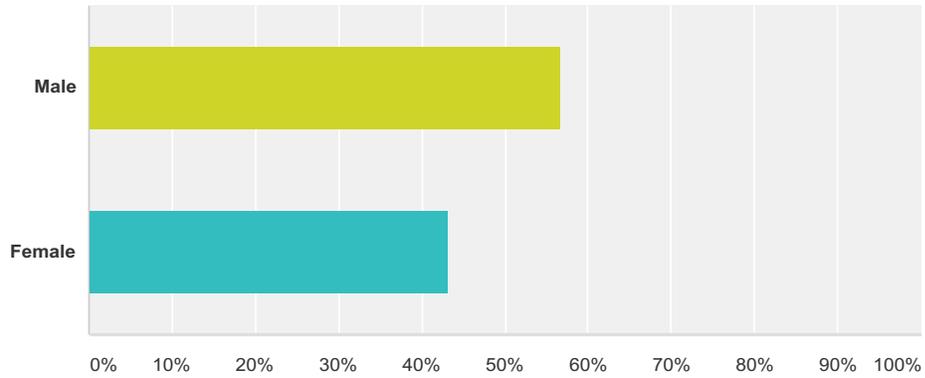
Answer Choices	Responses	Count
RENT	20.00%	15
OWN	80.00%	60
Total		75

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Q26 Are you Male or Female?

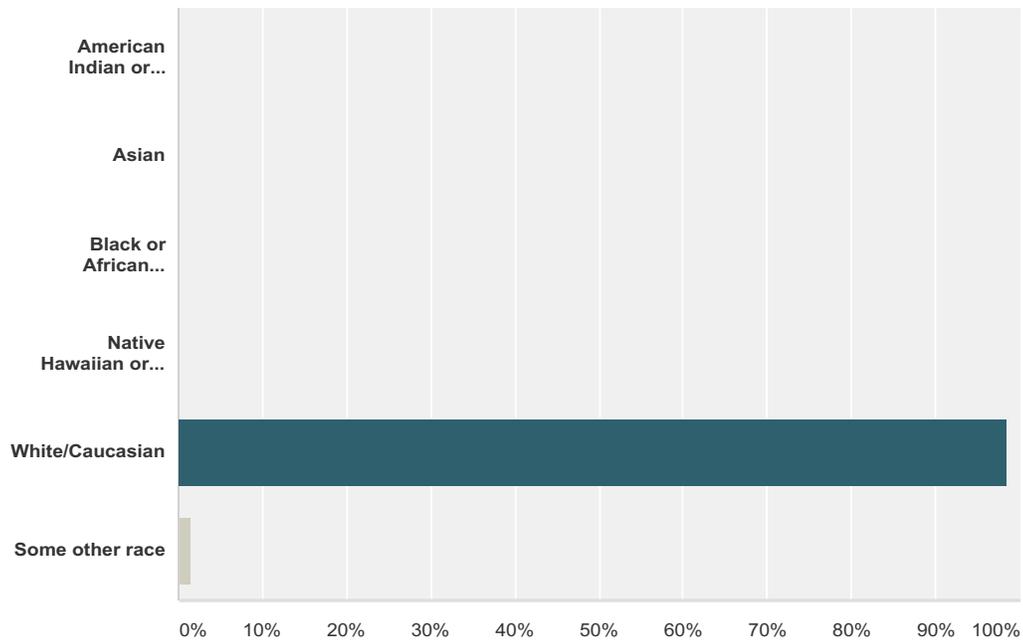
Answered: 74 Skipped: 15



Answer Choices	Responses
Male	56.76% 42
Female	43.24% 32
Total	74

Q27 Which of the following best describes your race?

Answered: 73 Skipped: 16



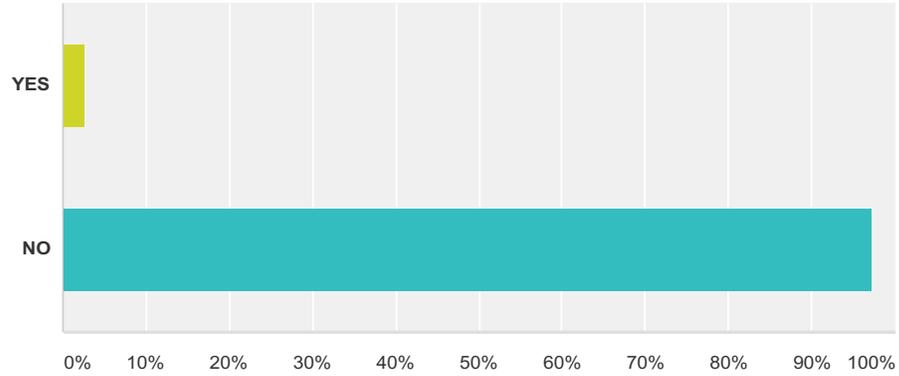
Answer Choices	Responses	
American Indian or Alaska Native	0.00%	0
Asian	0.00%	0
Black or African American	0.00%	0
Native Hawaiian or Pacific Islander	0.00%	0
White/Caucasian	98.63%	72
Some other race	1.37%	1
Total		73

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Q28 Are you or other members of your household of Hispanic or Latino ethnicity?

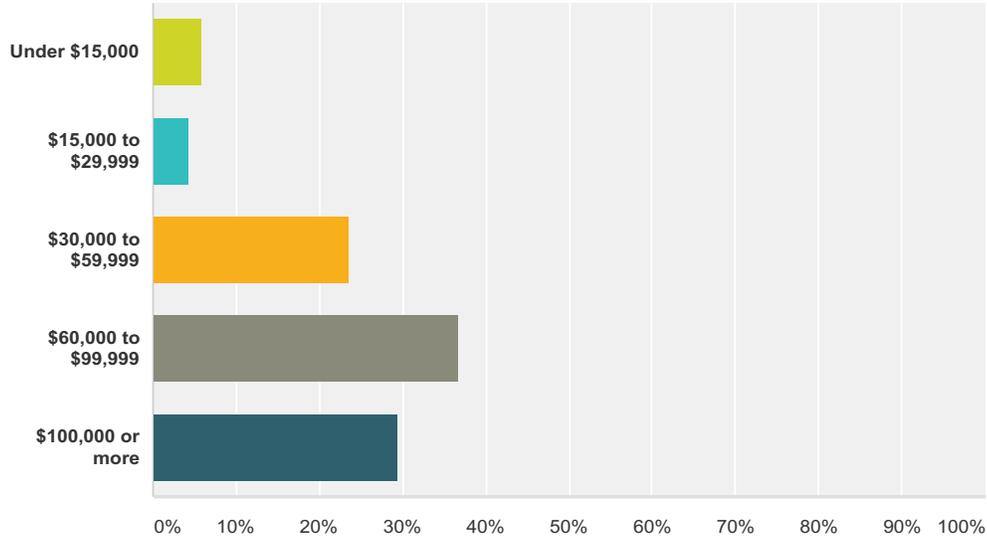
Answered: 73 Skipped: 16



Answer Choices	Responses	
YES	2.74%	2
NO	97.26%	71
Total		73

Q29 Which of the following best indicates your total annual household income:

Answered: 68 Skipped: 21



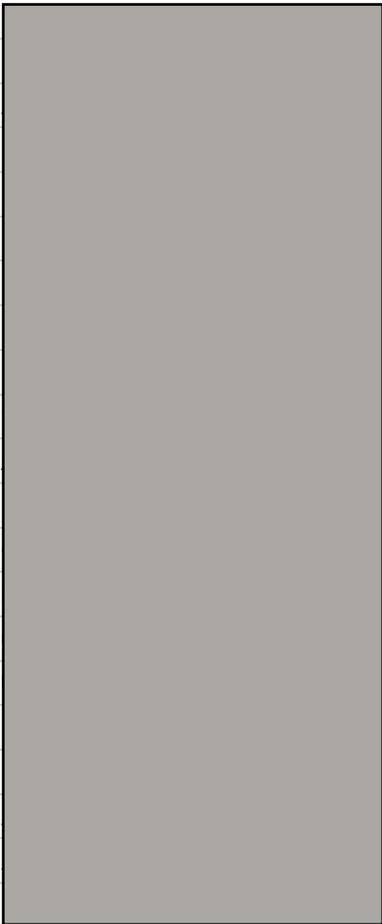
Answer Choices	Responses	
Under \$15,000	5.88%	4
\$15,000 to \$29,999	4.41%	3
\$30,000 to \$59,999	23.53%	16
\$60,000 to \$99,999	36.76%	25
\$100,000 or more	29.41%	20
Total		68

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Q30 Please provide your email address if you would like to receive the results of this study or be kept informed of ongoing regional planning efforts:

Answered: 21 Skipped: 68

#	Responses	Date
1		3/22/2015 12:05 PM
2		3/5/2015 4:05 PM
3		3/4/2015 4:52 PM
4		2/19/2015 1:23 PM
5		2/19/2015 10:58 AM
6		2/4/2015 11:17 AM
7		1/30/2015 12:08 PM
8		1/30/2015 12:07 PM
9		1/30/2015 9:59 AM
10		1/22/2015 12:26 PM
11		1/18/2015 2:02 PM
12		1/17/2015 12:42 PM
13		1/16/2015 1:49 PM
14		1/16/2015 1:07 PM
15		1/16/2015 9:58 AM
16		1/11/2015 10:44 AM
17		12/30/2014 1:48 PM
18		12/30/2014 1:23 PM
19		12/30/2014 1:01 PM
20		12/30/2014 10:22 AM
21		12/5/2014 10:33 AM

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Q31 Please share with us any additional thoughts you have about the transportation system in Berkshire County:

Answered: 24 Skipped: 65

#	Responses	Date
1	it is great. No words to explain its the best.	3/5/2015 4:05 PM
2	I think that it would be good if we had bus transportation that ran throughout the day and night for those people who work nights. As well as for people who go out at nights around the county.	3/4/2015 5:01 PM
3	I put some above in boxes which were meant for other things-sorry. I am thrilled that Williams College has stepped up and covers BRTA bus fares for Fac., staff, students. Albany's CDTA has a similar program with nearly all of the area colleges, I wish BCC did as well.	2/20/2015 11:48 AM
4	We need to provide an easier access to good paying jobs that are nearby (Troy/Albany)	2/19/2015 1:23 PM
5	Removing older vehicles from the road is terribly regressive, and has negligible impact on air quality. Per-wheel taxes are unfair, when a person can drive only one vehicle at a time. Gas taxes should be significantly raised to reduce consumption and provide funding for more public transit, which is nearly nonexistent in our county. Walkability and bikeability should be required in all new developments, commercial and residential.	2/14/2015 1:05 PM
6	With an aging population, the needs for better public transportation and walkable towns are more important than ever.	2/14/2015 12:08 PM
7	We need to bring the trains back. This will reduce trucks and help with emissions	1/30/2015 3:13 PM
8	Having high profile places in each town to get transportation schedules and tokens would help public transportation be used more.	1/30/2015 12:08 PM
9	Socioeconomic prejudices openly talked about by some of the B.R.T.A. bus drivers in Berkshire County.	1/22/2015 12:26 PM
10	Impaired driving and resulting accidents deserve greater attention	1/18/2015 2:02 PM
11	Frankly it's just an illusion...worth working on	1/17/2015 12:42 PM
12	Along South St. in Pittsfield where I live and walk often, cars do not stop for pedestrians in the crosswalks and snow removal on the sidewalks and crosswalks could be a lot better. I would so love to have a viable public transportation network.	1/16/2015 1:49 PM
13	need to also include senior transportation, expansion of BRTA routes, times and days of week.	1/16/2015 12:37 PM
14	Lack of rail service and access to the turnpike will continue to limit opportunities in the Berkshires	1/5/2015 10:50 AM
15	Public transportation is an important issue of equity.	1/5/2015 7:26 AM
16	Buses needed in rural communities.	1/2/2015 7:59 PM
17	the change in the schedule has really affected the usability of buses in this area as well as the lack of businesses and industries that are hiring more technical people which is why I end up working in Albany New York	1/1/2015 2:29 PM
18	Commuter rail service should be configured in the shape of a capital I with an east/west northern tier, an east/west southern tier, and a north/south inner county connection.	12/30/2014 1:48 PM
19	Yes to passenger rail. Public transit should be clean, wired, frequent, and on time	12/30/2014 1:01 PM
20	Bike paths are NOT transportation. They are recreation that people drive to and should not be a part of transportation planning. Bicycling for transportation should be a focus. No CNG vehicles - they pollute worse than gas or diesel. Electric charging infrastructure should begin to be a part of your planning. All stream crossings should accommodate the NEW flood calculation figures - this means replacement crossings as well as new - and they should be 1.2 times bank full width.	12/30/2014 10:22 AM
21	One bus an hour is not real rapid transit. The use of BRTA bus has greatly increased in the past five years. It would increase even more rapidly with more service. Trains to NYC and BOSTON are urgently needed.	12/6/2014 12:40 AM

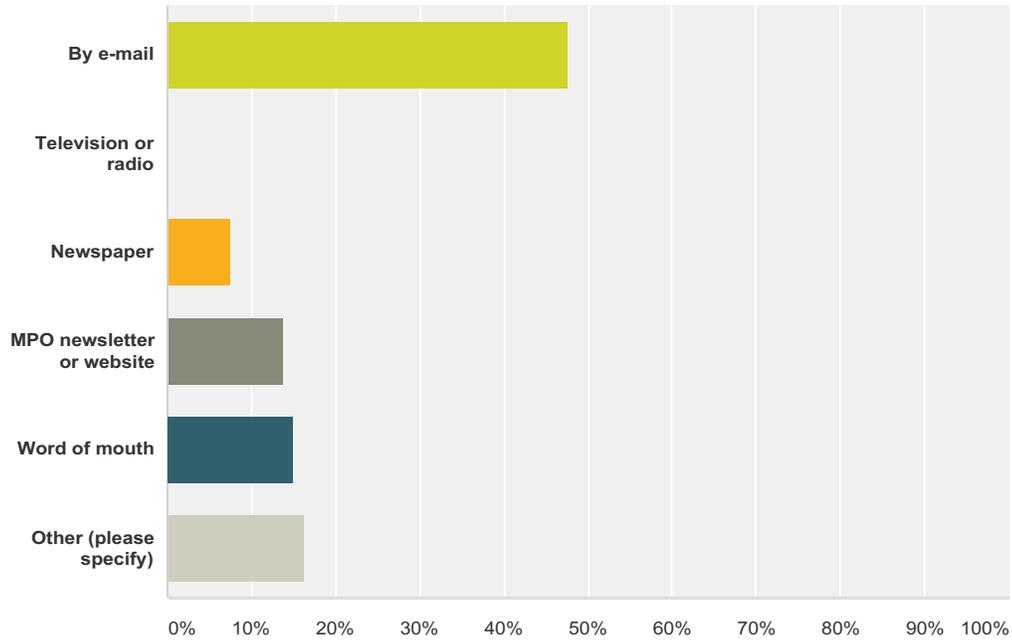
2016 Regional Transportation Plan

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22	I think one of the contributing factors to the safety of the roads is the lousy paint being used to paint the markings. It is not reflective and wears off easily. This is especially a problem on Rt 7 between Pittsfield & Williamstown	12/5/2014 2:20 PM
23	Bus service is not even available where I live. I would have to walk several miles to get to a bus stop. Even with that, the bus schedule does not fit my work schedule.	12/5/2014 12:53 PM
24	While transportation could always get better within the road system that we currently have in Berkshire County, something that I truly believe is holding us back from growth and a higher quality of life, unlike the rest of the state, is the absence of a north/south limited access highway, primarily between the Mass Pike, Pittsfield, and North Adams/Northern Berkshire. The availability of such a road could spur industrial and commercial business growth along the Route7/8 corridors and help curb our population loss, especially in Northern Berkshire County. It would certainly take an enormous amount of funds for such a project but if the effects would be everlasting.	12/5/2014 10:33 AM

Q32 How did you hear about this survey?

Answered: 80 Skipped: 9



Answer Choices	Responses	Count
By e-mail	47.50%	38
Television or radio	0.00%	0
Newspaper	7.50%	6
MPO newsletter or website	13.75%	11
Word of mouth	15.00%	12
Other (please specify)	16.25%	13
Total		80

APPENDIX B

TECHNICAL DOCUMENTS



Berkshire County Transportation Guide Berkshires without Barriers Berkshire County, MA (April 2015)



BUS SERVICES

Provider	Rider Eligibility	Service Area	Days/Hours of Service	Provider Address	Phone	Email	Website
Berkshire Regional Transit Authority (BRTA)	general public and disabled	County Wide	Mon-Fri 5:45am-7:20pm, Sat 7:15am-7:00pm	1 Columbus Avenue, Pittsfield, MA - 01201	413-499-2782	Robert.mahati@berkshirerides.com	www.berkshirerides.com
BerkshireRides - community transportation	community agency partner	North Adams/Adams	24/7	85 Main Street, Suite 314 North Adams, MA - 01247	413-664-0300	Jana.berkshirerides@gmail.com	www.berkshirerides.org
BerkshireRides - employment related	employment related	North County	7 days/ 4am-12midnight	85 Main Street, Suite 314 North Adams, MA - 01247	413-664-0300	Jana.berkshirerides@gmail.com	www.berkshirerides.org
Peter Pan/Greyhound Bus Lines	general public	Central & South County	7 days, 8:40am-4pm, 7 buses per day	1 Columbus Avenue, Pittsfield, MA - 01201	1-800-231-2222 or 413-499-2782		www.peterpanbus.com

TRAINS

Provider	Rider Eligibility	Service Area	Days/Hours of Service	Provider Address	Phone	Email	Website
Amtrak Train Service	general public	Pittsfield	7 days, 2 trains per day	1 Columbus Avenue, Pittsfield, MA - 01201	1-800-872-7245		www.amtrak.com

MEDICAL TRANSPORT SERVICES

Provider	Rider Eligibility	Service Area	Days/Hours of Service	Provider Address	Phone	Email	Website
American Cancer Society (Road-to-Recovery Program)	medical	County Wide	Mon-Fri 9am-5pm, volunteers use own cars	59 Bobala Road, Holyoke, MA - 01049	413-734-6000		
Berkshire Community Action Council (BCAC)	general public, disabled, medical	County Wide	Mon-Fri	1531 East Street, Pittsfield, MA - 01201	413-499-4420	emcnally@bcacinc.org	
County Ambulance Inc.	general public, medical	County Wide, medical	24/7	175 Wahoonah Street, Pittsfield, MA - 01201	413-499-2527	bkandrews@countymb.com	
County Rainbow Taxi, Inc/Arrow taxi	general public, able bodied, medical	County Wide	24/7	10 Pleasant Street, Pittsfield, MA - 01201	413-499-4300	iregan@centralberkshire.com	
CRT Cabulance	disabled, senior, medical	County Wide	24/7	18 Oak Street, Pittsfield, MA - 01201	413-447-3800	iregan@centralberkshire.com	
MassHealth Transportation Program (Medicaid Transportation)	medical	County Wide			1-800-841-2900 TTY for hard of hearing 1-800-497-4648		
Village Ambulance	general, medical	North County	24/7	30 Water Street, Williamstown, MA - 01267	413-458-4889	shawngodfrey@villageambulance.com	http://www.villageambulance.com/

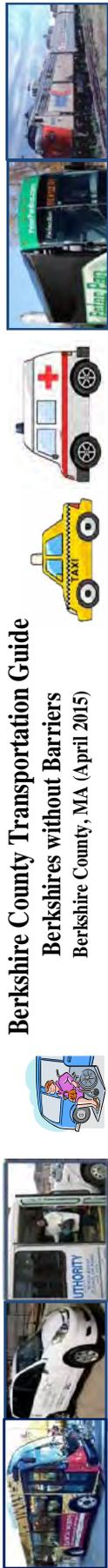
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Berkshire County Transportation Guide Berkshires without Barriers Berkshire County, MA (April 2015)



TRANSPORTATION EXCLUSIVELY FOR SENIORS AND DISABLED

Provider	Rider Eligibility	Service Area	Days/Hours of Service	Provider Address	Phone	Email	Website
Ad Lib	disabled	County Wide	9am-2pm (but can be flexible with hours)	215 North Street, Pittsfield, MA - 01201	413-442-7047	adlib@adlibclil.org	http://www.adlibclil.org
BRTA	disabled (by application)	County Wide	24/7	1 Columbus Avenue, Pittsfield, MA - 01201	413-499-2782	Robert.mahati@berkshirereta.com	www.berkshirereta.com
BC-ARC	disabled	Central & South County	24/7, office hours: Mon-Fri 8am-5pm	395 South Street, Pittsfield, MA - 01201	413-499-4241	bcarc@bcarc.org	www.bcarc.org
COA - Adams	senior & disabled, medical	North County	Mon-Fri, 8am-4pm	3 Hoosac Street, Adams, MA - 01220	413-743-8333		
COA - Cheshire	senior & disabled, medical	North County	Mon, Tue, Thur 8am-4pm	119 School Street, Cheshire, MA - 01225	413-446-2559		
COA - Clarksburg	able bodied , all purposes	North County	on call	712 West Cross Road, Clarksburg, MA - 01247	413-663-8253		
COA - Dalton	senior & disabled, all purposes	Central County	Mon-Fri 8am-4pm	40 Field Street Extension, Dalton, MA - 01226	413-684-2000	dcoa@bcm.net	www.dalton-MA.gov
COA - Lanesborough	senior & disabled, medical	Central County	Mon-Fri 8 hours	P.O. Box 548, Lanesborough, MA - 01237	413-448-2682		
COA - Lee	senior & disabled, medical	South County	Mon - Fri 8:30-1:30	21 Crossway Street #2, Lee, MA - 01238	413-243-5545		
COA - Lenox	senior & disabled, medical	South County	Mon - Fri	65 Walker Street, Lenox, MA - 01240	413-637-5535		
COA - North Adams	senior & disabled, medical	North County	Mon-Fri 8am-4pm	116 Ashland Street, North Adams, MA - 01247	413-662-3125		
COA - Pittsfield	senior & disabled, medical	Central County	Mon-Fri 8am-4pm	330 North Street, Pittsfield, MA - 01201	413-499-9346		
COA - Richmond	senior & disabled	North County	on call	1529 State Road, Richmond, MA - 01254	413-698-3355		
COA - Savoy	senior & disabled, medical	North County	7 days, on call	720 Main Road, Savoy, MA - 01256	413-743-4290		
COA - Stockbridge	senior & disabled, all purposes	South County	7 days, on call	50 Main Street, Stockbridge, MA - 01262	413-298-4170, ext 263		
COA - Tyringham	senior, medical	South County	Mon-Thu 8:30am-12:45pm; Fri 8:30am-4:30pm	P.O. Box 415, Tyringham, MA - 01264	413-243-1749		
COA - Washington	senior, able bodied	Central County	Mon-Thu 8:30am-12:45pm; Fri 8:30am-4:30pm	27 Frost Road, Washington, MA - 01223	413-655-0232		
COA - West Stockbridge	senior & disabled, all purposes	Central & South County	on call	21 Albany Road, West Stockbridge, MA - 01266	413-232-0137		
COA - Williamstown	senior & disabled, medical & shopping	North County	Mon-Fri 8am-4pm	118 Church Street, Williamstown, MA - 01267	413-458-8250		
COA - Windsor	able bodied elderly, all purposes	Central County	7 days, on call	1220 Old Route 9, Windsor, MA - 01270	413-684-3771		
Elder Services Inc.	senior, medical	Central County	Mon-Fri 8am-5pm	877 South Street, Pittsfield, MA - 01201	413-499-0524	esbc@esbc.org	www.esbc.org
Mass Rehabilitation Commission	disabled, employment	County Wide	Mon-Fri 8:45am-5pm	37 Main Street, 3rd floor, North Adams, MA - 01247	413-663-5391	Katherine.Angelini@MassMail.State.MA.us	
Retired Senior Volunteer Program (RSVP)	senior, able bodied	Central County	Mon-Thu 8:30am-1:45pm; Fri 8:30am-12:45pm	16 Bartlett Avenue, Pittsfield, MA - 01201	413-499-9345	cwhalen@pittsfieldch.com	http://cityofpittsfield.org/city_hall/rsvp/index.php
Southern Berkshire Elderly Transportation (SBETC)	senior & disabled, all purposes	South County	Mon-Fri, 8am-4pm	917 Main Street, Great Barrington, MA - 01230	413-528-4773		
United Cerebral Palsy of Berkshire County	disabled	County Wide	Mon-Fri, 8:30am-4:30pm	208 West Street, Pittsfield, MA - 01201	413-442-1562	csinger@ucpberkshire.org	http://www.ucpberkshire.org/



Berkshire County Transportation Guide Berkshires without Barriers Berkshire County, MA (April 2015)

TRANSPORTATION FOR VETERANS

Provider	Rider Eligibility	Service Area	Days/Hours of Service	Provider Address	Phone	Email	Website
Soldier On	senior & disabled Vets, medical	County Wide	Mon-Fri	360 West Housatonic Street, Pittsfield, MA - 01201	413-236-5644	info@wesoldieron.org	www.wesoldieron.org
VA Van Service	senior & disabled Vets, medical	County Wide	Mon-Fri, morning- early afternoon	Eagle Street, Pittsfield, MA - 01201	413-499-2672		
Veteran's Outreach	senior, medical	County Wide	Tue-Thu	152 North Street, Pittsfield, MA - 01201	413-499-0256		

TAXIS, LIMOS & OTHER SERVICES

Provider	Rider Eligibility	Service Area	Days/Hours of Service	Provider Address	Phone	Email	Website
Abbott's Limousine & Livery	general public - able bodied	County Wide	24/7	435 Greylock Street, Lee, MA - 01238	413-243-1645	info@abbottslimo.com	http://abbottslimo.com
Berkshire Community Action Council (BCAC)	general public, disabled, medical	County Wide	Mon-Fri	1531 East Street, Pittsfield, MA - 01201	413-499-4420	emcnally@bcacinc.org	
Bruce Transportation	general	County Wide		475 E Housatonic Street, Dalton, MA - 01226	413-684-2506		
City Cab	able bodied	North County		271 Union Street, North Adams, MA - 01247	413-464-5849		
DuFour Escorted Tours	general, charter, school	County Wide		133 South Street, Hinsdale, MA - 01235	413-655-8122		www.dufourtours.com
Jenkins Livery	general (usually medical & employment)	County Wide	24/7 reservations	42 Carson Avenue, Dalton, MA - 01226	413-684-1893		
Lenox Taxi & Limo	general public	County Wide	7 days, 6am-midnight	8 Fairview Avenue, Lenox, MA - 01240	413-637-3014		
Norm's Limo	general public		24/7	573 Ashland Street, North Adams, MA - 01247	413-663-6284		
Park Taxi	general	Central County	7 days, no late night	235 Water Street, Lee, MA - 01238	413-243-0020		
Pittsfield YMCA	able bodied	Central County	Mon-Fri	292 North Street # 1, Pittsfield, MA - 01201	413-499-7650	mgreen@pittsfieldfamilyymca.org	www.pittsfieldfamilyymca.org/
Precious Cargo	able bodied, day care	Central County	Mon-Fri 6:30am-6:30pm	275 Williams Street, Pittsfield, MA - 01201	413-445-8977		
South County Transport	general	South County	Sun-Wed 8am-11pm Thur-Sat 8am-2am	38 East Street, Mt. Washington, MA - 01238	413-347-1646	southcountyT@gmail.com	www.southcountytransport.com
Taxico	general	South County	7 days 7am-9pm	40 Rosseter Street, Great Barrington, MA - 01230	413-528-0911		
Transport the People, Inc.	general	County Wide	24/7	18 Oak Street, Pittsfield, MA - 01201	413-443-7111	www.ttolimos.com/	
Tunnel City Taxi	general public - able bodied	North County	7 days, 6am-1am	676 Curran Highway, North Adams, MA - 01247	413-663-8294		

APPENDIX C

NOTICES AND COMMENTS

Public Notices	Public Notices	Public Notices	Public Notices
<p>07/01/15</p> <p>Berkshire Metropolitan Planning Organization PUBLIC REVIEW AND COMMENT</p> <p>The Berkshire MPO is seeking public comment on the following documents:</p> <p>2016 Regional Transportation Plan (RTP) - The 2016 Regional Transportation Plan update is a long range (25 year) comprehensive document that provides the basis for future transportation investment and planning in the region. The RTP establishes a regional priority, reviews current transportation infrastructure in the region and makes recommendations for future projects.</p> <p>2016 Unified Planning Work Program (UPWP) - The 2016 UPWP is a list, budget and description of all federally funded transportation planning work to be performed between October 1, 2015 and September 30, 2016, mostly by staff of the Berkshire Regional Planning Commission (BRPC) and consultants working for BRPC, under the auspices of the Berkshire Metropolitan Planning Organization.</p> <p>2015-2018 Transportation Improvement Program (TIP) - The TIP is a prioritized, multi-year program for the implementation of federally funded transportation projects in Berkshire County. Highway, bridge, transportation enhancement and transit improvement projects must be listed in the TIP to be eligible for federal funding.</p> <p>Copies of these documents can be obtained by:</p> <ol style="list-style-type: none"> 1. Phone: Berkshire Regional Planning Commission (BRPC), 413-442-1521, ext. 20; 2. BRPC web site: www.berkshireplanning.org; 3. Walk-in: BRPC, 1 Fenn Street, Suite 201, Pittsfield MA 01201. 4. The following public libraries: Berkshire Athenaeum, Pittsfield; Stockbridge Public Library; Mason Public Library, Gt. Barrington; North Adams Public Library; Lenox Library; Lanesborough Library; Williamstown Public Library; Dalton Public Library and Adams Free Library. <p>Three public workshops have been scheduled to provide more information on these plans. The workshops will be held at the locations and dates identified below beginning at 5:30 PM:</p> <p>July 9th Adams Free Library, 92 Park St. Adams July 15th BRPC Offices, 1 Fenn St. Pittsfield July 28th Lee Library, 100 Main St. Lee</p> <p>Comments are due by July 31, 2015, addressed to the Berkshire Metropolitan Planning Organization/BRPC, 1 Fenn Street, Suite 201, Pittsfield MA 01201 or via email to info@berkshireplanning.org. The Berkshire MPO is scheduled to approve these documents at their meeting scheduled for August 4, 2015 at 4 PM at the BRPC offices.</p> <p>07/01/15</p>	<p>07/01/15</p> <p>THE LENOX NATIONAL BANK 7 Main Street Lenox, Massachusetts 01240 (413) 637-0017</p> <p>NOTICE OF SPECIAL MEETING OF SHAREHOLDERS TO BE HELD ON JULY 16, 2015</p> <p>NOTICE IS HEREBY GIVEN that, pursuant to call of its directors, a Special Meeting of shareholders (the "Special Meeting") of The Lenox National Bank will be held on Thursday, July 16, 2015 at 4:30 p.m., local time, at The Lenox National Bank, 7 Main Street, Lenox, Massachusetts 01240, for the following purposes:</p> <ol style="list-style-type: none"> 1. To consider and vote on a proposal to approve the Agreement and Plan of Merger by and between The Lenox National Bank ("LNB") and Adams Community Bank ("ACB") dated April 8, 2015 (the "Merger Agreement") and the transactions contemplated thereby (the "Transactions"), pursuant to which LNB would consolidate with a subsidiary of ACB (the "Merger") and each shareholder of LNB would receive cash consideration of \$1,388.35 per share of the common stock, par value \$10.00 per share of LNB in accordance with the terms of the Merger Agreement. As a result of the Merger, ACB would own all of the issued and outstanding capital stock of LNB. Immediately following the Merger, all of the assets and liabilities of LNB would be transferred to ACB and LNB would be dissolved; 2. To consider and vote upon a proposal to approve one or more adjournments of the Special Meeting, if necessary, to permit further solicitation of proxies in favor of the approval of the Merger Agreement and the Transactions if there are not sufficient votes at the time of the Special Meeting, or at any adjournment or postponement of the Special Meeting, to approve the Merger Agreement and the Transactions; and 3. To consider and act upon such other matters as may properly come before the Special Meeting or any adjournment or postponement of the Special Meeting. <p>A copy of the Merger Agreement approved by the directors of LNB and ACB is on file at LNB and may be inspected during business hours.</p> <p>06/10/15, 06/17/15, 06/24/15, 07/01/15</p> <p>Commonwealth of Massachusetts The Trial Court Probate and Family Court</p> <p>NOTICE OF PETITION FOR CHANGE OF NAME Docket No. BE15C0035CA</p> <p>In the matter of: Carolyn McKee Gardner Of: Lee, MA</p> <p>To all persons interested in petition described: A petition has been presented by Carolyn M Gardner requesting that Carolyn McKee Gardner be allowed to change his/her name as fol-</p>	<p>try on May 13, 2011 at Book 4753 Page 24 and by assignment from Residential Credit Solutions, Inc. to Federal National Mortgage Association dated October 20, 2014 and recorded with said registry on October 23, 2014 at Book 5459 Page 33, for breach of the conditions of said mortgage and for the purpose of foreclosing, the same will be sold at Public Auction at 2:00 p.m. on July 23, 2015, on the mortgaged premises located at 50 Hungerford Street, Pittsfield, Berkshire County, Massachusetts, all and singular the premises described in said mortgage.</p> <p>TO WIT:</p> <p>Lot E6-10-201 as shown on a plan entitled "Peter W. and Elaine D. Marchand, 40 & 50 Hungerford St., Pittsfield, MA, Approval Not Required Division of Land, Survey Plan," which plan was prepared by Hill Engineers, Architects, Planners, dated July 27, 2007 and is recorded in the Berkshire Middle District Registry of Deeds in Plat H, No. 320. Containing 32,535 square feet, more or less, as shown on said plan.</p> <p>Being the same premises conveyed to the mortgagor herein by deed of Elaine D. Marchand and Jean D. Munn, dated October 1, 2007 and recorded in the Berkshire Middle District Registry of Deeds in Book 3904, Page 28.</p> <p>Parcel A, containing 21,260 square feet, and Parcel C, containing 676 square feet, as shown on a plan entitled "Peter W. and Elaine D. Marchand, 40 & 50 Hungerford St., Pittsfield, MA, Approval Not Required Division of Land, Survey Plan," which plan was prepared by Hill Engineers, Architects, Planners, dated July 27, 2007 and is recorded in the Berkshire Middle District Registry of Deeds in Plat H, No. 320.</p> <p>For mortgagor's title see deed recorded with the Berkshire Middle District Registry of Deeds dated September 10, 2008 in Book 4137, Page 305.</p> <p>For a more accurate description of the premises, see judgment at Book 5268, Page 346</p> <p>For mortgagor's(s)' title see deeds recorded with Berkshire County (Middle District) Registry of Deeds in Book 3904, Page 28 and in Book 4137, Page 305.</p> <p>These premises will be sold and conveyed subject to and with the benefit of all rights, rights of way, restrictions, easements, covenants, liens or claims in the nature of liens, improvements, public assessments, any and all unpaid taxes, tax titles, tax liens, water and sewer liens and any other municipal assessments or liens or existing encumbrances of record which are in force and are applicable, having priority over said mortgage, whether or not reference to such restrictions, easements, improvements, liens or encumbrances is made in the deed.</p> <p>TERMS OF SALE:</p> <p>A deposit of Five Thousand (\$5,000.00) Dollars by certified or</p>	<p>recorded in Berkshire Middle District Registry of Deeds in Book 3942, Page 115, has filed with said court a bill in equity for authority to foreclose said mortgage by entry and possession and exercise of a power of sale:</p> <p>If you are entitled to the benefits of the Servicemembers' Civil Relief Act of 2003, as amended, and you object to such foreclosure of said mortgage, you or your attorney should file a written appearance and answer in said Court at Pittsfield, in said County of Berkshire, on or before the 21st day of July, 2015 which day is the return day of this subpoena, or you may be forever barred from claiming that such foreclosure is invalid under said Act.</p> <p>WITNESS, Judith Fabricant, Esquire, Chief Justice of our Superior Court, the 26th day of May, in the year of our Lord two thousand fifteen.</p> <p>Deborah S. Capeless Clerk</p> <p>Don C. Hunter, Esq. Hunter & Graziano, P.C. 10 Park Place Lee, Massachusetts 01238</p> <p>07/01/15</p> <p>Commonwealth of Massachusetts The Trial Court Probate and Family Court</p> <p>INFORMAL PROBATE PUBLICATION NOTICE</p> <p>Docket No. BE15P0426EA</p> <p>Estate of: Vallerie Sally Doboszynski Also Known As: Vallerie S. Doboszynski Date of Death: 30 May 2015</p> <p>Berkshire Probate & Family Court 44 Bank Row Pittsfield, MA 01201 (413) 442-6941</p> <p>To all persons interested in the above captioned estate, by Petition of Petitioner Joseph C. Doboszynski of Pittsfield MA a Will has been admitted to informal probate.</p> <p>Joseph C. Doboszynski of Pittsfield MA has been informally appointed as the Personal Representative of the estate to serve without surety on the bond.</p> <p>The estate is being administered under informal procedure by the Personal Representative under the Massachusetts Uniform Probate Code without supervision by the Court. Inventory and accounts are not required to be filed with the Court, but interested parties are entitled to notice regarding the administration from the Personal Representative and can petition the Court in any matter relating to the estate, including distribution of assets and expenses of administration. Interested parties are entitled to petition the Court to institute formal proceedings and to obtain orders terminating or restricting the powers of Personal Representatives appointed under informal procedure. A copy of the Petition and Will, if any, can be obtained from the Petitioner.</p>

The Berkshire Regional Planning Commission

Clete Kus

From: kevin.wright@dot.gov
Sent: Wednesday, July 22, 2015 1:05 PM
To: Clete Kus
Cc: trey.wadsworth@state.ma.us; Nicolas.Garcia@dot.gov
Subject: 2016 Berkshire RTP Comments - FHWA

Clete,

Please see FHWA's comments below on the 2016 Berkshire RTP.

1. Recommend numbering tables and charts for easier reference.
2. The RTP should include a discussion on livability.
3. **Page 23. Limited English Proficiency.** Recommend including additional detail in this section. What languages other than English are most prominent? A map depicting high LEP populations would also be a helpful addition to the document.
4. **Page 24.** This graph doesn't seem very helpful. It would be more helpful to include a map showing which thresholds are exceeded in what are areas, not just the number of thresholds that are exceeded.
5. **Page 30.** The citation at the top of this page should be included at the bottom of page 29. Please ensure that all citations are included on the same page as the information they are referring to.
6. **Page 52.** There is nothing under the Roadway Features heading on this page.
7. **Page 76.** Please define what PASER stands for. Please also ensure that all acronym are spelled out at or before their first use.
8. **Environmental Sustainability.** The Plan should include a discussion of potential environmental mitigation activities and potential areas to carry out these strategies. Please include a more robust discussion of environmental mitigation strategies as well as a discussion of the MPO's consultation efforts with environmental and state resource agencies. The document should cover topics such as wetlands, park and recreation areas, endangered species, historic resources, etc.
9. **Fiscal Constraint.** Please include a chart showing the 5-year breakdowns of transit funding over the course of the RTP.
10. **Fiscal Constraint.** The financial plan should contain a discussion of operations and maintenance commitments. Please include this discussion and demonstrate how these commitments tie in with the region's available funding.
11. **Fiscal Constraint.** Since no specific projects are listed in the financial plan, how is the MPO ensuring consistency between the TIP and the RTP.
12. **Pages 131, 133, 136, 140, 142, and 144. Project Recommendations.** Please include a discussion of how the recommended projects sync up with the financial plan. The MPO should not recommend projects if they cannot be implemented with proposed revenue.

Feel free to contact me if you have any questions.

Kevin

Kevin A. Wright, E.I.T.
Environmental Protection Specialist
Federal Highway Administration – Massachusetts
55 Broadway, Cambridge, MA 02142
(617) 494-2419
Kevin.wright@dot.gov

2016 Regional Transportation Plan

From: [Laura Marx](#)
To: [Clete Kus](#)
Subject: Nature Conservancy comments on draft 2016 RTP
Date: Thursday, July 16, 2015 2:08:41 PM

Dear Mr. Kus,

I appreciate the opportunity to comment on the draft 2016 RTP for Berkshire County. I am submitting these comments on behalf of The Nature Conservancy's Massachusetts chapter.

The 2012 RTP contained comprehensive information about Berkshire County's natural resources, and we were pleased to see an update of much of this information in Section VI, Environmental Sustainability. We have one suggested addition to the information relating to habitat connectivity on page 99 of the draft RTP. The second paragraph under the heading "The Berkshire Linkage" would be more accurate if it included a reference to modeled data that were key to TNC's analysis of this area. We would request that you change the sentence that begins that paragraph to "TNC analyzed land cover and a TNC/UMass-Amherst/MassDOT model called Critical Linkages to prioritize locations for ensuring connectivity." This will give credit to the data source, and clarify for municipalities and transportation project connections between the Berkshire Wildlife Linkage analysis and the many other ways Critical Linkages is being used (including, eventually, in MassDOT's online transportation infrastructure project management system, MAPPS).

Again, thank you for the opportunity to comment, and for the updates to environmental data and strategies from the 2012 to the 2016 RTP. Don't hesitate to contact me if you have any questions about the above.

Sincerely,
Laura Marx

Forest Ecologist
The Nature Conservancy in Massachusetts
413-584-2596

Laura Marx
Forest Ecologist

lmarx@tnc.org
(413) 584-2596

nature.org

The Nature Conservancy
Massachusetts Chapter

136 West Street, Suite 5
Northampton, MA 01060

The Berkshire Regional Planning Commission



Charles D. Baker, Governor
Karyn E. Polito, Lieutenant Governor
Stephanie Pollack, MassDOT Secretary & CEO



July 30, 2015

Nathaniel Karns, Executive Director
Berkshire Regional Planning Commission
1 Fenn Street, Suite 201
Pittsfield, MA 01201

Dear Mr. Karns:

The Massachusetts Department of Transportation (MassDOT) Office of Transportation Planning (OTP) has reviewed the draft 2016 Regional Transportation Plan (RTP) released by the Berkshire Metropolitan Planning Organization (MPO) on June 30, 2015. Please note the following comments specific to the information contained in the MPO's draft 2016 RTP.

- The RTP strongly states the importance of regional planning and successfully demonstrates linkages between transportation and trends impacting the Berkshires.
- The MPO staff is commended for its approach to performance management.
- Page 33 – Please spell out the address of the hyperlink since it does not work.
- Page 52 – The approach highlighted for Complete Streets implementation in the region is thoughtful and could assist MassDOT Highway Division in identifying when, and what parts of the Healthy Transportation Directive should be executed in roadway project designs.
- Page 79 – The table highlighting the estimated cost to repair the roadway assets in the Berkshires very clearly highlights the needs of the region.
- Page 100 – The map clearly highlights target areas for context sensitive solutions when making improvements to the regional transportation system that will minimize impacts to the natural environment.
- Pages 122-124 – The table does an excellent job linking goals, project recommendations, and consideration for Title VI and Environmental Justice.

2016 Regional Transportation Plan

Please contact me at (857) 368-8865 or Trey Wadsworth at (857) 368-8837 if you have any questions.

Sincerely,



David Mohler
Executive Director
Office of Transportation Planning

Cc: Pamela Stephenson, Division Administrator, Federal Highway Administration
Mary Beth Mello, Regional Administrator, Federal Transit Administration
Peter Niles, MassDOT District 1 Highway Director
Steve Woelfel, Director of Strategic Planning
Trey Wadsworth, Manager of MPO Activities

The Berkshire Regional Planning Commission

Clete Kus

From: Nicolas.Garcia@dot.gov
Sent: Friday, July 31, 2015 9:45 AM
To: kevin.wright@dot.gov; Clete Kus
Cc: trey.wadsworth@state.ma.us
Subject: RE: 2016 Berkshire RTP Comments - FHWA

Hi Clete,

Better late than never, here are my comments on the Berkshire RTP draft from the transit perspective:

1. I like the Performance Based Planning icons to point out areas of the plan where this is being implemented.
2. The plan states (Section II, pg. 27) that since only 1% of the population commutes via public transit, this means there is likely not much unmet need for transit service. But almost 10% of the population (6,000 of 66,000 households) do not own a car! That would suggest to me that the opposite is true--that there are at least ten times as many potential riders than are being adequately served by the current level of service. Has the MPO or the RTA conducted any surveys recently to gauge demand for additional transit service? Keep in mind that current usage is not an effective measure of latent demand—for example just because nobody was using smart phones in 2005 doesn't mean there wasn't demand for them.
3. It looks like the financial plan appears in Section VIII. It's not obvious from the title of that section (Reduce Project Delivery Delays) that it contains the financial plan... please either rename the chapter or separate out the fiscal constraint into a different Financial Plan chapter.
4. Also, please provide transit fiscal constraint information in a single table for easier reference. The important information seems to already be there in narrative form, but it would be good to have a table that clearly outlines expected transit costs (capital, operating, maintenance) and revenues (federal by program, state, local, fares) broken down by year or by 5-year time band over the 20-year plan horizon.

Please don't hesitate to contact me with any questions.

Thanks!

--Nick

Nicolas Garcia
Metropolitan Planning Specialist
Federal Transit Administration
55 Broadway, Suite 920
Cambridge, MA 02142
617.494.3940