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TRANSIT SERVICE GAPS AND NEEDS

Transit service gaps and estimates of the resources needed to improve transit services in the Northeast Kingdom (NEK) region are discussed below. The NEK region includes the 55 communities in Caledonia, Essex, and Orleans counties in the northeast section of the state, which comprise the service area of the Northeast Vermont Development Association (NVDA), the region's planning organization.

Overview of Existing Services

Fixed Route Services

Rural Community Transportation, Inc. (RCT) is the region's public transportation provider. As shown in Figure 1, RCT operates deviated fixed route shuttles and commuter routes to connect NEK communities and provide access to other areas (commuter routes run to Montpelier and New Hampshire). Shopper routes provide access on a more limited basis in rural communities, including service to Hyde Park and Morristown (Lamoille County) and Williston (Chittenden County). All RCT routes are fare-free.

Deviated Fixed Routes

The Jay-Lyn/Jay-Lyn Express Shuttle operates from roughly 5:00 a.m. to 5:00 p.m. between St. Johnsbury and Lyndonville, with intervals of 1-2 hours between trips.

The Highlander Shuttle operates Monday through Saturday from 7:15 a.m. to 4:30 p.m. between Newport and Derby Line. Two trips operate in the morning and two trips in the afternoon.

Deviations of up to $\frac{1}{4}$ of a mile are available to individuals with disabilities but must be reserved a day in advance.

Commuter Routes

Service to Montpelier from St. Johnsbury and Danville is provided by the US 2 Commuter route, which offers two trips in the morning and two in the afternoon hours on weekdays. One trip in the morning and in the afternoon is operated by Green Mountain Transit; a \$2 fare is charged on those trips.

The Twin City Route operates one trip in the morning and one trip in the afternoon on weekdays between St. Johnsbury and Littleton, NH.

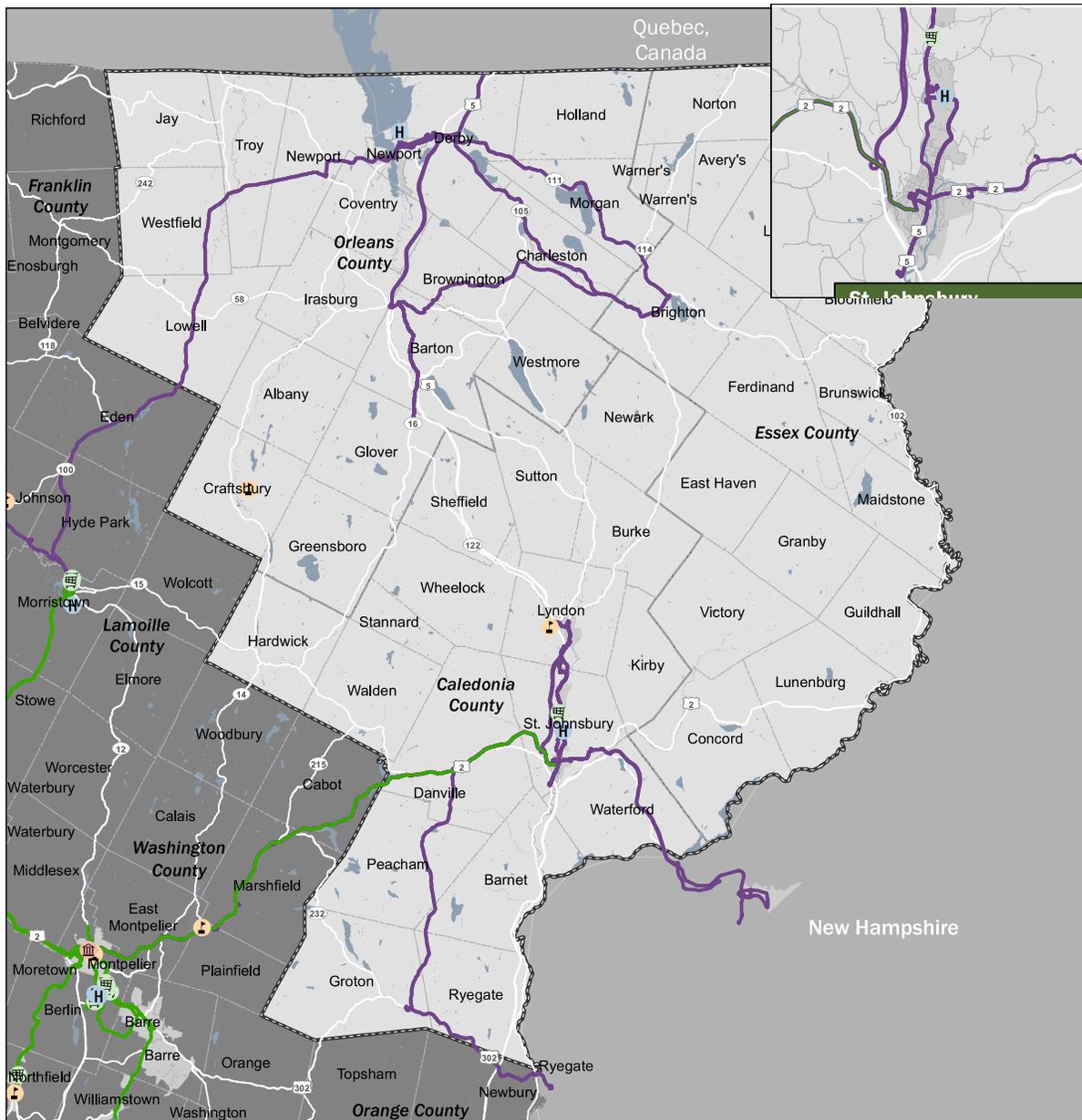
Shopper Routes

Five shopper routes provide limited local service in rural communities.

- ▶ The Island Pond Shopper operates on Thursdays. Service from Island Pond to Newport and Derby Line operates through Morgan on the first, third, and fifth Thursdays of the month. Service from Island Pond to Newport and Derby Line operates through East Charleston on the second and fourth Thursdays.
- ▶ The Kingdom Shopper 2 operates on the fourth Wednesday of the month between Island Pond and Derby via Barton, Orleans, and Glover.
- ▶ The Greenleaf Shopper operates on the second and fourth Tuesdays of the month from Lyndonville to St. Johnsbury and through Danville, Peacham, Groton, and South Ryeback to the Walmart in Woodsville, NH.



Figure 1: Transit Services in the Northeast Kingdom Region



- ▶ The Williston Shopper operates on the second and fourth Tuesdays of the month from Newport to Williston (Chittenden County), serving a number of communities in Lamoille County.

All shopper routes provide one round trip per day.

RCT customers can use two mobile apps—Swiftly and Transit—to track vehicle locations and service disruptions and do simple trip planning.

Dial-A-Ride and Other Services

RCT provides services for seniors, people with disabilities, and clients of human service agencies such as the Northeast Vermont Area Agency on Aging, the Central Vermont Council on Aging, Northeast Kingdom Community Action, Northeast Kingdom Human Services and a number of adult day providers. Those organizations are RCT’s partners in the delivery of services through the Vermont Elders and Persons with Disabilities (E&D) Transportation Program. RCT also provide non-emergency medical transportation for Medicaid recipients. RCT utilizes the services of volunteer drivers and taxi companies as well as its own vehicles and drivers to provide such trips.

A few taxi companies also serve NEK communities.

Key Destinations

Retail areas (including supermarkets), health care facilities, colleges and universities, and human service agency offices are primarily located in the following communities:

- St. Johnsbury
- Newport
- Derby
- Lyndonville
- Craftsbury
- Orleans, Concord, Danville, Island Pond, Hardwick—Northern Counties Health Care clinics

Some of those key destinations are shown in Figure 1 (more detail can be found on the route maps posted on the RCT website, www.riderct.org . RCT bus routes serve many local and regional destinations, including several in New Hampshire).

Employment and Commuting Patterns

Employers

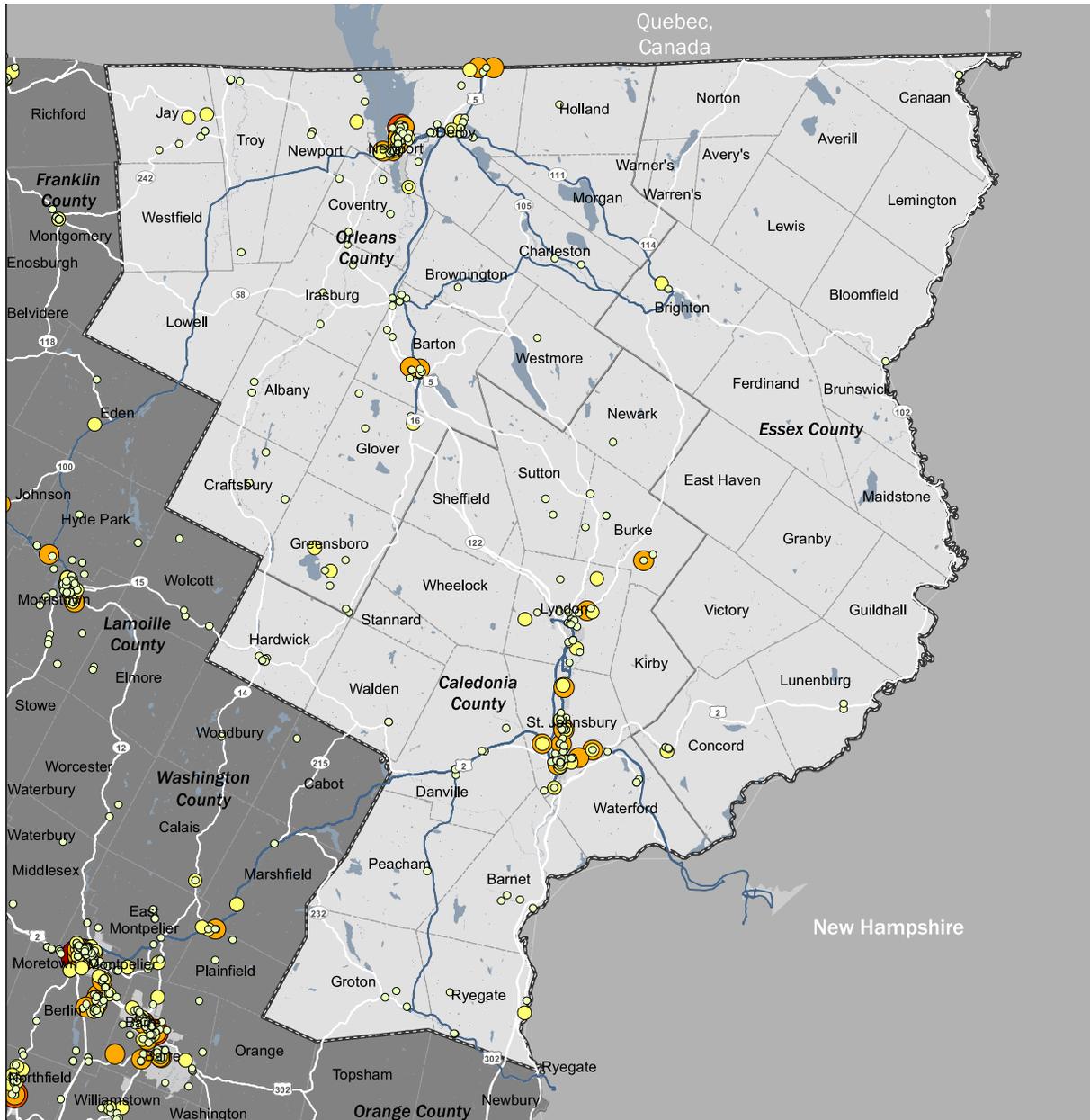
Figure 2 shows the location of employers of various sizes in the county.

The highest concentrations of employers are in St. Johnsbury and Newport. Moderate clusters of employers are located in Lyndonville, Barton, and Derby. A few small employers, with 100 or fewer employees, are scattered in the more rural towns. Very few employers are located in Essex County.

Most moderate to large employers are served by existing bus routes. Employers with 100 or fewer employees that do not appear to be located near fixed routes can be found in Jay, Newport, Greensboro, Lyndon, Concord, and Ryegate. One larger employer in Burke, with 100-299 employees, is not located close to a bus route.



Figure 2: Employers in the Northeast Kingdom Region



Number of Employees

- 10 - 49
- 50 - 99
- 100 - 299
- 300 - 499
- 500 +

Source: Dun & Bradstreet, 2017



Commuting Patterns

Table 1 presents an overview of where NEK residents work and where individuals who are employed in NEK live.

Table 1: Employment in the Northeast Kingdom Region, 2015

Employment	Number	Percent of Total Northeast Kingdom Employment	Percent of Total Employed Northeast Kingdom Residents
Workers in Northeast Kingdom			
Total Employees in Northeast Kingdom	21,829	100%	
Northeast Kingdom Residents Employed in Northeast Kingdom	16,825	77%	
Residents of Other Areas Working in Northeast Kingdom	5,004	23%	
Residents of Other Vermont Counties	3,195	15%	
Residents of Other States	1,809	8%	
Residents of Northeast Kingdom			
Total Employed Northeast Kingdom Residents	26,452		100%
Northeast Kingdom Residents Employed in Northeast Kingdom	16,825		64%
Northeast Kingdom Residents Employed in Other Areas	9,627		36%
Working in Other Vermont Counties	6,978		26%
Working in Other States	2,649		10%

Source: U.S. Census, Longitudinal Employer-Household Dynamics, 2015

Over three-quarters of the individuals employed in the NEK region also live there (77%). Two-thirds of those who work in the region and live elsewhere live in other Vermont counties, primarily Chittenden, Washington, and Lamoille counties. NEK employees also live in Grafton and Coos counties, New Hampshire, and in other states.

Two-thirds of employed NEK residents (64%) work in the region. The majority of those who live in the region and are employed outside of it work in other Vermont counties, primarily Chittenden, Washington, and Lamoille counties. NEK residents also work in New Hampshire, particularly in Grafton and Coos counties, and other states.

Commuting Patterns

Figure 3 illustrates the daily commuting travel flows into St. Johnsbury/Lyndon at the town level.

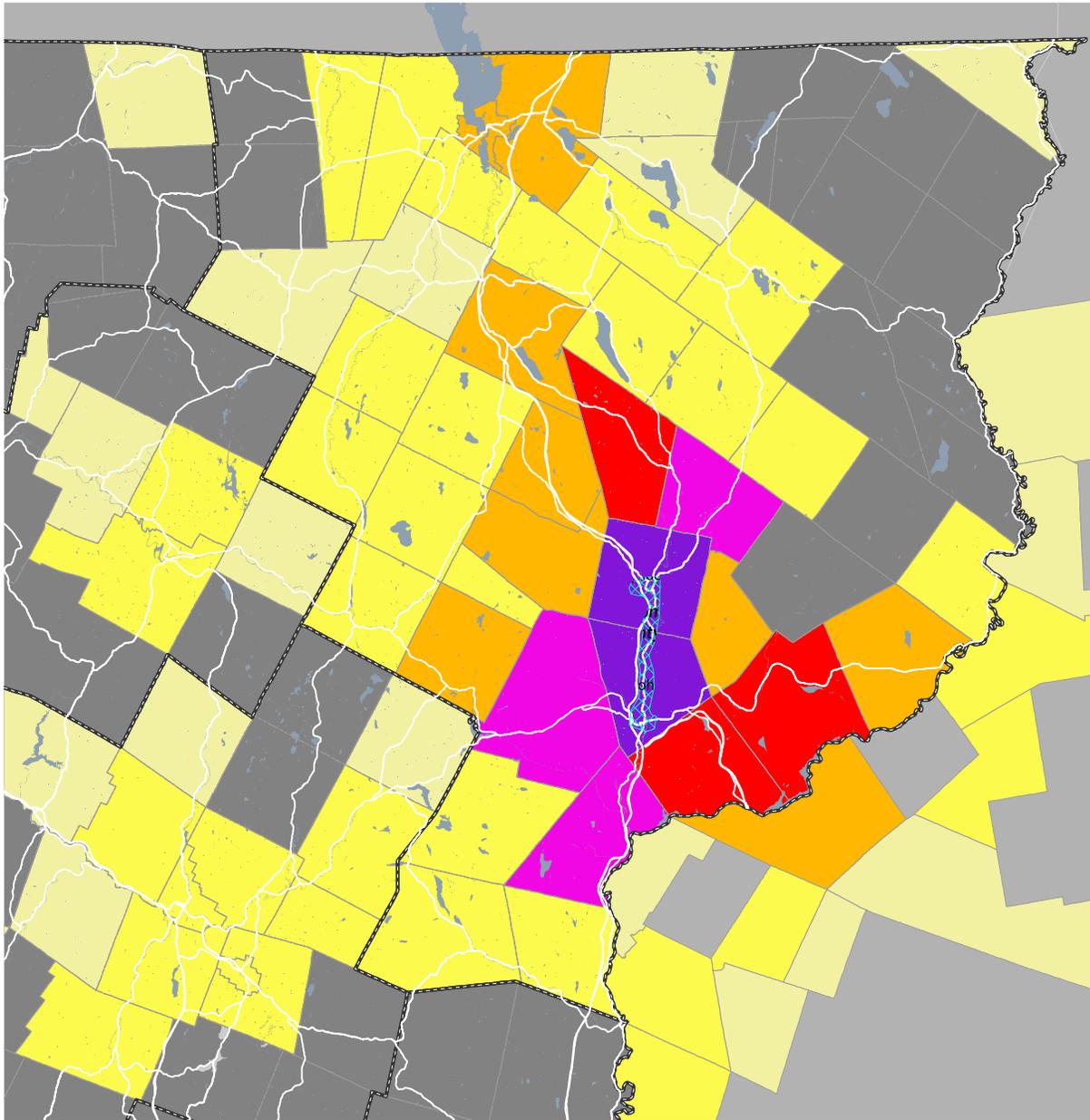
St. Johnsbury/Lyndon draws daily commuters from a radius of about 40 miles. The I-91 and US 2 corridors provide good access to NEK employers. US 5 through Burke and Sutton are also important.

As shown in Figure 3, the highest numbers of commuters come from within the region, mostly from those two communities and nearby towns, including Barnet, Danville, Burke, Waterford, Concord, and Sutton. Lower numbers of daily commuters travel to St. Johnsbury/Lyndon from other NEK communities as well as surrounding counties and New Hampshire.

Figure 4 shows the daily commuting travel flows into Newport/Derby at the town level.



Figure 3: Daily Commuters to St. Johnsbury/Lyndon



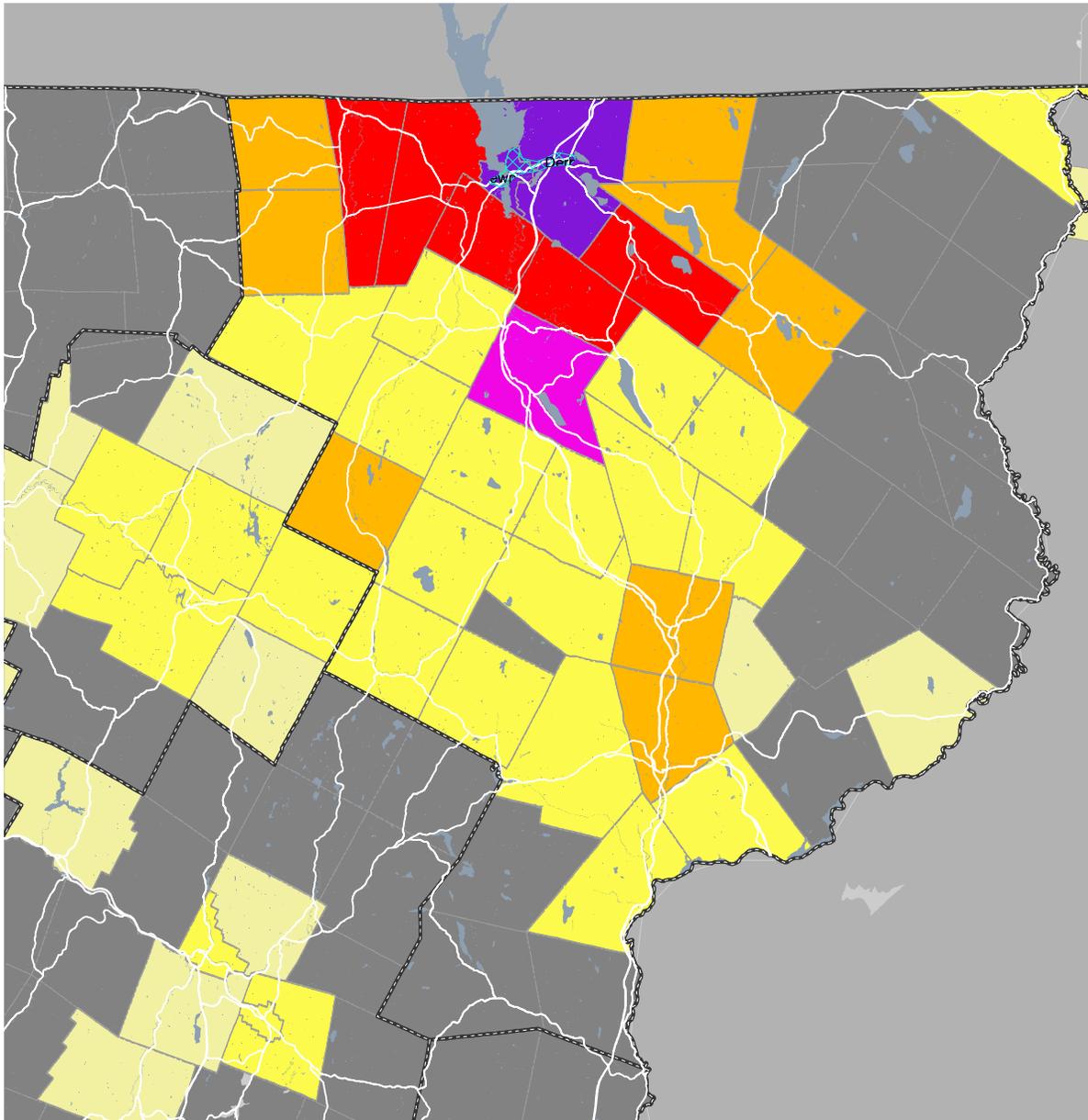
**Commuters to
St. Johnsbury / Lyndon**

 < 10	 200 - 499
 10 - 49	 500 - 1,999
 50 - 99	 2,000 +
 100 - 199	

 Municipal Boundary



Figure 4: Daily Commuters to Newport/Derby



Most commuters to Newport/Derby come from northern Orleans County, primarily Derby, Barton, Newport, Troy, Coventry, Brownington, and Charleston. St. Johnsbury and Lyndon also generate commuting trips to Newport/Derby via I-91.

Demographic Overview

This section presents an overview of the demographic characteristics of the NEK region. It also summarizes the location and density of the general population of the region and specific market segments that are likely to need transit service because they cannot or choose not to drive.

Table 2 provides summary demographic characteristics for the NEK region as of 2016, as compared to Vermont as a whole.

Table 2: Demographic Characteristics of the Northeast Kingdom Region, 2012-2016

	Northeast Kingdom Region	Vermont
Total population	64,112	626,249
Population density	32 persons per square mile	68 persons per square mile
Population age 60 and over	27.7%	24%
Population age 80 and over	4.8%	4.3%
Residents living below poverty line	13.6%	11.6%

Source: American Community Survey 5-year Average 2012-2016

Over 10% of Vermont’s population lived in the Northeast Kingdom as of 2016. The region is much less dense than the state as a whole, with 32 residents per square mile. It has more population age 60 and older and slightly residents age 80 and older than the state—28% and 5%, respectively. At nearly 14%, the Northeast Kingdom has the second highest percentage of population with incomes below the federal poverty line in the state.

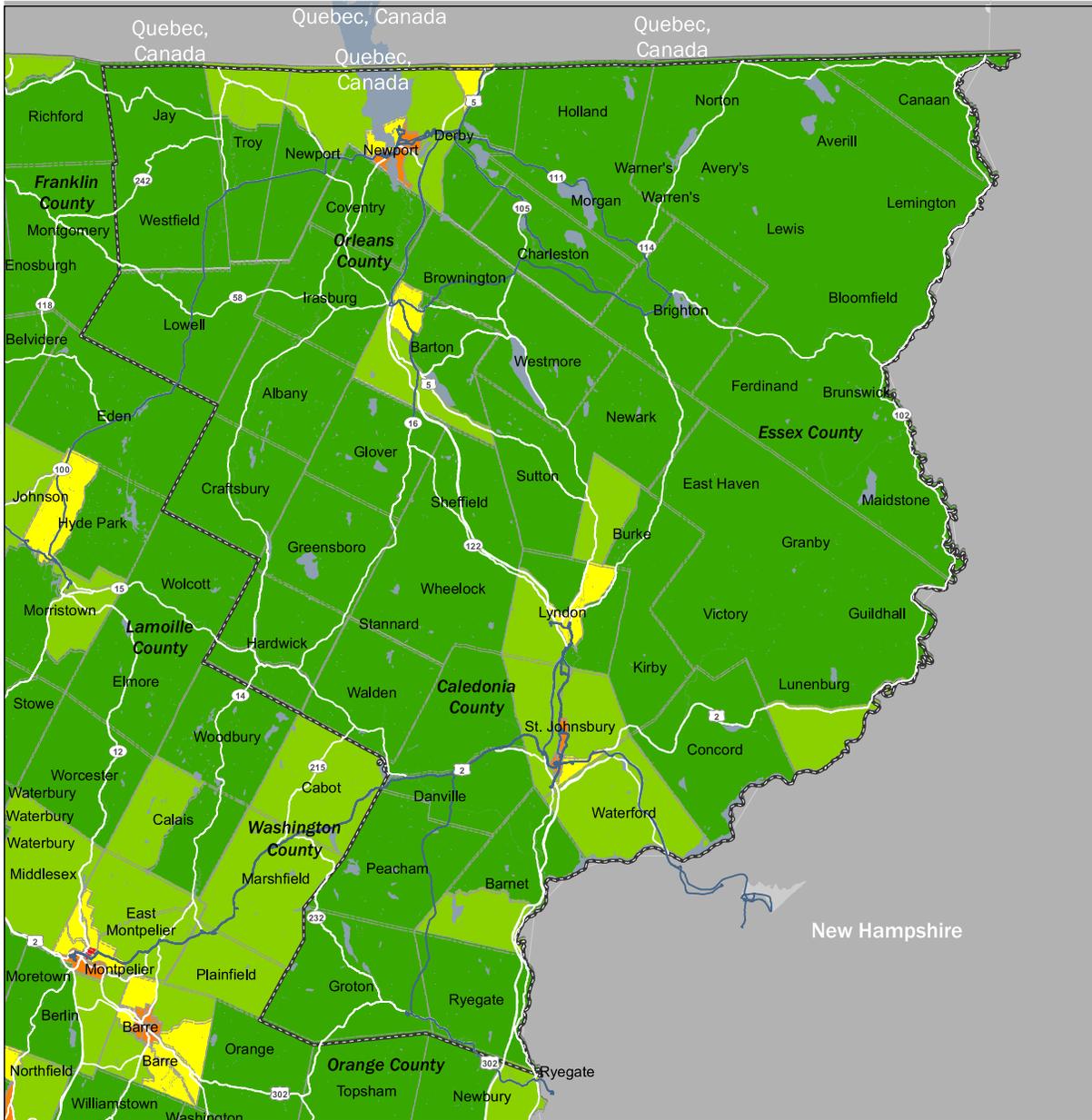
Population Density

Figure 5 shows the concentration of the population in the NEK region. Density is a helpful characteristic to consider in the context of public transportation services because it is one measure of where service, particularly fixed route service, is likely to be needed and cost-effective.

The only areas showing moderate to high density—over 1,000 people per square mile—are St. Johnsbury and Newport. Moderate levels of density—between 500 and 1,000 people per square mile—exist in St. Johnsbury, Lyndonville, Orleans, Newport, and Derby Line. The rest of the communities in Caledonia, Orleans, and Essex counties show levels of population density that can be considered rural.



Figure 5: Population Density in the Northeast Kingdom Region, 2017



Market Segments and Transit Propensity

Groups that are likely to need transit services because they do not drive include older adults, people with disabilities, individuals with limited or no access to a car, and younger adults. Figure 6 through Figure 8 show the number and percentage (as compared to the state average) of individuals in the first three groups at the town level in Rutland County. All data was obtained from the American Community Survey (ACS) 2012-2016 Five-year Estimates.

Older Adults

Figure 6 shows the number and percentage of adults age 80 and over in 2012-2016, as compared to the statewide average, in the NEK region. The focus in Figure 6 is on this older age group because younger seniors typically continue to drive and because a significant rise in this population is expected in Vermont (and nationwide) in the next 10-20 years.

The highest numbers of older adults live in St. Johnsbury, Newport, Barton, and Derby. Each of those communities includes 250-500 older seniors and is above the state average in terms of the percentage that group makes up of the total population. In many smaller communities, older seniors make up a percentage of the population that is more than twice the state average, even though the number of individuals is lower than in the more populated towns.

People with Disabilities

Figure 7 shows the number and percentage of people with disabilities, as compared to the statewide average, in NEK communities. Four types of disabilities are included: those associated with hearing, vision, cognition, and working.

St. Johnsbury is home to the largest number of people with disabilities—between 750 and 1,500 individuals. Most NEK communities have a percentage of residents with disabilities that is 1-2 times higher than the state average. In Ferdinand and Lemington, in Essex County, the percentage of residents with disabilities is 2-3 times the state average, although the number of individuals is very low.

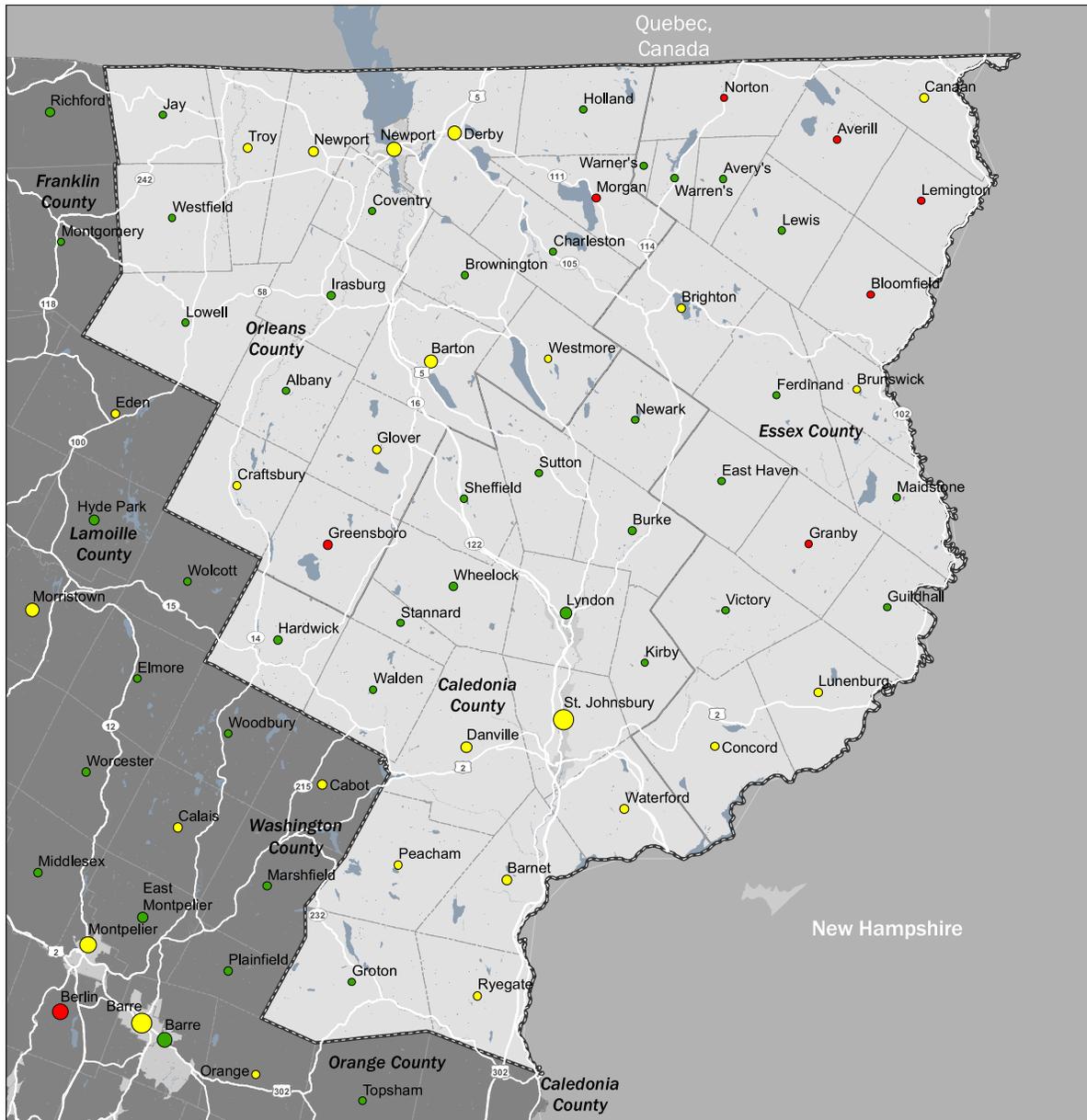
Auto Ownership

The number and percentage of households in NEK towns with limited access to an auto in 2012-2016 are shown in Figure 8. Households with one resident and no vehicle and those with two or more members but only one vehicle or no vehicle are included.

The highest numbers of households with limited auto access, between 500 and 1,000 households, are located in St. Johnsbury, Lyndon, Newport, and Derby. Most small communities are below the state average in terms of the percentage of such households, while the larger communities are above the state average.



Figure 6: Number and Percentage of Adults Age 80 and Over in Northeast Kingdom Communities, 2012-2016



% of Population Over 80

- Below Average
- 1x - 2x Average
- > 2x Average

VT Average = 4.3%

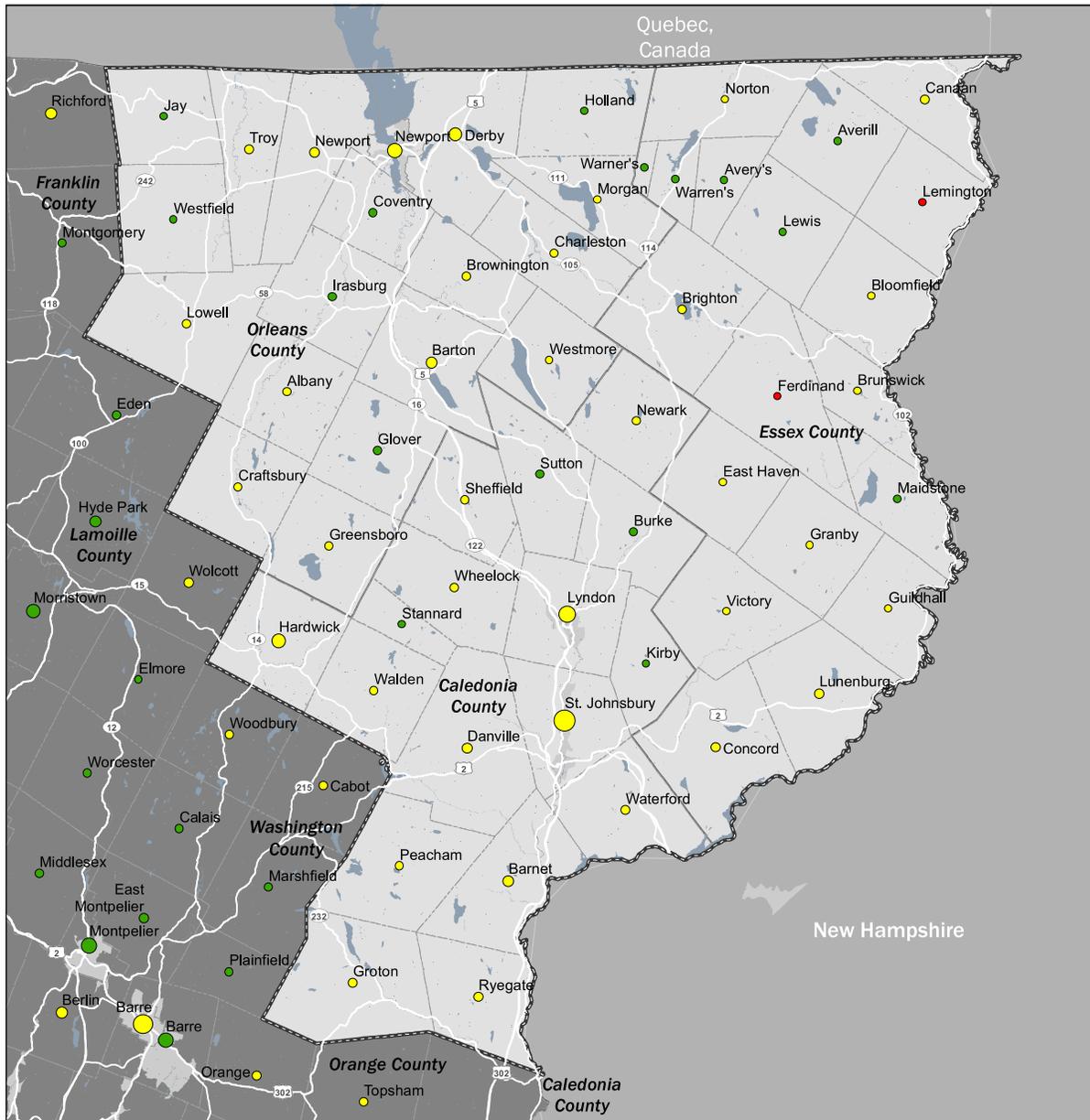
Total Population Over 80

- 1
- 250
- 500
- 750
- 1,000

Urban Areas



Figure 7: Number and Percentage of People with Disabilities in Northeast Kingdom Communities, 2012-2016

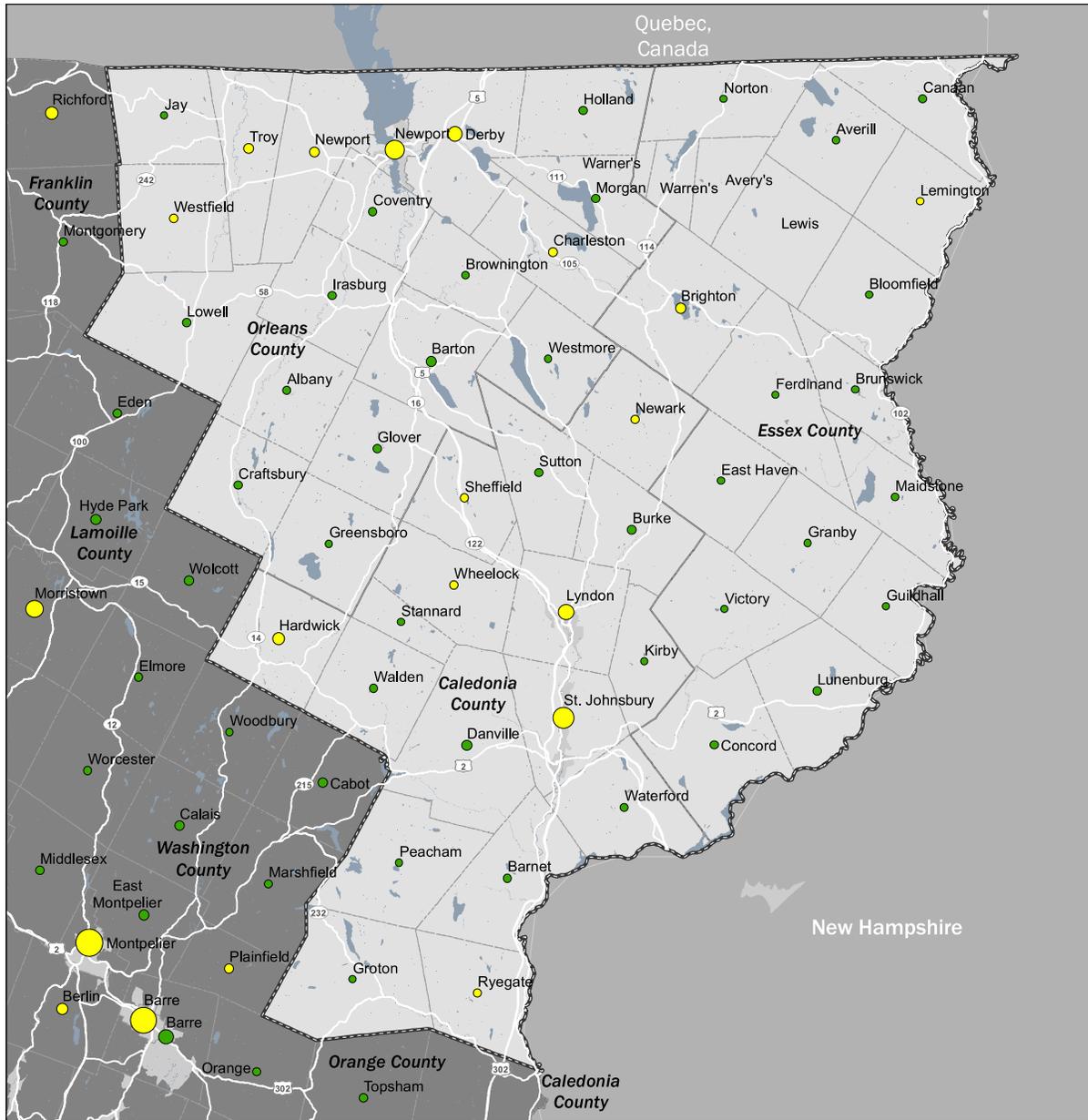


750

2,250



Figure 8: Number and Percentage of Households with Limited Auto Ownership in Northeast Kingdom Communities, 2012-2016



**Total Households with
1 Person & 0 Cars or
2+ People & 0-1 Cars**



Transit Propensity

As noted above, older adults, people with disabilities, individuals with lower incomes, and younger adults are likely to need transit services because they cannot or do not drive. The transit propensity index mapped in Figure 9 combines information about the location and weighted size of the county's total population and of various populations that are typically dependent on transit services—youth, older adults, people with disabilities, people living in poverty, and households with one car or less.

As shown in Figure 9, a Moderate/High level of transit propensity exists in St. Johnsbury, while Lyndonville and Newport show Moderate levels of propensity. Much of the region shows a transit propensity in the Low/Moderate range.

Regional Forum Comments

Stakeholders and members of the public who participated in the regional forum held in St. Johnsbury at Catamount Arts on November 14, 2018 made comments regarding service gaps, travel challenges, unmet transportation needs, and potential solutions, as summarized below.

Service Gaps and Challenges

Geographic Gaps

- ▶ People in Newbury are difficult to reach
- ▶ Getting to Littleton for work (work schedules don't match transit)
- ▶ White River/Upper Valley
- ▶ There is a need to work with New Hampshire and for better intercity coordination

Temporal Gaps

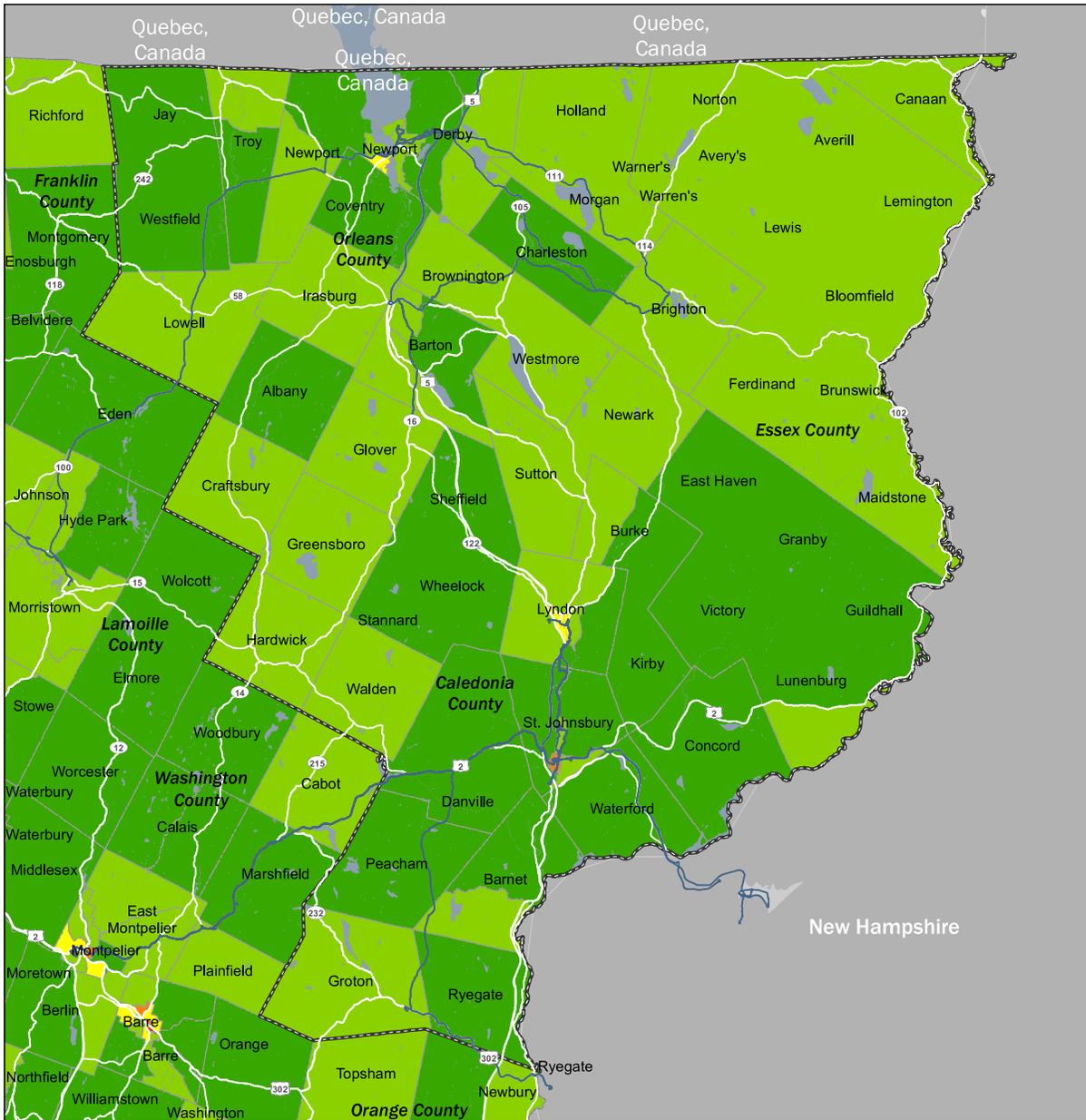
- ▶ Frequency of service for the Jay-Lyn Shuttle
- ▶ Shift workers struggle with finding transportation:
 - 3:00-11:00 PM holidays, weekends
 - Time 6:00-2:00 PM vs. 7:00-3:00 PM
 - Odd hour businesses
 - Sat/Sun three volunteers
 - Holidays
- ▶ Medical discharges after hours
- ▶ Education: getting to after-hours classes

Trip Type Gaps

- ▶ Social isolation is an issue and there are not enough funds to support transit for socialization
- ▶ Getting to jobs that are part of a rehab program (this may be an issue of funding source restrictions)
- ▶ Industrial Park and student runs
- ▶ There are unmet needs for E&D trips
 - We need more funding, more coordination on land use/housing, more attractive senior housing, more affordable housing
 - Shopping only twice a month is limiting
- ▶ Counseling, probation, rehab (this may be an issue of funding source restrictions)
- ▶ Should consider role models to ride bus to help overcome the stigma (travel training)



Figure 9: Transit Propensity Index, Northeast Kingdom Region



te / High
 High

- Regional Planning Commission Boundary
- Block Group
- Transit Routes



Accessibility Needs

- ▶ Moving elderly, insurance related to assisting, vehicle access

Technology and Information Challenges

- ▶ How can we overcome the lack of awareness of existing services?
- ▶ It is challenging to get information out and provide good customer service
- ▶ There is a lack of reliable cell service (impacts use of apps)
- ▶ Most seniors use paper
 - Education and communications could be improved including through:
 - ▶ Libraries
 - ▶ Civic functions
 - ▶ Local news

Affordability Gaps

- ▶ Client paid trips are subsidized
- ▶ Understanding the societal cost of missed trips

Other Comments

Forum participants had the following comments on existing services in the Northeast Kingdom:

- ▶ Fare-free service is a positive and E&D is great service to the community
- ▶ On-demand services vs. scheduled trips is a strength
- ▶ Large demand, at times providing 200 same-day trips
- ▶ RCT is a good partner and will try to make it work
- ▶ Agencies have funding for transportation

Comments on current challenges in the Northeast Kingdom included the following:

- ▶ A shortage of volunteer drivers and part-time drivers
- ▶ System capacity is stressed:
 - 80,000 trips between July and November
 - Drug related trips
 - Alternative education
 - Adult day services
 - Volunteer driver programs are complicated
 - ▶ Rules, details, care
- ▶ Bradford buses are full
- ▶ There is a negative vibe associated with the big red bus that could be helped with an advertising campaign
- ▶ The potential to use funding for car maintenance as an incentive
- ▶ The need for more education and coordination
- ▶ Need to fill vans



Potential Solutions

When asked to rank potential service improvements, forum participants most often chose the options listed below.

Information

- ▶ One-call/one-click option for trip planning
- ▶ Trip planning assistance

Service Enhancements

- ▶ Expand service areas
- ▶ Expand service hours
- ▶ Volunteer driver program enhancements
- ▶ Flexible voucher program

Accessibility Improvements

- ▶ Accessible signals or signage
- ▶ Bus shelters

Technology

- ▶ Mobile information, reservations, real-time vehicle location (apps)
- ▶ Automatic Vehicle Location (AVL) systems

Comments from Lamoille County/NEK E&D Committee

Development of the PTPP included discussions with the stakeholder committees that provide oversight for administration of the Vermont Elders and Persons with Disabilities (E&D) Transportation Program in each of nine regions, including the combination of Lamoille County and the NEK. Members of the E&D advisory committees typically include the local public transportation provider; partner organizations—municipalities, human service agencies, and other organizations—that receive services for their clients from the provider, and sometimes also operate services for those clients directly; and the regional planning agency that serves the area.

The discussions with those committees yielded additional comments about transportation needs and potential solutions in those regions.

RCT provides services for seniors, people with disabilities, and clients of its E&D partners such as the Northeast Vermont Area Agency on Aging, the Central Vermont Council on Aging, Northeast Kingdom Community Action, Northeast Kingdom Human Services and a number of adult day health providers. RCT utilizes the services of volunteer drivers and taxi companies as well as its own vehicles and drivers to provide such trips.

Comments regarding transportation needs and service gaps include the following:

- ▶ There is a huge demand for rides. Although significant resources have been put into the volunteer driver program and there are 85-90 active drivers at any given time, recruiting and retention are still difficult. Sickness and unavailability for other reasons cannot be covered. A 50% increase in the number of available drivers would be helpful.
- ▶ Demand for non-Medicaid medical trips, including adult day health trips, has really grown.



- ▶ No formal trip limits are in place; it is up to the partner organizations to balance trip priorities and funding constraints. Partners typically work with RCT to mitigate overspending by additional funds, utilizing E&D funding from a partner that is underspending, and/or limiting trips. In the past there have been years in which funds were depleted before the end of the year and service was suspended temporarily.
- ▶ Trip priorities, in order, are:
 - Critical care
 - Non-Medicaid medical, including adult day health
 - Social/personal or shopping. Social/personal is the last priority, along with wellness trips, including trips to meal sites. Funding limits don't really allow these types of trips to be provided.
- ▶ Unmet needs cannot be examined too closely, because of a lack of funding and volunteer drivers to address them.

MetroQuest Responses

Respondents to the online MetroQuest survey conducted in September through December 2018 had the opportunity to identify a trip they would like to make using transit service but cannot due to lack of service or infrequent/inconvenient schedules. Respondents were also able to provide comments about the origin and/or destination of the trip they would like to make.

Forty-four residents of the NEK region commented on their desired trips. Several identified locations out of state to which they would like to travel, including Montreal, Quebec, and Canaan and Littleton, NH. More often, respondents identified the following locations as those to which they would like to transit access:

- | | |
|-----------------|--|
| ■ St. Johnsbury | ■ Bigger metropolitan areas in the NEK region |
| ■ Barton | ■ Hardwick |
| ■ Brighton | ■ Lyndonville |
| ■ Burke | ■ Morgan |
| ■ Charleston | ■ Orleans |
| ■ Concord | ■ Morrisville (Lamoille County) |
| ■ Derby/Newport | ■ Barre |
| ■ East Haven | ■ Burlington (including UVM Medical Center specifically) |
| ■ Holland | ■ Montpelier |
| ■ Island Pond | |

Survey respondents were also asked to choose up to three transit improvements that would make them or people they know more willing to use public transportation. Choices were:

- More service near my home
- Service to my desired destinations
- More frequent service
- Service that runs evenings and/or weekends
- Faster service
- More reliable



- Cheaper
- If I felt safer riding on it
- If I understood how it works
- Nothing, I prefer driving

Of the 74 responses to this question from the NEK region, 81% were in the top four categories: more service near my home (21%), more service to my destinations (17%), more frequent service (14%) and service in the evenings and/or weekends (8%).

Summary of Transit Service Gaps and Needs

The information presented above about NEK demographic characteristics, location of employers and key destinations, existing transit services, and comments from residents and stakeholders point to the following transit service gaps and needs for the NEK region.

Geographic Service Gaps

RCT deviated fixed route bus routes and shopper shuttles provide service in the communities that contain most of the Northeast Kingdom’s population, including concentrations of likely transit users and key destinations. Those communities include:

- ▶ St. Johnsbury
- ▶ Lyndon
- ▶ Newport
- ▶ Derby

Service is also available in smaller communities, such as:

- | | |
|-----------------------------|---------------|
| ▶ Waterford | ▶ Morgan |
| ▶ Danville | ▶ Brownington |
| ▶ Peacham | ▶ Barton |
| ▶ Ryegate and South Ryegate | ▶ Westfield |
| ▶ Brighton | ▶ Lowell |

Residents of those communities who live beyond the fixed route service areas and the ¼-mile deviation zones that extend the reach of the bus routes, and residents of other towns and villages, have limited if any transit service options available to them. Areas without service include Essex County and the central portion of the region.

Individuals who qualify for E&D transportation program trips are not limited to the communities that receive fixed route or shopper services but may face other transportation challenges, as discussed below.

Many employers of all sizes are located on or near RCT routes. Employers with 100 or fewer employees that do not appear to be located near fixed routes can be found in Jay, Newport, Greensboro, Lyndon, Concord, and Ryegate. One larger employer in Burke, with 100-299 employees, is not located close to a bus route.

Temporal Service Gaps

Fixed route shuttles provide service for approximately 10-12 hours a day, Monday through Friday; one route also operates on Saturday. Service frequency on two routes is 1-2 hours between trips; the other two routes



offer two morning trips and two afternoon trips, limiting their usefulness for some potential riders. Regional forum participants commented that service on the Jay-Lyn Shuttle (1-2 hours between trips) is not frequent enough.

Shopper services are limited in terms of days of operation, from one to three days a month, depending on the community.

Commuter routes offer one or two trips in the morning peak hours and several trips in the afternoon peak hours—good for commuters who work traditional hours, but not as useful for those with non-traditional work schedules. Regional forum participants mentioned being unable to use the bus to get to work in Littleton, NH because bus schedules do not accommodate work hours. They also identified the following work schedules that transit should accommodate:

- ▶ 3:00-11:00 PM
- ▶ 6:00-2:00 PM
- ▶ Weekends
- ▶ Holidays

Commuter routes also do not work for individuals who would like to reach regional destinations during mid-day hours for non-work purposes.

Regional forum participants mentioned that hospital discharges can happen at all times of day, including hours during which transportation services are not in operation. Students noted that they cannot use transit to get to evening classes.

Gaps for Specific Rider Groups/Trip Types

Regional forum participants and E&D partner organizations commented on the need for additional resources so that more social/wellness, shopping, and congregate meal trips can be provided for older adults and people with disabilities. Funding constraints mean that higher priority types of trips—critical medical care and adult day health trips are served first.

Other types of trips that are difficult to make using transit include trips associated with participation in a rehab program, including trips to work, counseling, and meetings related to probation.

Other Gaps

MetroQuest survey responses and comments from regional forum participants indicate that there is a need for more education and marketing about transportation options in the Northeast Kingdom.

Transit Market Segments

Size of Market Segments

For the purposes of developing public transit policies that focus transit investments on the markets that will most benefit from those policies, the number of individuals in the NEK region in each of seven sub-markets has been estimated. Market segments are mainly related to age but are also subdivided by income. Automobile availability is treated as a secondary characteristic, related to the age and income of each particular group. The results are shown in Table 3.



Table 3: Estimated Transit Market Segments, Northeast Kingdom Region, 2017

Market Segment	Likely Low-Auto Access	Estimated Number in Region, 2017
Youth (under 18)	X	11,853
Young adult (18-24), employed/student	X (by choice)	4,613
Adult (25-64)		25,013
Adult (25-64), below poverty line	X	2,479
People with disabilities (under age 80)	X	9,311
Younger seniors (65-79)		7,050
Older seniors (80+)	X	2,980
Total		63,299

Source: U.S. Census, American Community Survey (ACS) 5-Year Estimates

Youth and young adults, adults living in poverty, people with disabilities, and older seniors—those age 80 and older—are likely to have less access to a car for personal travel than adults with higher incomes and “newer” seniors, who typically continue to drive. Young adults, for reasons having to do with a number of generational trends, may prefer not to drive or own a car. For members of the other market segments, however, lack of access to a car is likely due more to an inability to drive or afford a car than to a choice. In the Northeast Kingdom, market segments that are likely to have limited or no access to a car make up nearly 43% of the population.

Impacts of Service Gaps on Market Segments

Table 4 summarizes the effect of the service gaps identified for the Northeast Kingdom region on the various transit sub-markets in the region.

Many gaps are broad enough to affect all market segments. These include travel challenges or needs related to:

- ▶ Geographic coverage
- ▶ Accessibility, which can include access to bus stops for all potential riders, not just those with disabilities
- ▶ Information about transit options
- ▶ Technology to make use of transit service more convenient

Other gaps are applicable to all but the youngest and oldest market segments because they deal with access to jobs or other types of trips those segments are not likely to make.

Finally, some gaps are specific to certain market segments. For example, only older adults and people with disabilities are affected by funding constraints in the E&D transportation program that can limit numbers or trip types.



Table 4: Gap Analysis by Transit Market Segment

Market Segment	Youth (under 18)	Young Adult (18-24), Employed or Student	Adult (25-64)	Adult (25-64), Below Poverty Line	People with Disabilities	Younger Seniors (65-79)	Older Seniors (80+)
Likely Low Auto Access	X	X (by choice)		X	X		X
Geographic Gaps							
Residents beyond the fixed route service area and in towns without fixed route bus service have limited options	X	X	X	X	X	X	X
Need for first/last mile options limits fixed route use	X	X	X	X	X	X	X
Small to moderate employers are not served by bus routes in Jay, Newport, Greensboro, Lyndon, Concord, Burke, and Ryegate		X	X	X	X		
Temporal Gaps							
Peak-only weekday schedules of commuter routes and hours of fixed route shuttles do not help those with non-traditional work hours. Work schedules to accommodate include 3-11 pm, 6 am – 2 pm, weekends, and holidays. Longer hours would also help students get to evening classes.		X	X	X	X	X	
Service days for shopper routes in rural communities, from 1-3 days per month, limit shopping opportunities		X	X	X	X	X	X
Hospital discharges can occur when transit services are not in operation		X	X	X	X	X	X
Trip Type Gaps							
E&D funding constraints limit social/wellness, shopping, and congregate meal trips for older adults and people with disabilities					X	X	X
Trips associated with rehab programs – work, counseling, probation meetings-are not provided/subsidized.		X	X	X	X		
Accessibility Needs							
More bus shelters and accessible signage or signals would encourage fixed route use	X	X	X	X	X	X	X
Technology Challenges							
Mobile apps for reservations and real-time vehicle location are desirable	X	X	X	X	X	X	X
Information Gaps							
Forum comments and survey responses indicate some lack of knowledge of available transportation options	X	X	X	X	X	X	X
Affordability Issues							
Not an issue for riders							

