

# KFH GROUP, INC.

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## Mountain Empire Older Citizens Transit Development Plan

*Final Report*

December, 2011

Under Subcontract to:  
Cambridge Systematics

*Prepared for the:*

Mountain Empire Older Citizens  
and the  
Virginia Department of Rail and Public Transportation



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# Chapter 1

## Overview of Transit in Lee, Scott, and Wise Counties, and the City of Norton

### INTRODUCTION

The Virginia Department of Rail and Public Transportation (DRPT) has an emphasis on investing in transit systems that are meeting the existing demand for public transportation and desire to meet the growing demand for improved bus, rail, and ferry transit service through careful coordination of transit and land use planning. As such, DRPT requires that any public transit (bus, rail, ferry) operator receiving state funding prepare, adopt, and submit a Transit Development Plan (TDP) at least every six years. DRPT provides a set of TDP requirements that form the basis of the planning effort. This report documents the Mountain Empire Older Citizens (MEOC) TDP, which was adopted by the MEOC Board of Directors in December, 2011.

### OBJECTIVES

The objectives of this TDP are to:

- Serve as a management and policy document for MEOC Transit.
- Provide DRPT with information necessary for programming and planning,
- Provide DRPT with an up-to-date record of MEOC Transit's capital and operating budgets,
- Provide MEOC Transit with the basis for including capital and operating projects in the Six Year Improvement Program (SYIP), Statewide Transportation Improvement Program (STIP), and the Long Range Transportation Plan (LRTP).

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This TDP was developed to the requirements and followed the report format as stated in the DRPT TDP Requirements document.

## BACKGROUND

Lee, Scott, and Wise Counties (VA), are located in the southwest corner of Virginia, with the region sharing a western border with Kentucky and a southern border with Tennessee. The independent incorporated City of Norton is also included in this area, surrounded by Wise County. The region is predominantly rural, characterized by the ridge and valley system of the Appalachian Mountains. This topography has shaped development in the region, with the towns, cities, and transportation network located along the region's river valleys.<sup>1</sup>

Significant transportation corridors that serve the region include U.S. Highways 58, Alternate 58, 23, and 421, and VA highways 65, 71, and 72. There are no interstate highways within the service area, with Interstate 81 passing to the southeast of the region. Rail lines in the service area include both the Norfolk Southern Railroad and CSX. Figure 1-1 displays a map of the region.

Historically, the coal mining industry was largely responsible for the area's economic vitality. The gradual decline of the coal industry has resulted in significant job losses and population decline in the region, from its peak during the first half of the 20<sup>th</sup> century.

There are two primary higher education institutions in the region: Mountain Empire Community College (Big Stone Gap) and the University of Virginia's College at Wise. The 2005 - 2009 American Community Survey (ACS) indicated the leading industries for employment in the region are retail trade, health care, and accommodations/food services. The unemployment rate in the region (June 2011) is 7.3%, which is higher than the Commonwealth's unemployment rate of 6.3% and lower than the U.S. unemployment rate of 9.3%.<sup>2</sup>

According to the 2010 Census, the region had a total population of 94,174 people, which is 3.47% higher than the 2000 population of 91,019 people.<sup>3</sup> The region's population growth in the 10-year period was lower than that of the Commonwealth of Virginia (13%). Data from the 2005 - 2009 ACS indicated that the median age of the region's residents was as follows:

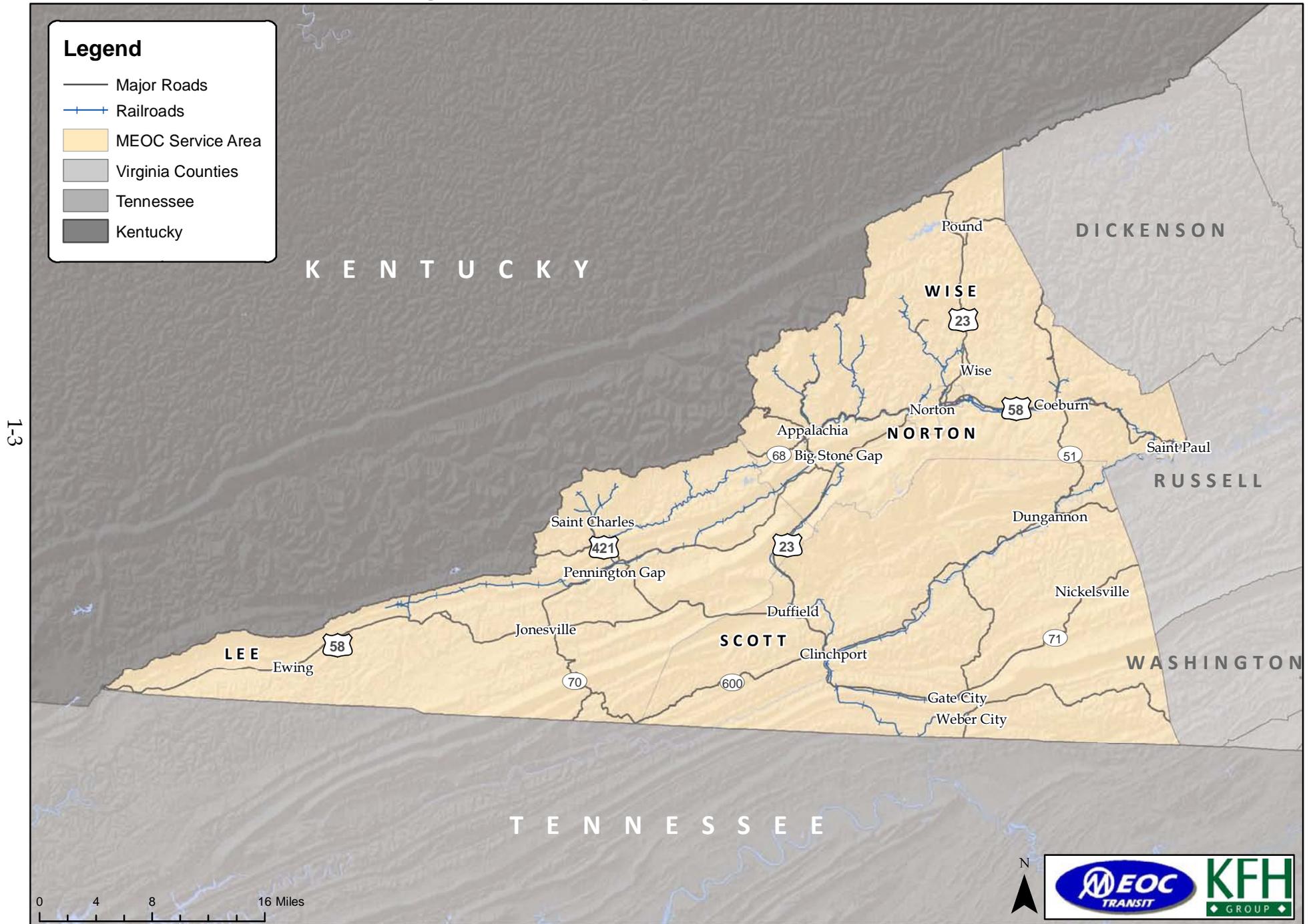
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<sup>1</sup>LENOWISCO Planning District Commission, 2035 Rural Long Range Transportation Plan.

<sup>2</sup> Virginia Employment Commission, Local Area Unemployment, website

<sup>3</sup> U.S. Census Bureau, Census 2000 and Census 2010.

Figure 1-1: Mountain Empire Older Citizens Service Area



1-3

- Lee County = 39.7
- City of Norton = 41.3
- Scott County = 44.2
- Wise County = 38

These data indicate an older regional median age than the Commonwealth as a whole (36.7 median age) and the U.S. median (36.5).<sup>4</sup> The region consists of 1,389 square miles, resulting in a population density of approximately 67.8 persons per square mile. Scott County is the largest of the four jurisdictions in terms of square miles (539), while Wise County is the most populous (2010 Census population of 41,452). A portion of Scott County is part of the Kingsport (TN)-Bristol (VA) – Bristol (TN) Metropolitan Statistical Area.

Public transportation in the region is provided by MEOC Transit. The service mode for the region is demand-response.

## HISTORY, GOVERNANCE AND ORGANIZATIONAL STRUCTURE

### History

MEOC, an Area Agency on Aging, has been providing some form of transportation service since its inception in 1974. The first transportation services offered were focused on home delivered meals and congregate nutrition for older adults, funded through the Older Americans Act. Rural public transportation services were added in 1983, with federal funding assistance through the VDRPT. During the 1980's, MEOC's transportation program grew through a series of contractual arrangements with a number of human service programs, including a 1985 pilot program with the Virginia Department of Medical Assistance Services, and the Town of Wise. In 1989 MEOC was recognized by Lee, Wise, and Scott Counties, and the City of Norton as the designated public transportation authority. These resolutions allowed MEOC to access State Aid for Public Transit funding, which it did for the first time in 1990.

As a coordinated transportation provider throughout the course of its history, MEOC took the lead in developing the region's coordinated plan, required for funding assistance under the Federal Sections 5310, 5316, and 5317 programs. The resulting plan, "Mobility Vision," was one of the first developed in Virginia, with guidance provided by the Mountain Empire Regional Transportation Advisory Council (MERTAC). MERTAC has continued to remain active and is serving as the Advisory

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<sup>4</sup> U.S. Census Bureau, 2005-2009 American Community Survey Fact Sheet for Bluefield Virginia, [www.factfinder.census.gov](http://www.factfinder.census.gov).

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Committee for this TDP. Several of the projects outlined in the Mobility Vision plan have been implemented, including a mobility management program, a volunteer driver program, and a passenger attendant program.

### **Governance and Organizational Structure**

MEOC operates MEOC Transit directly, and all staff members are employees of MEOC. The vehicles are maintained by employees at the MEOC Transit facility, which was completed in 2005. The MEOC Board of Directors serves as the Board for the transit program, with the MERTAC Council serving as an advisory group. MEOC's Transit Director manages the program and reports to the agency's Deputy Director. This structure is depicted in Figure 1-2.

## **TRANSIT SERVICES PROVIDED AND AREAS SERVED**

MEOC Transit provides coordinated transportation throughout the region on a demand-response basis. Services are generally provided Monday-Friday from 7:00 a.m. to 5:00 p.m. MEOC Transit requires that riders call 24 hours in advance to schedule trips. While all of the services provided are open to the general public, about 71% are considered to be general public transportation trips with the remaining 29% focusing on particular programs. These programs include the following:

- Adult Day Care
- Congregate Meals/Home Delivered Meals/Home Delivered Supplements
- Developmental Services
- Independence House
- Medicaid
- PACE
- Pulmocare

### **Mobility Management Program**

Following a successful coordinated planning initiative and grant application process, MEOC was awarded a New Freedom grant to develop a mobility management program. MEOC hired a mobility manager in 2009. The mobility manager serves as a liaison between MEOC and other providers, coordinating transportation for people with unmet needs and providing case management for those with special transportation needs. The mobility management program is the first step in implementing MERTAC's vision of a "one-call" transportation center. The mobility manager serves as the supervisor for two additional New Freedom initiatives: a volunteer driver program and a passenger attendant program.

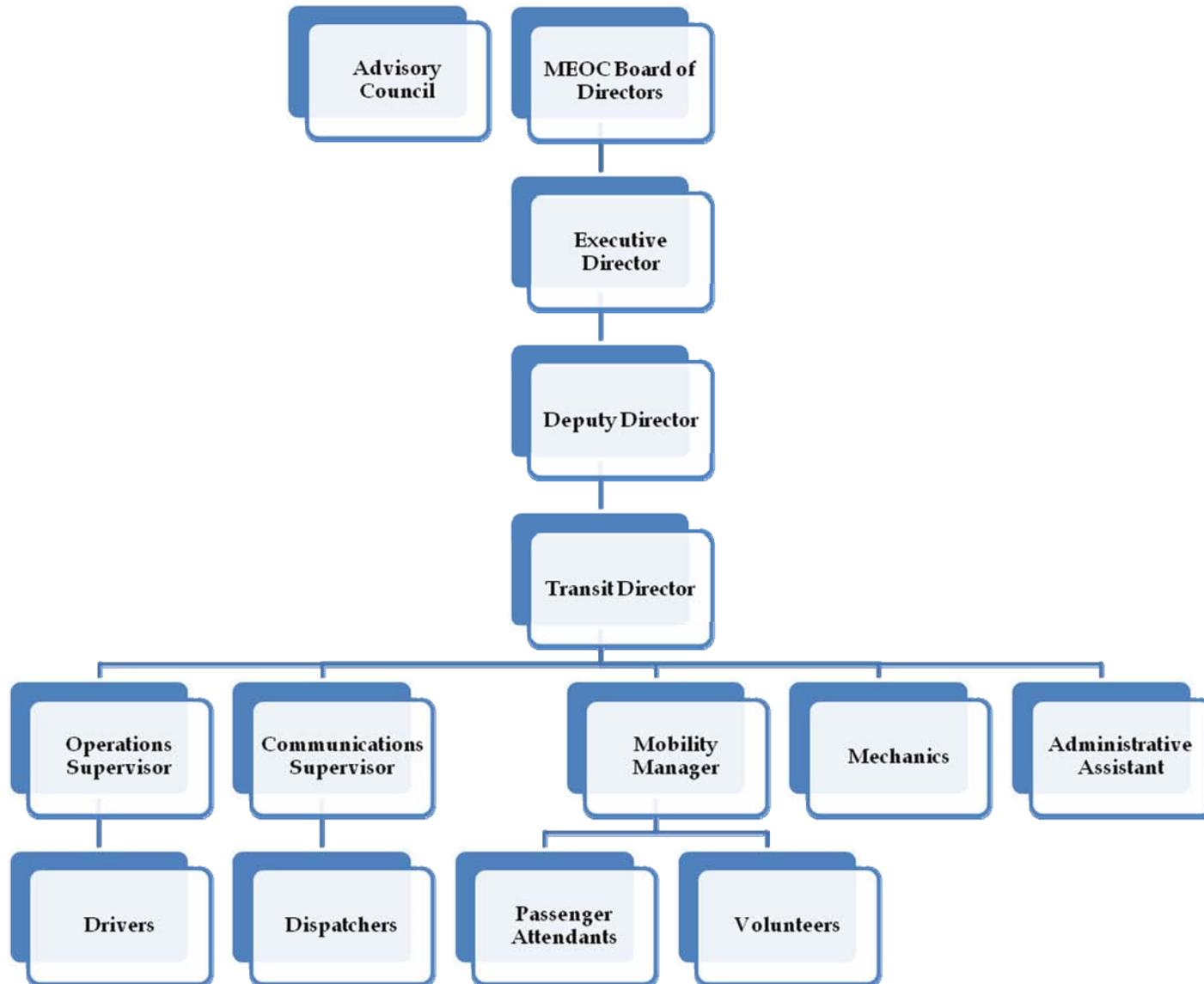


Figure 1-2: MEOC Transit Organizational Chart

## **Volunteer Driver Program**

MEOC's volunteer driver program focuses on recruiting and training volunteers to drive MEOC vehicles (vans, suvs, or sedans) to provide transportation for people who need to access areas that MEOC Transit cannot effectively serve. A typical trip provided by a volunteer would be to get to an appointment in Kingsport (TN). Through July, 2011, 394 volunteer passenger trips have been provided through this program. Volunteer drivers also help deliver liquid dietary supplements to senior citizens in the region. A volunteer policy manual has also been developed.

## **Passenger Attendant Program**

With the assistance of a New Freedom grant, MEOC Transit has also implemented a passenger attendant program. This program provides a personal attendant for passengers who need special assistance. There are currently three passenger attendants.

## **Senior Transportation Grant**

MEOC was recently awarded a new grant in FY12 to help seniors. The focus of the program is to provide additional senior transportation services throughout the region as well as to assist the Veterans' remote clinics with transporting older veterans to the central clinics and to the VA Hospital in Johnson City.

## **Other Public Transportation Services in the Region**

There are no other general public transportation providers based in the region.

## **Taxi and Private Transportation Providers**

The following taxi, medical, and private transportation providers operate in the region:

- Abingdon Ambulance (Abingdon, VA)
- Barnette's Cab Service (Big Stone Gap, VA)
- Beacon of Life Ambulance
- Coeburn Taxi (Coeburn, VA)
- Donna's Taxi (Clintwood, VA)
- Friendship Ambulance (numerous locations)
- J & B Taxi (Abingdon, VA)
- Lifecare Medical Transportation (numerous locations)
- Skeem's Cab (Nora, VA)

- 
- Yellow Top Cab Company (Norton, VA)

### **Human Service Transportation**

Human service transportation in the region is provided primarily by MEOC Transit. The Junction Center for Independent Living also provides transportation in the region, primarily for people with disabilities.

### **Medicaid Transportation**

Medicaid transportation is arranged by MEOC for this region of Virginia under a brokerage agreement with Logisticare. MEOC provides some of the trips and arranges the others with area Medicaid transportation providers.

### **Intercity Bus**

While there is no intercity bus service directly within the service area, Greyhound service is available from Kingsport (TN) and Johnson City (TN), along Greyhound's Richmond to Nashville line. One westbound trip leaves from Kingsport daily at 2:15 p.m. and one eastbound trip leaves from Kingsport daily at 9:10 a.m.

### **Amtrak**

There is no Amtrak service within the service area.

## **FARE STRUCTURE**

The adult fare to ride MEOC Transit is \$1.50 per trip. The fare is discounted to \$0.75 per trip for adults ages 60 and above and for people under the age of 18.

## **VEHICLE FLEET**

MEOC Transit's current public transit vehicle fleet includes 59 vehicles, including 50 small buses, five sport utility vehicles, three vans, one shop truck, and one sedan. Table 1-1 provides a summary of the vehicle inventory. Some of the vehicles are stored at the MEOC's facility, while others are stored at drivers' homes to cut down on excessive vehicle mileage. Figure 1-3 provides an example of a MEOC Transit Vehicle.

**Table 1-1: MEOC Transit Vehicle Inventory**

Local Fleet Number	Model Year	Manufacturer	Model and Type	Seating Capacity	Wheel-chair Stations	Condition	Mileage July 2011
MEOC C	2010	Dodge	Van	6	1	Excellent	6,429
MEOC D	2010	Dodge	Van	6	1	Excellent	707
MEOC E	2010	Dodge	Van	6	1	Excellent	693
MEOC03	2003	Ford	E-450	15	2	Good	207,485
MEOC04	2003	Ford	E-450	15	2	Good	180,911
MEOC07	2004	GMC	2500 HD	3	0	Excellent	34,847
MEOC08	2005	Ford	E-350	14	2	Good	153,392
MEOC09	2005	Ford	E-350	14	2	Good	189,500
MEOC10	2005	Ford	E-350	14	2	Good	170,935
MEOC11	2005	Ford	Escape	5	0	Good	116,801
MEOC12	2005	Ford	E-350	13	2	Good	191,300
MEOC13	2005	Ford	E-350	13	2	Good	172,325
MEOC14	2005	Ford	E-350	13	2	Good	179,326
MEOC15	2006	Ford	E-350	13	2	Good	106,568
MEOC16	2006	Ford	E-350	13	2	Good	154,502
MEOC17	2006	Ford	E-350	13	2	Good	141,157
MEOC18	2007	Ford	Taurus	5	0	Good	70,509
MEOC19	2007	Ford	Explorer	5	0	Good	113,503
MEOC20	2007	Ford	Explorer	5	0	Good	107,099
MEOC21	2007	Ford	E-350	12	2	Good	139,455
MEOC22	2007	Ford	E-350	12	2	Good	120,243
MEOC23	2007	Ford	E-350	12	2	Good	97,043
MEOC24	2007	Ford	E-350	12	2	Good	141,777
MEOC26	2008	Ford	Explorer	5	0	Good	58,431
MEOC27	2008	Ford	E-350	12	2	Good	134,172
MEOC28	2008	Ford	E-350	12	2	Good	110,688
MEOC29	2008	Ford	E-350	12	2	Good	112,500
MEOC30	2008	Ford	E-350	12	2	Good	94,672
MEOC31	2008	Ford	E-350	12	2	Excellent	69,875
MEOC32	2009	Ford	E-350	20	2	Excellent	56,498
MEOC33	2009	Ford	E-350	13	2	Excellent	58,231
MEOC34	2009	Ford	E-350	13	2	Excellent	50,037
MEOC35	2009	Ford	E-350	13	2	Excellent	76,710
MEOC36	2009	Ford	E-350	13	2	Excellent	51,524
MEOC37	2009	Ford	E-350	13	2	Excellent	54,214
MEOC38	2010	Ford	E-350	16	2	Excellent	31,459
MEOC39	2010	Ford	E-350	16	2	Excellent	20,746
MEOC40	2010	Ford	E-350	16	2	Excellent	31,139
MEOC41	2010	Ford	E-350	16	2	Excellent	29,022
MEOC42	2010	Ford	E-350	16	2	Excellent	27,594
MEOC43	2011	Ford	E-350	13	2	Excellent	24,741
MEOC44	2011	Ford	E-350	13	2	Excellent	19,553
MEOC45	2011	Ford	E-350	13	2	Excellent	18,822
MEOC46	2011	Ford	E-350	13	2	Good	183,324
MEOC47	2011	Ford	E-350	13	2	Excellent	21,180

**Table 1-1: MEOC Transit Vehicle Inventory**

<b>Local Fleet Number</b>	<b>Model Year</b>	<b>Manufacturer</b>	<b>Model and Type</b>	<b>Seating Capacity</b>	<b>Wheel-chair Stations</b>	<b>Condition</b>	<b>Mileage July 2011</b>
MEOC48	2011	Ford	E-350	13	2	Excellent	15,017
MEOC 52	2000	Ford	E-450	20	2	Good	190,555
MEOC57	2000	Ford	E-450	16	2	Fair	167,316
MEOC65	2001	Ford	E-450	16	2	Good	171,570
MEOC68	2002	Ford	E-350	16	2	Good	196,145
MEOC69	2002	Ford	E-350	16	2	Good	184,989
MEOC70	2002	Ford	E-350	16	2	Fair	193,683
MEOC71	2002	Ford	E-350	16	2	Good	187,716
MEOC72	2002	Ford	E-350	16	2	Good	140,136
MEOC73	2002	Ford	E-350	16	2	Good	189,255
MEOC74	2002	Ford	E-350	16	2	Good	139,686
MEOC75	2002	Ford	E-450	16	2	Good	170,567
MEOC76	2002	Ford	E-350	20	2	Fair	194,079
MEOC81	2002	Ford	E-350	20	2	Poor	226,596



**Figure 1-3: MEOC Transit Vehicle**

## **FACILITIES**

### **Buildings**

The vehicles are maintained at MEOC Transit's facility, which was funded through Department of Rail and Public Transportation/Federal Transit Administration grants. This facility is shown in Figures 1-4 and 1-5.



**Figure 1-4: MEOC Transit Facility, Office Portion**



**Figure 1-5: MEOC Transit Facility, Garage Portion**

### **Bus Stops and Passenger Amenities**

As a demand-response transportation program, MEOC Transit does not have wait shelters, benches, or bus stop signs. The vehicles are not currently equipped with bicycle racks.

### **SAFETY AND SECURITY**

MEOC Transit has a comprehensive “System Hazard and Security Plan,” which was completed in 2007. The plan includes information about mitigation, preparedness, response, recovery, and organizational structure. The following specific elements are included in the plan:

- “Actions required of MEOC Transit employees on a daily, weekly, monthly, and annual basis to prevent security and emergency events from occurring, and to mitigate the effects of those events that occur.
- Measures needed to prepare for incidents occurring at MEOC Transit and in the surrounding community.
- Agency procedures that should be established to enable MEOC Transit to respond to security hazards and emergencies that affect the system and its customers.

- Formal procedures to recover from routine security events or major emergencies.
- Roles, responsibilities, and interagency coordination that MEOC Transit will undertake as part of the larger community-wide team that will respond to a disaster or security event.”<sup>5</sup>

The actions articulated in the plan are also reflected in MEOC Transit’s standard operator procedures, training programs, orientation materials, and maintenance procedures.

### *Safety Equipment and Communication*

Transit vehicles are equipped with on-board emergency supplies and the drivers are tasked with making sure that these supplies are available and properly secured. Drivers are in communication with the dispatch office via two-way radios. The vehicles are not currently equipped with security cameras or Automatic Vehicle Location (AVL) technology, though MEOC has been approved to procure an AVL system and Mobile Data Computers as it upgrades its radio system to comply with narrow banding requirements. These improvements have been funded through the American Recovery and Reinvestment Act.

## **PUBLIC OUTREACH**

There are four primary ways in which MEOC Transit conducts public outreach. These are:

- ***Fleet Visibility*** - with a fleet of 59 vehicles, MEOC Transit has a physical presence within the communities that it serves. Each of the vehicles has the MEOC Transit logo and is readily identifiable.
- ***MEOC Transit Brochures*** - MEOC Transit has a printed brochure that highlights the services that are available, indicates the fare structure, provides information about accessibility and basic policies, and provides contact information. The brochures are widely distributed in the service area.

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<sup>5</sup> MEOC Transit, System Hazard and Security Plan (HSP), January 2007, page 2.

- ***MEOC Website*** - The MEOC Transit website provides all of the information that a person would need in order to access a ride. The MEOC Transit website is linked with the MEOC website.
- ***Community Presentations and Events*** - MEOC Transit staff may attend community events and have brochures available for distribution. The Mobility Manager also conducts a number of presentations to civic organizations, describing the services offered.

## Chapter 2

# Goals, Objectives, and Standards

This chapter presents the issues that were considered during the development of the Plan, documents the unmet transit needs in the region, as articulated by Advisory Committee members, presents the goals that were developed by the Mountain Empire Regional Transportation Advisory Council (MERTAC), and presents a proposed set of performance standards for the system. The MERTAC has served as the Advisory Committee for the TDP.

### ISSUES FOR THE TDP AND UNMET TRANSIT NEEDS

At the initial TDP meeting involving the Steering Committee, a number of issues were discussed for consideration. The discussion also included a review of unmet transit needs in the region. A synopsis of the issues and unmet needs, as discussed at the first meeting, is provided below.

- Demand for public transportation is increasing as the price of fuel increases.
- There are no transportation options for people with disabilities during evening hours or on the weekends. People with disabilities cannot access social and recreational opportunities that are offered evenings and weekends.
- Current transportation services cover only basic, life-sustaining activities such as medical appointments and shopping.
- There are no cab companies in the region that could help fill the gap.
- There may be some demand for vanpools to work opportunities in Tennessee. There are many informal park and ride locations in the region.

- There is a transit need to get from the region to Kingsport for work, particularly from Scott County. The southern portion of Scott County is part of the Kingsport Metropolitan Planning Organization.
- DRPT is conducting a statewide park and ride study that may be a useful reference for this TDP.
- Employment transportation, particularly for people making the transition from Temporary Assistance to Needy Families (TANF) to employment, is the biggest unmet need in the region. Most solutions are not cost effective in such a rural area.
- The DSS has tried a number of different approaches, including gas vouchers, mileage reimbursement to family members/friends, and loan programs to buy cars.
- The most significant unmet transportation need is for long-distance medical transportation, particularly for trips for specialized care in Charlottesville (VA).
- There are a number of transportation issues and unmet needs associated with the veteran community.
  - There is a need for reliable transportation for veterans to get from Lee and Wise Counties to the clinic in Norton. There are 2,400 veterans in Lee County.
  - There is a need for service from the region to Johnson City. Some specialty services are only available at the major centers and not at the clinics.
  - Some veterans have post-traumatic stress disorder, which can make them difficult to be around and unpredictable. Some of these veterans may not be good candidates for coordinated transportation.
  - Sometimes the VA will pay for transportation.

### *General Comments*

- In this rural area there is a certain stigma attached to riding public transportation. Riding can be perceived as meaning that a person cannot afford a car.
- People tend to feel a loss of independence when they can no longer drive or do not have a car available.

- There are a lack of private transportation providers in the area.

### *Opportunities*

- There may be a market for transportation services at the University of Virginia at Wise. The campus is growing and parking is an issue.
- There may be a market for transportation services for students attending Mountain Empire Community College. At one time there was a contract with MEOC in place for transportation. More MECC students have been riding lately.
- Is there an opportunity to partner with Disabled American Veterans (DAV)? Maybe the DAV could supply volunteers for MEOC's volunteer driver program who would be compatible with veterans.
- There may be a market for employment transportation of some sort to Kingsport (TN).

### **Participation**

The following organizations were represented at the initial TDP Advisory Committee meeting:

- MEOC
- DRPT
- Wellmont Health Systems
- Frontier Health
- LENOWISCO Planning District Commission
- Scott County Department of Social Services
- Junction Center for Independent Living
- Veteran's Administration

### **MERTAC GOALS**

MERTAC was formed in 2006 to assist MEOC in developing a comprehensive regional mobility plan, which is a requirement to be considered for grant assistance under the Federal Transit Administration's (FTA) Sections 5310, 5316, and 5317 funding programs. These programs are targeted to particular population segments, including older adults, people with disabilities, and people with low incomes. MERTAC is a voluntary association of public transit and human service transportation stakeholders.

The goals developed by MERTAC include seven policy goals, as well as more specific long-range goals. MEOC Transit is guided by these goals. The seven policy goals are:

- Mobility
- Accessibility
- Reliability
- Efficiency
- Economy
- Equity
- Sustainability<sup>1</sup>

Each of these seven policy goals is supported by a number of objectives, supporting tasks, and sub-activities, which are detailed on pages 28-38 of the Mobility Plan.

MERTAC also identified a set of core transportation needs, upon which planning efforts should focus. These are:

- Community activities,
- On-going needs and services (grocery shopping, medical appointments, errands, etc.),
- Recreation, and
- Employment and post-secondary education.

MERTAC's specific long range goals are:

1. Develop a "one-call" 24-7 Regional Transportation Center for and within Planning District 1 that can serve as a central contact point for people needing transportation assistance.
2. Fill the funding gaps in existing transportation programs.
3. Maintain and enhance mobility through increasing trips for access to CORE services, support new start-ups and expansion of existing transportation providers.
4. Support the coordination of referral services and mobility managers to assist consumers.

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<sup>1</sup> MERTAC, Mobility Vision Plan.

5. Encourage monitoring of provider performance and new technologies such as real time vehicle locator services.
6. Provide relevant training to providers, consumers, and the public at large.
7. Support regional employers and workers with employment related transportation.
8. Support freedom of choice among consumers and transportation providers and consistent and equitable treatment of trip requests from consumers.
9. Support the creation of a self-sustaining and economically efficient transportation system to serve the LENOWISCO region.

The goals and objectives developed by MERTAC serve as goals and objectives for MEOC Transit. Projects developed for this TDP reflect these goals to the extent possible.

## PERFORMANCE STANDARDS

Performance standards are benchmarks by which service performance is evaluated. These standards are typically developed in several categories of service, such as service coverage, passenger convenience, productivity, fiscal condition, and safety. The most effective standards are straightforward and relatively easy to calculate and understand. Performance standards that are useful for urban and/or fixed-route transit programs, such as bus stop spacing, shelter placement, and standee guidance are not relevant for rural demand-response transit programs. As such, KFH Group used guidance from *TCRP Report 136: Guidebook for Rural Demand-Response Transportation: Measuring, Assessing, and Improving Performance* to develop a basic set of performance measures for MEOC Transit.

These key measures are:

- Passenger trips per revenue or vehicle hour, depending upon data availability
- Operating cost per revenue or vehicle hour, depending upon data availability
- Operating cost per passenger trip
- Safety incidents per 100,000 vehicle miles

- On-time performance

Table 2-1 presents these baseline performance measures, along with two additional more qualitative measures for MEOC Transit. These baseline measures consider FY 2010 performance, upon which MEOC Transit can strive to improve. It should be noted that there are important considerations that affect MEOC Transit's ability to become more productive: the size of the service area; the distribution of residential areas and destination areas; and the patterns of the riders' trips. MEOC's mission to serve the needs of transit dependent riders also affects performance, as trip needs may include lengthy trips for critical purposes and limited opportunities for shared-riding. Additionally, MEOC's more productive services are not reflected in the public transit trips, as they focus on agency services that have more opportunity for grouped trips.

## **PROCESS FOR UPDATING GOALS, OBJECTIVES, AND SERVICE STANDARDS**

It is recommended that MERTAC meet at least on an annual basis to revisit the goals and objectives identified in the Mobility Plan and referenced for this TDP. These goals and objectives can be updated as needed, based on the accomplishments made toward improved mobility in the region and evolving mobility needs.

The draft service standards presented in this Chapter were developed as a component of the 2011 Transit Development Plan for MEOC. The system did not previously have these measurement tools in place. As such, it is recommended that MEOC examine these service standards on an annual basis to ensure that they are appropriate and in keeping with what the system is experiencing. If these standards represent under-achievement, or cannot be reasonably attained, MEOC can update these measures to reflect new circumstances.

In addition to an in-house staff review of the service standards, it is also recommended that MERTAC review the service standards annually as they re-visit the goals and objectives. It is recommended that this annual review take place as part of the grant preparation cycle. Any changes for these measurement tools can be included in the annual TDP update.

**Table 2-1: MEOC Public Transit Proposed Performance Measures**

<b>Measure</b>	<b>Value</b>
<i><b>Productivity:</b></i>	
Passenger Trips Per Revenue Hour	FY 10 = 1.25 trips/revenue hour
<i><b>Cost Efficiency:</b></i>	
Operating Cost Per Revenue Hour	FY10 = \$29.87 per revenue hour
<i><b>Cost Effectiveness:</b></i>	
Operating Cost Per Passenger Trip	FY10 = \$23.90
<i><b>Service Quality:</b></i>	
On-time Performance (1)	Need to collect
<i><b>Safety:</b></i>	
Safety Incidents per 100,000 miles	0.13
<i><b>Qualitative Standards:</b></i>	
Passenger comfort	Working air conditioning/heat Vehicles clean and in good condition
Availability of information	Brochures up to date and distributed throughout the community. Website up to date.

(1) This measure can be calculated using a data sample.

**Note:** The productivity of the public demand-response service is significantly lower than the overall system productivity, as the grouped trips are generally agency-sponsored and not reflected in the public transit data.

MEOC Transit's trips per hour are lower than the mean of those reported to the Rural NTD (analyzed in "Classifying Rural and Small Urban Transit Agencies," David Ripplinger, Small Urban & Rural Transit Center, North Dakota State University, 2009). This is largely due to the low population density and topography of the region.



## Chapter 3

# Service and System Evaluation and Transit Needs Analysis

### INTRODUCTION

This chapter of the TDP focuses on two primary analyses. The first area of focus is a description and comprehensive analysis of the recent performance of MEOC Transit, including a trend analysis, peer analysis, and a passenger survey. The second area of focus provides an analysis of transit needs and includes demographic and land use analyses, two community surveys, and a review of relevant studies and plans.

### SERVICE AND SYSTEM EVALUATION

#### Trend Data

Table 3-1 provides the operating statistics for the public transportation component of MEOC Transit for Fiscal Years 2006-2010, as reported by MEOC Transit and the Virginia Transit Performance Report (2004-2008). In FY 2008 and FY 2009, ridership and productivity was higher than in FY 2006, FY 2007 and FY 2010, largely due to a temporary shuttle service that was in place during the local hospital's construction of a parking garage, which also contributed to a higher number of revenue hours in FY 2008. The general trend for the public transit program has been modest growth. Figure 3-1 provides a graph showing the five-year trends in operating statistics.

MEOC Transit's cost per trip in FY 2010 was \$23.90, the cost per hour was \$29.87, and the farebox recovery was 3%. The general public demand-response service provides 1.25 passenger trips per revenue hour. As discussed in Chapter 2, the general public portion of MEOC's transit program is not as productive as the human service portion as more trips can be scheduled with common destinations for the human

service programs. The public transit program represents about 71% of the total transportation programs.

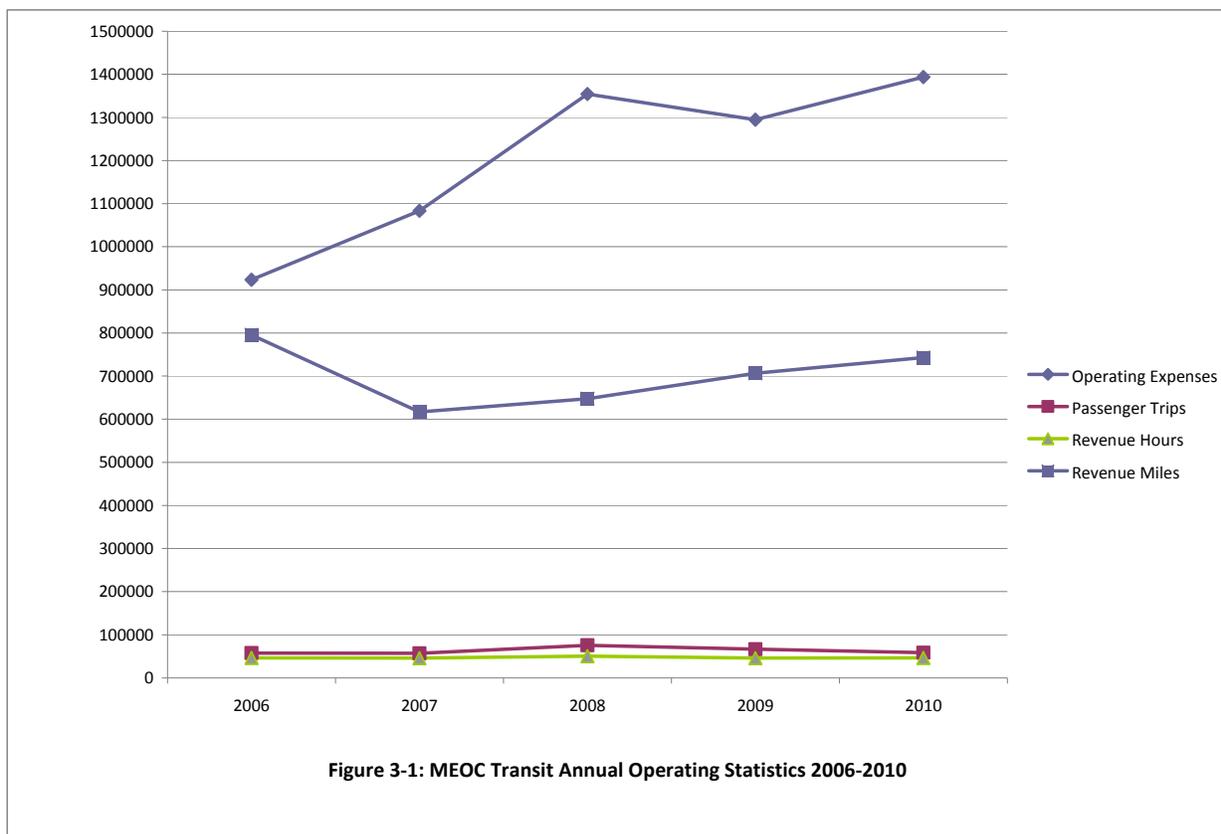
**Table 3-1: MEOC Transit- Operating Statistics and Performance Measures  
Public Transit Program  
FY 2006- FY 2010 (1)**

Year	Passenger Trips	Revenue Hours	Revenue Miles	Trips Per Revenue Hour	Trips Per Revenue Mile	Miles Per Hour
2006	57,678	46,163	795,643	1.25	0.07	17.2
2007	56,927	45,752	616,918	1.24	0.09	13.5
2008	75,641	50,578	647,584	1.50	0.12	12.8
2009	66,542	45,984	706,655	1.45	0.09	15.4
2010	58,319	46,654	742,810	1.25	0.08	15.9

Year	Operating Expenses	Fare Revenue	Cost Per Trip	Cost Per Hour	Cost Per Mile	Farebox Recovery
2006	\$923,390	\$25,961	\$16.01	\$20.00	\$1.16	3%
2007	\$1,083,437	\$31,453	\$19.03	\$23.68	\$1.76	3%
2008	\$1,354,143	\$33,143	\$17.90	\$26.77	\$2.09	2%
2009	\$1,294,553	\$41,416	\$19.45	\$28.15	\$1.83	3%
2010	\$1,393,590	\$45,980	\$23.90	\$29.87	\$1.88	3%

Source: MEOC Transit and the Virginia Transit Performance Report 2004-2008.

(1) MEOC's fiscal year runs from October 1 to September 30.



### Peer Review

While it is most relevant for a transit agency to examine its own performance over time, it is valuable to know the operating statistics for transit programs that could be considered “peers,” either by virtue of location, service area characteristics, or size. The study team used FY 2008 data from the Virginia Transit Performance Report for this analysis, choosing peers that provide service in multi-county rural areas of Virginia. The results of this peer review are presented in Table 3-2.

**Table 3-2: Selected Peer Comparison**

System	Service Area Population	Number of Vehicles	Annual Passenger Trips	Total Operating Expenses	Vehicle Revenue Hours	Vehicle Revenue Miles
Bay Aging	130,000	46	136,298	\$ 1,994,165	58,023	1,355,045
District 3 Transit	190,020	71	211,279	\$ 1,514,423	47,543	598,932
Four County Transit	114,000	41	184,140	\$ 1,630,004	56,874	1,154,672
<b>MEOC Transit</b>	<b>91,019</b>	<b>49</b>	<b>75,641</b>	<b>\$ 1,354,143</b>	<b>50,578</b>	<b>647,584</b>
Mean	131,260	52	151,840	\$ 1,623,184	53,255	939,058

System	Trips Per Hour	Trips Per Mile	Cost Per Trip	Cost Per Hour	Cost Per Mile	Miles Per Hour
Bay Aging	2.35	0.10	\$ 14.63	\$ 34.37	\$ 1.47	23.4
District 3 Transit	4.44	0.35	\$ 7.17	\$ 31.85	\$ 2.53	12.6
Four County Transit	3.24	0.16	\$ 8.85	\$ 28.66	\$ 1.41	20.3
<b>MEOC Transit</b>	<b>1.50</b>	<b>0.12</b>	<b>\$ 17.90</b>	<b>\$ 26.77</b>	<b>\$ 2.09</b>	<b>12.8</b>
Mean	2.85	0.16	\$ 10.69	\$ 30.48	\$ 1.73	17.6

Source: Virginia Transit Performance Report, 2008 Data.

These data show that for FY 2008 MEOC Transit:

- Operated in an area with fewer people than the mean.
- Provided about half as many passenger trips, but also operated fewer vehicle revenue hours.
- Operated fewer vehicle revenue miles than the mean.
- Operated at a lower speed than the mean.
- Experienced lower costs per revenue hour than the mean.
- Experienced a higher cost per trip than the mean (reflecting fewer trips).

These data are logical given that MEOC Transit operates exclusively demand response, while District 3 and Four County operate deviated fixed routes that typically experience higher productivity. Also, the MEOC Transit service area is quite rural, with mountainous terrain, which impacts operating speeds.

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## Human Service Transportation Program

In addition to providing public transportation in the region, MEOC also provides human service transportation for various programs. Table 3-3 provides an overview of the transportation services consumed by month for each of MEOC's transportation programs. As is indicated, public transportation trips represent about half of the total trips provided by the agency, with May and October being the busiest public transportation months. The inclement weather experienced in December 2010 is evident by the December ridership figures.

## Expenses and Revenue

In FY 2010, MEOC Transit's operating expenditures were \$ 1,393,590. The FY12 budget is 4% higher than the FY 2010 budget at \$1,443,700.

The largest single funding source for MEOC Transit is the Federal Section 5311 program. The FY 2012 budget is detailed in Table 3-4.

## On-Board Rider Survey

An important task within the MEOC TDP process was the acquisition of more information about current public transportation trip patterns, rider characteristics, rider satisfaction with the service, and suggestions for service improvements. In order to collect these data, an on-board rider survey was conducted. The surveys were administered in August, 2011 by passenger attendants on board the MEOC Transit vehicles. Surveys were also distributed and collected by the PACE Center and by Frontier Health in order to get additional survey participation.<sup>1</sup> The participants were instructed to only complete one survey. A total of 84 passengers completed the survey. A copy of the questionnaire is provided as Appendix A. The results of the survey are described in detail below, with Table 3-5 offering an overview of these findings.

### *Trip Patterns of Surveyed Riders*

The most commonly reported trip purpose among survey participants was "attend senior center" and "other," each indicated by 39% of the participants, followed by "work" and "medical" (20%) and "social/recreation" (15%). The riders are

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<sup>1</sup> PACE stands for Program of All-Inclusive Care for the Elderly. The program provides a number of services for older adults, with the goal of keeping people in their homes, rather than in institutional settings. Services provided at the PACE center include a medical clinic, physical therapy program, adult day program, nutrition, and personal care.

Frontier Health is an agency that provides services for people with mental health, behavioral, and substance abuse issues, as well as people with intellectual and developmental disabilities.

**Table 3-3: MEOC Transit: FY10 Monthly Ridership by Program**

Program	Number of Trips												Totals
	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	
General Public	3,185	2,392	5,077	4,794	8,403	5,153	4,728	5,250	4,809	7,577	4,506	2,001	57,875
Adult Day Care	171	112	256	254	243	278	276	281	245	258	248	62	2,684
Congregate Meals/Liquid Supplement Delivery/Home Delivered Meals	1,478	1,163	1,982	1,876	1,921	2,119	1,771	1,935	2,023	1,977	2,096	1,220	21,561
Developmental Services	54	48	90	84	61	53	74	70	65	76	73	31	779
Independence House	30	44	82	78	66	71	75	73	116	83	55	39	812
Glucerna	28	27	35	23	27	34	29	35	38	37	44	37	394
Medicaid	960	673	1,759	1,707	1,578	1,643	1,726	1,803	1,678	1,820	1,581	655	17,583
PACE	737	611	1,285	1,166	1,212	1,277	1,313	1,473	1,615	1,553	1,549	704	14,495
Pulmocare	4	5	3	4	4	4	4	4	5	5	4	4	50
Totals	6,647	5,075	10,569	9,986	13,515	10,632	9,996	10,924	10,594	13,386	10,156	4,753	116,233

Source: MEOC Transit.

**Table 3-4: MEOC Public Transportation FY12 Budget**

<b>Description of Account</b>	<b>Budgeted Amount</b>
Salaries and Wages	\$700,000
Fringe Benefits	\$115,000
Education and Training	\$6,000
Cleaning Supplies	\$2,000
Motor Fuels and Lubricants	\$300,000
Tires and Tubes	\$9,000
Parts	\$31,000
Service and Maintenance Contracts	\$5,000
Data Processing Supplies	\$4,500
Tools and Machinery	\$2,000
Travel	\$2,200
Utilities	\$13,000
Contracted Repairs and Maintenance	\$7,000
Advertising and Promotion	\$1,000
Drug Testing Expenses	\$6,000
Insurance and Bonding	\$100,000
Indirect Costs	\$140,000
<b>Total Expenses</b>	<b>\$1,443,700</b>
Revenue	\$45,988
ARRA Operating	\$0
Net Deficit	\$1,397,712
Federal Operating Exp.	\$698,856
Non-Federal Assistance	\$698,856

**Table 3-5: Mountain Empire Older Citizens (MEOC) Transit On-Board Rider Survey**

**Q1: In what city, town, or community do you live?**

#1: Wise  
 #2: Big Stone Gap  
 #3: Norton

**Q2: What is the purpose of your ride today?**

Work:	20%	Gov't Service Agency:	2%
Shopping:	6%	Errands/Personal Business:	13%
School:	6%	Attend Senior Center:	39%
Social/Recreation:	15%	Attend Senior Meal Site:	4%
Medical:	20%	Other:	39%

**Q3: How often do you use the MEOC Transit service?**

Four times per week or more:	36%	Two to three times per month:	6%
Two to three times per week:	36%	Once a month:	6%
Once a week:	10%	Less than once a month:	6%

**Q4: How did you find out about the MEOC Transit Service?**

Not sure, have ridden for a long time:	6%	Brochure:	0%
Asked someone who uses the service:	18%	Asked Driver:	3%
MEOC Website:	3%	Telephoned MEOC:	13%
Senior Center Staff:	24%	Other:	21%
Other Agency Staff:	13%		

**Q5: How long have you been using MEOC Transit service?**

Six months or less:	14%	One to two years:	24%
Six months to one year:	10%	More than 2 years:	23%
About one year:	4%	More than 5 years:	24%

**Q6: Including yourself, how many people live in your home?**

One:	45%	Four:	4%
Two:	23%	Five or more:	4%
Three:	23%		

**Q7: How many vehicles (cars, trucks, motorcycles) are available in the household where you live?**

Zero	52%	Three	4%
One	18%	Four or more	3%
Two	22%		

**Q8: Was a car available today for this trip?**

Yes:	22%	No:	78%
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**Q9: Do you have a driver's license?**

Yes:	30%	No:	70%
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**Q10: Do you have internet access?**

Yes:	26%	No:	74%
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**Q11: Please rate your satisfaction with MEOC Transit services in the following areas:**

	<b>VS</b>	<b>S</b>	<b>U</b>	<b>VU</b>
The trip scheduling process:	<u>62%</u>	<u>38%</u>	<u>0.00%</u>	<u>0.00%</u>
Telephone customer service:	<u>56%</u>	<u>44%</u>	<u>0.00%</u>	<u>0.00%</u>
On-time performance:	<u>62%</u>	<u>37%</u>	<u>0.02%</u>	<u>0.00%</u>
Days of service:	<u>63%</u>	<u>37%</u>	<u>0.00%</u>	<u>0.00%</u>
Hours of service:	<u>61%</u>	<u>39%</u>	<u>0.00%</u>	<u>0.00%</u>
Cost of the fare:	<u>65%</u>	<u>35%</u>	<u>0.00%</u>	<u>0.00%</u>



predominantly frequent riders, with 72% of the respondents indicating that they ride at least two times per week. Seventy-one percent of the survey participants reported that they have used MEOC Transit for more than one year.

### *Rider Characteristics*

The most number of surveys were received from residents of Wise, followed by Big Stone Gap, and Norton. Thirty percent of the survey respondents indicated that they had a driver's license. Automobile availability varied among surveyed riders, with 52% of respondents stating there was no vehicle at their house, 18% having potential access to a single vehicle, and 29% of riders having two or more automobiles available to their household.

### *Rider Satisfaction*

The overall rating of satisfaction with MEOC Transit services described by survey respondents was satisfactory or above, with minimal respondents expressing any dissatisfaction with the service. Riders were most satisfied with the driver courtesy, the safety and security, and the cleanliness of the vehicles. While not receiving any unsatisfactory responses, telephone customer service received the lowest "very satisfied" rating at 56%.

### *Service Improvements Proposed by Surveyed Riders*

When asked if there were places in the region where they would like to go on a regular basis, but cannot get to due to a lack of transit access, 78% indicated that there were. The most popular responses for these locations were: Barter (Abingdon), Kingsport, Walmart/Food City, and Gate City to Big Stone Gap.

Riders were also presented with a list of potential improvements, with instructions to check the three that were most important to them. The most frequently checked improvement was Saturday service, followed by Sunday service, service to Kingsport, and more flexibility in scheduling trips.

The survey also asked participants to indicate what they like the best about MEOC Transit and what they like the least about MEOC Transit. Riders' most favorite things about MEOC Transit were: the friendliness of the drivers, the availability of a form of transportation, and the punctuality of the transportation services. The absence of weekend transportation was listed as the least favorable characteristic of the system.

## **Title VI and Federal Transit Administration (FTA) Triennial Review**

While MEOC Transit is required to follow all applicable FTA guidance with regard to regulatory compliance, as a subrecipient of federal funds through the Virginia Department of Rail and Public Transportation (DRPT), MEOC Transit is not required to directly report compliance activities to the FTA. DRPT is charged with ensuring that its subrecipients are in compliance with federal guidance and prepares statewide reports on behalf of its rural transit providers and submits these reports to the FTA.

### **Equipment and Facilities**

MEOC's administrative, operations, and maintenance facility is in good condition. As discussed previously, MEOC Transit does have several high mileage vehicles that are systematically being replaced. There are no major facility or vehicle deficiencies.

## **TRANSIT NEEDS ANALYSIS**

The focus of this transit needs assessment is to analyze quantitative land use and population data, along with qualitative data provided by area stakeholders and the public, to develop a solid understanding of the travel needs of the diverse group of current and potential riders. This needs assessment incorporates information gathered from recent planning efforts and the U.S. Census.

### **Review of Recent Plans**

This section of the needs analysis includes an overview of existing planning documents and studies that have been recently completed in the region. The plans and studies included those specific to public transportation, as well as those addressing more expansive land use and growth visions for the region. How these plans and studies articulate the issue of public transportation in the region and contemplate future land uses are abstracted below.

### ***Mountain Empire Regional Transportation Advisory Council (MERTAC) Mobility Vision***

In response to the coordinated planning requirements of the SAFETEA-LU legislation, MEOC applied for and received funding from the Community Transportation Association of America (CTAA) to develop a coordinated plan for the region. MEOC reached out to community stakeholders to form the MERTAC, which guided the development of the plan. The resulting "Mobility Vision" was designed to

guide funding decisions for three specific grant programs: Section 5316 (Job Access and Reverse Commute - JARC), Section 5317 (New Freedom), and Section 5310 (Elderly Individuals and Individuals with Disabilities.)

The goals developed by MERTAC include seven policy goals, as well as more specific long-range goals. MEOC Transit is guided by these goals. The seven policy goals are:

- Mobility
- Accessibility
- Reliability
- Efficiency
- Economy
- Equity
- Sustainability<sup>2</sup>

MERTAC also identified a set of core transportation needs, upon which planning efforts should focus. These are:

- Community activities,
- On-going needs and services (grocery shopping, medical appointments, errands, etc.),
- Recreation, and
- Employment and post-secondary education.

MERTAC's specific long range goals are:

1. Develop a "one-call" 24-7 Regional Transportation Center for and within Planning District 1 that can serve as a central contact point for people needing transportation assistance.
2. Fill the funding gaps in existing transportation programs.
3. Maintain and enhance mobility through increasing trips for access to CORE services, support new start-ups and expansion of existing transportation providers.
4. Support the coordination of referral services and mobility managers to assist consumers.

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<sup>2</sup> MERTAC, Mobility Vision Plan.

5. Encourage monitoring of provider performance and new technologies such as real time vehicle locator services.
6. Provide relevant training to providers, consumers, and the public at large.
7. Support regional employers and workers with employment related transportation.
8. Support freedom of choice among consumers and transportation providers and consistent and equitable treatment of trip requests from consumers.
9. Support the creation of a self-sustaining and economically efficient transportation system to serve the LENOWISCO region.

As discussed in Chapter 2, these goals are used by MEOC on a regular basis for planning transit services and were fully considered for this TDP. MEOC has used the plan to develop New Freedom initiatives, three of which have been funded and are operating.

### *Lee County Comprehensive Plan*

Lee County's Comprehensive Plan was updated in 2011, with a planning horizon of 2030. While Lee County did experience modest growth between 2000 and 2010, the future population estimates show minimal population growth through 2030. Developable land in the County is limited by a number of factors, including steep slopes; poor soil conditions; flood prone areas; mineral land under development; underground mining; and national forest lands. The Plan characterizes the local economy as having "too many moderate-income jobs, a large percentage of government employment in relation to other employment, a high percentage of transfer payments, and a relatively high rate of unemployment."<sup>3</sup> The Plan recommends that the County take steps to attract new employers to the region and assist existing employers to expand. Future development in the County is likely to occur along the established transportation corridors, including U.S. Routes 58 and 58A, U.S. 23, U.S. 421, and VA70.

Public transportation is discussed in the Plan, and one of the transportation policies is to investigate possible alternatives for public transportation to serve Lee County.

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<sup>3</sup> Lee County Comprehensive Plan, 2011 Update.

### ***City of Norton Comprehensive Plan***

The City of Norton's Comprehensive Plan was completed in 2003, with the year 2020 chosen as the planning horizon. The City's population has generally been declining since the 1960's, though there was a small increase in population between the 2000 and the 2010 Census. Norton serves as the center of the Coalfields Region, an area that is making an economic transition from a mining-based economy to one that is more diversified. Improving the downtown and enhancing eco-tourism are seen as important components for future economic development. The approved land use map does focus future medium and high density development in the downtown and along the highway corridor. Public transportation is not mentioned in the Plan.

### ***Scott County Comprehensive Plan***

The Scott County Comprehensive Plan (2011) provides a guide for orderly growth and development in the County. As with the three other jurisdictions in the LENOWISCO region, Scott County is generally declining in population and was the only one of the four that lost population between the 2000 Census and the 2010 Census. The land use section of the plan indicates that "the bulk of the developable land within Scott County has been developed and no major changes except expansion of existing developable areas and transportation corridors is expected. Industrial development is supported for the Duffield Industrial Park, while retail and revitalization efforts are discussed for Gate City, Weber City, and Nickelsville. Dungannon and other areas along the Clinch River and adjacent to the Jefferson National Forest are targeted for tourism-related activities.

The Plan includes a section on Transportation, Chapter 6. While the availability of public transportation is mentioned in the plan, there is not a discussion concerning future public transportation needs or priorities. The state transportation goal is "Provide feasible solutions to relieve current traffic problems and support specific land use objectives."<sup>4</sup> The objective listed under this goal mentions only the street and highway system and the specific policies reference only roadway concerns.

### ***Wise County Comprehensive Plan***

The Wise County Comprehensive Plan is the oldest of the region's comprehensive plans, having been completed in 1998. The planning horizon for the plan is 2020. Wise County's population is not expected to grow significantly during the planning horizon. As is typical for the region, there is a limited amount of developable

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<sup>4</sup> Scott County Comprehensive Plan, 2011.

land due to steep slopes, poor soil conditions, flood prone areas, mineral land under development, underground mining, and national forest land. New development is likely to occur Wise/Norton area, and it the Big Stone Gap and Pound areas.

The Plan does address public transportation, indicating that the desired future condition was to have public transportation available to all who need it. Specific strategies listed include:

- “Support the development of public transit by encouraging the Commonwealth of Virginia Transportation Board to revise the highway funding formula to increase the percentage of funds earmarked for public transit.
- Work with Mountain Empire Transit to study and implement expansion of its service as needed.
- Encourage Virginia Department of Transportation to establish more park and ride facilities in cooperation with Mountain Empire Transit.”<sup>5</sup>

Wise County’s plan also discusses the desire for a transportation network that would offer alternative modes of transportation through bikeway and pedestrian facilities.

### ***LENOWISCO Planning District Commission 2035 Rural Long Range Transportation Plan***

The LENOWISCO 2035 Long Range Transportation Plan is a component of VTRANS 2035, the Commonwealth’s multi-modal long range transportation plan. This planning effort included an evaluation of each mode of transportation in the region, including roadway, rail, transit, air, bicycle, and pedestrian. The plan has a horizon year of 2035 and addresses the anticipated impacts of population and employment growth on the transportation system. This plan excludes Gate City, Weber City, and the urbanized areas of Scott County, as their transportation needs are considered by the Kingsport Metropolitan Planning Organization.<sup>6</sup>

The Plan includes a discussion of public transportation and incorporates the MERTAC Mobility Plan’s recommendations (previously highlighted).

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<sup>5</sup> Wise County Comprehensive Plan, 1998.

<sup>6</sup> LENOWISCO Planning District Commission, 2035 Rural Long Range Transportation Plan

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## Demographic Analysis

The following section provides an extensive overview of the demographic composition of the residents of Lee, Scott, and Wise Counties, and the City of Norton, Virginia. Specifically, this section of the transit needs analysis examines trends in the general population, relative concentrations of residents, two separate indices investigating potential transit dependence characteristics within the populace, and an extraction of a few of the more important characteristics associated with this greater potential need for public transportation services.

### *General Population*

The 2010 Census indicated that the LENOWISCO region had a population of 94,174 people, an increase of about 3.5% over the Census 2000 population of 91,019. The region had previously lost population, with the 1990 Census recording 91,520 people. The 2005-2009 American Community Survey (ACS) indicated that 15.3% of the region's population is aged 65 or older, which is higher than the U.S. average of 12.6%. Table 3-6 provides an overview of the population trends in the region.

### *Population Density*

Population density often serves as an effective indicator into the types of public transit services that are most feasible within a study area. For instance, while exceptions will always exist, an area with a density of 2,000 persons per square mile will generally be able to sustain a frequent, daily fixed-route bus service. Conversely, an area with a population density below this stated threshold may be better suited for a demand-response or deviated fixed-route bus service. The overall population density of the region is 67.8 persons per square mile, which is quite rural and best suited for demand response transportation, though there are examples of successful deviated fixed routes in areas of low population density. Figure 3-2 provides a map of the study area, showing population densities by Census Block Group. As the map indicates, there are a few areas in Norton, Big Stone Gap, and Coeburn that show areas with densities greater than 500 people per square mile and a few additional areas (Gate City, Wise, and Pennington Gap) with densities between 151 and 500 people per square mile, with the remainder of the service area falling into the very low density category of fewer than 150 people per square mile.

### *Transit Dependence Index*

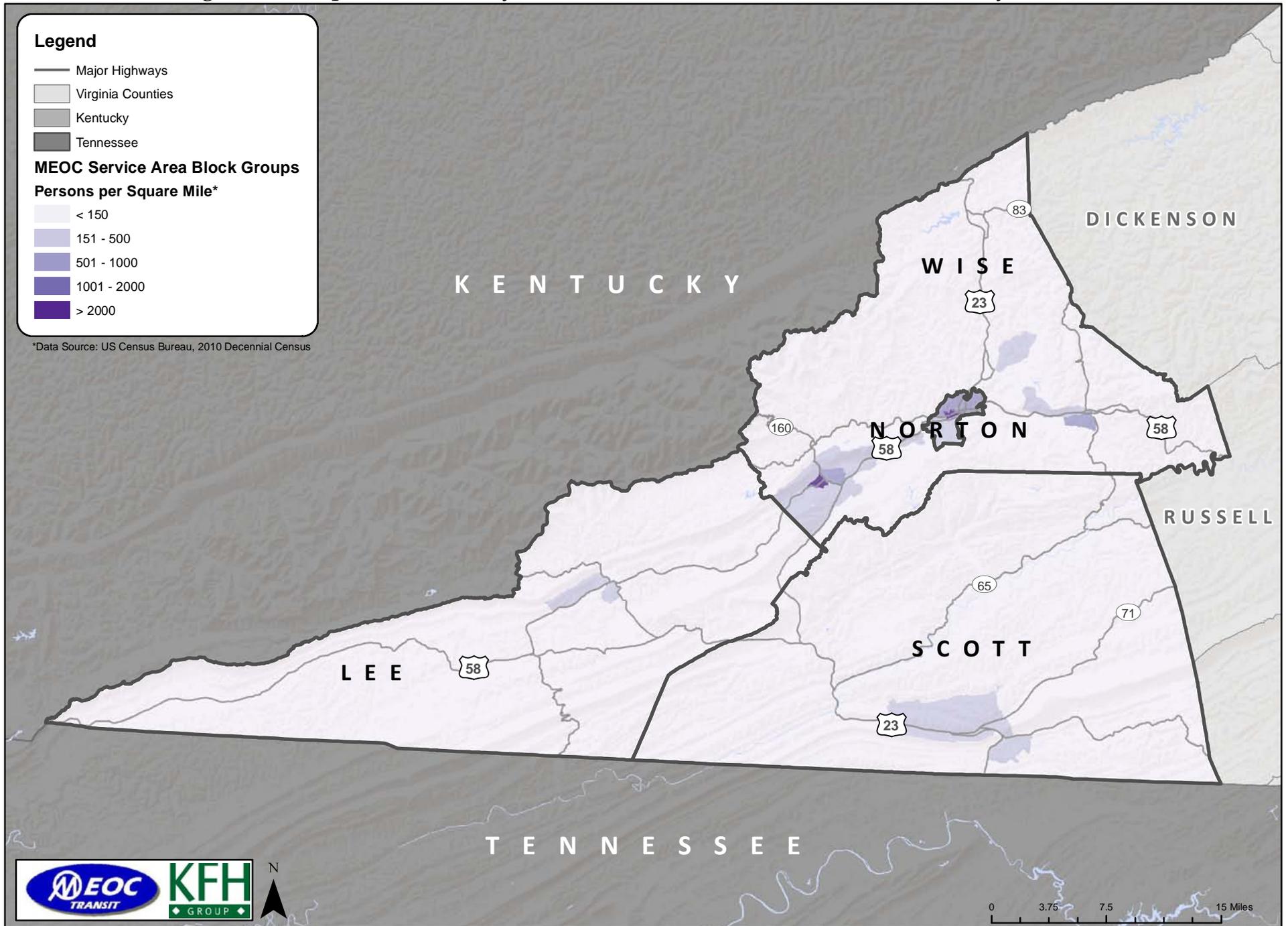
Public transportation needs are defined in part by identifying the relative size and location of those segments within the general population most likely to be dependent upon some form of public transit services. Once the location of these transit

**Table 3-6: General Population Characteristics for MEOC Counties**

<b>Place</b>	<b>1990 Population</b>	<b>2000 Population</b>	<b>2010 Population</b>	<b>2000-2009 Percent Change</b>	<b>2000-2010 Percent Change</b>
State of Virginia	6,187,358	7,078,515	8,001,024	14.40%	13.03%
Lee County	24,496	23,589	25,587	-3.70%	8.47%
Jonesville	927	995	1,034	7.34%	3.92%
Pennington Gap	1,922	1,781	1,781	-7.34%	0.00%
St. Charles	206	159	128	-22.82%	-19.50%
Scott County	23,204	23,403	23,177	0.86%	-0.97%
Clinchport	67	77	70	14.93%	-9.09%
Duffield	54	62	91	14.81%	46.77%
Dungannon	250	317	332	26.80%	4.73%
Gate City	2,214	2,159	2,034	-2.48%	-5.79%
Nickelsville	411	448	383	9.00%	-14.51%
Weber City	1,377	1,333	1,327	-3.20%	-0.45%
Wise County	39,573	40,123	41,452	1.39%	3.31%
Appalachia	1,994	1,839	1,754	-7.77%	-4.62%
Big Stone Gap	4,748	4,856	5,614	2.27%	15.61%
Coeburn	2,165	1,996	2,139	-7.81%	7.16%
Pound	995	1,089	1,037	9.45%	-4.78%
Wise	3,193	3,255	3,286	1.94%	0.95%
St. Paul	1,007	1,000	970	-0.70%	-3.00%
City of Norton	4,247	3,904	3,958	-8.08%	1.38%
<b>MEOC Counties</b>	<b>91,520</b>	<b>91,019</b>	<b>94,174</b>	<b>-0.55%</b>	<b>3.47%</b>

Source: United States Census Bureau, American FactFinder.

Figure 3-2: Population Density in Lee, Scott and Wise Counties and the City of Norton



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dependent populations is determined and analyzed, it becomes possible to evaluate the extent to which current services meet the needs of community residents. To identify the areas of highest transportation need, the Transit Dependence Index (TDI) was calculated for each of the Census block groups in the MEOC Transit study area.

The TDI is an aggregate measure that utilizes recent data from the ACS five-year estimates and the United State Decennial Census to display relative concentrations of transit dependent populations within a study area at the Census block group level. These populations include the following:

- People residing in households with no vehicle available,
- Elderly Adults (aged 65 and above),
- Youth (aged 10-17),
- People with Disabilities, and
- People residing in households with incomes below the poverty level.

The TDI also includes a population density factor. A complete explanation of the methodology used to develop the TDI is provided in Appendix B. The TDI shows relative need within a study area, which means that in a relatively homogenous service area, there will not be locations that show up as high need, as the index reflects the degree to which a certain area is below or above the study area average for the various needs characteristics.

In the MEOC Transit service area, the following areas show very relative high need, meaning that the concentration of transit dependent people is greater than twice that of the study area average:

- The northwestern segment of the City of Norton
- Big Stone Gap
- Coeburn and the area south of Coeburn
- Pennington Gap

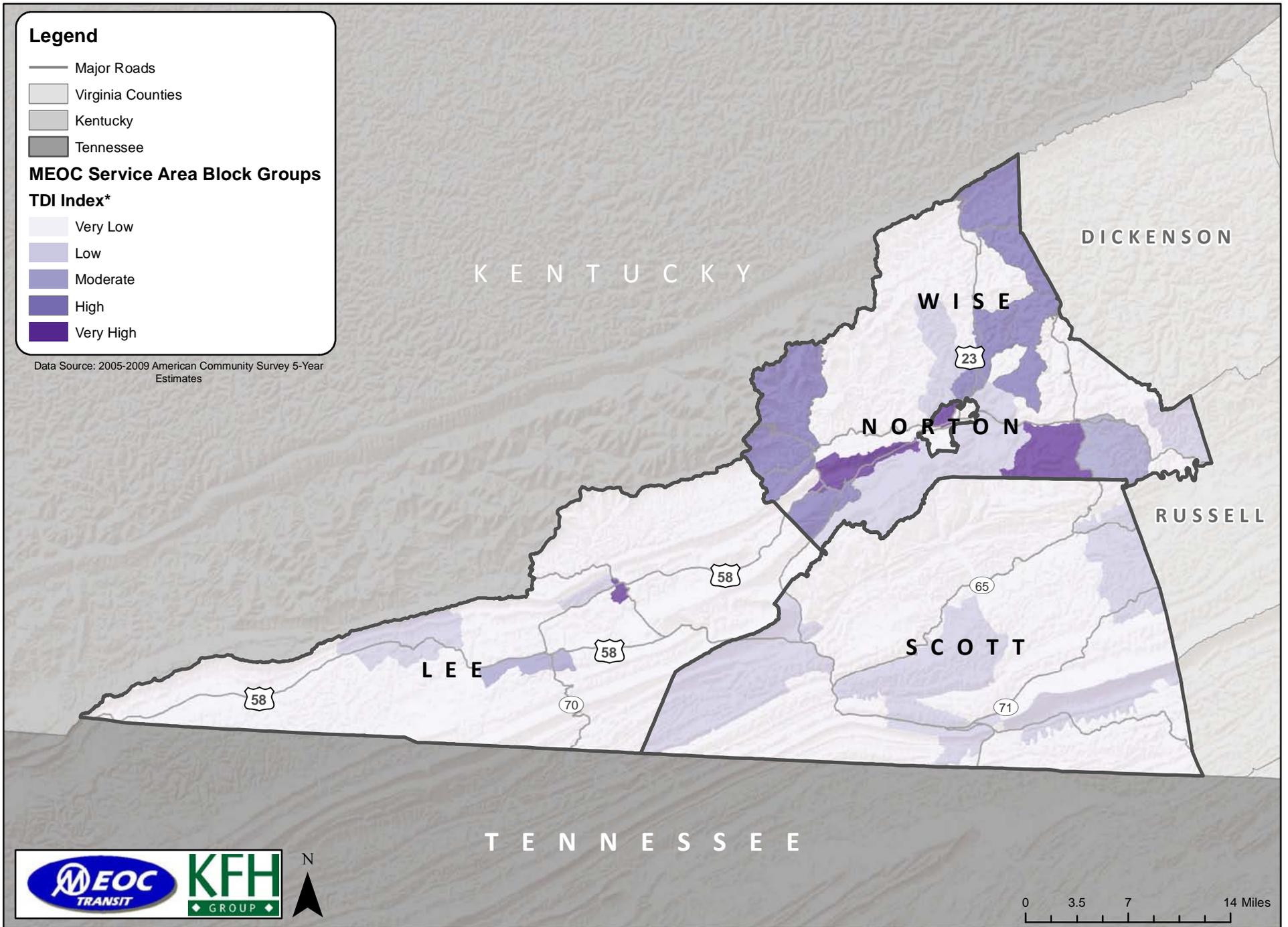
The following areas show high relative need, meaning that the concentration of transit dependent people is 1.66 to 2 times higher than the study area average:

- The northeast section of Wise County, extending from Pound, then along the Dickenson County border and then west to Wise;
- Appalachia and the area to the north of Appalachia;

Figure 3-3 provides a map of the MEOC Transit service area showing the relative transit needs in the service area by Census Block Group, as calculated by the TDI.

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Figure 3-3: MEOC Area Transit Dependence Index Classification  
 Census Block Groups Depicted by Relative Transit Need



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### *Transit Dependence Index Percent (TDIP)*

The TDIP analysis is similar to the TDI in that it compares the relative need for public transit among area block groups. The difference between the TDIP and the TDI is that the TDIP does not include population density. This index is used to see if there are areas that have high relative needs based on the percentage of the population displaying needs characteristics, regardless of the population density. For the MEOC Transit service area, only one area shows up as high relative need according to the TDIP. This area falls between VA 68 and US ALT58 in Lee County, just west of the Border with Wise County. Figure 3-4 provides a map of the TDIP for the MEOC Transit service area.

### *Autoless Households*

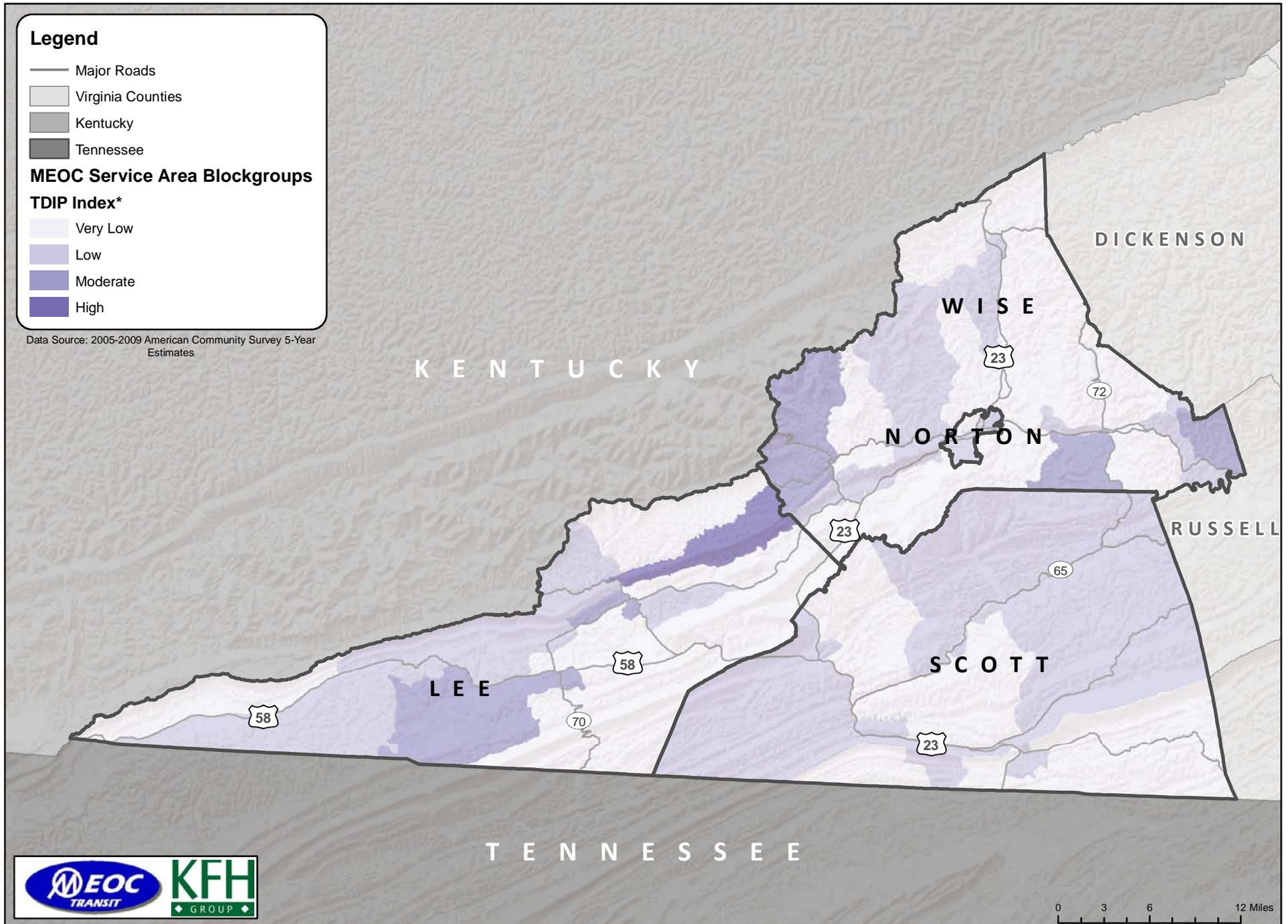
Households without at least one personal automobile to their possession are more likely to depend on the mobility offered by public transportation than those households with access to an automobile. Although the no vehicle households are reflected in both the TDI and TDIP measures as a vulnerable population that should be accounted for in a needs assessment, there is added importance in displaying this segment of the population separately in an area with the rural character found throughout the MEOC Transit service area, where many land uses are separated by distances too far for non-motorized travel. Figure 3-5 provides a map displaying the relative concentration of autoless households by Census block group for the MEOC Transit service area. This map indicates that there are several areas in which there are very high relative concentrations of people without access to a personal vehicle. These areas include:

- The northeastern corner of Wise County;
- The northwestern corner of Wise County, from Appalachia to the Kentucky border;
- A small area of southwestern Big Stone Gap;
- An area to the south of Coeburn;
- The southeastern corner of Wise County (Saint Paul area);
- An area in Scott County between Gate City and Weber City;
- The Pennington Gap area of Lee County;
- The Jonesville Area of Lee County.

### **Title VI Analysis**

Title VI of the Civil Rights Act of 1964 prohibits discrimination on the basis of race, color, or national origin in programs and activities that receive financial assistance

Figure 3-4: MEOC Area Transit Dependence Index Percent Classification  
 Census Block Groups Depicted by Relative Transit Need

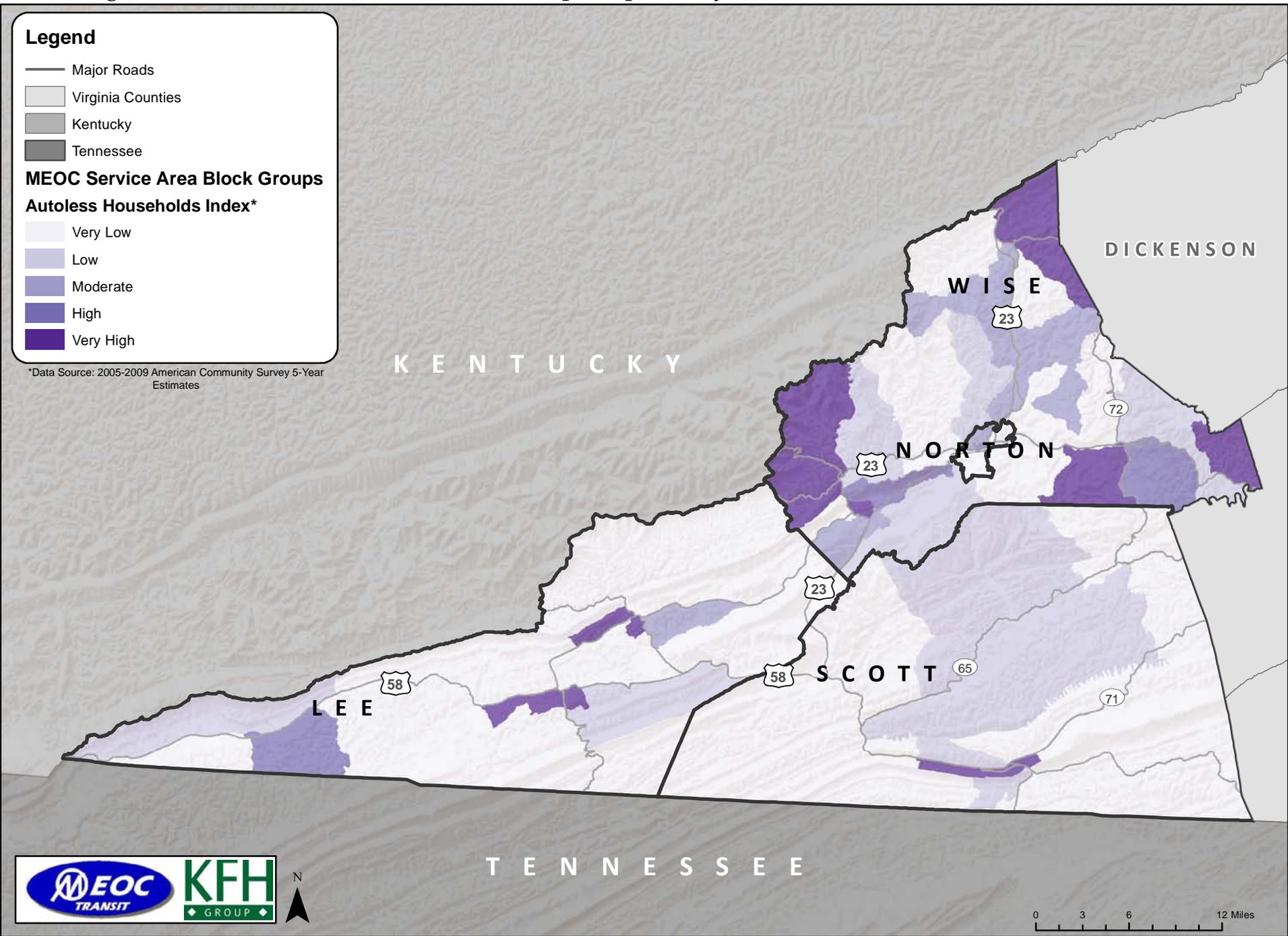


3-22



0 3 6 12 Miles

Figure 3-5: MEOC Area Census Block Groups Depicted by the Relative Number of Autoless Households



3-23



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from the federal government. As such, agencies providing federally-funded public transportation services have the responsibility to sustain and enhance the social and economic quality of life for the residents of the communities to which they serve. The following section examines the environmental justice population of the MEOC Transit service area, which constitutes both racial and/or ethnic minorities and low-income residents, in addition to an overview of the magnitude of area residents that possess limited proficiency in their English-speaking ability.

### **Environmental Justice Index (EJI)**

EJI is an aggregate measure that may be employed with mapping software to effectively display relative concentrations of racial and/or ethnic minorities and low-income residents throughout the study area. The structure for the EJI was introduced in a 2004 National Cooperative Highway Research Program report in order to offer “practitioners an analytical framework to facilitate comprehensive assessments of a proposed transportation project’s impacts on affected populations and communities.”<sup>7</sup> The application of the EJI within this needs assessment will ensure a high standard of social and economic equality, as outlined in Title VI of the Civil Rights Act of 1964, when evaluating potential modifications to the present public transportation services in the region.

Similar to both the TDI and TDIP, the data utilized for the EJI was compiled by the ACS’s five-year estimates, which enabled examination of socioeconomic characteristics at a block group level of analysis, and the United States Decennial Census, which provided the necessary geographic information (e.g., block group boundaries). Factors included in the EJI are:

- population per square mile
- minority population
- below-poverty population

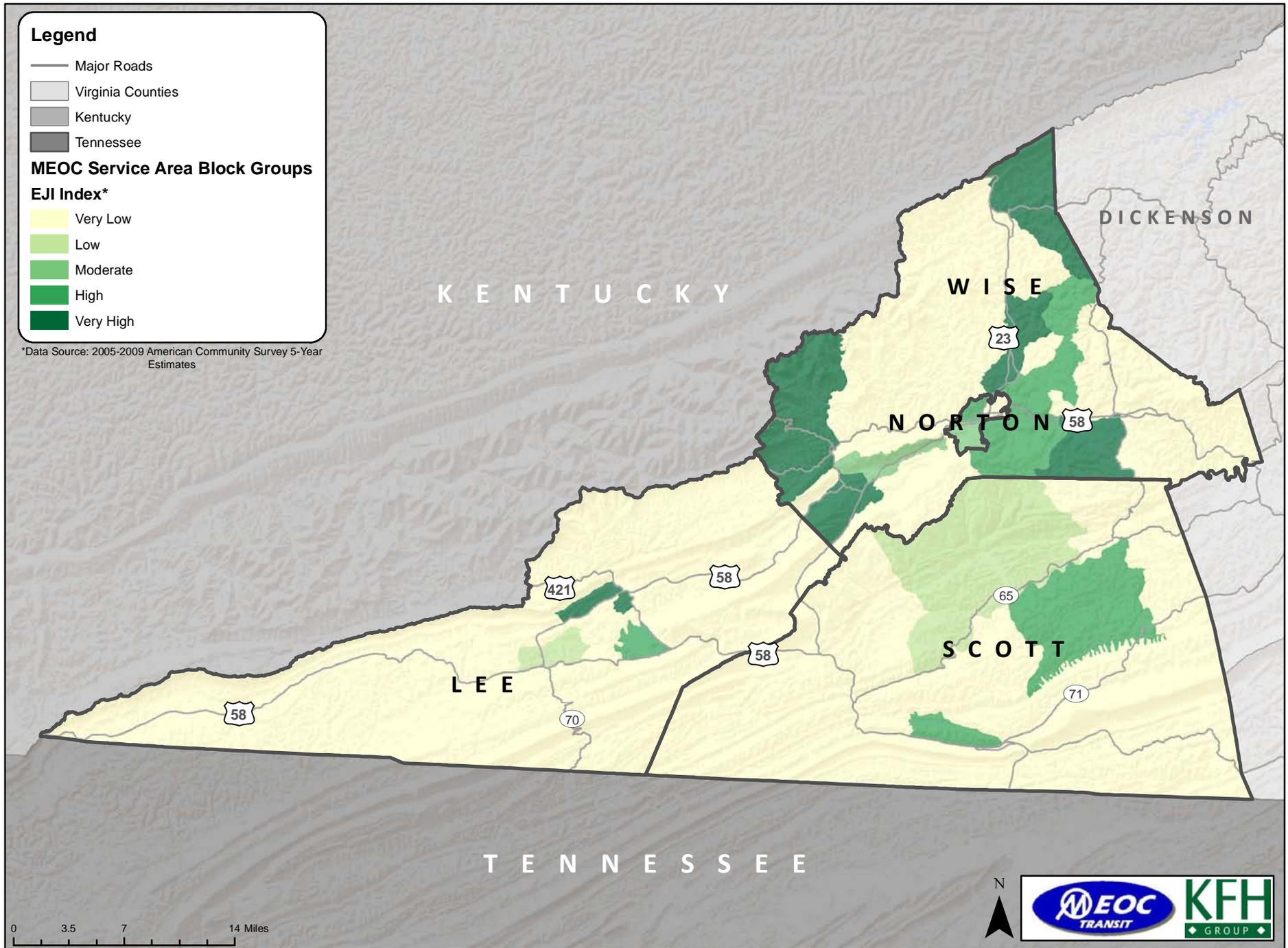
A full discussion of the EJI methodology is provided in Appendix C.

A map of the overall EJI classification for the MEOC Transit service area is presented in Figure 3-6 showing that the following areas have high relative concentrations of people below poverty as well as minorities:

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<sup>7</sup> Forkenbrock, D. and Sheeley, J. 2004. *Effective Methods for Environmental Justice Assessment*. NCHRP Report 532. Transportation Research Board, National Research Council. Washington, DC: National Academy Press.

Figure 3-6: MEOC Area Census Block Groups Depicted by the Relative Number of Minorities and People Earning Below the Federal Poverty Level



3-25

0 3.5 7 14 Miles



- The northeastern corner of Wise County;
- Areas to the northeast and the southwest of Wise;
- Coeburn and an area to the south;
- Appalachia and the area north to the Kentucky border;
- An area from Big Stone Gap to the Lee County line in southwestern Wise County; and
- Pennington Gap and an area to the east of Pennington Gap.

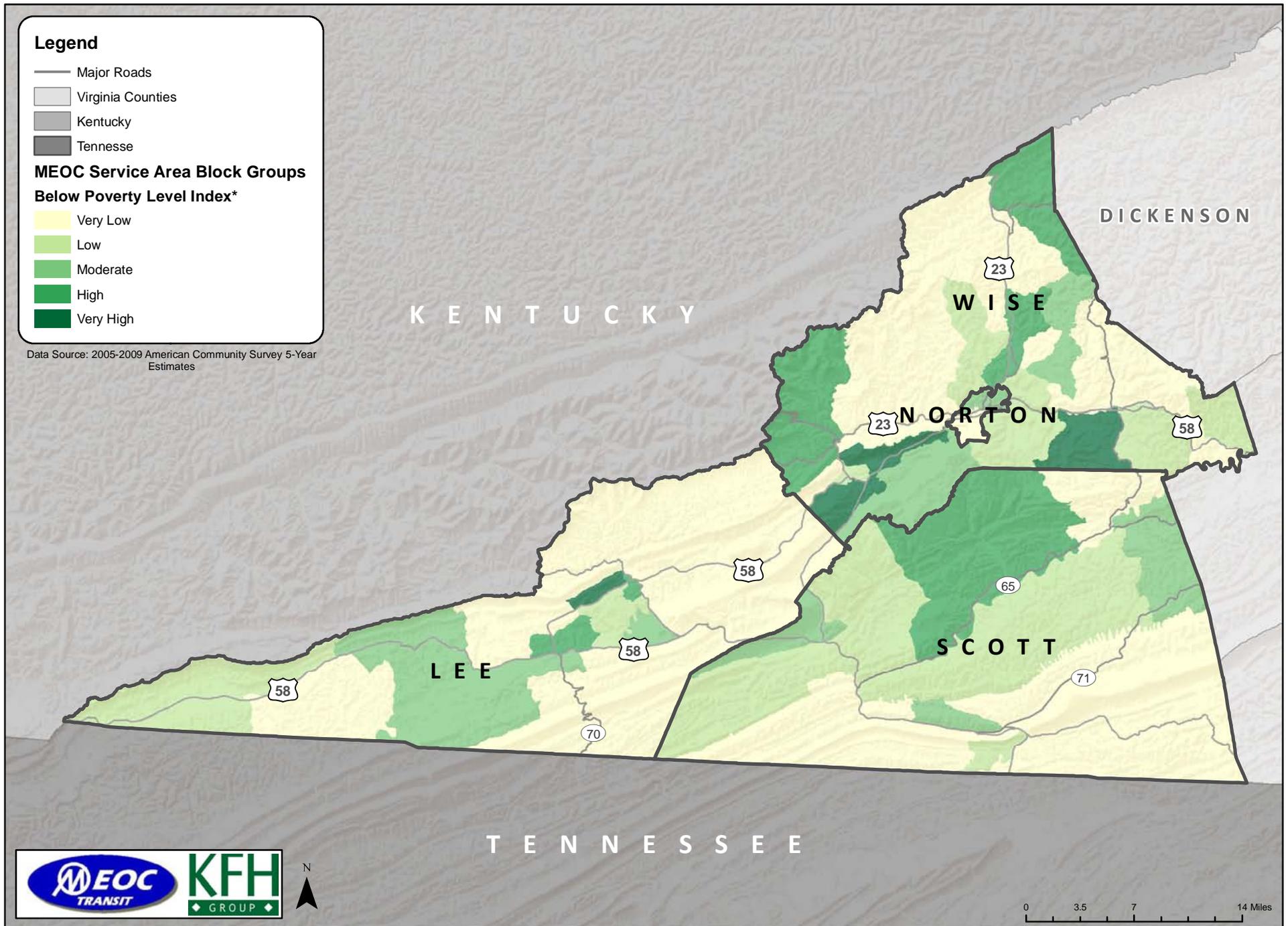
### ***Low-Income Population***

The second socioeconomic group included in the EJI is those individuals who earn less than the federal poverty level in an observed period of time. These individuals face financial hardships that make ownership and maintenance of a personal vehicle difficult and oftentimes unachievable. As such, these individuals are more likely to be dependent upon public transportation for both mandatory and discretionary trips. Therefore, it is important to ensure that these persons, like those individuals exhibiting any of the previously mentioned vulnerable characteristics, are carefully identified and protected from any injustice that may result from a potential service modification. Figure 3-7 is a map depicting the concentration of low-income individuals per block group throughout MEOC Transit service area. This figure utilizes the five-tiered classification scheme of very low, low, moderate, high, and very high, with pockets of very high relative poverty located in Big Stone Gap, extending to the southwest to the Lee County border; Coeburn, and an area to the south extending to the Scott County border, and Pennington Gap.

### ***Limited-English Proficiency***

In addition to equitably providing public transportation to individuals of diverse socioeconomic backgrounds, it is also important to realize the variety in languages spoken by area residents. Consequently, MEOC Transit must determine the appropriate level to which the agency disseminates information to individuals and households with limited proficiency in English-speaking ability throughout the region. According to the ACS's five-year estimates for 2005-2009, English is the only language spoken by 98% of the population five years of age or older in the region.

Figure 3-7: MEOC Area Census Block Groups Depicted by the Relative Number of People Earning Below the Federal Poverty Level



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Amongst the other languages spoken by residents of the region, Spanish is spoken by about 1% of the population, with the majority of the Spanish speaking residents residing in Scott and Wise Counties. The overwhelming majority of residents in the region are either native English speakers or at ease with speaking the language.

Examining the linguistic isolation among households in the region denotes a similar finding, with a total of 120 of the region's 37,612 households identified by the ACS as being linguistically isolated. Table 3-7 provides these data.

### **Major Trip Generators**

Major trip generators are those origins from which a concentrated transit demand is typically generated and those destinations to which both transit-dependent persons and choice riders are attracted. They include high density housing locations such as apartments and assisted living facilities, major employers, medical facilities, educational facilities, shopping malls and plazas, grocery stores, and human service agencies. Some of these trip generators, such as the Mountain Empire Community College (MECC), fall under more than one category (i.e., educational facility and major employers). The data on major trip generators were collected from local and state websites, such as the Virginia Department of Social Service and the Virginia Employment Commission. Data on destinations was largely found through an online search of Superpages.com and Google Maps.

Figure 3-8 shows the locations of the major trip generators in the service area and the surrounding region. As this map indicates, the major trip generators are generally located in the primary population centers of the region, including the City of Norton, Wise, Coeburn, Big Stone Gap, Gate City, and Jonesville. There are also important major regional trip generators in Kingsport (TN). As a demand-response regional transit provider, MEOC Transit does provide some level of service to all of the trip generators in the LENOWISCO area, but does not serve Kingsport on a regular basis.

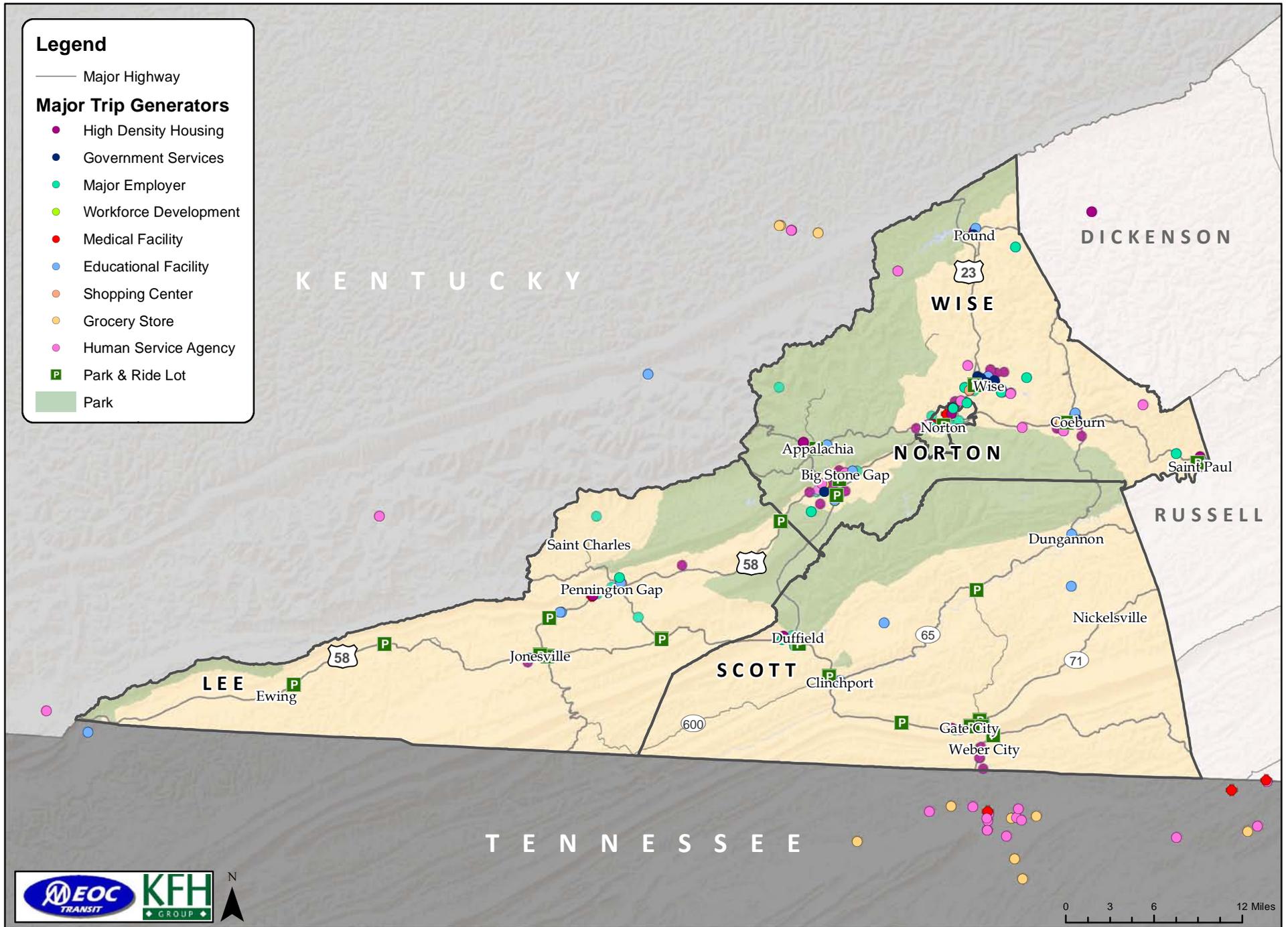
### ***High Density Housing***

Potential trip-generating housing facilities include major apartment complexes, mobile home parks, housing for seniors and/or persons with disabilities, nursing homes, and assisted living facilities. These types of housing facilities are typically home to people who are more likely to be transit dependent than the general population. Table 3-8 provides a list of these high density housing facilities.

Table 3-7: Limited-English Proficiency and Linguistic Isolation in MEOC Counties

County of Residence	Lee County		Scott County		Wise County		Norton City		Totals	
<b>Population Five Years and Older:</b>	<b>23,769</b>		<b>21,605</b>		<b>39,249</b>		<b>3,491</b>		<b>88,114</b>	
Language Spoke at Home--	<b>Number</b>	<b>Percent</b>								
English (only):	23,471	98.75%	21,234	98.28%	38,352	97.71%	3,406	97.57%	86,463	98.13%
Spanish or Spanish Creole:	136	0.57%	209	0.97%	526	1.34%	48	1.37%	919	1.04%
Arabic:	9	0.04%	13	0.06%	75	0.19%	0	0.00%	97	0.11%
Korean:	10	0.04%	44	0.20%	31	0.08%	0	0.00%	85	0.10%
French Creole:	9	0.04%	0	0.00%	73	0.19%	0	0.00%	82	0.09%
Tagalog:	27	0.11%	0	0.00%	43	0.11%	0	0.00%	70	0.08%
Other:	107	0.45%	1.5	0.01%	149	0.38%	37	1.06%	295	0.33%
Speak non-English at home:	298	1.25%	371	1.72%	897	2.29%	85	2.43%	1,651	1.87%
Ability to Speak English--										
"Very Well":	216	72.48%	180	48.52%	588	65.55%	69	81.18%	1,053	63.78%
Less than "Very Well":	82	27.52%	191	51.48%	309	34.45%	16	18.82%	598	36.22%
<b>Number of Households</b>	<b>9,644</b>		<b>10,056</b>		<b>16,170</b>		<b>1,742</b>		<b>37,612</b>	
Language Spoken in Household--	<b>Number</b>	<b>Percent</b>								
English (only):	9,496	98.47%	9,801	97.46%	15,671	96.91%	1,668	95.75%	36,636	97.41%
Spanish:	61	0.63%	159	1.58%	278	1.72%	50	2.87%	548	1.46%
Other Indo-European:	39	0.40%	62	0.62%	128	0.79%	24	1.38%	253	0.67%
Asian and Pacific:	39	0.40%	28	0.28%	65	0.40%	0	0.00%	132	0.35%
Other Languages:	9	0.09%	6	0.06%	28	0.17%	0	0.00%	43	0.11%
Linguistically Isolated:	5	0.05%	55	0.55%	60	0.37%	0	0.00%	120	0.32%
Language Spoken in Household--										
Spanish	5	0.05%	9	0.09%	37	0.23%	0	0.00%	51	0.14%
Other Indo-European:	0	0.00%	26	0.26%	0	0.00%	0	0.00%	26	0.07%
Asian and Pacific:	0	0.00%	20	0.20%	23	0.14%	0	0.00%	43	0.11%
Other Languages:	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%

Figure 3-8: Major Trip Generators in the MEOC Region



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**Table 3-8: High Density Housing in the Mountain Empire Older Citizens Service Area, Virginia**

Name	Address	Place	State	ZIP	Type of Housing
Appalachian Towers	Main Street	Appalachia	VA	24216	High Density Housing
Inman Village	181 Donwhitehead Drive	Appalachia	VA	24216	Subsidized/Affordable
Two Inc.	100 Laurel Ridge Drive	Big Stone Gap	VA	24219	Disabled
23rd Street	E 23rd Street N	Big Stone Gap	VA	24219	Mobile Home Park
9th Street & 58	Wood Avenue W	Big Stone Gap	VA	24219	Mobile Home Park
Ponderose Mobile Home Park	Alto Street	Big Stone Gap	VA	24219	Mobile Home Park
Stone Gap Road	E Stone Gap Road	Big Stone Gap	VA	24219	Mobile Home Park
Dogwood Terrace Apartments	17 Mountain View Circle	Big Stone Gap	VA	24219	Subsidized/Affordable
Heritage Hall - Clintwood	1225 Clintwood Main Street	Clintwood	VA	24228	Assisted Living
Town View Apartments	201 Volunteer Avenue	Clintwood	VA	24273	High Density Housing
Sheffield Apartments	RR 1	Coeburn	VA	24230	High Density Housing
Carolina Road	Carolina Road	Coeburn	VA	24230	Mobile Home Park
Morgan Drive	Morgan Drive	Coeburn	VA	24230	Mobile Home Park
Quillen Road	Quillen Avenue SE	Coeburn	VA	24230	Mobile Home Park
Sakuda Drive & Bedford Road	Riverview Road	Coeburn	VA	24230	Mobile Home Park
Dryden Mobile Home Park	State Road 726	Dryden	VA	24243	Mobile Home Park
Ridgecrest Manor Nursing & Rehabilitation	Ross Carter Boulevard	Duffield	VA	24244	Assisted Living
Thomas Village Apartments	163 Cecil D Quillen Drive	Duffield	VA	24244	High Density Housing
Shawnee Ave	Shawnee Avenue E	East Stone Gap	VA	24219	Mobile Home Park
Clinch View Manor Apartments	292 Jay Street	Gate City	VA	24251	High Density Housing
Gatewood Apartments	298 Gatewood Court	Gate City	VA	24251	High Density Housing
Three, Inc.	3 Park Street	Jonesville	VA	24263	Disabled
Jonesville Manor Apartments	100 Pauley Street	Jonesville	VA	24263	High Density Housing
Powell Valley Village Apartments	6 Hill Street	Jonesville	VA	24263	High Density Housing
Chappell Mobile Home Park	Chappell Road	Jonesville	VA	24263	Mobile Home Park
Canache Creek Apartments	230 Virginia Avenue, NE	Norton	VA	24273	High Density Housing
Norton Green Apartments	380 14th Street, NW	Norton	VA	24273	High Density Housing
Norton Heights Apartments	520 Alexandria Circle	Norton	VA	24273	High Density Housing
Shawnee Ridge Apartments	250 Virginia Avenue, NE	Norton	VA	24273	High Density Housing
Dnor Road	Hilltop Road	Norton	VA	24273	Mobile Home Park
Wells Boone Road	Wells Boone Road	Norton	VA	24273	Mobile Home Park
Lee Health and Rehab Center	208 Health Care Drive	Pennington Gap	VA	24277	Assisted Living

**Table 3-8 (continued)**

<b>Name</b>	<b>Address</b>	<b>Place</b>	<b>State</b>	<b>ZIP</b>	<b>Type of Housing</b>
Case Edwards MGT	169 Stonegate Drive	Pennington Gap	VA	24277	High Density Housing
Lee Terrace Apartments	1750 Combs Road	Pennington Gap	VA	24277	High Density Housing
Old Mill Village Apartments	11430 Old Mill Village	Pound	VA	24279	High Density Housing
Clinchview Public Housing	3311 3rd Avenue	St. Paul	VA	24283	High Density Housing
Stonebriar Apartments	16600 Broad Street	St. Paul	VA	24283	High Density Housing
Brian Center Health & Rehab/Scott Co	377 Clonce Street	Weber City	VA	24290	Assisted Living
Bethany Road	Bethany Road	Weber City	VA	24290	Mobile Home Park
Clayton Mobile Home Park, 71 US HWY	Newland Hollow Road	Weber City	VA	24290	Mobile Home Park
Newland Hollow Road	Newland Hollow Road	Weber City	VA	24290	Mobile Home Park
Heritage Hall - Wise	9434 Coeburn Mountain Road	Wise	VA	24293	Assisted Living
Gilliam Court Senior Citizens Apartments	736 Gilliam Street, NE	Wise	VA	24293	High Density Housing
Birchfield Road	Birchfield Road	Wise	VA	24293	Mobile Home Park
Breeding Trailer Park	Old Hurricane Road	Wise	VA	24293	Mobile Home Park
Country Manor Road	Birchfield Road	Wise	VA	24293	Mobile Home Park
No 4 Bledsoe Road	Bledsoe Road	Wise	VA	24293	Mobile Home Park
R &K, Sherry Hills and Osbourne Trailer Parks	Virginia Avenue NE	Wise	VA	24293	Mobile Home Park
Sturgill Trailer Park	Lake Street NE	Wise	VA	24293	Mobile Home Park

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## *Human Service Agencies*

Human service agencies provide assistance and resources to residents seeking support in a spectrum of issues including, but not limited to, senior health care, childhood development, recreation, and nutrition. The range of services offered by these agencies makes public transportation destinations. Table 3-9 provides a listing of some of the more prominent human service agencies in the service area.

### *Major Employment Sites*

Employment sites serve as popular travel destinations for many of the residents of the region. For the purposes of this needs assessment, a major employment site is recognized as a single employment location within the region that employs at least 50 workers, as reported by the Virginia Employment Commission's Quarterly Census of Employment and Wages report for the fourth quarter of 2010. A complete breakdown of these major employers is denoted in Table 3-10.

### *Medical Centers*

Medical centers represent a significant destination for MEOC Transit riders. These medical centers are detailed in Table 3-11.

### *Schools*

Given that one of the five socioeconomic characteristics that comprised the TDI measure was the youth population and that many of these individuals are unable to legally operate their own personal vehicle, it may be assumed that this segment of the population is one that is reliant upon public transportation as a mobility service. Furthermore, the vast majority of these individuals between the ages of 10 and 17 are full-time students and therefore enrolled in educational facilities. Many adults above the age of 18 are also associated with these institutions as a place of employment or advanced education. Table 3-12 provides a detailed list of the educational institutions located in the study area.

### *Shopping Centers*

Shopping centers are trip destinations in which residents may purchase essential items, such as groceries or general merchandise. These centers are an attractive trip end for many residents since they also serve some as a place of employment. These shopping centers are detailed in Table 3-13.

**Table 3-9: Human Service Agencies in the Mountain Empire Older Citizens Service Area, Virginia**

<b>Name</b>	<b>Address</b>	<b>Place</b>	<b>State</b>	<b>ZIP</b>
Appalachian Independence Center	230 Chairwood Drive	Abingdon	VA	24210
Independence House	2532 4th Avenue East	Big Stone Gap	VA	24219
Mountain Empire Older Citizens, Inc.	Block 1-A Industrial Park Road	Big Stone Gap	VA	24219
Developmental Services	622 Powell Avenue	Big Stone Gap	VA	24219
Goodwill Industries of Tenneva Area, Inc.	1941 Neeley Road	Big Stone Gap	VA	24219
Dorchester Community Center	206 East Main Street	Big Stone Gap	VA	24219
C. Bascom Slemper Memorial Library	11 Proctor Street, N	Big Stone Gap	VA	24219
<b>Big Stone Gap Methodist Church*</b>	<b>101 Gilley Avenue</b>	<b>Big Stone Gap</b>	<b>VA</b>	<b>24219</b>
Children's Advocacy Center	150 Blountville Bypass	Blountville	TN	37617
Goodwill Industries of Tenneva Area, Inc.	1812 Volunteer Parkway	Bristol	TN	37620
Goodwill Industries of Tenneva Area, Inc.	2691 W State Street	Bristol	TN	37620
Visually Handicapped Department	111 Commonwealth Avenue	Bristol	VA	24201
The Crisis Center	100 Oakview Avenue	Bristol	VA	24201
Washington County Social Services	15068 Lee Highway	Bristol	VA	24202
Southwest Virginia Legal Aid Society, Inc.	16932 W Hills Drive	Castlewood	VA	24224
Coeburn Community Library	111 Third Street	Coeburn	VA	24230
Harvest Child Care Ministries	168 Harvest Home Drive	Duffield	VA	24244
Clinch River Health Services, Inc.	17633 Veterans Memorial Highway	Dungannon	VA	24245
Fellowship House Adult Daycare	154 Broadwater Avenue	Gate City	VA	24251
Hope House of Scott County, Inc.	P.O. Box 1992	Gate City	VA	24251
Scott County Comm. Action and Dev. Agency	190 Beech Street	Gate City	VA	24251
Scott County Health Department	112 Beech Street	Gate City	VA	24251
Scott County Public Library	297 West Jackson Street	Gate City	VA	24251
<b>Hiltons United Methodist Church*</b>	<b>2869 Hilton Road</b>	<b>Gate City</b>	<b>VA</b>	<b>24251</b>
Goodwill Industries of Kentucky, Inc.	108 Village Square Road	Harlan	KY	40831
Goodwill Industries of Tenneva Area, Inc.	206 W Oakland Avenue	Johnson City	TN	37601
Goodwill Industries of Tenneva Area, Inc.	2004 S Roan Street	Johnson City	TN	37601
Goodwill Industries of Tenneva Area, Inc.	2606 W Market Street	Johnson City	TN	37604
Johnson City Salvation Army	700 Spring Street	Johnson City	TN	37604
Lee County Health Department	Hill Street	Jonesville	VA	24263
Lee County Comm. Action and Dev. Agency	119 Hill Street	Jonesville	VA	24263
Lee County Welfare Department	108 Hill Street	Jonesville	VA	24263

**Table 3-9 (continued)**

<b>Name</b>	<b>Address</b>	<b>Place</b>	<b>State</b>	<b>ZIP</b>
Friends in Need Healthcare, Inc.	102 E Ravine Road	Kingsport	TN	27660
Friends in Need Healthcare, Inc.	1105 West Stone Drive	Kingsport	TN	37660
Family Support Services	671 Dale Street	Kingsport	TN	37660
Mountain Region Speech and Hearing Center	301 Louis Street	Kingsport	TN	37660
Goodwill Industries of Tenneva Area, Inc.	4528 W Stone Drive	Kingsport	TN	37660
Goodwill Industries of Tenneva Area, Inc.	3020 Brookside Drive	Kingsport	TN	37660
Goodwill Industries of Tenneva Area, Inc.	2017 Brookside Lane	Kingsport	TN	37660
Goodwill Industries of Tenneva Area, Inc.	105 Indian Center Court	Kingsport	TN	37660
Upper Tennessee Human Development Agency	301 Louis Street	Kingsport	TN	37662
Goodwill Industries of Tenneva Area, Inc.	1185 N Eastman Road	Kingsport	TN	37664
Kingsport Salvation Army	505 Dale Street	Kingsport	TN	37762
Russell County Social Services	79 Rogers Street	Lebanon	VA	24266
Middlesboro Salvation Army	118 N 18th Street	Middlesboro	KY	40965
<b>First Baptist Church Family Life Center*</b>	<b>11606 Nickelsville Highway</b>	<b>Nickelsville</b>	<b>VA</b>	<b>24271</b>
Food Bank of Wise County	5341 Esserville Road	Norton	VA	24273
CASA of Wise, Scott and Lee Counties	1024 Park Avenue, NW	Norton	VA	24273
Junction Center for Independent Living, Inc.	4907 Boone Trail Road	Norton	VA	24273
Family Crisis Support Services, Inc.	701 Kentucky Avenue, SW	Norton	VA	24273
<b>Pennington Gap Methodist Church*</b>	<b>41880 E Morgan Avenue</b>	<b>Pennington Gap</b>	<b>VA</b>	<b>24277</b>
Goodwill Industries of Kyowva Area, Inc.	4493 N Mayo Trail	Pikeville	KY	41501
Flat Gap Community Center	5742 N Fork Road	Pound	VA	24279
<b>Pound Town Hall*</b>	<b>8422 N River Road</b>	<b>Pound</b>	<b>VA</b>	<b>24279</b>
Rose Hill Community Library	6463 Thomas Walker Road	Rose Hill	VA	24281
Oxbow Center	16620 E Riberside Drive	St. Paul	VA	24283
Tacoma School Community Center	4408 Stone Mountain Road	Tacoma	VA	24230
L.K.L.P. Community Action	2 Main Street	Whitesburg	KY	41858
Letcher County Senior Citizens Center	156 Main Street	Whitesburg	KY	41858
Wise County Social Services Department	5612 North Bear Creek Road	Wise	VA	24293
Wise County Public Library	124 Library Road, SW	Wise	VA	24293

\*Serves as a senior center.

**Table 3-10: Major Employers and Workforce Development Centers in the Mountain Empire Older Citizens Service Area, Virginia**

<b>Name</b>	<b>Address</b>	<b>City</b>	<b>State</b>	<b>Zip</b>
Huddle House	986 E Main Street	Abingdon	VA	24210
US Department of Agriculture	448 Commerce Drive	Abingdon	VA	24211
Cumberland River Coal Company	603 Dunbar Road	Appalachia	VA	24216
Big Laurel Mining Corporation	1400 Roda Road	Appalachia	VA	24216
Walmart	1941 Neeley Road	Big Stone Gap	VA	24219
Wallens Ridge Correction Center	272 Dogwood Drive	Big Stone Gap	VA	24219
Mount Empire Community College	3441 Mountain Empire Road	Big Stone Gap	VA	24219
Mountain Empire Community College Center for Workforce Development	3441 Mountain Empire Road	Big Stone Gap	VA	24219
Frontier Health	3169 2nd Avenue E	Big Stone Gap	VA	24219
Triad Laboratory Alliance	1990 Holton Avenue E	Big Stone Gap	VA	24219
Riggs Oil Company Black Diamond	1505 1st Avenue East	Big Stone Gap	VA	24219
Town of Big Stone Gap	505 E 5th Street South	Big Stone Gap	VA	24219
Walmart	1941 Neeley Road	Big Stone Gap	VA	24219
Huddle House	1928 Wildcat Road	Big Stone Gap	VA	24219
Bresee Trucking Company	317 Wood Avenue	Big Stone Gap	VA	24219
VDOT	870 Bonham Road	Bristol	VA	24201
Payless Supermarket	109 Laurel Avenue	Coeburn	VA	24230
Tempur Productions	203 Tempur Pedic Drive	Duffield	VA	24244
Ridgecrest Manor Nursing & Rehabilitation	Ross Carter Boulevard	Duffield	VA	24244
VFP Inc.	402 Industrial Park Road	Duffield	VA	24244
Mountain Region Personal Care	463 Duff Patt Hwy	Duffield	VA	24244
Holston Medical Group	198 Ross Carter Boulevard	Duffield	VA	24244
SW Virginia Regional Jail Authority	5251 Boons Trail Road	Duffield	VA	24244
County of Scott	112 Water Street	Gate City	VA	24251
US Department of Agriculture	372 W Jackson Street	Gate City	VA	24251
County of Lee	Lee County Courthouse	Jonesville	VA	24263
Glass Machinery and Excavation	27262 Wilderness Road	Jonesville	VA	24263
Maxxim Shared Service LLC	5703 Crutchfield Drive	Norton	VA	24273
Norton Community Hospital	100 15th Street, NW	Norton	VA	24273
Pepsi Cola Bottling Company	12th Street & Park Avenue	Norton	VA	24273
Joy Technologies	722 Kentucky Avenue	Norton	VA	24273
Walmart	780 Commonwealth Drive	Norton	VA	24273
City of Norton	618 Virginia Avenue	Norton	VA	24273

**Table 3-10 (continued)**

<b>Name</b>	<b>Address</b>	<b>City</b>	<b>State</b>	<b>Zip</b>
Norton Com Physicians Service LLC	95 15th Street, NW	Norton	VA	24273
Carter Machinery Company	310 Kentucky Avenue	Norton	VA	24273
AT&T	693 Commonwealth Drive	Norton	VA	24273
Crutchfield Corporation	5705 Crutchfield Drive	Norton	VA	24279
Wolfe Williams & Rutherson	470 Park Avenue SW	Norton	VA	24273
Medical Associates of Southwestern Virginia	616 Park Avenue SW	Norton	VA	24273
Family Preservation Services	295 Warton Lane NE	Norton	VA	24273
Red River Coal Company	6999 Polk Road	Norton	VA	24273
KCG Call Centers LLC	528 Industrial Drive	Pennington Gap	VA	24277
Huddle House	1526 W Morgan Road	Pennington Gap	VA	24277
Elk Knob	Highway 421	Pennington Gap	VA	24277
Saint Charles Community Health	100 Main Street	Pennington Gap	VA	24277
Red Onion Correctional Center	10800 H Jack Rose Highway	Pound	VA	24279
De Royal Industries	100 Rose Hill Indus Park	Rose Hill	VA	24281
Lone Mountain Processing Company	636 Benedict Road	St. Charles	VA	24282
Shaw Services LLC	15515 Bull Run Road	St. Paul	VA	24283
FMSC Weber City Operating	105 Clonce Street	Weber City	VA	24290
Sykes Enterprises	1000 SYKES Boulevard	Wise	VA	24293
Heritage Hall	9434 Coeburn Mountain Road	Wise	VA	24293
County of Wise	206 E Main Street	Wise	VA	24293
Lowes' Home Center, Inc.	201 Woodland Drive SW	Wise	VA	24293
Thompson and Litton, Inc.	103 E Main Street	Wise	VA	24293
Payless Supermarket	305 Church Street	Wise	VA	24293
Roth LLC	106 Woodland Drive SW	Wise	VA	24293
Wise County Social Services	5612 N Bear Creek Road	Wise	VA	24293
In Home Care	210 Nottingham Avenue	Wise	VA	24293
Telemed	5626 N Bear Creek Road	Wise	VA	24293
Kmart	129 Ridgeview Road	Wise	VA	24293

**Table 3-11: Medical Facilities in the Mountain Empire Older Citizens Service Area, Virginia**

<b>Name</b>	<b>Address</b>	<b>City</b>	<b>State</b>	<b>Zip</b>
PACE Center	1508 Third Ave. East	Big Stone Gap	VA	24219
Wellmont Holston Valley Medical Center/Lonesome Pine Hospital	1990 Holton Avenue	Big Stone Gap	VA	24219
Bristol Regional Medical Center	1 Medical Park Boulevard	Bristol	TN	37620
Rehabilitation Hospital of Southwest Virginia	103 North Street	Bristol	VA	24201
Holston Valley Medical Center	130 W Ravine Road	Kingsport	TN	37660
Johnson County Community Hospital	1901 South Shady Street	Mountain City	TN	27683
Mountain View Regional Medical Center	310 3rd Street, NE	Norton	VA	24273
Southwest Virginia Outpatient Center	295 Wharton Lane	Norton	VA	24273
Southwest Virginia Cancer Center	671 Highway 58 East	Norton	VA	24273
Norton Community Hospital	100 15th Street, NW	Norton	VA	24273
Lee Regional Medical Center	127 Health Care Drive	Pennington Gap	VA	24277

**Table 3-12: Educational Facilities in the Mountain Empire Older Citizens Service Area, Virginia**

<b>Name</b>	<b>Address</b>	<b>City</b>	<b>State</b>	<b>Zip</b>
Southwest Virginia Higher Education Center	One Partnership Circle	Abingdon	VA	24210
Appalachia High School	205 Lee Street	Appalachia	VA	24216
Lee Career and Technical Center	One Vo-Tech Drive	Ben Hur	VA	24218
Powell Valley High School	One Avenue of Champions	Big Stone Gap	VA	24219
Mountain Empire Community College	3441 Mountain Empire Road	Big Stone Gap	VA	24219
Coeburn High School	School House Hill	Coeburn	VA	24230
Coeburn Middle School	518 Centre Avenue	Coeburn	VA	24230
Southeast Kentucky Community & Technical College	700 College Road	Cumberland	KY	40823
Rye Cove Intermediate School	158 Memorial School Lane	Duffield	VA	24244
Rye Cove High School	164 Eagles Nest Lane	Duffield	VA	24244
Dungannon Intermediate School	113 Fifth Avenue	Dungannon	VA	24245
Powell Valley Middle School	3137 2nd Avenue, E	East Big Stone Gap	VA	24219
Thomas Walker High School	126 Blue Gray Road	Ewing	VA	24248
Scott County Career and Technical Center	387 Broadwater Avenue	Gate City	VA	24251
Gate City High School	178 Harry Fry Drive	Gate City	VA	24251
Gate City Middle School	170 Harry Fry Drive	Gate City	VA	24251
Lincoln Memorial University	6965 Cumberland Gap Parkway	Harrogate	TN	37752
Lee High School	200 Generals Lane	Jonesville	VA	24263
Jonesville Middle School	160 Bulldog Circle	Jonesville	VA	24263
Twin Springs High School	273 Titan Lane	Nichelsville	VA	24271
John I. Burton High School	109 Eleventh Street, SW	Norton	VA	24273
Pennington Middle School	201 Middle School Drive	Pennington Gap	VA	24277
Pound High School	11531 Wildcat Drive	Pound	VA	24279
St. Paul High School	3207 4th Avenue	St. Paul	VA	24283
University of Virginia's College at Wise	One College Avenue	Wise	VA	24293
L. F. Arlington Middle School	342 School Street	Wise	VA	24293
J. J. Kelly High School	716 Birchfield Road	Wise	VA	24293

**Table 3-13: Shopping Centers and Grocery Stores in the Mountain Empire Older Citizens Service Area, Virginia**

<b>Name</b>	<b>Address</b>	<b>City</b>	<b>State</b>	<b>Zip</b>	<b>Type</b>
Food City	603 Wood Avenue East	Big Stone Gap	VA	24219	Grocery
Big Stone Gap Walmart	1941 Neeley Road	Big Stone Gap	VA	24219	Shopping Center
Powell Valley Shopping Square	1941 Neeley Road	Big Stone Gap	VA	24219	Shopping Center
Bristol Walmart Supercenter	220 Century Boulevard	Bristol	TN	37620	Shopping Center
Food Lion of Church Hill	701 Highway 11 West	Church Hill	TN	37642	Grocery
Food City	501 Front Street West	Coeburn	VA	24230	Grocery
Food Lion of Gate City	241 Gateway Plaza	Gate City	VA	24251	Grocery
Kingsport Walmart Supercenter	2500 W Stone Drive	Kingsport	TN	37660	Shopping Center
Kingsport Target	2626 E Stone Drive	Kingsport	TN	37660	Shopping Center
Save-A-Lot	1401 E Stone Drive	Kingsport	TN	37660	Shopping Center
Food City	1911 Moreland Drive	Kingsport	TN	37663	Grocery
Jonesville Walmart Supercenter	3200 Fort Henry Drive	Kingsport	TN	37664	Shopping Center
Norton Walmart Supercenter	780 Commonwealth Drive	Norton	VA	24273	Shopping Center
Ingles	700 Highway 58E	Norton	VA		Grocery
Piggly Wiggly	206 Coeburn Ave, SW	Norton	VA		Grocery
Save-A-Lot	1420 Park Ave, NW	Norton	VA		Grocery
River Bend Shopping Center	930 East Morgan Avenue	Pennington Gap	VA	24277	Shopping Center
Save-A-Lot	136 Parkway Plaza Loop	Whitesburg	KY	41858	Grocery
Food City	251 Medical Plaza Lane	Whitesburg	KY	41858	Grocery
Whitesburg Walmart Store	350 Whitesburg Plaza	Whitesburg	KY	41858	Shopping Center
Food City	207 Woodland Drive, SW	Wise	VA	24293	Grocery
Ridgeview Centre	129 Ridge Circle, SW	Wise	VA	24293	Shopping Center
Save-A-Lot	175 Plaza Road, SW	Wise	VA		Grocery

### Commute Patterns

Commute patterns were analyzed at the County/City level for the four LENOWISCO primary jurisdictions. The ACS (2005-2009) indicated that 80% of the workforce stays within the Commonwealth of Virginia for work with 20% commuting to another state. As would be expected, Scott County has the highest percentage of workers leaving the State (49.8%), presumably to work in Tennessee. Fifty-six percent of the region's workers stay within their county of residence for work, with the highest percentage found in Wise County (65.5%) and the lowest percentage found in Scott County (40.5%).

The most prevalent travel time to work indicated was 0-14 minutes (35%), followed by 15-29 minutes (32%). Just fewer than 8% of the region's workers commute an hour or more to work. The majority of workers travel by single occupant vehicle (84%). The carpool rate is noteworthy at 11%. Less than 1% of the workforce indicated that they use public transportation to get to work. These data are shown in Table 3-14.

### Population Projections

Table 3-15 provides historical trends and projections for the population of the LENOWISCO Region and the Commonwealth of Virginia. As these data show, the Region's population is expected to decrease between 2010 and 2020 and grow slightly between 2020 and 2030. Virginia is expected to continue to grow throughout the period, though at a lower rate than was experienced between 2000 and 2010.

**Table 3-15: Population History and Projections,  
LENOWISCO Region, and Virginia**

Year	LENOWISCO Region	Percent Change	Virginia	Percent Change
1990	91,520		6,187,358	
2000	93,105	1.7%	7,079,030	14.4%
2010	94,174	1.1%	8,001,024	13.0%
2020	91,376	-3.0%	8,917,396	11.5%
2030	91,983	0.7%	9,825,011	10.2%

Source: U.S. Census and the Virginia Employment Commission.

**Table 3-14: Travel Patterns Associated with Journey-to-Work Data for MEOC Service Area**

Place of Residence	Lee County		City of Norton		Scott County		Wise County		Totals	
<b>Workers 16 Years and Older</b>	<b>9,373</b>		<b>1,671</b>		<b>9,071</b>		<b>14,773</b>		<b>34,888</b>	
Location of Workplace--	<b>Number</b>	<b>Percent</b>	<b>Number</b>	<b>Percent</b>	<b>Number</b>	<b>Percent</b>	<b>Number</b>	<b>Percent</b>	<b>Number</b>	<b>Percent</b>
In State of Residence	7,717	82.33%	1,613	96.53%	4,552	50.18%	14,012	94.85%	27,894	80%
a) In County of Residence	5,648	60.26%	692	41.41%	3,676	40.52%	9,683	65.55%	19,699	56%
b) Outside County of Residence	2,069	22.07%	921	55.12%	876	9.66%	4,329	29.30%	8,195	23%
Outside State of Residence	1,656	17.67%	58	3.47%	4,519	49.82%	761	5.15%	6,994	20%
Means of Transportation to Work--	<b>Number</b>	<b>Percent</b>	<b>Number</b>	<b>Percent</b>	<b>Number</b>	<b>Percent</b>	<b>Number</b>	<b>Percent</b>	<b>Number</b>	<b>Percent</b>
Car, Truck, or Van:	8,948	95.47%	1,611	96.41%	8,527	94.00%	14,116	95.55%	33,202	95%
a) Single Occupant:	7,834	83.58%	1,466	87.73%	7,415	81.74%	12,523	84.77%	29,238	84%
b) Carpool:	1,114	11.89%	145	8.68%	1,112	12.26%	1,593	10.78%	3,964	11%
Public Transportation:	12	0.13%	0	0.00%	38	0.42%	58	0.39%	108	0%
Bicycle:	0	0.00%	4	0.24%	0	0.00%	0	0.00%	4	0%
Walk:	110	1.17%	38	2.27%	99	1.09%	254	1.72%	501	1%
Other means:	36	0.38%	0	0.00%	13	0.14%	72	0.49%	121	0%
Worked at home:	267	2.85%	18	1.08%	394	4.34%	239	1.62%	918	3%
Travel Time to Workplace--	<b>Number</b>	<b>Percent</b>	<b>Number</b>	<b>Percent</b>	<b>Number</b>	<b>Percent</b>	<b>Number</b>	<b>Percent</b>	<b>Number</b>	<b>Percent</b>
0-14 Minutes	3302	35.23%	905	54.16%	2074	22.86%	5806	39.30%	12,087	35%
15-29 Minutes	2942	31.39%	555	33.21%	2970	32.74%	4869	32.96%	11,336	32%
30-59 Minutes	2285	24.38%	159	9.52%	3420	37.70%	2966	20.08%	8,830	25%
An hour or more	844	9.00%	52	3.11%	607	6.69%	1132	7.66%	2,635	8%

Source: American Community Survey, Five-Year Estimates (2005-2009), Table B08130, B08301, B08303.

## Community Survey

In order to gather public input concerning public transportation needs in the region the study team developed a community survey geared to non-users of the system. The survey was administered in front of Walmart in Big Stone Gap on August 31, 2011 and was also distributed to MEOC employees. The study team collected 160 surveys from this effort. The full results from the surveys processed are compiled in Table 3-16 and discussed below.

The most number of surveys were received from people who live in Big Stone Gap, followed by Appalachia, Wise, and Norton. Ninety-four percent of the participants reported that they have a valid driver's license and 62% live in households with two or more vehicles available. Only 6% of the participants reported living in households with no vehicles available. Seventy-four percent of the survey participants reported that they have Internet access.

### *Travel Patterns*

The majority of the community survey participants (89%) reported that they drive when asked how they get to where they need to go within the community. Another 8% reported that they get rides with family or friends and 2% use public transportation.

### *Knowledge and Use of Public Transportation*

Eighty-five percent of the survey participants reported that they are aware of the community transportation services that are provided by MEOC Transit, but only 8% reported that they use public transportation on a regular basis. When asked why they do not use public transportation, the most commonly reported answer was "I prefer to drive," followed by "need my car before/after work/school." The third most commonly reported response was "don't know if service is available and/or location of stops."

### *Opinions Concerning Transit Needs*

When asked if there is a need for additional or improved public transit services in the region, 77% indicated "yes." The survey also asked respondents to indicate where services were needed and were given a list of counties and towns in the region. Lee County received the most responses, followed by Wise County and Norton (tie), and Wise.

**Table 3-16: Mountain Empire Older Citizens Transit Community Transportation Survey**

**Q1: How do you usually get where you need to go within the community for work, shopping, errands, or medical appointments?**

I drive:	<u>89%</u>	Ride bike:	<u>0%</u>
Friend/family member drives:	<u>8%</u>	Walk:	<u>0%</u>
Public transportation:	<u>2%</u>	Other:	<u>1%</u>
Taxi:	<u>0%</u>		

**Q2: Are you aware of the community transportation services that are provided by MEOC Transit?**

Yes:	<u>85%</u>	No:	<u>15%</u>
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**Q3: Do you currently use any of the following forms of public transportation on a regular basis?**

MEOC Transit:	<u>8%</u>	Yes, more than once a week:	<u>15%</u>
		Yes, less than once a week:	<u>39%</u>
		Yes, but no frequency specification:	<u>46%</u>
Vanpools/Carpools:	<u>1%</u>	Yes, more than once a week:	<u>0%</u>
		Yes, less than once a week:	<u>0%</u>
		Yes, but no frequency specification:	<u>100%</u>
Other:	<u>4%</u>	Yes, more than once a week:	<u>17%</u>
		Yes, less than once a week:	<u>50%</u>
		Yes, but no frequency specification:	<u>33%</u>
I do not currently use public transportation:			<u>87%</u>

**Q4: If you do not use any form of public transportation, please indicate why not.**

No service is available near my home/work/school:	<u>4%</u>
I prefer to drive:	<u>82%</u>
Don't know if service is available and/or location of stops:	<u>8%</u>
I have limited mobility and it is hard for me to use the van/bus:	<u>2%</u>
Vans/buses are unreliable/late:	<u>1%</u>
Need my car for work/school:	<u>13%</u>
Need my car before/after work/school:	<u>8%</u>
Need my car for emergencies/overtime:	<u>6%</u>
The van/bus is uncomfortable:	<u>0%</u>
It might not be safe/I don't feel safe:	<u>1%</u>
The van/bus is expensive:	<u>0%</u>
Trip via transit takes too much time:	<u>3%</u>
The hours of operation are too limited:	<u>1%</u>
Have to wait too long for the van/bus:	<u>1%</u>
Other:	<u>1%</u>

**Q5: Do you think there is a need for additional or improved public transportation in the region?**

Yes:	<u>77%</u>	No:	<u>23%</u>
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**Q6, Part 1: If you checked "Yes" for question #5 above, please indicate where within the region there is a need for additional or improved public transit service. Please check all that apply.**

Lee County:	<u>60%</u>	Wise County:	<u>41%</u>
Jonesville:	<u>28%</u>	Big Stone Gap:	<u>30%</u>
Pennington Gap:	<u>29%</u>	Wise:	<u>40%</u>
Scott County:	<u>38%</u>	Appalachia:	<u>34%</u>
Gate City:	<u>22%</u>	Coeburn:	<u>24%</u>
Weber City:	<u>23%</u>	City of Norton:	<u>41%</u>

**Table 3-16: Mountain Empire Older Citizens Transit Community Transportation Survey**

**Q6, Part 2: Please also indicate if you think the following public transportation linkages are needed. Check all that apply.**

Service connecting the region to Kingsport, TN:	93%
Service connecting the region to Johnson City, TN:	61%
Additional options for commuter transportation to access jobs or classes:	14%
Other:	2%

**Q7: Would you use public transportation services in the region if there was a service that met your travel needs?**

Yes:	81%	No:	19%
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**Q8: How much would you pay to ride public transportation for short trips within the community?**

Less than \$1.00:	3%	Between \$10.01 and \$20.00:	1%
Between \$1.00 and \$2.00:	47%	More than \$20.00:	1%
Between \$2.01 and \$5.00:	24%	N/A, I would not ride:	22%
Between \$5.01 and \$10.00:	3%		

**Q9: How much would you pay to ride public transportation for longer trips, outside of your community?**

Less than \$1.00:	1%	Between \$10.01 and \$20.00:	7%
Between \$1.00 and \$2.00:	6%	More than \$20.00:	7%
Between \$2.01 and \$5.00:	31%	Whatever the price is	4%
Between \$5.01 and \$10.00:	21%	N/A, I would not ride:	23%

**Q10: If you were to use public transportation, which method of scheduling a ride would you prefer?**

Call a day or two ahead to request a ride from house:	22%
Call the same day to request a ride from house:	40%
Fixed schedule with bus stop in walking distance:	19%
Not applicable, I would not ride:	19%

**Q11: How many times per week would you use public transportation if it were available to you?**

Less than one time per week:	13%	Four or more times per week:	19%
One to three times per week:	45%	N/A:	23%

**Q12: What times of day would you be most likely to use public transportation?**

6:00am-9:00am	36%	9:00pm-midnight	5%
9:00am-3:00pm	47%	Midnight-6:00am	2%
3:00pm-6:00pm	30%	N/A	16%
6:00pm-9:00pm	20%		

**Q13: In what city, town, or community do you live?**

#1:	Big Stone Gap
#2 (tie):	Appalachia
#2 (tie):	Wise
#3	Norton

**Q14: Do you have internet access?**

Yes:	74%	No:	26%
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**Q15: Do you have a disability that prevents you from driving?**

Yes:	6%	No:	94%
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**Q16: Including yourself, how many people live in your home?**

One:	20%	Four:	14%
Two:	38%	Five or more:	10%
Three:	18%		

**Q17: Do you have a valid driver's license?**

**Table 3-16: Mountain Empire Older Citizens Transit Community Transportation Survey**

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Yes:	<u>94%</u>	No:	<u>6%</u>
<b>Q18: How many working cars/trucks/SUVs/motorcycles are there in your households?</b>			
Zero:	<u>6%</u>	Three:	<u>23%</u>
One:	<u>23%</u>	Four or more:	<u>9%</u>
Two:	<u>39%</u>		

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### *Opinions Concerning Potential Services*

Eighty-one percent of the survey respondents who answered the question indicated that they would use public transportation in the region if there was a service that met their travel needs. The survey also asked respondents to indicate their preferences with regard to accessing transit. The majority of the respondents indicated that they would like to call on the same day to request a demand-response trip.

The survey also asked respondents to indicate if specific linkages were needed, including service to Kingsport (TN), Johnson City (TN), or other commuter options to access jobs or classes. These results show that 93% indicated a need to access Kingsport via public transportation, followed by Johnson City.

### *Fares*

Survey participants were asked to indicate what fare they would be willing to pay for trips within the community, as well as what fare they would be willing to pay for longer trips, outside of the community. The most frequently occurring fare listed for local trips was between \$1.00 and \$2.00 (the current fare) and the most frequently occurring fare listed for longer trips was between \$2.01 and \$5.00.

### *General Comments*

A number of general comments were provided by survey participants. These were categorized, with the following four general opinions most frequently occurring:

- Appreciate that the service is available, praise for the service.
- There is a need for more service and weekend service.
- A regular route with specific stops is desired.
- A number of specific geographic requests were mentioned: Kingsport/Johnson City, The Towers at Appalachia I, St. Paul, and Pound.

### **Community Survey- Mountain Empire Community College**

The survey developed for use in the community was uploaded into Survey Monkey for electronic administration. The study team has had good results in the past using electronic surveys for certain population segments, particularly college students. MECC staff sent the link out to the MECC community in order to gather feedback from this important stakeholder group. The survey link was open during the first two weeks

of September, 2011. There were 169 surveys completed during the survey period. The most number of survey respondents reported that they live in Big Stone Gap, followed by Wise and Jonesville. These results are provided in Table 3-17.

Eighty-seven percent of the survey participants reported that they have a driver's license and only 3% reported that they live in a household with no vehicles available. Ninety-one percent of the survey respondents reported Internet access.

### *Travel Patterns*

The majority of MECC survey participants (77%) reported that they drive when asked how they get to where they need to go within the community. Another 16% reported that they get rides with family or friends and 4% use public transportation.

### *Knowledge and Use of Public Transportation*

Over 77% of the survey participants reported that they are aware of the community transportation services that are provided by MEOC Transit, but only 17% reported that they use public transportation on a regular basis. An interesting finding for this question was the high usage of shared riding among the respondents- 51% indicated that they used either vanpools or carpools on a regular basis.

When asked why they do not use public transportation, the most commonly reported answer was "I prefer to drive," followed by "need by car before/after work/school." The third most commonly reported response was "don't know if service is available and/or location of stops."

### *Opinions Concerning Transit Needs*

When asked if there is a need for additional or improved public transit services in the region, 70% indicated "yes." The survey also asked respondents to indicate where services were needed and were given a list of counties and towns in the region. Lee County received the most responses, followed by Big Stone Gap, and Wise County.

### *Opinions Concerning Potential Services*

Over 80% of the survey respondents who answered the question indicated that they would use public transportation in the region if there was a service that met their travel needs. The survey also asked respondents to indicate their preferences with regard to accessing transit. The majority of the respondents indicated that they would like the public transportation vehicle to have a set schedule where they could walk to a stop and be picked up, without having to call for a ride.

**Table 3-17: MECC Transit Community Transportation Survey**

**Q1: How do you usually get where you need to go within the community for work, shopping, errands, or medical appointments?**

I drive:	<u>77%</u>	Ride bike:	<u>0%</u>
Friend/family member drives:	<u>16%</u>	Walk:	<u>2%</u>
Public transportation:	<u>4%</u>	Other:	<u>1%</u>
Taxi:	<u>0%</u>		

**Q2: Are you aware of the community transportation services that are provided by MEOC Transit?**

Yes:	<u>77%</u>	No:	<u>23%</u>
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**Q3: Do you currently use any of the following forms of public transportation on a regular basis?**

MEOC Transit:	<u>17%</u>	Yes, more than once a week:	<u>11%</u>
		Yes, less than once a week:	<u>6%</u>
Vanpools/Carpools	<u>51%</u>	Yes, more than once a week:	<u>19%</u>
		Yes, less than once a week:	<u>32%</u>
Taxis	<u>7%</u>	Yes, more than once a week:	<u>1%</u>
		Yes, less than once a week:	<u>6%</u>
Other:	<u>19%</u>	Yes, more than once a week:	<u>17%</u>
		Yes, less than once a week:	<u>2%</u>

**Q4: If you do not use any form of public transportation, please indicate why not.**

I prefer to drive:	<u>52%</u>
Need my car before/after work/school:	<u>38%</u>
Don't know if service is available and/or location of stops:	<u>30%</u>
Need my car for emergencies/overtime:	<u>23%</u>
Need my car for work/school:	<u>21%</u>
No service is available near my home/work/school:	<u>19%</u>
The hours of operation are too limited:	<u>18%</u>
Trip via transit takes too much time:	<u>10%</u>
Have to wait too long for the van/bus:	<u>10%</u>
The van/bus is expensive:	<u>9%</u>
Vans/buses are unreliable/late:	<u>6%</u>
Other:	<u>6%</u>
The van/bus is uncomfortable:	<u>4%</u>
It might not be safe/I don't feel safe:	<u>2%</u>
I have limited mobility and it is hard for me to use the van/bus:	<u>0%</u>

**Q5: Do you think there is a need for additional or improved public transportation in the region?**

Yes:	<u>70%</u>	No:	<u>30%</u>
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**Q6, Part 1: If you checked "Yes" for question #5 above, please indicate where within the region there is a need for additional or improved public transit service. Please check all that apply.**

Lee County:	<u>47%</u>	Wise County:	<u>44%</u>
Jonesville:	<u>31%</u>	Big Stone Gap:	<u>45%</u>
Pennington Gap:	<u>31%</u>	Wise:	<u>36%</u>
Scott County:	<u>36%</u>	Appalachia:	<u>26%</u>
Gate City:	<u>25%</u>	Coeburn:	<u>31%</u>
Weber City:	<u>21%</u>	City of Norton:	<u>34%</u>

**Table 3-17: MECC Transit Community Transportation Survey**

**Q6, Part 2: Please also indicate if you think the following public transportation linkages are needed. Check all that apply.**

Service connecting the region to Kingsport, TN:	<u>80%</u>
Service connecting the region to Johnson City, TN:	<u>45%</u>
Additional options for commuter transportation to access jobs or classes:	<u>30%</u>
Other:	<u>26%</u>

**Q7: Would you use public transportation services in the region if there was a service that met your travel needs?**

Yes:	<u>80%</u>	No:	<u>20%</u>
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**Q8: How much would you pay to ride public transportation for short trips within the community?**

Less than \$1.00:	<u>14%</u>	Between \$10.01 and \$20.00:	<u>1%</u>
Between \$1.00 and \$2.00:	<u>57%</u>	More than \$20.00:	<u>0%</u>
Between \$2.01 and \$5.00:	<u>26%</u>		
Between \$5.01 and \$10.00:	<u>2%</u>		

**Q9: How much would you pay to ride public transportation for longer trips, outside of your community?**

Less than \$1.00:	<u>0%</u>	Between \$10.01 and \$20.00:	<u>9%</u>
Between \$1.00 and \$2.00:	<u>21%</u>	More than \$20.00:	<u>4%</u>
Between \$2.01 and \$5.00:	<u>43%</u>		
Between \$5.01 and \$10.00:	<u>23%</u>		

**Q10: If you were to use public transportation, which method of scheduling a ride would you prefer?**

Call a day or two ahead to request a ride from house:	<u>16%</u>
Call the same day to request a ride from house:	<u>12%</u>
Fixed schedule with bus stop in walking distance:	<u>54%</u>
Not applicable, I would not ride:	<u>18%</u>

**Q11: How many times per week would you use public transportation if it were available to you?**

Less than one time per week:	<u>9%</u>	Four or more times per week:	<u>33%</u>
One to three times per week:	<u>38%</u>	N/A:	<u>21%</u>

**Q12: What times of day would you be most likely to use public transportation?**

6:00am-9:00am	<u>52%</u>	9:00pm-midnight	<u>12%</u>
9:00am-3:00pm	<u>45%</u>	Midnight-6:00am	<u>4%</u>
3:00pm-6:00pm	<u>45%</u>	N/A	<u>20%</u>
6:00pm-9:00pm	<u>28%</u>		

**Q13: In what city, town, or community do you live?**

#1:	<u>Big Stone Gap</u>
#2:	<u>Wise</u>
#3:	<u>Jonesville</u>
#4 (tie)	<u>City of Norton and Coeburn</u>

**Q14: Do you have internet access?**

Yes:	<u>91%</u>	No:	<u>9%</u>
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**Q15: Do you have a disability that prevents you from driving?**

Yes:	<u>2%</u>	No:	<u>98%</u>
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**Q16: Including yourself, how many people live in your home?**

One:	<u>9%</u>	Four:	<u>22%</u>
Two:	<u>30%</u>	Five or more:	<u>17%</u>

**Table 3-17: MECC Transit Community Transportation Survey**

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Three:	<u>21%</u>		
<b>Q17: Do you have a valid driver's license?</b>			
Yes:	<u>87%</u>	No:	<u>13%</u>
<b>Q18: How many working cars/trucks/SUVs/motorcycles are there in your households?</b>			
Zero:	<u>3%</u>	Three:	<u>19%</u>
One:	<u>31%</u>	Four or more:	<u>9%</u>
Two:	<u>39%</u>		

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The survey also asked respondents to indicate if specific linkages were needed, including service to Kingsport (TN), Johnson City (TN), or other commuter options to access jobs or classes. These results show that of the 93 respondents who indicated a need, almost 80% indicated Kingsport.

### *Fares*

Survey participants were asked to indicate what fare they would be willing to pay for trips within the community, as well as what fare they would be willing to pay for longer trips, outside of the community. For trips within the community, the most popular responses were between \$1.00 and \$2.00 (the current fare). For longer trips, the most popular responses were between \$2.01 and \$5.00. The idea of having a multi-ride pass was mentioned, as was a mileage-based fare.

### *General Comments*

MECC survey participants offered a number of insightful comments regarding the need for additional public transportation in the service area. Many specific geographic locations were listed, including the following:

- Connection between Appalachia, Big Stone Gap (including MECC), Norton, Wise (including UVA Wise), and Kingsport
  
- Connection to MECC from the following areas:
  - Coeburn
  - Pound
  - Clintwood
  - Dungannon
  - Gate City
  - Scott County
  - Stickleyville
  - Jonesville
  - Wise

The comments also included requests for more service generally, a set schedule, evening service, and service conducive to work hours. There several comments expressing that survey respondents were appreciative of MEOC and a few that indicated that MEOC was not convenient to use. The full list of MECC Survey comments are provided in Appendix D.

# Chapter 4

## Service and Organizational Alternatives

### INTRODUCTION

This fourth chapter prepared for the MEOC Transit TDP provided a range of service and organizational alternatives for MEOC Transit to consider when planning transit services for the six-year horizon covered by the TDP. These alternatives were developed based on the data compiled and analyzed in Chapters 1-3. The service alternatives are presented first, followed by the organizational alternatives.

Several of these alternatives are expansionary, reflecting input received through the survey efforts, and were ultimately considered as part of the unconstrained section of the TDP, rather than the financially constrained section. All of these alternatives reflected the goals articulated in the Mountain Empire Regional Transportation Advisory Committee's (MERTAC) Mobility Vision Plan.

The selected alternatives will need to be included in the Statewide Transportation Improvement Plan (STIP) for the anticipated year of implementation. DRPT is responsible for including the TDP plan elements in the STIP. If and when the TDP is amended by MEOC Transit as a result of its annual review of implementation progress, the amendments need to be transmitted to DRPT for inclusion in the amended STIP, to ensure that the projects are eligible for federal funding.

### SERVICE ALTERNATIVES

The previous chapter provided an evaluation of current MEOC Transit services, as well as an analysis of transit needs based on quantitative data and on input from MEOC Transit customers, the public, and other key stakeholders. Through the service

review, needs assessment, and outreach, there are specific service improvements that should be considered for implementation. These alternatives focus on:

- Additional days of service;
- Increased access to local communities and higher educational opportunities; and
- Regional mobility and intercity bus connections.

Each service alternative is detailed in this section, and includes (where applicable):

- A summary of the service alternative,
- Potential advantages and disadvantages,
- Ridership estimates,
- An estimate of the operating and capital costs,
- Potential funding sources or issues, and
- Compatibility with local land use planning.

It should be noted that these alternatives were designed to serve as a starting point the Committee was instructed that they could be modified as needed based on the needs of MEOC Transit and stakeholder input. In addition, the cost information is expressed as the fully allocated costs, which means we have considered all of the program's costs on a per unit basis when contemplating expansions. This does overstate the incremental cost of minor service expansion, as there are likely to be some administrative expenses that would not be increased with the addition of a few service hours. These cost estimates were based on FY10 operating statistics.

### **Service Alternative #1: Saturday Shopper Shuttle Service**

The most requested improvement from the passenger survey responses was for Saturday service. Staff indicated that MEOC Transit had experimented with Saturday service in the past and there was very little demand. The focus of this alternative is to offer Saturday Shopper Shuttle Service on the first Saturday of the month, providing targeted deviated fixed-route service in the more populated areas of the region. Offering this type of service one Saturday a month would provide a good test for the service, and would feature a service design that would not require hiring additional staff.

This concept would involve three to four shuttle routes, one per County (with perhaps two in Wise County), providing service from a few targeted housing areas to community shopping areas. Targeted areas would likely be as follows:

Lee County: Jonesville-Pennington Gap

Scott County: Gate City-Weber City

Wise County: Appalachia--Big Stone Gap-Norton-Wise-Coeburn

The hours of service would be those conducive to Saturday shopping and errands, most likely 8:30 a.m. to 4:30 p.m., which would result in eight revenue hours per vehicle, and 32 revenue hours per operating day (4 vehicles). The annual revenue service hours for this limited Saturday service would be 384 hours.

### *Advantages*

- Responds to a need expressed via the passenger surveys.
- Provides limited Saturday mobility.
- Tests the concept of Saturday service without having to hire additional staff.
- Tests the concept of shuttle service in the region.

### *Disadvantages*

- The only real disadvantage is cost.

### *Expenses and Funding Sources*

- Using MEOC Transit's fully allocated cost per hour of \$29.87, 384 additional service hours would cost just under \$11,500 annually in operating expenses. No additional capital would be required.
- With an average farebox recovery of 3%, the net deficit for this expansion would be \$11,125. It is proposed that this deficit be split in the same manner as the current net deficit, which is 50% Federal Section 5311 and 50% local.

### *Ridership*

- Targeting specific areas and offering deviated fixed-route service, rather than demand-response, will likely result in service that is more productive than the current services. If the Saturday shuttle services can average three passenger trips per hour, the total ridership for the Saturday services would be 1,152 passenger trips.

### *Compatibility with Land Uses*

- This alternative is compatible with local land uses, as it proposes to provide additional service connecting residential areas to shopping areas.

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## Service Alternative #2: County Connectors

The focus of this service alternative is to develop a basic network of deviated fixed-route services in the region that connect the major population centers as well as providing connections to Mountain Empire Community College and the University of Virginia- Wise. This alternative is comprised of three deviated fixed routes -- one originating in each county. It is proposed that the routes meet at a transfer location in Big Stone Gap, either at the Walmart or at the Community College, to provide regional connectivity. A map of these proposed routes is provided as Figure 4-1.

Each of the three routes is described below. It should be noted that these routes could be implemented independent of one another, which may make sense given that there is likely more demand in Wise County and the City of Norton and potentially more funding partners. These connectors could also be coupled with Alternative #3- Regional Services, which could possibly offset some of the local match requirement.

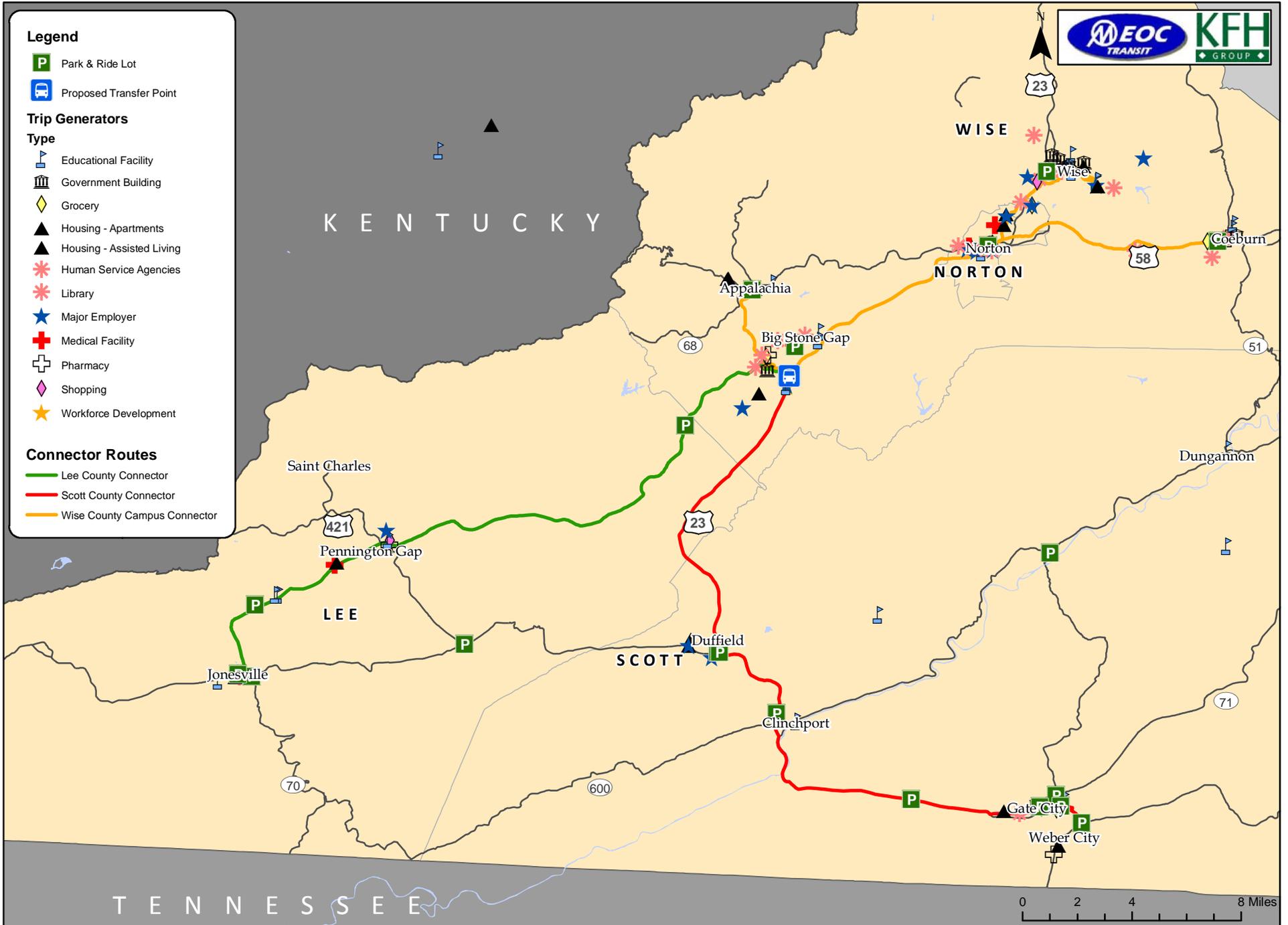
### *Service Alternative #2a: Wise County Campus Connector*

The focus of this alternative is to connect the major communities in Wise County, with a focus on the two college campuses (University of Virginia – Wise College (UVA-Wise) and Mountain Empire Community College). This connector would be a deviated fixed-route and would originate in Coeburn, then travel to Wise, Norton, Big Stone Gap, and Appalachia. There would be fixed stops at key locations in each of the towns, with a little extra time in the schedule added for deviations. It is proposed that the fixed stops also include the park and ride lots that were identified by the LENOWISCO Planning District Commission (one in each town, generally located adjacent to shopping opportunities). The one-way mileage for this route is 35 miles and the round trip mileage is 70 miles. Three round trips are proposed each service day, to coincide with convenient campus arrival and departure times, to the extent possible.

In addition to providing access to educational opportunities, this route will also serve to connect the major population centers within Wise County, allowing greater access to the governmental services provided in Wise (Health Department, Courthouse) and the shopping opportunities in Norton and Big Stone Gap. The route could also serve the VA Clinic in Norton.

MEOC Transit may be able to manipulate some of its existing demand-response riders onto this route, as well as feeding it from the outlying areas to reduce mileage on the demand-response trips.

Figure 4-1: Proposed Connector Routes



4-5

### *Advantages*

- Responds to a need indicated by the community surveys.
- Connects major population centers in Wise County.
- Provides access to educational, medical, shopping, and governmental destinations.
- May be able to provide part of the connection to the intercity bus network (see Alternative #3).

### *Disadvantages*

- The demand for this type of service is untested in this region, though has worked in neighboring regions.
- There are significant expenses associated with implementing the route.

### *Expenses and Funding Sources*

- **Capital:** One vehicle would be needed for this service. A 19-passenger body-on-chassis vehicle with a lift and sign capabilities is about \$52,000. Bus stop signs for the major time points would be needed. Fifteen or so signs would cost about \$1,500.
- **Operating:** If one vehicle operated 11 hours per weekday (7:00 a.m. to 6:00 p.m., 255 days), the total annual revenue service hours would be 2,805. The fully allocated annual operating cost would be just under \$84,000 annually, resulting in a net deficit of about \$81,300 annually.
- **Funding:** It is proposed that the operating costs associated with this route be funded through the Federal Section 5311 program (50%), with the local match required for this route funded through a partnership arrangement among the towns served (Coeburn, Wise, Big Stone Gap, Appalachia); Mountain Empire Community College; UVA-Wise; and Wise County. There may also be an opportunity to access funding through Greyhound's Rural Feeder Program, which is more fully described under Alternative #3. The capital costs are proposed to be funded 80% federal and 20% local.

### *Ridership*

- It is estimated that this route could provide between three and four passenger trips per revenue hour. This estimate is based on the experiences of Four County Transit (3.24 trips per revenue hour) and District 3 Transit (4.44 trips per revenue hour). Both of these systems operate deviated fixed routes, though their population bases are higher. If the route generates three

passenger trips per revenue hour, the annual ridership would be just over 8,400 passenger trips.

### *Compatibility with Land Uses*

- This route is compatible with local land uses, as it serves to connect existing population centers in the region, with a focus on educational centers and park and ride lots.

### *Service Alternative #2b: Lee County Connector*

The focus of this alternative is to connect communities in Lee County to one another and to Mountain Empire Community College in Big Stone Gap. Riders could then transfer to the Wise County Campus Connector if they needed to go on to Norton, Wise, or UVA-Wise. As with the previously described connector, there would be fixed stops at key locations in Jonesville and Pennington Gap, with a little extra time in the schedule added for deviations. It is proposed that the fixed stops also include the park and ride lots that were identified by the LENOWISCO Planning District Commission (one in each town, generally located adjacent to shopping opportunities). The one-way route mileage for this route is 28.6 and the round-trip mileage is 57.2. As with the previous alternative, three round trips are proposed each service day, to coincide with campus schedules and transfer opportunities, as is feasible.

MEOC Transit may be able to manipulate some of its existing demand-response riders onto this route, as well as feeding it from the outlying areas to reduce mileage on the demand-response trips.

### *Advantages*

- Responds to a need indicated by the community surveys.
- Connects major population centers in Lee County.
- Provides access to educational, medical, shopping, and governmental destinations.
- May be able to provide part of the connection to the intercity bus network (see Alternative #3).

### *Disadvantages*

- The demand for this type of service is untested in this region, though has worked in neighboring regions.
- There are significant expenses associated with implementing the route.

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### *Expenses and Funding Sources*

- **Capital:** One vehicle would be needed for this service. A 19-passenger body-on-chassis vehicle with a lift and sign capabilities is about \$52,000. Bus stop signs for the major time points would be needed. Five or so signs would cost about \$500.
- **Operating:** If one vehicle operated 11 hours per weekday (7:00 a.m. to 6:00 p.m., 255 days), the total annual revenue service hours would be 2,805. The fully allocated annual operating cost would be just under \$84,000 annually, resulting in a net deficit of about \$81,300 annually.
- **Funding:** It is proposed that the operating costs associated with this route be funded through the Federal Section 5311 program (50%), with the local match required for this route funded through a partnership arrangement among the towns served (Jonesville, Pennington Gap); Mountain Empire Community College; and Lee County. There may also be an opportunity to access funding through Greyhound's Rural Feeder Program, which is more fully described under Alternative #3. The capital costs are proposed to be funded 80% federal and 20% local.

### *Ridership*

- It is estimated that this route could provide between two and three passenger trips per revenue hour. This estimate is based on the experiences of Four County Transit (3.24 trips per revenue hour) and District 3 Transit (4.44 trips per revenue hour), scaled down to reflect the lower population in Lee County. If the route generates 2.0 passenger trips per revenue hour, the annual ridership would be just over 5,600 passenger trips.

### *Compatibility with Land Uses*

- This route is compatible with local land uses, as it serves to connect existing population centers in the region, with a focus on educational centers and park and ride lots.

### *Service Alternative #2c: Scott County Connector*

The focus of this alternative is to connect communities in Scott County to one another and to Mountain Empire Community College in Big Stone Gap. Riders could then transfer to the Wise County Campus Connector if they needed to go on to Norton, Wise, or UVA-Wise. As with the previously described connectors, there would be fixed stops at key locations in Weber City, Gate City, Clinchport, and Duffield, with a little extra time in the schedule added for deviations. It is proposed that the fixed stops also

include the park and ride lots that were identified by the LENOWISCO Planning District Commission (one in each town, generally located adjacent to shopping opportunities). The one-way route length for this proposed route is 32 miles, resulting in a 64-mile round trip. Three trips per day are also proposed for the Scott County Connector. This route should be considered as a companion to Alternative #3, as it would not make sense to implement two deviated fixed routes in the same corridor.

MEOC Transit may be able to manipulate some of its existing demand-response riders onto this route, as well as feeding it from the outlying areas to reduce mileage on the demand-response trips.

### *Advantages*

- Responds to a need indicated by the community surveys.
- Connects major population centers in Scott County.
- Provides access to educational, medical, shopping, and governmental destinations.
- May be able to provide part of the connection to the intercity bus network (see Alternative #3).

### *Disadvantages*

- The demand for this type of service is untested in this region, though has worked in neighboring regions.
- There are significant expenses associated with implementing the route.

### *Expenses and Funding Sources*

- **Capital:** One vehicle would be needed for this service. A 19-passenger body-on-chassis vehicle with a lift and sign capabilities is about \$52,000. Bus stop signs for the major time points would be needed. Twelve or so signs would cost about \$1,200.
- **Operating:** If one vehicle operated 11 hours per weekday (7:00 a.m. to 6:00 p.m., 255 days), the total annual revenue service hours would be 2,805. The fully allocated annual operating cost would be just under \$84,000 annually, resulting in a net deficit of about \$81,300 annually.
- **Funding:** It is proposed that the operating costs associated with this route be funded through the Federal Section 5311 program (50%), with the local match required for this route funded through a partnership arrangement among the towns served (Weber City, Gate City, Clinchport, Duffield); Mountain Empire Community College; and Scott County. There may also be an opportunity to

access funding through Greyhound's Rural Feeder Program, which is more fully described under Alternative #3. The capital costs are proposed to be funded 80% federal and 20% local.

### ***Ridership***

- It is estimated that this route could provide between two and three passenger trips per revenue hour. This estimate is based on the experiences of Four County Transit (3.24 trips per revenue hour) and District 3 Transit (4.44 trips per revenue hour), scaled down to reflect the lower population in Scott County. If the route generates 2.2 passenger trips per revenue hour, the annual ridership would be just over 6,000 passenger trips.

### ***Compatibility with Land Uses***

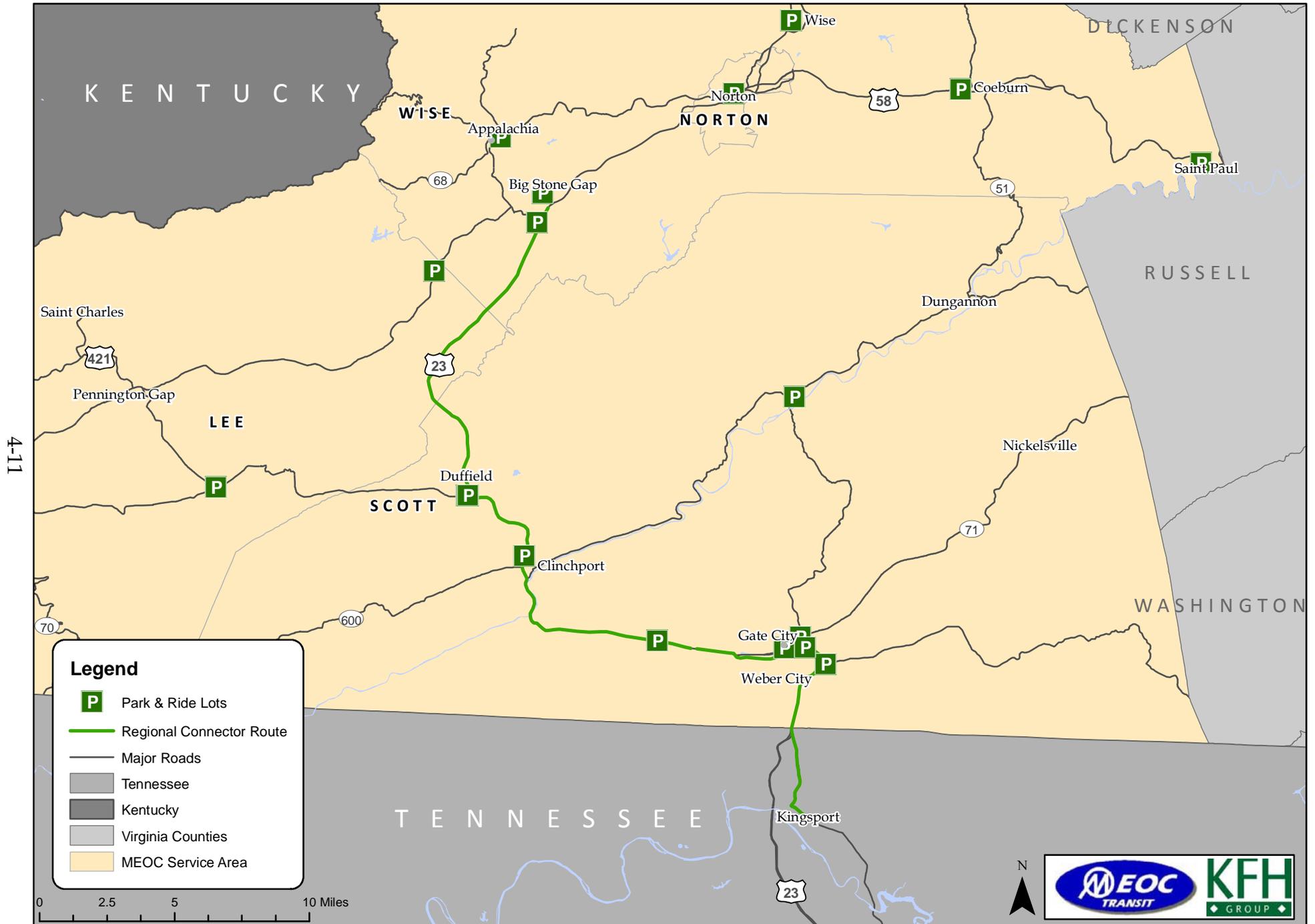
- This route is compatible with local land uses, as it serves to connect existing population centers in the region, with a focus on educational centers and park and ride lots.

## **Service Alternative #3: Regional Connector Service**

From the stakeholders and the surveys, one of the major themes that emerged was that there is a need for regional connectivity, both internal to the LENOWISCO region, and to Kingsport and Johnson City. The focus of this alternative is to develop a regional service (perhaps in conjunction with Alternative #2 above) that would connect the LENOWISCO region to Kingsport, including the Greyhound Station. The route would originate in Big Stone Gap and travel south through the region, following U.S. 23. The park and ride lots in the region would serve as pick-up locations. Figure 4-2 provides a map of this route. Johnson City and the Veteran's Hospital may also be considered, but this would add an additional 23 one-way miles to the route, all of which would be in Tennessee. It is about 38 miles one-way from Big Stone Gap to Kingsport.

Providing a connection to the Greyhound station would offer a way for area residents to access the intercity bus network and would potentially offer a mechanism to access funding through the Section 5311(f) program, which is designed to subsidize intercity bus service in places where there is need, but not sufficient demand to generate profitability for a private intercity bus carrier. This alternative is particularly attractive for this region, as the Greyhound trip times in Kingsport are compatible with other trip needs as well. The current Greyhound schedule from Kingsport shows that there is a daily bus at 9:10 a.m. (eastbound) and a daily bus at 2:15 p.m. (westbound). This is key to this service becoming viable, as any services funded through the Section 5311(f) program must make a meaningful connection to the intercity bus network -- meaning that the connector services should feed the intercity bus services directly.

Figure 4-2: Proposed Regional Connector Service



4-11

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Greyhound Lines, Inc. offers a potential partnership opportunity for feeder routes through its “Rural Feeder Service Program.” Part of this program includes grant assistance. The program guidance states that, “Greyhound will actively support rural feeder service applicants and grantees. In many cases, a special 2-year demonstration program approved by FTA allows Greyhound to provide a 3<sup>rd</sup> party in-kind contribution as the required local match for a rural feeder service grant. The benefit of this program is that the total net operating costs of the service can be reimbursed by Section 5311(f) funding—the service can be fully supported by Section 5311(f) funds and Greyhound local match.”<sup>1</sup> A copy of the Rural Feeder Service Handbook is provided as Appendix E.

### *Advantages*

- Provides a link that was requested by a majority of the survey respondents.
- Provides regional mobility.
- May offer a way to fund Alternative #2C.
- Provides a connection to the intercity bus network.
- May be able to be funded through Greyhound’s Rural Feeder Program.

### *Disadvantages*

- The demand for this type of service is untested in this region, though has worked in neighboring regions.
- There are significant expenses associated with implementing the route.
- Virginia has historically certified that its intercity bus needs are being met, which means that it has not historically participated in the Section 5311(f) program. Discussion with DRPT staff will be needed to determine if DRPT would consider participating in the program.

### *Expenses and Funding Sources*

- If two round trips are made each weekday to meet the Greyhound bus in Kingsport, the operating hours would be about 7:00 a.m. to 5:00 p.m., resulting in ten revenue service hours per weekday. With about 255 weekdays in a year, the annual revenue service hours would be 2,550, and the fully allocated operating costs would be about \$76,000 annually. The capital cost would include a 19-passenger, lift-equipped, body-on-chassis vehicle with sign capabilities (\$52,000). The suggested funding source for this service is Section 5311(f), coupled with Greyhound’s 3<sup>rd</sup> party match.

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<sup>1</sup> Greyhound Lines, Inc. Rural Feeder Service Handbook, February 2007.

### *Ridership*

- It is anticipated that this type of service could provide about three passenger trips per revenue hour, for a total of about 7,650 annual passenger trips.

### *Compatibility with Land Uses*

- This route is compatible with local land uses, as it serves to connect existing population centers in the region, with a focus on educational centers and park and ride lots.

## **ORGANIZATIONAL ALTERNATIVES**

Organizational alternatives include proposals for potential changes that affect the way that transit is guided, administered, and/or managed in the region. MEOC Transit's basic organizational structure is well-established, as is its Advisory Committee, MERTAC. The organizational alternatives developed for consideration do not contemplate any major organizational changes, but rather additional options for MEOC Transit to consider.

### **Organizational Alternative #1: Mobility Manager Expand to Rural Vanpooling**

MEOC has an established Mobility Management program that currently focuses on coordinating transportation for people with unmet needs and providing case management for those with special transportation needs. The program is funded through a New Freedom grant and is the first step in implementing MERTAC's vision of a "one-call" transportation center.

The focus of this alternative is to take another step forward in the mobility management continuum and try to help coordinate work trips, similar to carpool and vanpool matching programs that are well-established in the more urban areas of Virginia. The work trip is the one area of transportation need that is largely unmet by current MEOC Transit services and was mentioned as an important need by the Department of Social Services. There is some precedence for vanpooling in the region, as there are a few that serve the federal prison in Jonesville, operated through Vanpool Services, Inc. (VPSI).

Under this alternative, MEOC Transit's Mobility Management program would begin a carpool/vanpool matching program, whereby MEOC would serve as a liaison between people needing transportation to work and those who would be willing to take

additional passengers. The program could start as a carpooling initiative and progress to a vanpool initiative, if there is sufficient demand for a vanpool to be affordable.

DRPT does provide financial assistance to new vanpools under the Virginia Vanpool Assistance Program, called the VanStart program. This program funds a specified number of empty seats on newly established vanpools for a specific period of time. The program is focused on working through “established local rideshare agencies,” the closest of which is in the Roanoke area. Another focus of this alternative would be to help determine if MEOC could become an “established local rideshare agency” for far Southwest Virginia, picking up where Ride Solutions (Roanoke-based) ends, and what this would entail.

The key to make carpooling and/or vanpooling successful is a significant common employment destination, where there would be a large pool of potential workers. Employers such as Mountain Empire Community College, the UVA-Wise, several coal companies, the state and federal prisons in the region, and regional hospitals may be good targets for implementing such a program.

Another way to further this program would be to work with VPSI, a national vanpooling company. VPSI typically owns the vans and provides the insurance, maintenance, and licensing. The monthly cost would depend upon the type of van and the length of the commute. Vanpool costs may also be eligible for a subsidy under FTA’s capital cost of contracting program, which is described below, taken from VPSI’s website:

*“One way to provide a subsidy program for vanpooling with VPSI is through the use of the FTA’s Capital Cost of Contracting Policy. This policy allows grant recipients the option of using FTA capital assistance rather than operating assistance to fund the cost of privately-owned capital components of vanpool services obtained in a competitive solicitation.*

*We’re successfully receiving pass-through funds in five public/private sector projects around the country as a means of lowering the monthly charges to vanpool groups. So we’re capable and very willing to work closely with you to prepare an FTA funding grant application to be considered for inclusion in the TIP/STIP of annual projects.*

*Typically, the mechanics of a Capital Cost of Contracting arrangement are as follows:*

- *VPSI owns the vehicles and provides them to the vanpool groups under our normal 30-day Volunteer Driver Agreement.*
- *The public agency makes monthly subsidy payments to VPSI based on the number of vehicles operating in the program but only for the capital portion of the vehicle cost.*
- *In these projects we pass along 100% of the financial benefit received to the end user.*

- All other costs are collected by VPSI from the vanpool groups. <sup>12</sup>

Additional information from VPSI concerning this type of program is provided as Appendix F. VPSI indicated they would be interested in helping implement vanpooling in the region, as appropriate.

### *Advantages*

- Furthers the services offered through the Mobility Management program.
- Begins to address employment transportation in the region.
- Offers a relatively low-cost option to provide employment transportation.

### *Disadvantages*

- There may not be enough demand in the region to fully develop a carpool/vanpool program.
- It is sometimes difficult to find eligible drivers when targeting populations who need employment transportation.

### *Expenses and Funding Sources*

- The expenses will vary depending upon how involved MEOC becomes with a carpool/vanpool program. Simple referral to VPSI would involve minimal cost, whereas becoming a regional ride sharing agency would likely add some administrative expenses. Typically the users of carpools and vanpools pay the direct operating expenses. There may also be a possibility of using Section 5311 capital under the “capital cost of contracting” provision, and this will need to be more fully researched if this option is pursued in the future.

## **Organizational Alternative #2: Volunteer Driver Program -- Recruit for Limited Evening Service**

Another unmet need in the region is for evening services. There is not likely to be enough demand for public transportation services to be provided in the evening, but it may be possible to expand the volunteer driver program to offer some limited evening services. The key for this alternative would be to recruit some volunteers who are comfortable driving in the evenings. This pool of volunteers would likely not be retirees, but rather working-age people who wish to volunteer, but are not available during the day.

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<sup>2</sup> VPSI Website.

### *Advantages*

- Offers a way to provide limited evening service with low expenses, using existing resources.
- Provides a new volunteer opportunity in the community.

### *Disadvantages*

- May be difficult to recruit volunteers who are available during the evening.
- May be difficult to manage demand for evening service.

### *Expenses and Revenues*

- Some of the expenses for this type of program are already being incurred by MEOC through its existing volunteer driver program (i.e., training). New expenses for this program would be the need to have a dispatcher available in the evenings, should there be an emergency situation. This cost is completely dependent upon how many evenings MEOC chooses to supply volunteer drivers. If MEOC chose to do this one night a week, it would likely involve four additional hours of a dispatcher's time, or about 200 hours per year. This cost is estimated to be about \$4,000 per year. It is proposed that this type of program be folded into the existing volunteer program (funded through New Freedom), if it is chosen for implementation.

## **Improved Scheduling and Routing Infrastructure**

MEOC Transit has been approved to procure Automatic Vehicle Location (AVL) technology and Mobile Data Computers (MDCs). This technology will greatly assist the dispatchers in efficiently scheduling trips, will improve the accuracy of operating data, and eliminate the need for paper manifests. This technology is being purchased with American Recovery and Reinvestment Act funds. While this project did not stem from the TDP alternatives, it is noted here so that it will be reflected in the six-year plan. As this project does not involve current decision-making, the full advantages, disadvantages, costs, and funding are not discussed.

## SUMMARY

This chapter provided a number of alternatives for MEOC to consider with regard to public transit services over the next six years. Table 4-1 provides a summary of these proposals. The entire menu of alternatives offers a relatively aggressive expansion, adding 11,349 annual revenue hours to the existing system (a 24.3% increase). The chosen alternatives are provided in Chapter 5 and are organized into a “constrained plan,” which outlines the alternatives that can be reasonably implemented with existing funding, and a “vision plan,” which includes the projects that will need to access additional funding sources for implementation.

**Table 4-1: MEOC Transit TDP- Summary of Alternatives**

<b>Project Description</b>	<b>Purpose</b>	<b>Annual Revenue Service Hours</b>	<b>Annual Operating Expenses (1)</b>	<b>Capital Expenses</b>	<b>Proposed Funding Sources</b>	<b>Estimated Ridership</b>
Service Alternative #1: Saturday Shopper Shuttle Service	Offer mobility for transit riders on the first Saturday of each month.	384	\$ 11,500	\$ -	S.5311 and local	1,152
Service Alternative #2a: Wise County Campus Connector	Provide service among the major population centers in Wise County and the City of Norton, focussing on the two college campuses.	2,805	\$ 84,000	\$ 52,000	S. 5311, local (including towns and campuses served)	8,400
Service Alternative #2b: Lee County Connector	Provide service to connect the major population centers in Lee County and offer a connection to educational opportunities in Wise County.	2,805	\$ 84,000	\$ 52,000	S.5311, local (including towns and campuses served)	5,600
Service Alternative #2c: Scott County Connector	Provide service to connect the major population centers in Scott County and offer a connection to educational opportunities in Wise County, and potentially the Greyhound stop in Kingsport.	2,805	\$ 84,000	\$ 52,000	S.5311, local (including towns and campuses served), and potentially the Greyhound Feeder Program.	6,000
Service Alternative #3: Regional Connector Service	Provide regional mobility, including a connection to the intercity bus network in Kingsport, TN.	2,550	\$ 76,000	\$ 52,000	Greyhound Rural Connection program - S.5311(f)	7,650
Organizational Alternative #1: Mobility Manager Expand to Rural Vanpooling	Add another service to the Mobility Management program in an effort to address the work trip.	Not yet determined			Rider fees and potentially FTA S.5311 through the capital cost of contracting.	-

**Table 4-1: MEOC Transit TDP- Summary of Alternatives**

<b>Project Description</b>	<b>Purpose</b>	<b>Annual Revenue Service Hours</b>	<b>Annual Operating Expenses (1)</b>	<b>Capital Expenses</b>	<b>Proposed Funding Sources</b>	<b>Estimated Ridership</b>
Organizational Alternative #2: Expand volunteer driver program to evenings.	Recruit volunteers who would be willing to provide evening transportation so that some mobility would be available in the evenings.	-	\$ 4,000	\$ -	New Freedom and local.	-
<b>TOTALS</b>		<b>11,349</b>	<b>\$ 343,500</b>	<b>\$ 208,000</b>		<b>28,802</b>

(1) Fully-allocated cost; implementation cost would likely be lower.



# Chapter 5

## Operations Plan

### INTRODUCTION

The development of the MEOC TDP has included four technical memoranda (documented in Chapters 1-4), which provided an overview of transportation in the LENOWISCO region; discussed goals, objectives, and standards; analyzed the need for transit services; and proposed financially constrained and vision alternatives for MEOC Transit to implement over the next six years. The process was guided by the MERTAC, with input from VDRPT and MEOC Transit staff. Chapters 6 and 7 provide companion capital and financial plans.

This chapter provides the Operations Plan. It details the specific projects that MEOC Transit has chosen to implement, broken down into financially constrained and vision categories. While the former follow a six year timeline, the latter are presented in sequential phases, as the year of possible implementation is unknown. Including the vision projects, the TDP recognizes current financial constraints while allowing MEOC Transit to adapt to changing circumstances, and consider accelerated implementation during its yearly reviews. Focusing first and foremost on the financially constrained category, MEOC Transit can both fulfill its broader mission as part of the MEOC agency, and better achieve its transportation program goals.

The operational changes included in this chapter include cost estimates that are based on the FY 2012 budgets submitted to DRPT by MEOC. These budgets are for the same number of service hours as operated in FY 2010 and FY 2011, but the amount is slightly higher, with the result that the estimated fully allocated operating cost for FY 2012 is \$30.94 per hour, rather than the \$29.87 per hour figure from FY 2010 that was used in the alternatives chapter. The Operations Plan includes the following projects:

- Financially Constrained
  1. Maintain current service (FY 2012 and subsequent years)
  2. Implement new Senior Grant program
  3. Saturday Shopper Shuttle Service
  4. Broaden Mobility Management Program
  5. Broaden Volunteer Driver Program
  6. Improve Scheduling and Routing Infrastructure
  
- Vision
  1. County Connectors
    - a. Wise County
    - b. Lee County
    - c. Scott County
  
  2. Regional Connector Service to Greyhound

## FINANCIALLY CONSTRAINED PLAN

### Maintain Current Service with Capital Replacements (FY 2012 and Subsequent Years)

MEOC Transit provides service Monday through Friday from 7:00 a.m. to 5:00 p.m. This project maintains current service and assumes timely vehicle replacements (included in Chapter 6).

- At the current level of service, MEOC Transit's operating expenses would increase by an assumed 3% rate of inflation each year over the FY 2012 budget cost figure used as the base.
  
- The operating deficit would be split up to 50% Federal Section 5311, 15% state, and 35% local. This assumption obviously depends on the continued availability of federal and state funding under the current programs.
  
- Beginning with the FY 2013 vehicle replacements, it is recommended that MEOC Transit include on-board video cameras, included as part of the vehicle purchase. On-board cameras function as tools to investigate complaints, incidents, and accidents, and they may help to deter crime and increase rider perceptions of safety.
  
- Capital costs would be split 80% federal, 10% state, and 10% local.

- Ridership is likely to remain at its current level.

### **Senior Transportation Program**

MEOC Transit was recently awarded a Senior Transportation Program Grant, which will be implemented in FY 2012. The focus of the project will be to provide additional senior transportation services throughout the region as well as to assist the Veteran's Administration remote clinics with transporting older veterans to the central clinics and to the VA Hospital in Johnson City. Once a week service to these clinics is proposed. MEOC applied for this grant prior to the TDP process.

#### *Expenses and Revenues*

MEOC Transit has estimated the annual operating expenses for this program to be \$15,000 and the fare revenue to be \$1,000, for a net deficit of \$14,000. This program will use MEOC service, volunteers, and will purchase service from the Junction Center for Independent Living. The State share for the program is \$13,300 and the local share is \$700.

#### *Ridership*

MEOC has estimated that this program will provide 1,200 one-way passenger trips per year.

#### *Implementation*

MEOC Transit will be implementing this program in FY 2012.

### **Saturday Shopper Shuttle Service**

The most requested improvement from the passenger survey responses was for Saturday service. Staff indicated that MEOC Transit had experimented with Saturday service in the past and there was very little demand. The focus of this improvement is to offer Saturday Shopper Shuttle Service on the first Saturday of the month, providing targeted deviated fixed-route service in the more populated areas of the region. Offering this type of service one Saturday a month would provide a good test for the service, and would feature a service design that would not require hiring additional staff.

This concept would involve three to four shuttle routes, one per County (with perhaps two in Wise County), providing service from a few targeted housing areas to community shopping areas. Targeted areas would likely be as follows:

- Lee County: Jonesville-Pennington Gap
- Scott County: Gate City-Weber City
- Wise County: Appalachia--Big Stone Gap-Norton-Wise-Coeburn

Specific target areas should include direct connections between the community's multi-family housing and major shopping locations, such as Walmart and grocery opportunities. The hours of service would be those conducive to Saturday shopping and errands, most likely 8:30 a.m. to 4:30 p.m., which would result in eight revenue hours per vehicle, and 32 revenue hours per operating day (4 vehicles). The annual revenue service hours for this limited Saturday service would be 384 hours.

#### *Expenses and Funding Sources*

- Using MEOC Transit's fully allocated cost per hour of \$30.94 (FY 2012), 384 additional service hours would cost just under \$11,900 annually in operating expenses. No additional capital would be required.
- With an average farebox recovery of 3%, the net deficit for this expansion would be \$11,525. It is proposed that this deficit be split in the same manner as the current net deficit, which is 50% Federal Section 5311, 35% local, and 15% DRPT.

#### *Ridership*

- Targeting specific areas and offering deviated fixed-route service, rather than demand-response, will likely result in service that is more productive than the current services. If the Saturday shuttle services can average three passenger trips per hour, the total ridership for the Saturday services would be 1,152 passenger trips.

#### *Implementation*

- The Saturday shopper shuttles are scheduled to be implemented in FY 2013, assuming that funding is available.

### **Broaden Mobility Management Role to Vanpooling**

MEOC has an established Mobility Management program that currently focuses on coordinating transportation for people with unmet needs and providing case management for those with special transportation needs. The program is funded through a New Freedom grant and is the first step in implementing MERTAC's vision of a "one-call" transportation center.

The focus of this project is to take another step forward in the mobility management continuum and try to help coordinate shared-ride work trips, similar to carpool and vanpool matching programs that are well-established in the more urban areas of Virginia. The work trip is the one area of transportation need that is largely unmet by current MEOC Transit services and was mentioned as an important need by the Department of Social Services. There is some precedence for vanpooling in the region, as there are a few vanpools that serve the federal prison in Jonesville, operated through Vanpool Services, Inc. (VPSI).

For the constrained plan, this project will focus on starting a simple carpool/vanpool matching program, whereby MEOC would serve as a liaison between people needing transportation to work and those who would be willing to take additional passengers. The program could start as a carpooling initiative and progress to a vanpool initiative, if there is sufficient demand for a vanpool to be affordable for the participants. Under this scenario MEOC Transit will act in a referral capacity -- referring potential carpool participants to one another and potential vanpool participants to VPSI. The initial program would simply be an extension of the current mobility management program, serving as a conduit for coordinating mobility. Information concerning carpooling and vanpooling should be added to MEOC's website, as well as to other public information as it is re-printed.

The key to making carpooling and/or vanpooling successful is a significant common employment destination, where there would be a large pool of potential workers. Employers such as Mountain Empire Community College, the University of Virginia-Wise (UVA-Wise), several coal companies, the state and federal prisons in the region, and regional hospitals may be good targets for implementing such a program. The mobility manager should approach these institutions and discuss the concept of developing carpool/vanpool programs. Employers can also choose to subsidize the cost of a shared ride commute by offering up to \$120 per month as a tax-exempt fringe benefit.

### *Expenses and Funding Sources*

- For the constrained plan, it is proposed that there will not be additional expenses incurred by MEOC for the program, rather that this function will be folded into the existing mobility management program.
- Should there be a level of demand that is not manageable for the existing mobility management program, the potential for ride-sharing funds through DPRT should be researched.

### *Implementation*

- MEOC Transit will begin to add carpool and vanpool referral services to its mobility management program in FY 2013.

### **Broaden Volunteer Driver Program -- Recruit for Limited Evening Service**

Another unmet need in the region is for evening services. There is not likely to be enough demand for public transportation services to be provided in the evening, but it may be possible to expand the volunteer driver program to offer some limited evening services. The key for this alternative would be to recruit some volunteers who are comfortable driving in the evenings. This pool of volunteers would likely not be retirees, but rather working-age people who wish to volunteer, but are not available during the day.

During the alternatives analysis, MEOC Transit staff did mention that they were concerned about being able to recruit people who would be willing to drive in the evenings. This proposal focuses on initiating the outreach by offering it as a volunteer opportunity. If MEOC is unsuccessful in recruiting evening volunteers, the plan for this program can be amended through the annual TDP update letter.

### *Expenses and Revenues*

- Some of the expenses for this type of program are already being incurred by MEOC through its existing volunteer driver program (i.e., training). New expenses for this program would be the need to have a dispatcher available in the evenings, should there be an emergency situation. This cost is completely dependent upon how many evenings MEOC chooses to supply volunteer drivers. If MEOC chose to do this one night a week, it would likely involve four additional hours of a dispatcher's time, or about 200 hours per year. This cost is estimated to be about \$4,000 per year. It is proposed that this type of program be folded into the existing volunteer program (funded through New Freedom), if it is chosen for implementation.

### *Ridership*

- If two volunteers worked one evening per week, each transporting four people (eight one-way passenger trips for each volunteer), then the annual ridership would be about 800 trips per year.

### *Implementation*

- This project is scheduled for implementation in FY 2013.

## Improved Scheduling and Routing Infrastructure

MEOC Transit has been approved to procure Automatic Vehicle Location (AVL) technology and Mobile Data Computers (MDCs). This technology will greatly assist the dispatchers in efficiently scheduling trips, will improve the accuracy of operating data, and eliminate the need for paper manifests. This technology is being purchased with American Recovery and Reinvestment Act funds. While this project did not stem from the TDP alternatives, it is an important part of MEOC Transit's six-year plan.

This technology upgrade will provide MEOC dispatchers with more accurate data with regard to vehicle locations. This information should allow for more flexibility to add trips to the schedule, offering more options for general public demand response transportation in the region. Additional trips based on real-time AVL information will improve the service productivity and will also allow MEOC Transit to track its performance measures more accurately, particularly on-time performance.

### *Expenses and Revenues*

The expenses and revenues are not detailed for this project, as the infrastructure has already been purchased.

### *Implementation*

MEOC Transit is implementing this improvement in FY 2012.

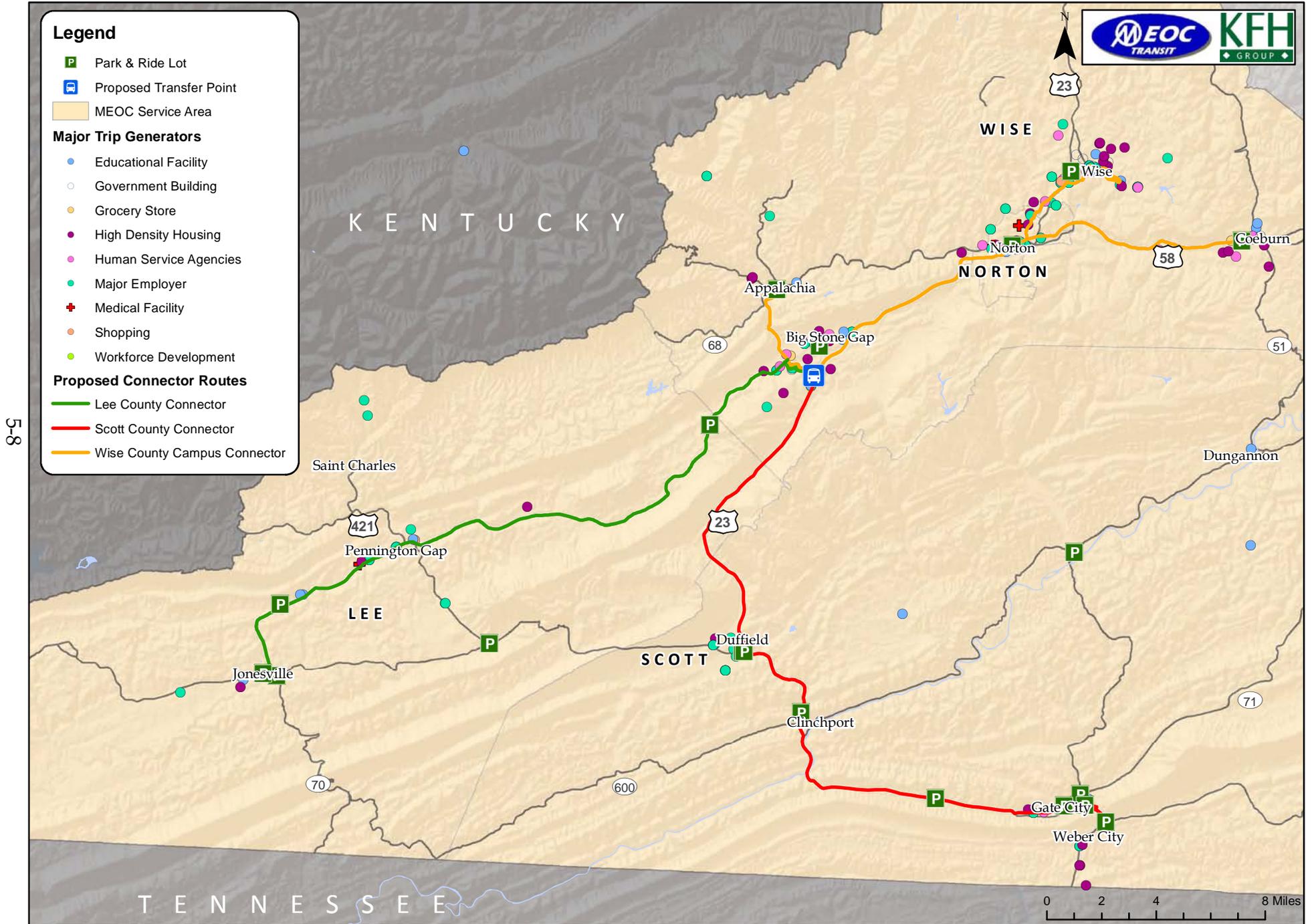
## VISION PROJECTS

The vision projects included in the TDP represent more ambitious and long-term actions for MEOC. Though not set to specific fiscal years, the projects are phased in a logical order of expansion. Due to the undetermined timeline, all phases of the vision projects reflect FY 2012 budget cost levels of \$30.94 per service hour.

### County Connectors

The focus of this project is to develop a basic network of deviated fixed-route services in the region that connect the major population centers as well as providing connections to Mountain Empire Community College and the UVA-Wise. This proposal is comprised of three deviated fixed routes -- one originating in each county. It is proposed that the routes meet at a transfer location in Big Stone Gap, either at the Walmart or at the Community College, to provide regional connectivity. A map of these proposed routes is provided as Figure 5-1.

Figure 5-1: Proposed Connector Routes



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Each of the three routes is described below. It should be noted that these routes could be implemented independent of one another, which may make sense given that there is likely more demand in Wise County and the City of Norton and potentially more funding partners. These connectors could also be coupled with the Regional Connection Service (highlighted below), which could possibly offset some of the local match requirement.

### *Wise County Campus Connector*

The focus of the Wise County Campus Connector is to connect the major communities in Wise County, with a focus on the two college campuses (UVA-Wise and Mountain Empire Community College). This connector would be a deviated fixed-route and would originate in Coeburn, then travel to Wise, Norton, Big Stone Gap, and Appalachia. There would be fixed stops at key locations in each of the towns, with a little extra time in the schedule added for deviations. It is proposed that the fixed stops also include the park and ride lots that were identified by the LENOWISCO Planning District Commission (one in each town, generally located adjacent to shopping opportunities). The one-way mileage for this route is 35 miles and the round trip mileage is 70 miles. Three round trips are proposed each service day, to coincide with convenient campus arrival and departure times, to the extent possible.

In addition to providing access to educational opportunities, this route will also serve to connect the major population centers within Wise County, allowing greater access to the governmental services provided in Wise (Health Department, Courthouse) and the shopping opportunities in Norton and Big Stone Gap. The route could also serve the VA Clinic in Norton.

MEOC Transit may be able to manipulate some of its existing demand-response riders onto this route, as well as feeding it from the outlying areas to reduce mileage on the demand-response trips.

### *Expenses and Funding Sources*

- **Capital:** One vehicle would be needed for this service. A 19-passenger body-on-chassis vehicle with a lift and sign capabilities is about \$56,000. Bus stop signs for the major time points would be needed. Fifteen or so signs would cost about \$1,500.
- **Operating:** If one vehicle operated 11 hours per weekday (7:00 a.m. to 6:00 p.m., 255 days), the total annual revenue service hours would be 2,805. The fully allocated annual operating cost would be about \$86,800 annually (FY12), resulting in a net deficit of about \$ 84,200 annually.
- **Funding:** It is proposed that the operating costs associated with this route be funded through the Federal Section 5311 program (50%), with the local match

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required for this route funded through a partnership arrangement among the towns served (Coeburn, Wise, Big Stone Gap, Appalachia); Mountain Empire Community College; UVA-Wise; and Wise County. There may also be an opportunity to access funding through Greyhound's Rural Feeder Program, which is more fully described below, associated with the Regional Connection proposal. The capital costs are proposed to be funded 80% federal, 10% state, and 10% local.

### *Ridership*

- It is estimated that this route could provide between three and four passenger trips per revenue hour. This estimate is based on the experiences of Four County Transit (3.24 trips per revenue hour) and District 3 Transit (4.44 trips per revenue hour). Both of these systems operate deviated fixed routes, though their population bases are higher. If the route generates three passenger trips per revenue hour, the annual ridership would be just over 8,400 passenger trips.

### *Lee County Connector*

The focus of this project is to connect communities in Lee County to one another and to Mountain Empire Community College in Big Stone Gap. Riders could then transfer to the Wise County Campus Connector if they needed to go on to Norton, Wise, or UVA-Wise. As with the previously described connector, there would be fixed stops at key locations in Jonesville and Pennington Gap, with a little extra time in the schedule added for deviations. It is proposed that the fixed stops also include the park and ride lots that were identified by the LENOWISCO Planning District Commission (one in each town, generally located adjacent to shopping opportunities). The one-way route mileage for this route is 28.6 and the round-trip mileage is 57.2. As with the previous Wise County Connector, three round trips are proposed each service day, to coincide with campus schedules and transfer opportunities, as is feasible.

MEOC Transit may be able to manipulate some of its existing demand-response riders onto this route, as well as feeding it from the outlying areas to reduce mileage on its demand-response services.

### *Expenses and Funding Sources*

- **Capital:** One vehicle would be needed for this service. A 19-passenger body-on-chassis vehicle with a lift and sign capabilities is about \$56,000. Bus stop signs for the major time points would be needed. Fifteen or so signs would cost about \$1,500.

- **Operating:** If one vehicle operated 11 hours per weekday (7:00 a.m. to 6:00 p.m., 255 days), the total annual revenue service hours would be 2,805. The fully allocated annual operating cost would be about \$86,800 annually, resulting in a net deficit of about \$84,200 annually.
- **Funding:** It is proposed that the operating costs associated with this route be funded through the Federal Section 5311 program (50%), with the local match required for this route funded through a partnership arrangement among the towns served (Jonesville, Pennington Gap); Mountain Empire Community College; and Lee County. There may also be an opportunity to access funding through Greyhound's Rural Feeder Program, which is more fully described under Regional Connectivity project. The capital costs are proposed to be funded 80% federal, 10% state, and 10% local.

### *Ridership*

- It is estimated that this route could provide between two and three passenger trips per revenue hour. This estimate is based on the experiences of Four County Transit (3.24 trips per revenue hour) and District 3 Transit (4.44 trips per revenue hour), scaled down to reflect the lower population in Lee County. If the route generates 2.0 passenger trips per revenue hour, the annual ridership would be just over 5,600 passenger trips.

### *Scott County Connector*

The focus of this route is to connect communities in Scott County to one another and to Mountain Empire Community College in Big Stone Gap. Riders could then transfer to the Wise County Campus Connector if they needed to go on to Norton, Wise, or UVA-Wise. As with the previously described connectors, there would be fixed stops at key locations in Weber City, Gate City, Clinchport, and Duffield, with a little extra time in the schedule added for deviations. It is proposed that the fixed stops also include the park and ride lots that were identified by the LENOWISCO Planning District Commission (one in each town, generally located adjacent to shopping opportunities). The one-way route length for this proposed route is 32 miles, resulting in a 64-mile round trip. Three trips per day are also proposed for the Scott County Connector. This route should be considered as a companion to the Regional Connection project, as it would not make sense to implement two deviated fixed routes in the same corridor.

MEOC Transit may be able to manipulate some of its existing demand-response riders onto this route, as well as feeding it from the outlying areas to reduce mileage on the demand-response trips.

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### *Expenses and Funding Sources*

- **Capital:** One vehicle would be needed for this service. A 19-passenger body-on-chassis vehicle with a lift and sign capabilities is about \$56,000. Bus stop signs for the major time points would be needed. Fifteen or so signs would cost about \$1,500.
- **Operating:** If one vehicle operated 11 hours per weekday (7:00 a.m. to 6:00 p.m., 255 days), the total annual revenue service hours would be 2,805. The fully allocated annual operating cost would be just under \$86,800 annually, resulting in a net deficit of about \$82,200 annually.
- **Funding:** It is proposed that the operating costs associated with this route be funded through the Federal Section 5311 program (50%), with the local match required for this route funded through a partnership arrangement among the towns served (Weber City, Gate City, Clinchport, Duffield); Mountain Empire Community College; and Scott County. There may also be an opportunity to access funding through Greyhound's Rural Feeder Program, which is more fully described under the Regional Connection project. The capital costs are proposed to be funded 80% federal, 10% state, and 10% local.

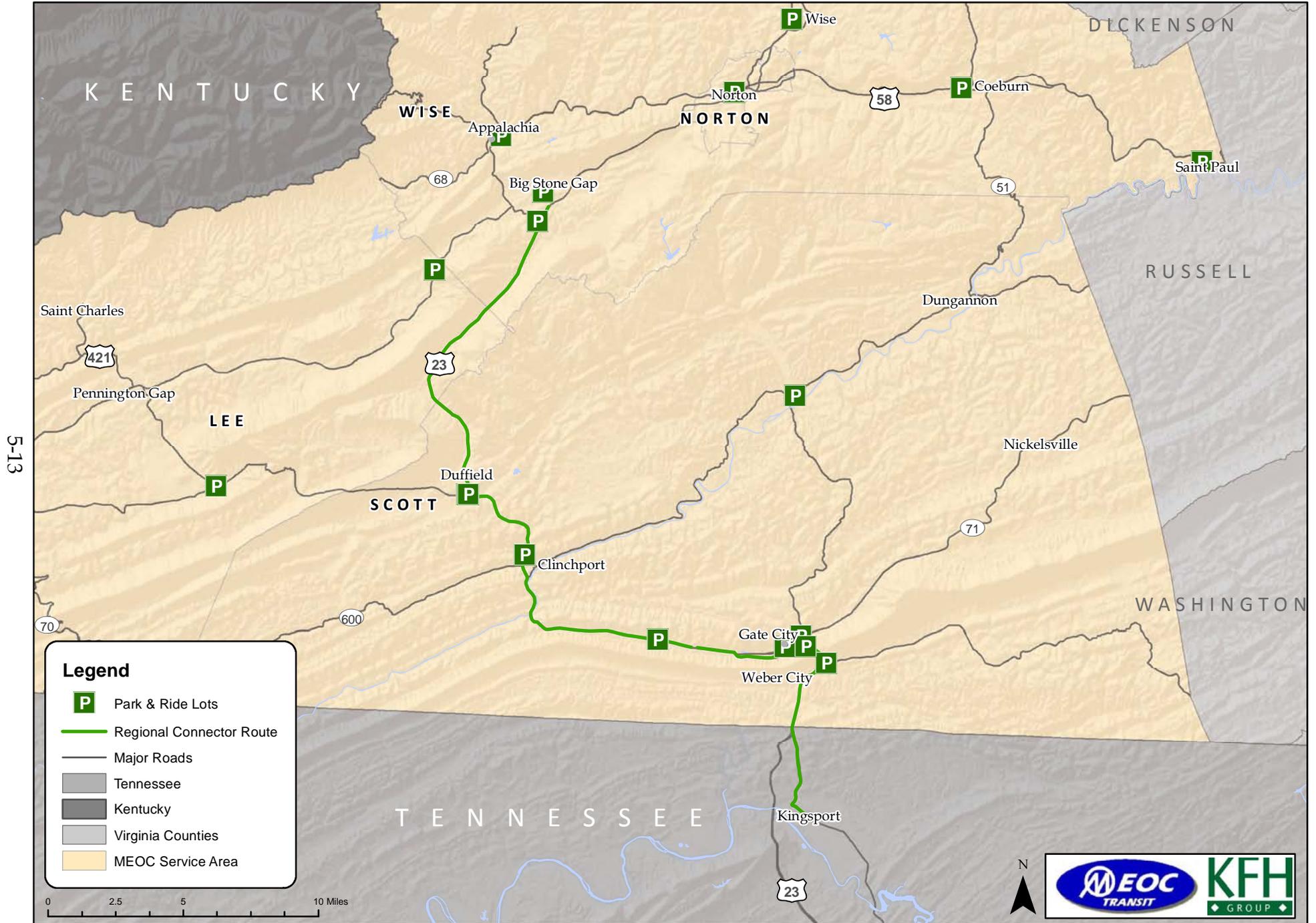
### *Ridership*

- It is estimated that this route could provide between two and three passenger trips per revenue hour. This estimate is based on the experiences of Four County Transit (3.24 trips per revenue hour) and District 3 Transit (4.44 trips per revenue hour), scaled down to reflect the lower population in Scott County. If the route generates 2.2 passenger trips per revenue hour, the annual ridership would be just over 6,000 passenger trips.

### **Regional Connector Service**

From the stakeholders and the surveys, one of the major themes that emerged was that there is a need for regional connectivity, both internal to the LENOWISCO region, and to Kingsport and Johnson City. The focus of this service proposal is to develop a regional service (perhaps in conjunction with the Scott County Connector described above) that would connect the LENOWISCO region to Kingsport, including the Greyhound Station. The route would originate in Big Stone Gap and travel south through the region, following U.S. 23. The park and ride lots in the region would serve as pick-up locations. Figure 5-2 provides a map of this route. Johnson City and the Veteran's Hospital may also be considered, but this would add an additional 23 one-way miles to the route, all of which would be in Tennessee. It is about 38 miles one-way from Big Stone Gap to Kingsport.

Figure 5-2: Proposed Regional Connector Service



5-13

Providing a connection to the Greyhound station would offer a way for area residents to access the intercity bus network and would potentially offer a mechanism to access funding through the Section 5311(f) program, which is designed to subsidize intercity bus service in places where there is need, but not sufficient demand to generate profitability for a private intercity bus carrier. This alternative is particularly attractive for this region, as the Greyhound trip times in Kingsport are compatible with other trip needs as well. The current Greyhound schedule from Kingsport shows that there is a daily bus at 9:10 a.m. (eastbound) and a daily bus at 2:15 p.m. (westbound). This is key to this service becoming viable, as any services funded through the Section 5311(f) program must make a meaningful connection to the intercity bus network -- meaning that the connector services should feed the intercity bus services directly.

Greyhound Lines, Inc. offers a potential partnership opportunity for feeder routes through its "Rural Feeder Service Program." Part of this program includes grant assistance. The program guidance states that, "Greyhound will actively support rural feeder service applicants and grantees. In many cases, a special 2-year demonstration program approved by FTA allows Greyhound to provide a 3<sup>rd</sup> party in-kind contribution as the required local match for a rural feeder service grant. The benefit of this program is that the total net operating costs of the service can be reimbursed by Section 5311(f) funding – the service can be fully supported by Section 5311(f) funds and Greyhound local match."<sup>1</sup> A copy of the Rural Feeder Service Handbook is provided as Appendix E. MEOC Transit should contact Greyhound to see if the company would be interested in pursuing this type of project in Southwest Virginia.

### *Expenses and Funding Sources*

- If two round trips are made each weekday to meet the Greyhound bus in Kingsport, the operating hours would be about 7:00 a.m. to 5:00 p.m., resulting in ten revenue service hours per weekday. With about 255 weekdays in a year, the annual revenue service hours would be 2,550, and the fully allocated operating costs would be about \$79,000 annually. The net deficit would be about \$76,500 annually. The capital cost would include a 19-passenger, lift-equipped, body-on-chassis vehicle with sign capabilities (\$52,000). The suggested funding source for this service is Section 5311(f), coupled with Greyhound's 3<sup>rd</sup> party match.

### *Ridership*

- It is anticipated that this type of service could provide about three passenger trips per revenue hour, for a total of about 7,650 annual passenger trips.

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<sup>1</sup> Greyhound Lines, Inc. Rural Feeder Service Handbook, February 2007.

## **CONTINUED MERTAC INVOLVEMENT**

MERTAC was originally formed to help guide the development of the Mountain Empire Mobility Vision Plan, which serves as the Human Service Public Transit Coordinated Plan for the region. The Council is comprised of a broad range of community transportation stakeholders and also provided guidance for this TDP. It is recommended that MERTAC continue to meet at least on an annual basis, serving as the Transportation Advisory Committee (TAC) for MEOC Transit. The role of the TAC is to help the transit program better meet mobility needs in the community by serving as a link between the citizens served by the various entities and public transportation. A TAC is also a good community outreach tool for transit programs, as having an ongoing dialogue with stakeholders allows for a greater understanding for transit staff of transit needs in the community, as well as greater understanding by the community of the various constraints faced by the transit program. TACs also typically serve in an advisory capacity for TDPs and other transit planning initiatives.



## Chapter 6

# Capital Improvement Plan

### INTRODUCTION

This section of the TDP describes the major capital projects (vehicles, facilities, and equipment) needed to support the provision of MEOC Transit's public transportation services for the six-year period covered by this TDP.

### VEHICLE REPLACEMENT AND EXPANSION PROGRAM

As described in Chapter 5, the MEOC Transit TDP includes both a constrained six-year plan that includes limited expansion of hours, as well as limited expansions of mobility management activities, and a separate phased vision plan that presents the development of regional deviated fixed routes throughout the LENOWISCO region. A separate vehicle replacement and expansion program is provided for each plan (the constrained and vision plans).

#### Constrained Six-Year Plan

The vehicle inventory in Chapter 1 shows that MEOC Transit owns 59 vehicles that are used to support public transportation in the region. The majority of the vehicles are body-on-chassis style, with a few vans, sport utility vehicles, a sedan, and a shop truck. A vehicle inventory with estimated replacement years is provided as Table 6-1. As this table indicates, MEOC Transit owns a number of high mileage vehicles, with 12 due for replacement in FY 2013. This may not be financially feasible, but is presented in keeping with DRPT useful life guidelines. This corresponds to the financially constrained projects and does not include any vehicle expansion. There are seven vehicles marked for retirement that MEOC Transit has already replaced, so the

**Table 6-1: MEOC Transit Vehicle Inventory and Replacement Schedule**

Local Fleet Number	Model Year	Manufacturer	Model and Type	Seating Capacity	Wheel-chair Stations	Condition	Mileage July 2011	Planned Replacement Year
MEOC C	2010	Dodge	Van	6	1	Excellent	6,429	2015
MEOC D	2010	Dodge	Van	6	1	Excellent	707	2015
MEOC E	2010	Dodge	Van	6	1	Excellent	693	2015
MEOC03	2003	Ford	E-450	15	2	Good	207,485	2013
MEOC04	2003	Ford	E-450	15	2	Good	180,911	retire
MEOC07	2004	GMC	2500 HD	3	0	Excellent	34,847	2014
MEOC08	2005	Ford	E-350	14	2	Good	153,392	2013
MEOC09	2005	Ford	E-350	14	2	Good	189,500	2013
MEOC10	2005	Ford	E-350	14	2	Good	170,935	2013
MEOC11	2005	Ford	Escape	5	0	Good	116,801	2013
MEOC12	2005	Ford	E-350	13	2	Good	191,300	2013
MEOC13	2005	Ford	E-350	13	2	Good	172,325	2012
MEOC14	2005	Ford	E-350	13	2	Good	179,326	2012
MEOC15	2006	Ford	E-350	13	2	Good	106,568	2013
MEOC16	2006	Ford	E-350	13	2	Good	154,502	2012
MEOC17	2006	Ford	E-350	13	2	Good	141,157	2012
MEOC18	2007	Ford	Taurus	5	0	Good	70,509	2014
MEOC19	2007	Ford	Explorer	5	0	Good	113,503	2014
MEOC20	2007	Ford	Explorer	5	0	Good	107,099	2014
MEOC21	2007	Ford	E-350	12	2	Good	139,455	2014
MEOC22	2007	Ford	E-350	12	2	Good	120,243	2014
MEOC23	2007	Ford	E-350	12	2	Good	97,043	2014
MEOC24	2007	Ford	E-350	12	2	Good	141,777	2013
MEOC26	2008	Ford	Explorer	5	0	Good	58,431	2015
MEOC27	2008	Ford	E-350	12	2	Good	134,172	2014
MEOC28	2008	Ford	E-350	12	2	Good	110,688	2014
MEOC29	2008	Ford	E-350	12	2	Good	112,500	2014
MEOC30	2008	Ford	E-350	12	2	Good	94,672	2015
MEOC31	2008	Ford	E-350	12	2	Excellent	69,875	2015
MEOC32	2009	Ford	E-350	20	2	Excellent	56,498	2016
MEOC33	2009	Ford	E-350	13	2	Excellent	58,231	2016
MEOC34	2009	Ford	E-350	13	2	Excellent	50,037	2016
MEOC35	2009	Ford	E-350	13	2	Excellent	76,710	2016
MEOC36	2009	Ford	E-350	13	2	Excellent	51,524	2016
MEOC37	2009	Ford	E-350	13	2	Excellent	54,214	2016
MEOC38	2010	Ford	E-350	16	2	Excellent	31,459	2017
MEOC39	2010	Ford	E-350	16	2	Excellent	20,746	2017
MEOC40	2010	Ford	E-350	16	2	Excellent	31,139	2017
MEOC41	2010	Ford	E-350	16	2	Excellent	29,022	2017
MEOC42	2010	Ford	E-350	16	2	Excellent	27,594	2017
MEOC43	2011	Ford	E-350	13	2	Excellent	24,741	2018
MEOC44	2011	Ford	E-350	13	2	Excellent	19,553	2018
MEOC45	2011	Ford	E-350	13	2	Excellent	18,822	2018
MEOC46	2011	Ford	E-350	13	2	Good	183,324	2013
MEOC47	2011	Ford	E-350	13	2	Excellent	21,180	2018
MEOC48	2011	Ford	E-350	13	2	Excellent	15,017	2018

**Table 6-1: MEOC Transit Vehicle Inventory and Replacement Schedule**

<b>Local Fleet Number</b>	<b>Model Year</b>	<b>Manufacturer</b>	<b>Model and Type</b>	<b>Seating Capacity</b>	<b>Wheel-chair Stations</b>	<b>Condition</b>	<b>Mileage July 2011</b>	<b>Planned Replacement Year</b>
MEOC 52	2000	Ford	E-450	20	2	Good	190,555	2013
MEOC57	2000	Ford	E-450	16	2	Fair	167,316	2014
MEOC65	2001	Ford	E-450	16	2	Good	171,570	2012
MEOC68	2002	Ford	E-350	16	2	Good	196,145	retire
MEOC69	2002	Ford	E-350	16	2	Good	184,989	retire
MEOC70	2002	Ford	E-350	16	2	Fair	193,683	retire
MEOC71	2002	Ford	E-350	16	2	Good	187,716	2013
MEOC72	2002	Ford	E-350	16	2	Good	140,136	2013
MEOC73	2002	Ford	E-350	16	2	Good	189,255	2013
MEOC74	2002	Ford	E-350	16	2	Good	139,686	2013
MEOC75	2002	Ford	E-450	16	2	Good	170,567	retire
MEOC76	2002	Ford	E-350	20	2	Fair	194,079	retire
MEOC81	2002	Ford	E-350	20	2	Poor	226,596	retire

total fleet will actually be reduced over the life of the plan. Table 6-2 provides the vehicle replacement program by year.

### **Vision Plan**

The multi-phase expansion of regional services calls for four expansion vehicles as shown in Table 6-3. These vehicles are assumed to be body-on-chassis vehicles similar to the current MEOC Transit vehicles, but equipped with security cameras and head signs to show the destination.

## **TECHNOLOGY**

As discussed in Chapter 5, MEOC Transit is implementing AVL and MDC technologies. Some on-going technology expenses are included in the Financial Plan for capital items (Chapter 7) to support this technology as well as to keep up with ongoing computer replacement needs. It is also recommended that future vehicles be equipped with video cameras.

## **PASSENGER FACILITIES AND INFORMATION**

### **Vision Plan**

The vision plan includes regional deviated fixed routes. To support these projects, MEOC Transit will need to purchase and install bus stop signs. It is estimated that about 15 or so signs will be needed for each of the routes. Shelters are also recommended for Walmart (Big Stone Gap and Norton), MECC, and UVA-Wise. These projects are included in the Financial Plan (see Chapter 7).

## **OTHER FACILITIES**

### **Constrained and Vision Plans**

MEOC Transit performs in-house maintenance. As such, they need ongoing replacement and upgrading of maintenance equipment and tools. Modest budget amounts have been included in each year's Capital budget for shop equipment (see Chapter 7).

**Table 6-2**  
**MEOC Transit Vehicle Replacement Program- Constrained Plan**

Vehicle Type	Number in Current Fleet													Number in FY 2017 Fleet	
		FY 2012			FY 2013		FY 2014		FY 2015		FY 2016		FY2017		
		Repl.	Ret.	Exp.	Repl.	Exp.	Repl.	Exp.	Repl.	Exp.	Repl.	Exp.	Repl.	Exp.	
Light Transit Vehicles	50	5	7	0	12	0	9	0	2	0	6	0	5	0	43
Vans	3	0	0	0	0	0	0	0	3	0	0	0	0	0	3
Sedans/SUVS	5	0	0	0	0	0	3	0	1	0	0	0	0	0	5
Shop Truck	1	0	0	0	0	0	1	0	0	0	0	0	0	0	1
Number Vehicles Procured		5	7	0	12	0	13	0	6	0	6	0	5	0	
Fleet Size	59														52

**Table 6-3**  
**MEOC Transit Vehicle Replacement and Expansion Program- Vision Plan**

Vehicle Type	Number in Current Fleet													Number in FY 2017 Fleet	
		FY 2012			FY 2013		Phase 1		Phase 2		Phase 3				
		Repl.	Ret.	Exp.	Repl.	Exp.	Repl.	Exp.	Repl.	Exp.	Repl.	Exp.	Repl.	Exp.	
Light Transit Vehicles	50	5	7	0	12	0	9	2	2	1	6	1	5	0	47
Vans	3	0	0	0	0	0	0	0	3	0	0	0	0	0	3
Sedans/SUVS	5	0	0	0	0	0	3	0	1	0	0	0	0	0	5
Shop Truck	1	0	0	0	0	0	1	0	0	0	0	0	0	0	1
Number Vehicles Procured		5	7	0	12	0	13	2	6	1	6	1	5	0	
Fleet Size	59														56



# Chapter 7

## Financial Plan

### INTRODUCTION

This chapter provides a financial plan for funding existing and proposed transit services in the MEOC Transit service area for the six-year planning period. It should be noted that there are currently a number of unknown factors that will likely affect transit finance in this area over the course of this planning period, including the reauthorization of the federal transportation program, the future economic condition of the region and the Commonwealth of Virginia, and the availability of local match for the federal and state funds. The budgets were constructed with the information that is currently available, including the VDRPT Statewide Transportation Improvement Program, the FY 2012 DRPT grant, and MEOC Transit's FY 2012 transportation budget. The funding ratios are based on historical funding ratios for rural transit programs in the Commonwealth. The exact revenue available each year will be dependent upon the availability of funding from the federal Section 5311 program, the Commonwealth Transportation Fund, and local sources.

### OPERATING EXPENSES AND FUNDING SOURCES

Table 7-1 provides a financial plan for the operation of MEOC Transit's public transportation services under the financially-constrained six-year plan, and Table 7-2 presents the financial plan for operations under the vision plan. As discussed in the Operations Plan (Chapter 5), the financially constrained plan projects are modest in scope, reflecting the current economic climate and funding partnerships that provide the local match. As Table 7-1 indicates, the annual operating expenses for MEOC Transit are projected to grow from about \$1,458,700 to \$1,709,197 over the six-year planning period, including inflation at 3% per year, and a limited expansion in service hours and mobility management activities.

**Table 7-1: MEOC TDP Financial Plan for Operations- Financially Constrained**

<b>Projects (1)</b>	<b>FY 2012</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017</b>
<i>Current Annual Revenue Service Hours</i>	46,654	46,654	46,654	46,654	46,654	46,654
Senior Transportation Program	500	500	500	500	500	500
Saturday Shopper Shuttle Service		384	384	384	384	384
<b>Total Transit Service Hours</b>	<b>47,154</b>	<b>47,538</b>	<b>47,538</b>	<b>47,538</b>	<b>47,538</b>	<b>47,538</b>
<i>Projected Operating Expenses</i>						
Cost Per Revenue Hour	\$ 30.93	\$ 31.94	\$ 32.90	\$ 33.89	\$ 34.91	\$ 35.95
MEOC Transit Operating Expenses- Current Level of Service (3)	\$ 1,443,700	\$ 1,487,011	\$ 1,531,621	\$ 1,577,570	\$ 1,624,897	\$ 1,673,644
Senior Transportation Program	\$ 15,000	\$ 15,450	\$ 15,914	\$ 16,391	\$ 16,883	\$ 17,389
Saturday Shopper Shuttle Service		\$ 12,138	\$ 12,502	\$ 12,877	\$ 13,264	\$ 13,662
Broaden Volunteer Driver Program		\$ 4,000	\$ 4,120	\$ 4,244	\$ 4,371	\$ 4,502
Broaden Mobility Management Program		\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Projected Operating Expenses</b>	<b>\$ 1,458,700</b>	<b>\$ 1,518,599</b>	<b>\$ 1,564,157</b>	<b>\$ 1,611,082</b>	<b>\$ 1,659,414</b>	<b>\$ 1,709,197</b>

Notes:  
 (1) Implementation years/phases are estimated. Implementation will be based on funding availability.  
 (2) Assumes 3% rate of inflation each year.

**Table 7-1: MEOC TDP Financial Plan for Operations- Financially Constrained (continued)**

<b>Anticipated Funding Sources</b>	<b>FY 2012</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017</b>
<i>Federal</i>						
Section 5311	\$ 698,856	\$ 713,642	\$ 735,052	\$ 757,103	\$ 779,816	\$ 803,211
New Freedom- Mobility Manager	\$ 44,424	\$ 45,757	\$ 47,129	\$ 48,543	\$ 50,000	\$ 51,500
New Freedom- Passenger Attendants	\$ 25,580	\$ 26,347	\$ 27,138	\$ 27,952	\$ 28,791	\$ 29,654
Subtotal, Federal	\$ 768,860	\$ 785,746	\$ 809,319	\$ 833,598	\$ 858,606	\$ 884,364
<i>State</i>						
Formula Assistance	\$ 180,954	\$ 220,956	\$ 227,585	\$ 234,412	\$ 241,445	\$ 248,688
Senior Transportation Grant	\$ 13,300	\$ 13,699	\$ 14,110	\$ 14,533	\$ 14,969	\$ 15,418
Subtotal, State	\$ 194,254	\$ 234,655	\$ 241,695	\$ 248,946	\$ 256,414	\$ 264,106
<i>Local</i>						
Local Contribution	\$ 449,598	\$ 452,640	\$ 466,219	\$ 480,205	\$ 494,612	\$ 509,450
Revenues- Farebox (1)	\$ 45,988	\$ 45,558	\$ 46,925	\$ 48,332	\$ 49,782	\$ 51,276
Total Local	\$ 495,586	\$ 498,198	\$ 513,144	\$ 528,538	\$ 544,394	\$ 560,726
<b>Total Projected/Proposed Operating Funds/Revenues</b>	<b>\$ 1,458,700</b>	<b>\$ 1,518,599</b>	<b>\$ 1,564,157</b>	<b>\$ 1,611,082</b>	<b>\$ 1,659,414</b>	<b>\$ 1,709,197</b>

Notes:

(1) Maintained from FY 2012 at 3%.

**Table 7-2: MEOC TDP Financial Plan for Operations -- Vision**

<b>Projects (1)</b>	<b>FY 2012</b>	<b>FY2013</b>	<b>Phase 1</b>	<b>Phase 2</b>	<b>Phase 3</b>	
<i>Current Annual Revenue Hours and Constrained Plan</i>	47,154	47,538	47,538	47,538	47,538	47,538
Wise County Connector			2,805	2,805	2,805	2,805
Lee County Connector				2,805	2,805	2,805
Scott County Connector					2,805	2,805
Regional Connector Service			2,805	2805	2,805	2,805
<b>Total Transit Service Hours</b>	<b>47,154</b>	<b>47,538</b>	<b>53,148</b>	<b>55,953</b>	<b>58,758</b>	<b>58,758</b>
<i>Projected Operating Expenses</i>						
Current Service and Constrained Plan (2)	\$ 1,458,700	\$ 1,518,599	\$ 1,564,157	\$ 1,611,082	\$ 1,659,414	\$ 1,709,197
Wise County Connector			\$ 86,800	\$ 86,800	\$ 86,800	\$ 86,800
Lee County Connector				\$ 86,800	\$ 86,800	\$ 86,800
Scott County Connector				\$ 86,800	\$ 86,800	\$ 86,800
Regional Connector Service				\$ 79,000	\$ 79,000	\$ 79,000
<b>Total Projected Operating Expenses</b>	<b>\$ 1,458,700</b>	<b>\$ 1,518,599</b>	<b>\$ 1,650,957</b>	<b>\$ 1,950,482</b>	<b>\$ 1,998,814</b>	<b>\$ 2,048,597</b>

Notes:

(1) Implementation years/phases are estimated. Implementation will be based on funding availability.

(2) Assumes constant FY 2012 dollars for Phases 1-3, due to undetermined timeline.

Table 7-2: MEOC TDP Financial Plan for Operations- Vision (continued)

Anticipated Funding Sources	FY 2012	FY2013	Phase 1	Phase 2	Phase 3	
Section 5311	\$ 698,856	\$ 713,642	\$ 777,149	\$ 921,712	\$ 944,425	\$ 967,820
New Freedom- Mobility Manager	\$ 44,424	\$ 45,757	\$ 47,129	\$ 48,543	\$ 50,000	\$ 51,500
New Freedom- Passenger Attendants	\$ 25,580	\$ 26,347	\$ 27,138	\$ 27,952	\$ 28,791	\$ 29,654
Subtotal, Federal	\$ 768,860	\$ 785,746	\$ 851,417	\$ 998,207	\$ 1,023,215	\$ 1,048,973
<i>State</i>						
Formula Assistance	\$ 180,954	\$ 220,956	\$ 240,214	\$ 283,795	\$ 290,827	\$ 298,071
Senior Transportation Grant	\$ 13,300	\$ 13,699	\$ 14,110	\$ 14,533	\$ 14,969	\$ 15,418
Subtotal, State	\$ 194,254	\$ 234,655	\$ 254,324	\$ 298,328	\$ 305,797	\$ 313,489
<i>Local</i>						
Local Contribution	\$ 449,598	\$ 452,640	\$ 495,687	\$ 595,432	\$ 609,838	\$ 624,676
Revenues- Farebox (1)	\$ 45,988	\$ 45,558	\$ 49,529	\$ 58,514	\$ 59,964	\$ 61,458
Total Local	\$ 495,586	\$ 498,198	\$ 545,216	\$ 653,946	\$ 669,802	\$ 686,134
<b>Total Projected/Proposed Operating Funds/Revenues</b>	<b>\$ 1,458,700</b>	<b>\$ 1,518,599</b>	<b>\$ 1,650,957</b>	<b>\$ 1,950,482</b>	<b>\$ 1,998,814</b>	<b>\$ 2,048,597</b>

Notes:

(1) Maintained from FY 2012 at 3%.

Table 7-2 details the projects in the vision plan, which is not constrained to reflect the availability of funding. If one assumes that the full vision plan is implemented in addition to the constrained plan, the total annual budget for regional transit service would grow from \$1,458,700 (FY 2012) for the current services to a total of \$2,040,597 (with vision projects expressed in FY 2012 dollars). The vision plan projects are presented as three phases, corresponding with incrementally introducing deviated fixed-route corridor service in each county. These costs are calculated in constant FY 2012 dollars due to the undetermined timeline associated with each project. It should be noted that the corridor services could be implemented incrementally over a period of time, or in response to the availability of local match.

Pending the reauthorization of federal transportation programs, the funding level or structure of future federal transit funds is not known. It should be noted that they have generally risen with each successive multi-year transportation funding reauthorization, and that the existing reauthorization proposals generally keep the structure of the current Section 5311 program. In this financial plan, it is assumed that the availability of federal Section 5311 and Commonwealth of Virginia transit funds will increase at the same rate of inflation as the expenses. A 3% annual rate of inflation has been applied. State funds are also included, using the typical current funding level, which is about 15% of the net deficit.

## VEHICLE PURCHASE EXPENSES AND FUNDING SOURCES

Table 7-3 presents the vehicle replacement financial plan for the six-year period under the constrained plan, and Table 7-4 presents a financial plan for the expansion vehicles that would be required under the vision plan. The financially constrained projects do not increase the size of the fleet. The fleet is actually reduced over the period, as MEOC Transit currently has seven vehicles that have already been replaced and are due to be retired. As the table indicates, MEOC Transit's fleet replacement needs are fairly substantial, with 12 vehicles recommended for replacement in FY 2013 and 13 recommended for FY 2014. This replacement schedule may need to shift if funds are not available.

The vision projects require expansion of the active fleet by a total of four vehicles. The funding splits are assumed to be 80% federal, 10% state, and 10% local. For the constrained plan the estimated cost of the vehicles assumes 3% inflation on the FY 2012 estimated prices. In the vision plan, the costs are all based on FY 2012 prices, as the actual time of purchase is not known or predictable.

**Table 7-3: MEOC TDP Financial Plan for Vehicle Replacement and Expansion - Financially Constrained**

<b>Number of Vehicles</b>	<b>FY 2012</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017</b>
Replacement	5	12	13	6	6	5
Expansion	0	0	0	0	0	0
<b>Total Vehicles</b>	<b>5</b>	<b>12</b>	<b>13</b>	<b>6</b>	<b>6</b>	<b>5</b>

*Vehicle Costs*

Replacement	\$ 243,700	\$ 594,460	\$ 587,208	\$ 236,029	\$ 326,172	\$ 292,717
Expansion	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Projected Vehicle Costs</b>	<b>\$ 243,700</b>	<b>\$ 594,460</b>	<b>\$ 587,208</b>	<b>\$ 236,029</b>	<b>\$ 326,172</b>	<b>\$ 292,717</b>

*Anticipated Funding Sources*

Federal	\$ 194,960	\$ 475,568	\$ 469,767	\$ 188,823	\$ 260,938	\$ 234,173
State	\$ 24,370	\$ 59,446	\$ 58,721	\$ 23,603	\$ 32,617	\$ 29,272
Local	\$ 24,370	\$ 59,446	\$ 58,721	\$ 23,603	\$ 32,617	\$ 29,272
<b>Total Vehicle Funding</b>	<b>\$ 243,700</b>	<b>\$ 594,460</b>	<b>\$ 587,208</b>	<b>\$ 236,029</b>	<b>\$ 326,172</b>	<b>\$ 292,717</b>

**Table 7-4: MEOC TDP Financial Plan for Vehicle Expansion - Vision**

<b>Number of Vehicles</b>	<b>FY2012</b>	<b>Phase 1</b>	<b>Phase 2</b>	<b>Phase 3</b>
Expansion	0	2	1	1
<b>Total Vehicles</b>	<b>0</b>	<b>2</b>	<b>1</b>	<b>1</b>

*Vehicle Costs (1)*

Expansion \$	- \$	112,000 \$	56,000 \$	56,000
<b>Total Projected Vehicle Costs \$</b>	<b>- \$</b>	<b>112,000 \$</b>	<b>56,000 \$</b>	<b>56,000</b>

*Anticipated Funding Sources*

Federal \$	- \$	89,600 \$	44,800 \$	44,800
State \$	- \$	11,200 \$	5,600 \$	5,600
Local \$	- \$	11,200 \$	5,600 \$	5,600
<b>Total Vehicle Funding \$</b>	<b>- \$</b>	<b>112,000 \$</b>	<b>56,000 \$</b>	<b>56,000</b>

*Notes:*

(1) Assumes constant FY 2012 dollars due to undetermined timeline.

## **FACILITY IMPROVEMENT EXPENSES AND FUNDING SOURCES**

The constrained financial plan for facilities, equipment, and other capital is provided in Table 7-5, and Table 7-6 presents the vision plan requirements. For MEOC Transit the constrained plan's expenses are associated with technology equipment, such as office computers and technology upgrades that may be required for the AVL and MDC system, as well as ongoing replacement of shop equipment. The vision plan adds bus stop signs and passenger wait shelters, in support of the proposed deviated fixed route corridor services. In both cases these expenses are also assumed to be funded with federal (80%), state (10%), and local (10%) funds.

## **INCLUSION IN THE SIX-YEAR TRANSPORTATION IMPROVEMENT PROGRAM (STIP)**

The projected capital and operating expenses associated with the MEOC Transit constrained TDP need to be included in the Commonwealth's STIP in the year called for in the plan. If there are locally-adopted changes in the TDP that would result in changes in the timing or amount of these anticipated expenditures, those TDP amendments would need to be communicated to DRPT to allow it to update the STIP. TDP amendments could also include shifting projects from the vision plan to the constrained plan, if local match is found – in that case the costs of operations and capital for that phase of the vision plan would need to be recalculated to reflect any inflation or other changes in costs from the FY 2012 base provided in this plan.

**Table 7-5: MEOC TDP Financial Plan for Other Capital- Financially Constrained**

<b>Projects</b>	<b>FY 2012</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017</b>						
Miscellaneous Technology Equipment	\$	5,000	\$	5,150	\$	5,305	\$	5,464	\$	5,628		
Shop Equipment	\$	10,000	\$	10,300	\$	10,609	\$	10,927	\$	11,255		
<b>Total Projected Non-Vehicle Capital Expenses</b>	\$	-	\$	15,000	\$	15,450	\$	15,914	\$	16,391	\$	16,883
<b>Anticipated Funding Sources</b>												
Federal	\$	-	\$	12,000	\$	12,360	\$	12,731	\$	13,113	\$	13,506
State	\$	-	\$	1,500	\$	1,545	\$	1,591	\$	1,639	\$	1,688
Local	\$	-	\$	1,500	\$	1,545	\$	1,591	\$	1,639	\$	1,688
<b>Total Projected Non-Vehicle Capital Revenue</b>	\$	-	\$	15,000	\$	15,450	\$	15,914	\$	16,391	\$	16,883

**Table 7-6: MEOC TDP Financial Plan for Other Capital- Vision**

<b>Projects</b>	<b>FY 2012</b>	<b>Phase 1</b>	<b>Phase 2</b>	<b>Phase 3</b>
Bus Stop Signs	\$ -	\$ 3,000	\$ 1,500	\$ 1,500
Passenger Wait Shelters		\$ 20,000	\$ 10,000	\$ 10,000
<b>Total Projected Non-Vehicle Capital Expenses</b>	<b>\$ -</b>	<b>\$ 23,000</b>	<b>\$ 11,500</b>	<b>\$ 11,500</b>
<b>Anticipated Funding Sources</b>				
Federal	\$ -	\$ 18,400	\$ 9,200	\$ 9,200
State	\$ -	\$ 3,450	\$ 1,150	\$ 1,150
Local	\$ -	\$ 1,150	\$ 1,150	\$ 1,150
<b>Total Projected Non-Vehicle Capital Revenue</b>	<b>\$ -</b>	<b>\$ 23,000</b>	<b>\$ 11,500</b>	<b>\$ 11,500</b>

Notes:

(1) Assumes constant FY 2012 dollars due to undetermined timeline.



## Chapter 8

# TDP Monitoring and Evaluation

### INTRODUCTION

The MEOC Transit TDP has included the following tasks:

- Detailed documentation and analysis of current public transportation services;
- A peer review showing the service and financial characteristics of transit programs similar in scope to MEOC Transit;
- A transit needs analysis, including demographic analysis, land use analysis, a review of relevant planning documents, stakeholder interviews, community surveys, and rider surveys;
- The development of financially constrained and vision alternatives;
- The development of recommendations for transit improvements for inclusion in the TDP, with improvements tentatively identified by year or phase; and
- Financial plans highlighting the funding requirements and potential funding sources for the recommended transit improvements in the region.

The financially constrained and vision projects included in this TDP are attached to particular years and phases, but all of the projects are contingent on future funding. Segmenting the TDP into the two categories will hopefully allow MEOC Transit greater flexibility to adapt and update its transit services during the six-year planning period.

## COORDINATION WITH OTHER PLANS AND PROGRAMS

The study team for this TDP consulted a number of relevant plans and programs during the development of the six-year plan. The following documents were reviewed, with their associated recommendations incorporated where appropriate:

- The MERTAC Mobility Vision Plan
- LENOWISCO Planning District Commission 2035 Rural Long Range Transportation Plan
- Lee County Comprehensive Plan
- Scott County Comprehensive Plan
- Wise County Comprehensive Plan
- City of Norton Comprehensive Plan
- Statewide Transportation Improvement Plan

The projects included in this TDP should be reflected in these area plans and studies as they are updated. The continued involvement of MERTAC is recommended as a means to provide a mechanism to ensure that the projects incorporated within this TDP are included in internal and external plans in the LENOWISCO region and statewide (where appropriate). As mentioned in previous chapters, the recommended projects from this TDP will need to be incorporated into the public transportation element of the DRPT State Transportation Improvement Program (STIP).

## SERVICE PERFORMANCE MONITORING

A number of proposed service standards were developed for MEOC Transit (Chapter 2) for this TDP. The purpose of including these standards was to develop some objective measurements of performance that MEOC Transit can use to monitor transit services in the future and make objective, performance-based service planning decisions. It is recommended that MEOC Transit monitor performance quarterly, comparing performance to the same quarter of the previous year (to account for seasonal variations), and comparing trends in monthly data.

## ANNUAL TDP MONITORING

For this TDP it is particularly important that MEOC Transit monitor the progress each fiscal year. Projects may also need to shift from one year to the next if funding is not available. Alternatively, if the reauthorization of the federal transportation funding program is more generous than SAFETEA-LU (the current federal transportation

authorizing legislation), projects could potentially be implemented ahead of schedule or additional projects could be added to the TDP.

DRPT guidance currently requires that grantees submit an annual TDP update letter that describes the progress that has been made toward implementing the adopted TDP. This letter should include the following elements:

- Operating statistics for the 12-month period, including the ridership attributed to any new proposals implemented as a result of the TDP.
- Any changes to system goals, objectives, or service standards.
- A description of any service or facility improvements that have been implemented during the 12-month period.
- An update to the TDP recommendations to identify additional projects, deferment of projects to later years, or elimination of projects.
- Updates to the financial plan to more accurately reflect current funding scenarios.

It is proposed that MERTAC and MEOC Transit staff review system performance, compare performance to the goals and objectives, determine any needed changes in the goals and objectives, review proposed TDP projects and the availability of resources to accomplish them, and recommend any needed changes in either the goals and objectives or the TDP to the MEOC Board of Directors for inclusion in the annual TDP update letter described above.



# **APPENDIX A**

## **On-Board Rider Survey**





# MOUNTAIN EMPIRE OLDER CITIZENS (MEOC) TRANSIT ON-BOARD RIDER SURVEY

MEOC Transit is conducting a Transit Development Plan (TDP), which is a five-year plan for the transportation program. As part of our planning process, it is important for us to understand the needs of our riders. Please help us by completing this survey and returning it to the driver.

- 
1. In what city, town, or community do you live? \_\_\_\_\_
  2. What is the purpose of your MEOC Transit trip today? You may check more than one.
 

<input type="checkbox"/> (1) Work	<input type="checkbox"/> (4) Social/ Recreation	<input type="checkbox"/> (7) Errands/Personal Business
<input type="checkbox"/> (2) Shopping	<input type="checkbox"/> (5) Medical	<input type="checkbox"/> (8) Attend Senior Center
<input type="checkbox"/> (3) School	<input type="checkbox"/> (6) Government Service Agency	<input type="checkbox"/> (9) Attend Senior Meal Site
<input type="checkbox"/> (10) Other: _____		
  3. How often do you use the MEOC Transit service?
 

<input type="checkbox"/> (1) 4 times per week or more	<input type="checkbox"/> (3) Once a week	<input type="checkbox"/> (5) Once a month
<input type="checkbox"/> (2) 2-3 times per week	<input type="checkbox"/> (4) 2-3 times per month	<input type="checkbox"/> (6) Less than once a month
  4. How did you find out about the MEOC Transit service?
 

<input type="checkbox"/> (1) Not sure, have ridden for a long time	<input type="checkbox"/> (5) Other Agency Staff
<input type="checkbox"/> (2) Asked someone who uses the service	<input type="checkbox"/> (6) Brochure
<input type="checkbox"/> (3) MEOC Website	<input type="checkbox"/> (7) Asked Driver
<input type="checkbox"/> (4) Senior Center Staff	<input type="checkbox"/> (8) Telephoned MEOC
<input type="checkbox"/> (9) Other: _____	
  5. How long have you been using MEOC Transit?
 

<input type="checkbox"/> (1) Six months or less	<input type="checkbox"/> (4) Between 1 and 2 years
<input type="checkbox"/> (2) Between six months and one year	<input type="checkbox"/> (5) More than 2 years
<input type="checkbox"/> (3) About one year	<input type="checkbox"/> (6) More than 5 years
  6. Including yourself, how many people live in your home? \_\_\_\_\_
  7. How many vehicles (cars, trucks, motorcycles) are available in the household where you live?
 

<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4 or more
----------------------------	----------------------------	----------------------------	----------------------------	------------------------------------
  8. Was a car available today for this trip?  Yes  No
  9. Do you have a driver's license?  Yes  No
  10. Do you have Internet access?  Yes  No

Over, please ⇒

11. Please rate your satisfaction with MEOC Transit services in the following areas:

	Very Satisfied (1)	Satisfied (2)	Un-satisfied (3)	Very Un-satisfied (4)
The trip scheduling process	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Telephone customer service	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
On-time performance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Days of service	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hours of service	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cost of the fare	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cleanliness of the vehicles	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Driver courtesy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Availability of information	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Safety and security	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Usefulness of MEOC website	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

12. Are there places in the region where you would like to go on a regular basis, but you cannot get to because there is not a public transportation service available for the trip?

No     Yes    If yes, from where to where? \_\_\_\_\_

13. If MEOC Transit were to make service improvements, please indicate which ones would be the **most** important to you (**PLEASE CHECK ONLY 3**):

- (1) Service available earlier in the morning
- (2) Service available later in the afternoon
- (3) More flexibility in scheduling trips
- (4) Regularly scheduled service between towns in Lee, Scott, and Wise Counties
- (5) Regularly scheduled service to Kingsport, TN
- (6) Regularly scheduled service to Johnson City, TN
- (7) Saturday services
- (8) Sunday services

14. What do you like best about MEOC Transit? \_\_\_\_\_

15. What do you like least about MEOC Transit? \_\_\_\_\_

16. Please provide any comments you may have concerning public transportation in the region.

*Thank you!*

## **APPENDIX B**

### **Transit Dependence Index**



## Appendix B: Transit Dependence Index (TDI)

Public transportation needs are defined in part by identifying the relative size and location of those segments within the general population most likely to be dependent upon some form of public transit services. Once the location of these transit dependent populations is determined and analyzed, it becomes possible to evaluate the extent to which current services meet the needs of community residents. To identify the areas of highest transportation need, the TDI was calculated for each of the Census Block Groups in the MEOC Transit study area.

The TDI is an aggregate measure that utilizes recent data from the American Community Survey (ACS) five-year estimates and the United State Decennial Census to display relative concentrations of transit dependent populations within a study area. The following section describes the formula used to compute the TDI for each of these block groups, as well as a brief description of the six factors used in its calculation.

$$\text{TDI} = \text{PD} * (\text{AVNV} + \text{AVE} + \text{AVY} + \text{AVD} + \text{AVBP})$$

- PD: population per square mile
- AVNV: amount of vulnerability based on presence of no vehicle households
- AVE: amount of vulnerability based on presence of elderly adult population
- AVY: amount of vulnerability based on presence of youth population
- AVD: amount of vulnerability based on presence of disabled population
- AVBP: amount of vulnerability based on presence of below-poverty population

The input values for the population density (PD) factor follow the previously mentioned classification scheme of the stand-alone population density analysis. A block group with a population density greater than 2,000 persons per square mile is presented a value of four, while a block group with a population density greater than 1,000 persons per square mile and less than or equal to 2,000 is given a PD factor of three. Continuing in intervals of 500, a block group with a population density greater than 500 and less than or equal to 1,000 persons per square mile is presented a PD factor of two, while a block group with less than or equal to 500 persons per square mile and at least one resident is given a value on one. In the event of a block group having zero residents, that particular block group is presented a value of zero.

The following five independent variables represent specific socioeconomic characteristics of the residents in the study area, which are described in the previous bullets. These five factors are given a value that represents their prevalence in the analyzed block group. For each of the factors, an individual block group comprised of a

number of vulnerable persons or households that is below the average number for all block groups in the study area is presented with a value of one. A value of two is given to a block group where its vulnerable population is greater or equal to the study area average (SAA), but less than one and one-third times the SAA. A block group with a vulnerable population greater or equal to one and one-third the SAA, but less than one and two-thirds the SAA is presented with a value of three. This scoring scheme continues for a block group with a vulnerable population greater than one and two-thirds the SAA, but less than twice the SAA for a block group, which is presented a value of four. Finally, any block group that has a vulnerable population or household population that is more than twice the SAA for a block group is given the highest value of five. Once this process is completed for each of the five socioeconomic characteristics, the factors are plugged into the TDI equation in order to determine the transit dependence for each block group within the study area. Each individual block group is then given a TDI classification (very low, low, moderate, high, or very high) that is assigned in a manner similar to the independent variables in the TDI. The difference being that the TDI or dependent variable value in the formula replaces the previously described socioeconomic characteristics or independent variables. Thus, a block group with a TDI below the average TDI score for a block group in the study area is given a value of one or categorization of very low, and so on.

### ***Transit Dependence Index Percent (TDIP)***

The TDIP provides a complementary analysis to the TDI measure and its reliance upon the population density factor. The TDIP measure is nearly identical to the TDI measure in every aspect with the lone exception being its exclusion of the persons per square mile (PD) factor. As a result, the TDIP for each block group in the MEOC Transit study area is calculated with the following formula and its five independent variables.

$$\text{TDIP} = \text{DVNV} + \text{DVE} + \text{DVY} + \text{DVD} + \text{DVBP}$$

- DVNV: degree of vulnerability based on presence of no vehicle households
- DVE: degree of vulnerability based on presence of elderly adult population
- DVY: degree of vulnerability based on presence of youth population
- DVD: degree of vulnerability based on presence of disabled population
- DVBP: degree of vulnerability based on presence of below-poverty population

Accordingly, the exclusion of the PD factor from the TDIP formula results in the maximum score a single block group may attain being lowered from 100, as is found in the previously described TDI measure, to a score of 25. By removing the PD factor, the TDIP measures the degree of vulnerability, or percent of individuals exemplifying a particular socioeconomic characteristic out of the overall general population of a block

group, rather than the amount of vulnerability, or strictly aggregate number of individuals exemplifying a particular socioeconomic characteristic within a particular block group, that is measured by the TDI. This sole difference between the two indices enables the TDIP to represent a needs assessment that highlights the overall predominance of a specific population throughout a block group's general residence instead of a highlighting of those block groups that have a higher density of persons and consequently an increased chance of having a higher concentration of vulnerable populations simply due to an increase in the block group's overall population.

The five-tiered categorization found in the TDI measure is also utilized for the TDIP measure and is determined by use of the same criteria.



## **APPENDIX C**

### **Environmental Justice Index**



## Appendix C: Environmental Justice Index (EJI)

EJI is an aggregate measure that may be employed with mapping software to effectively display relative concentrations of racial and/or ethnic minorities and low-income residents throughout the study area. The structure for the EJI was introduced in a 2004 National Cooperative Highway Research Program report in order to offer “practitioners an analytical framework to facilitate comprehensive assessments of a proposed transportation project’s impacts on affected populations and communities.<sup>1</sup>” The application of the EJI within this needs assessment will ensure a high standard of social and economic equality, as outlined in Title VI of the Civil Rights Act of 1964, when evaluating potential modifications to the present public transportation services in the region.

Similar to both the TDI and TDIP, the data utilized for the EJI was compiled by the ACS’s five-year estimates, which enabled examination of socioeconomic characteristics at a block group level of analysis, and the United States Decennial Census, which provided the necessary geographic information (e.g., block group boundaries). The data employed by the EJI is described in the subsequent bulleted points, which follow the EJI formula and its three independent variables.

$$EJI = PD * DVM * DVBP$$

- PD: population per square mile
- DVM: degree of vulnerability based on presence of minority population
- DVBP: degree of vulnerability based on presence of below-poverty population

The EJI scoring system is nearly identical to the scoring system used by the TDI measure with the lone exception being the EJI measure’s utilization of two independent socioeconomic variables that are multiplied by the PD factor, which is different from the TDI measure’s use of five independent socioeconomic variables that are summed and multiplied by the PD factor. Subsequently, the score of the EJI will range from zero to

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<sup>1</sup>Forkenbrock, D. and Sheeley, J. 2004. *Effective Methods for Environmental Justice Assessment*. NCHRP Report 532. Transportation Research Board, National Research Council. Washington, DC: National Academy Press.

100, with a higher score indicating a block group where a larger proportion of minority residents and/or low-income persons are present in an area with an increased population density. The score for the PD factor still ranges from zero to four, which was used in the TDI measure, and the score for the other two socioeconomic characteristics is determined in an equivalent manner as the five additional characteristics used in both the TDI and TDIP measures. Furthermore, the overall block group scores are then compared to the previously described SAA and each block group is accordingly placed into one of five categories (very low, low, moderate, high, or very high) within the classification scheme. This scheme is identical to the five-tier structure described in the TDI and TDIP measures.

## **APPENDIX D**

### **MEOC Survey General Comments**



## Appendix D: MEOC Survey General Comments

There are a lot of low income families that could use a break.
Better knowledge of schedule and pickup spots
Need ones to go to farther places
Please get your vans to run in Dungannon. I along with others could use them.
Many poeple in Appalachia VA do not have the money to buy a car or pay for gasoline. I think there should be a bus stop in Appalachia linked to Big stone Gap, Norton, Wise, and Kingsport
We need buses
I would even be willing to drive to a well lit parking area and ride the public transportation the rest of the way to Mountain Empire Communtiy College.
We do have a need in our region, it would cut down pollution in the air and traffic on the road.
Many people in this area do not have a vehicle or driver's license and have a great need for public transportation. I have a vehicle and license, but if a regular public transportation schedule were available, I would probably use it sometimes to make things easier on me.
Not enough public transit is available in Lee County. If more was added I do believe a lot of citizens would take advantage of the service.
I use Four County Transit because they come right through my town and do not charge anything I believe all transit bus should be free to students.
The unasked question is: Do you foresee a time you cannot drive and need public transportation. this may be my situation if a disability and vision impairment should worsen.
I think would love to know more info about a ride to mecc and to clintwood,va
I feel that people drive or at least have to catch rides to the cities outside the region. Most people are on disability and have docors appointments outside the region also.
Students need access from Jonesville to UVA-Wise in time to have day classes and return in the evening.
I feel that we should have city buses or taxi's. There are a lot of people that I know that are elderly and some that are young that don't have a driver's license and no vehicle and can not afford any of it. I feel public transit would be great to our community.
I do not have a car and have to use my friend as a means to get to and from the college. I have a learner's permit, just have not have the means to take the drivers test and even then I would not be able to afford a car.
It would be great to have transportation back and forth to college for people who cant drive or does not have a drivers licences.
There needs to be a wider range of hours that the buses can transport people. There also needs to be more buses for areas where there is more people needed to ride than there is on the buses that travel there.
I believe it would make things easier on the people that work, because I see them walking to work everyday and I know it must be tiring.

## Appendix D: MEOC Survey General Comments

As a student , I would gladly use public transportation. However, on the times that I have used MEOC, it is a very long trip out of my way. In other words, the trip was not directly to MECC. Therefore, it was a long trip and very much out of the way. Also, the lady dispatcher there was not friendly or helpful when I called to arrange a ride. Once I called to talk to someone and a man answered and he was very helpful and considerate.
Lee county needs more in the Sticklelyville area.
My son is a student at UVA-Wise and doesn't drive. I have to take him to MECC to catch a 4 County transit bus to UVA-Wise but he can't ride it back to MECC because he's not out of classes till 4pm. He;s only able to get a MEOC ride back to MECC on Friday's. Monday's & Wednesday's he has to be picked up at UVA-Wise. He utilized MEOC on a regular basis the last 2 years when attending MECC. But since the last bus he could ride back was at 2pm it limited his class choices. In talking to several students, many don't realize the MEOC transit option is available. I think early morning & late afternoon routes to both MECC & UVA-Wise from the Jonesville area would be a wonderful asset to our students.
There is a need for more buses because I have a cousin that can not drive and he wanted to come to college and the MEOC office said that he was to far out and he lives in Coeburn, VA at the Sheffield Acres Apts.
I think we have pretty good transportation
MEOC is a joke, I would not trust them to drive me anywhere!!!!
Many people in this region are in need of public transportation, reason being they do not have a
The 4-lane on route 58 breaks in Jonesville and Pennington. It needs to be completed. Not left to bottleneck through these two speed traps.
I have no comments
Dickenson County is in need of wheelchair vans, I am not real sure of Wise County
More service between the wise, norton, and BSG, and hours to accomidate work schedules.
Every area needs mass transit available.
Transportation that is cheap and easy for the people of wise co and norton to use would be a great thing to have. there are many people who do not drive
Need to utilize arrangements in Kingsport.
With the growing number of out of state students and students in and around Gate city. I feel a safe public parking area with transportation to and frm MECC would be beneficial to the community.
With the economy is such bad shape, more and more people are struggling to buy gas and keep up their vehicles so other forms of transportation are needed.
The MEOC Transit Program has trully been a God-send to me and others like me who are trying to better their lives by going to college and/or working and who may not have other reliable
Due to the rising cost of gas which affects the rise in cost of other items such as groceries, car repairs, clothing, shelter etc. a low-income individual can not always afford to keep their vehicle on the road
Better access for persons with disabilities/elderly
I use MEOC, and every day it seems like they are overbooked for rides. I think having more employees would help them a lot; or maybe a different system of scheduling.

## Appendix D: MEOC Survey General Comments

There's a dire need for public transportation in this are, if for any reason at all one has no car, or if there current car tears up, it is a matter of not getting you and family members to school or work, it is condusive to our lively hood and survival. There needs to be a stop that people can get to to be able to get rides to and from. Not too many people have the luxury of calling ahead 2 days before a much needed ride, it's unrealistic. MEOC was originally set up for the elderly and disabled to have rides to doctor's appointments-to the best of my knowledge- but it has expanded into so much more offering the whole community a little help woth transportation. You can not even get a taxi cab past 7:00 p.m through certain days of the week in this area. It has really put a damper on things because this area is so small most things are centralized for a lot of other small areas, you just hope you are lucky enough to leave nearest to the things you need the most, I am blessed to live close to MECC, but more availabilty and expansion would be truly appreciated.

A set schedule with designated bus stops and reasonable rates would be great. College students traveling to MECC would need transportation at different times during different days of the week.

I work at MECC and our students rely heavily on MEOC. It is great appreciated. However, if it was available to take student back to community...even locally, after a night class would be so beneficial.

First and formost I would like to see anyone that would like to save money on gas to be able to ride public transit. That is the biggest reason I would use this service.

I would not be able to ride every day because my work sometimes requires me to have a car available. I have a child in college who would possibly like to ride as well.

I think a public bus transportation would be ideal for all the surrounding areas of Wise. Some of those who cannot drive or do not have a license should have a way to get where they need to be. I come from a large city where public buses are always available and have stops along most roads. For an area like this I think it would be very beneficial not only for those who need transportation, but also for businesses.

I think a regular schedule for college students would be good for students who don't have a car and have to use their parents cars, also for students who have seizures that can't drive, it would save them from their parents bringing them or having to carpool with someone!

There are people in my community and the surrounding area that would probably ride the public transportation. A lot of them are elderly and could benefir from this service. Probably some of the younger people might ride if there were convenient times for pick up and drop off. Not many people want to ride all day, just to go to Gate City. If this transportation was available to the people of Scott County, there would need to be some advertisement so they would know about it being available. I would say 1/2 don't know anything about MEOC and what it does, if they do not receive any type of help from them in Scott County. Most people think that they just serve Wise County and the City of Norton. Scott County does need some public transportation of some kind. MEOC could provide them with excellent service if the word got out to the citizens that it was being offered. They see the buses, but have no idea what they do and can do for the people of their county.

## Appendix D: MEOC Survey General Comments

I think it is a wonderful service providing transportation for some individuals that would otherwise not have either a mode of transportation or anyone to take them where they need to go.

It would be difficult to be spontaneous about going shopping, traveling to college, using public transportation sources. Much pre-planning would be required.

Many people in our community are without transportation and have a real need for help.

We have 3 cars, but right now only 1 is working. When your vehicle breaks down, it is still necessary to get to work, Church, buy groceries, etc. This would be a good thing.

I think reliable transportation is need in this area, especially for students attending college and for the people who need reliable transport to medical appointments, etc.

I think it is very important to have this service in our region. There are a lot of people who depend upon this service.

I never bothered getting my driver's license, because at age fifteen, living in Alexandria, Virginia, I never imagined living somewhere where there wasn't a comprehensive bus/metro system. When my living situation changed and I moved in with my mother, I was horrified to realise that many of the places I needed to go were now inaccessible to me. I got my Learner's Permit a few weeks ago, but I can't afford a car until I save enough money. How am I supposed to earn money, if I can't drive to work? A bus system in my town would need to take a circuit out to the airport as well as through downtown and shopping district of Wise.

I think it would make it much easier for people without vehicles to get around if there were public transportation.

Public transportation is greatly needed because of the terrible economy, and the growing number of people who hardly have enough money to buy gas to get to work. Also, there are those who would prefer to use public transportation over driving themselves. I have not gotten my license because I do not trust myself, therefore public transportation would be extremely beneficial to me.

This need is great for the students in my workplace (MECC). For many of them, they would be unable to attend college if it were not for the MEOC Transit. This is a much needed service for our community.

I have worked with a number of students who could not access a ride in several areas. Coeburn has been particularly difficult.

Many student do not have transportation and must get to the college the best way they can, riding their bicycle, with a friend, (which is not a good idea because of insurance coverage), or just not coming at all.

With adequate transportation, I could have a much greater quality of life. Chris

## Appendix D: MEOC Survey General Comments

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Many people in our area have limited access to a personal vehicle and/or the funds needed for gas/car repairs and maintenance. People who have been prevented from working due to their lack of transportation would have the opportunity to become employed if that need was met. I think an improved public transportation system would make a tremendous impact in our community.

I believe there is a need for public transportation because some people do not have any way to get to the doctor, the grocery store, the college, and other places of interest.

I live in Pound I was informed that MEOC did not have a bus that came through pound. However I see the buses everywhere in pound.



## APPENDIX E

### *Rural Feeder Service Handbook*





# **Greyhound Lines, Inc.**

**Rural Feeder Service Handbook**

**February 2007**

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## I. Introduction

Greyhound has a strong interest in creating and maintaining successful interline relationships with coordinated rural feeder services that are meaningful for customers and make sense for both Greyhound and the rural feeder service partner. This is demonstrated by the company's efforts in:

- Helping clarify and lower Federal Motor Carrier Safety Administration (FMCSA) insurance levels for rural transportation agencies
- Creating a special National Bus Traffic Association (NBTA) "sponsored transit category" with minimal costs & hassles. NBTA is a non-profit revenue clearinghouse for interlined bus operators.
- Effectively working one-on-one with rural transportation agencies to help them establish feeder services

Greyhound initiated a service, called the Greyhound Rural Connection Program, in the late 1980's. The program linked over 80 rural transit agencies in 17 states and added more than 800 communities to the intercity bus network. Many of those agencies continue to provide their customers with informal access to the nearest Greyhound terminal or station even today. But those efforts were limited by:

- Insufficient Federal funding and support
- Lack of a flexible ticketing solution
- Sophisticated fare and schedule information technology

As the 5311(f) program evolved from ISTEA to SAFETEA-LU, Federal funding and guidance has improved dramatically, flexible ticketing solutions now exist, and fare and schedule information technology has seen tremendous advances --- so much so that rural feeder services can now be effectively implemented and operated in meaningful ways for the traveling public. Furthermore, given the shrinkage in the national intercity bus network over the past 20 years, there are many more sizeable communities without any intercity bus service today and thus, many more opportunities for the development of successful new feeder services

SAFETEA-LU rules and regulations can be found at: [extranet.greyhound.com/revsup/rfs/](http://extranet.greyhound.com/revsup/rfs/)

There are several ways to provide feeder services to Greyhound and the interlined intercity bus network: from formal interlines to informal passenger feeds; from complete terminal access to curbside drop off; and from selling tickets and transporting passengers and their baggage to transporting package express. And rural feeder services can be operated as demand-responsive or fixed schedule feeder service. Depending on the nature of the relationship and types of service, there are different requirements with pros and cons for each approach.

Unlike the airline industry, intercity bus service frequently involves a passenger traveling on more than a single company's bus. However, a single ticket is issued that includes all portions of the trip. This "interlining" is a means of providing seamless ticketing and travel for the convenience of customers. Each company honors the ticket of the issuing company. To make this

network seamless, interline companies coordinate schedules, and reconcile revenues collected from ticket and package express sales through NBTA

If your rural feeder service fully interlines with Greyhound or another intercity bus company, it must comply with certain regulations, including FMCSA operating authority, insurance and vehicle safety standards. If you don't interline, FMCSA rules don't apply, and you are not required to have any operating authority, meet any additional insurance levels or vehicle safety standards.

If you interline, there is greater revenue potential for your system; better and more reliable customer service; ticketing to and from your area throughout the US; nationwide telephone and Internet information about your feeder service; and enhanced local perception of your system. If you don't interline, you lose these benefits because local service can't be marketed beyond your area; we can't sell each other's tickets and customers are not as well served.

Rural feeder service should be meaningful. Greyhound prefers scheduled service over demand responsive service. The most effective feeder service requires:

- Proper operating authority and insurance
- Should be operated preferably 7 days a week but no less than 5 days a week
- Should not duplicate existing subsidized or unsubsidized intercity bus service
- Feeder service should allow for proper ticketing and (incidental to passenger service) package express service.
- Information about local feeder services should be available to all customers of the nationwide Intercity Bus network.

## **II. Types & Nature of Feeder Services**

The most effective feeder bus service is scheduled service operated 7 days a week by a full interline partner. A full interline partner is one that has "sponsored transit agency" membership in the NBTA and FMCSA operating authority.

More information on NBTA is contained in the NBTA Section on this site at:

<http://www.bustraffic.org/>

An NBTA sponsored transit agency membership is \$25 along with an annual fee of \$100.

FMCSA instructions can be found at [http://li-public.fmcsa.dot.gov/LIVIEW/pkg\\_html.prc\\_limain](http://li-public.fmcsa.dot.gov/LIVIEW/pkg_html.prc_limain)

Although there are other types of feeder services with which Greyhound can cooperate. They include:

- A feeder service can be operated with a fixed schedule without having full FMCSA authority or NBTA membership.
- A feeder service can be operated as demand response service without authority or NBTA membership.
- A feeder service can operate less than 5 days per week without having full FMCSA authority or NBTA membership

However, the effectiveness of these services is diminished because neither Greyhound nor the feeder service operator can write a ticket to or from the destinations served by non-interlined points. Greyhound cannot include the rural points served by the feeder service operator in its national fare and schedule information network. As such, information about service to/from points within the rural feeder service jurisdiction cannot be made available to passengers outside that jurisdiction. All public awareness would need to come from the rural feeder service through its own marketing or customer service efforts.

### **III. Insurance Requirements**

Fixed-route, fixed-scheduled rural feeder services that cross state lines to interline with Greyhound or another interlined intercity bus company must comply with applicable FMCSA insurance requirements. For these types of rural feeder service operations, those insurance requirements are \$1.5 million for vehicles with a seating capacity of 15 or fewer passengers and \$5.0 for vehicles with a seating capacity of 16 or more passengers.

Fixed-route, fixed-scheduled rural feeder services that interline with Greyhound or another intercity bus company but do not cross state lines to do so only have to meet the state insurance requirements for the state in which they operate.

Fixed-route, fixed-scheduled and demand response rural feeder services that do not cross state lines and do not formally interline with Greyhound or another intercity bus company also do not have to comply with any FMCSA insurance requirements.

For nationwide consistency, Greyhound has established the following insurance requirements for all rural feeder services that interline with Greyhound but do not cross state lines to do so. In all cases, Greyhound must be added as an additional named insured on those policies. Other intercity bus companies may have different minimum insurance requirements. The Greyhound limits are as follow:

Vehicles with capacity of 15 passengers or fewer	\$1.5 million single limits
Vehicles with capacity of 16-30 passengers	\$2.0 million single limits
Vehicles with capacity of more than 30 passengers	\$5.0 million single limits

For rural feeder services that access a Greyhound-owned terminal for the convenience of passengers that board and/or disembark to transfer to Greyhound, the company asks that the rural feeder service operator maintain a general liability policy with a combined single limit of not less than \$1 million. Greyhound must be added as an additional named insured on these policies.

### **IV. Fares & Ticketing**

Establishing passenger fares for rural feeder services that interline with Greyhound is the responsibility of the local feeder service operator. Once those fares are set and uploaded to the company's nationwide ticketing system (called TRIPS), Greyhound will be able to quote your established fares and you will be able to quote Greyhound's. Once your local feeder service fares are in the TRIPS system, the fare can be seen, quoted and ticketed in a number of different ways. Greyhound fares can include standard "walk-up" fares, special group discounts (e.g., elderly,

students, military, etc.), advance purchase fares and other special or promotional fares. The fares of most interlined companies tend to be less complicated and more standardized. However your fares are established, the Greyhound system is normally capable of presenting them to the general public.

Information on establishing a fare structure can be found at:  
[extranet.greyhound.com/revsup/rfs/](http://extranet.greyhound.com/revsup/rfs/)

There are a number of options for issuing a ticket to a passenger whose travel includes a portion of the trip aboard Greyhound, an interlined rural feeder service and even on another interlined intercity bus company. A ticket can be issued by Greyhound by phone or at a company-owned or operated terminal; by another interlined intercity bus company at a company-owned or operated terminal or station; by a rural feeder service operator at a local office or station; and/or by a 3<sup>rd</sup> party commission ticket agent. Additionally, a passenger can use the internet, go to [www.greyhound.com](http://www.greyhound.com) and purchase a ticket online, and that ticket will include all portions of the trip on each different carrier.

The ticket stock on which the ticket is issued is typically that of the selling entity. For instance, if Greyhound issues a ticket for service involving 3 different carriers, the ticket is issued on Greyhound ticket stock with a separate ticket (or “tear”) for each portion of the trip aboard a different carrier. If another intercity bus company issues the ticket, it too will include a separate ticket for each portion of travel. The same is true if a rural feeder service operator issued the ticket. However, many intercity bus companies and rural feeder services choose to issue a ticket on Greyhound ticket stock supplied by the company. It is easier and more consistent than managing the logistics of designing and stocking their own ticket stock.

In many instances, passengers connecting to and from a rural feeder service will already have a Greyhound ticket issued by the company or one of its commissioned agents. Other times, the rural feeder service operator may need or want to issue tickets if there is no other nearby agent that can do so. As such, the rural feeder service would become a commission agent for Greyhound. The organization could then issue tickets for passengers and package express and receive a commission for each sale. The commission rate is established as a set percentage rate and applied to total sales, and the agent retains the commission revenue. In most instances, this revenue can be used by the rural agency as a source of local match for other federal grants.

In larger terminals, whether operated by Greyhound or a 3<sup>rd</sup> party commission agent, TRIPS is the preferred ticketing system because it provides automatic daily uploads of sales and management information. TRIPS software requires more expensive computer hardware and higher speed printers capable of printing high volumes of tickets onto Greyhound ticket stock. Greyhound has developed a new system, called MAX, which is more appropriate to smaller locations and lower ticket volumes that previously may have been limited to writing tickets manually. MAX can be used on lower-end desktop computer hardware and less expensive printers and like TRIPS would also require internet connectivity. MAX provides faster sales and management information than was previously the case with manual ticket locations. MAX is an appropriate, cost-effective ticketing system for rural feeder services that interline with Greyhound.

MAX Site Survey and requirements can be found at: [extranet.greyhound.com/revsup/rfs/](http://extranet.greyhound.com/revsup/rfs/)

## **V. Baggage Service**

Intercity bus carriers participate in a passenger baggage service, which allows passengers to check baggage into a bus storage compartment for transportation to the passenger's destination or transfer point whichever comes first. There are numerous rules as to size, weight, contents and acceptable containers. There are also limits of liability to prevent escalated claims of loss or damage. More information of baggage service can be found on the web at:

<http://extranet.greyhound.com/revsup/pfsm/baggage.htm>

## **VI. Package Express Service**

Greyhound and most intercity carriers participate in Package Express Service, which involves shipping packages to and from designated locations within their routes. Participation in this shipping program is not mandatory, but is another means to increase route revenue. Just like with tickets, the transporting carriers receive prorated revenue for their portion of the overall trip. At the same time the carrier/carriers are also responsible for damage or loss of packages accepted for transportation. More information on this service can be found on the web at:

<http://extranet.greyhound.com/revsup/open/pageset.htm>

## **VII. Fare & Schedule Information**

Greyhound fare and schedule information is provided to the general public in different ways. A customer can call the local terminal or station or the Greyhound nationwide telephone information center (800) 231-2222, or they can go to [www.greyhound.com](http://www.greyhound.com) and get nationwide fare and schedule information. Either approach affords customers information about Greyhound service and that of the company's interline partners.

## **VIII. Marketing & Advertising**

Greyhound marketing and advertising is conducted in a variety of ways, but it is primarily offered through national radio, online Internet and yellow page advertising. Sometimes the company will use other media including direct mail, newspaper advertising and/or promotional advertising. For newly starting rural feeder services, Greyhound strongly recommends that the feeder service contractor develop and implement a local/regional marketing and advertising plan. Over time and as the feeder service becomes more well known, the plan can be simplified with regular local yellow page, radio, newspaper, cable and other marketing and advertising. In many instances, the Greyhound name and logo can be used, with permission, in conjunction with local feeder services.

## **IX. Terminal & Station Access**

Greyhound serves approximately 800 destinations in its nationwide network. Combined, Greyhound and the existing nationwide network of interlined intercity bus company partners serve approximately 1,450 destinations in the US. The facilities from which those services are operated range from stand-alone, sole purpose bus terminals to stations housed in other businesses and operated by independent commissioned agents. Approved access to these

facilities differs by company, station type and other factors and relates primarily to liability issues and the cost of facility operations.

Greyhound owns/leases and operates about 100 terminals. The approximately 700 remaining terminals and stations are owned/leased and managed by independent commissioned agents, public transit agencies and/or city/county governments. Many of the facilities operated by independent commissioned agents serve another primary business purpose such as a hotel, C-store, restaurant or some other independent business.

To access Greyhound owned/leased and operated terminals and stations, a rural feeder service operator must execute a Bus Terminal License (BTL) agreement and provide a general liability insurance policy which names Greyhound as an additional insured. A special BTL for rural feeder service operators has been developed by Greyhound and can be found at [extranet.greyhound.com/revsup/rfs/](http://extranet.greyhound.com/revsup/rfs/)

Access to non-Greyhound owned/leased stations that are operated by independent commissioned agents may involve other requirements that must be negotiated with those agents. However, Greyhound will assist feeder service operators with securing access to these locations.

## **X. Commission Agency**

If the rural feeder organization becomes a commissioned agent, allowing it to sell tickets, then it must execute a Standard Independent Commission Agreement (SICA), specifying the obligations of both parties for:

- Sale of tickets
- Accounting requirements
- Reporting an payment requirements
- Certain related liability issues

A copy of the SICA can be found at [extranet.greyhound.com/revsup/rfs/](http://extranet.greyhound.com/revsup/rfs/)

## **XI. Training & Assistance**

In addition to helping new feeder services meet the financial, legal and regulatory requirements mentioned in the previous section, the new service provider will also need to understand how to sell tickets and/or accept tickets to/from connecting passengers. Feeder service schedules will need to be developed that maximize travel opportunities for passengers and connections with Greyhound.

The rural feeder organization would also be provided on-site training for issuing tickets via MAX as well as reporting requirements.

Greyhound staff will assist interested rural transportation agencies in establishing rural feeder services that effectively address each of these needs.

## **X. 5311(f) Grant Assistance for Rural Feeder Services**

Greyhound fully supports access to 5311(f) assistance by rural feeder service operators whose projects provide meaningful connections. Greyhound is primarily interested in those feeder services that make sense for both the company and the rural feeder service and that are meaningful to customers. For those services, Greyhound will actively support rural feeder service applicants and grantees. In many cases, a special 2-year demonstration program approved by FTA, allows Greyhound to provide a 3<sup>rd</sup> party in-kind contribution as the required local match for a rural feeder service grant. The benefit of this program is that the total net operating costs of the service can be reimbursed by 5311(f) funding --- the service can be fully supported by 5311(f) funds and Greyhound local match.

After working through the issues presented in this Handbook with an interested rural transit agency, Greyhound will issue a letter of support for your grant application. For those projects able to use a Greyhound in-kind contribution, the company will issue a letter committing the company to the project and documenting the amount of matching funds available for the project.



## **APPENDIX F**

### **FTA Section 5311 Scenario – VPSI Inc.**



# FTA §5311 Scenario

Vanpool w/ 15 Passenger Split-Bench Seating w/ ~45 mile one-way commute

