Pinellas County MPO

2040 Long Range Transportation Plan

Scenario Planning and Benefit Analysis

I. Introduction

The Pinellas Metropolitan Planning Organization (MPO) is responsible for developing a Long Range Transportation Plan for Pinellas County or the Pinellas Transportation Plan (PTP) for 2040. The PTP is a 25-year vision of transportation improvements that best serve community needs and expectations. This Plan is required to secure state and federal transportation funds for projects.

The PTP has identified several hypothetical growth scenarios to compare benefits. The scenarios consider a variety of transportation priorities - or networks - for all modes of travel as well as population and employment growth patterns. Comparing the benefits of each scenario, along with listening to public comment, identifies where the PTP should focus funding for priority projects.

Why are we comparing scenarios?

Which scenario will best fulfill the goals established for the PTP and shared amongst the planning, transportation, and economic development agencies? The overarching question facing all of Pinellas County as it looks to the future is how the county can best accommodate future growth, attract new jobs, and maintain the quality of life enjoyed by the nearly one million people who call Pinellas County home. Other counties in Florida are able to rely on new, "greenfield" development, but Pinellas County, surrounded by water on three sides, has very little undeveloped land remaining and instead must look at other ways to grow. The PTP scenarios are as follows:

1) **Trend**: A scenario that assumes little change to how Pinellas grows or to the transit network, while completing remaining roadway projects, intersection upgrades, and congestion management projects.

2) **Premium Bus and Land Use:** A scenario that assumes major improvements to bus service, while completing remaining roadway projects, intersection upgrades, and congestion management projects. This scenario also includes minor changes to population and employment trends - focusing growth near the major roadway corridors and most frequent bus routes;

3) **Transit Investment and Land Use:** A scenario that assumes major improvements to bus service, implementation of a light rail transit system, while completing remaining roadway projects, intersection upgrades, and congestion management. The light rail service would connect downtown Clearwater, the Gateway area, and downtown St Petersburg, with significant changes in population and employment growth attracted to rail station areas.

All scenarios include roadway improvements described in the Trend Scenario and are consistent with the Pinellas Planning Council's Countywide Land Use Update.

How were the scenarios compared?

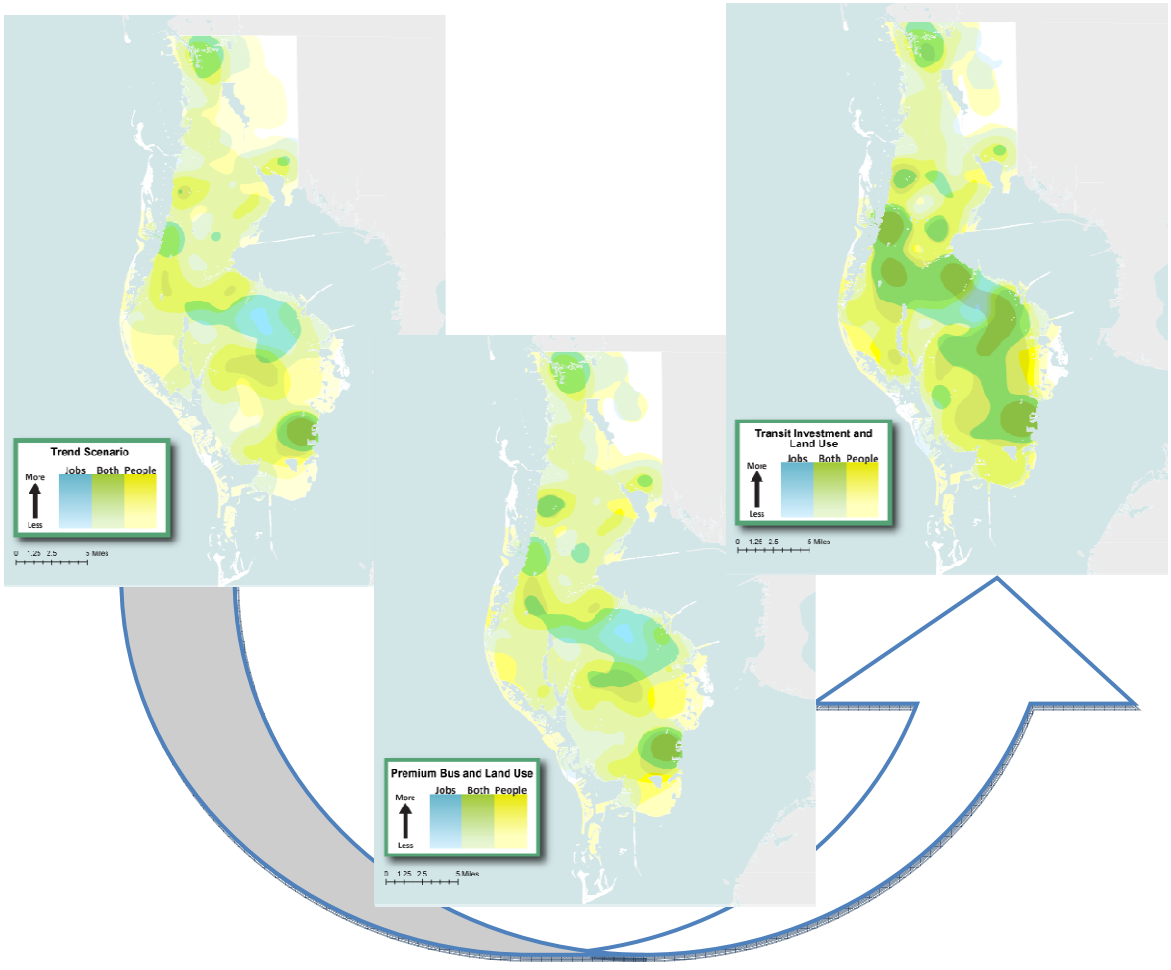
In order to predict which scenario might best meet the county's growth and mobility goals, a comparison was made between placement of growth, access to employment, and access to transportation. The primary purpose of these measures is listed below.

- Each scenario's ability to **Create Jobs** through access to transportation[1] and access to workforce.
- Each scenario's ability to **Strengthen Communities**, by providing mobility, focusing growth that most efficiently uses existing infrastructure and reducing the impact on stable residential neighborhoods.

What are the Key Differences?

The following section provides a narrative of the key differences between each scenario based on a comparison of access to jobs, mobility, and growth. **Figure 1** illustrates the key difference in growth patterns for each Scenario.

Figure 1. Growth Scenarios



Trend Scenario

What would happen if the present trend continues? No major changes are made to transit service and growth patterns are similar to historical trends.

[1]via Transit (Light Rail, Frequent Bus with service within 15 minute intervals, and other bus service) and/or Premium Roadways defined as principal arterials and FDOT Strategic Intermodal System facilities.

Where do people live? There are fewer new residents to Pinellas County, and most people continue to live in single family homes separated from amenities and job centers. Any new growth continues to spread across the county placing development pressures on north county communities; there is also naturally occurring redevelopment, such as is seen in downtown St. Petersburg.

Where do people work? The current job and activity centers would see little growth. Of that limited growth, Downtown St. Petersburg, Clearwater, and Gateway would continue to capture most employment opportunities, with others continuing to spread along key roads or into neighboring counties.

~ 75 % or 427,000	**Jobs** are within 1/4 Mile of Premium Roadways
~ 15 % or 85,000	**Jobs** are within 1/4 Mile of Frequent Transit
~ 54 % or 520,000	**People** are within 1/4 Mile of Major Employment & Activity Centers

How do people get around? Most people continue to get to work driving alone in a car. Some neighborhoods are able to take advantage of safe bicycle and pedestrian infrastructure such as the Pinellas Trail. Transit ridership continues to increase, although system expansion and investment is severely curtailed. Tourists enjoy some transit accessibility using trolleys near the beaches and in downtown St. Petersburg, but long distance travel is inconvenient.

~ 57 % or 547,000	**People** are within 1/4 Mile of Premium Roadways
~ 14 % or 134,000	**People** are within 1/4 Mile of Frequent Transit

Premium Bus and Land Use Scenario

What would happen if PSTA implemented significant increases to local bus service? The investment would be noticed throughout the county with more service in North County and shorter wait times on several key routes. Some land use policy changes may encourage development near these more frequent routes. This development may include more shopping centers and a few more townhouses or apartment complexes.

Where do people live? Pinellas County experiences some residential growth, mainly in the downtown areas, but the vast majority of people still live in single family neighborhoods. Housing choices are limited.

Where do people work? Most jobs are still spread across the county with concentrations in downtown St. Petersburg, Clearwater, and the Greater Gateway Area. Major new office parks or light industrial areas outside of the Greater Gateway Area will be difficult to accommodate.

~ 7,000	**More Jobs** are within 1/4 Mile of Premium Roadways (vs. Trend)
~ 40,000	**More Jobs** are within 1/4 Mile of Frequent Transit (vs. Trend)
~ 9,000	**More People** are within 1/4 Mile of Major Employment & Activity Centers (vs. Trend)

How do people get around? More people live and work within access to bus service on key arterials due to the increased transit service. Major activity centers, parks, and other recreation sites are more easily accessed by transit. PSTA ridership increases to its highest historic level. It is especially heavily used by those living and working near frequent service. Still, most people drive to work alone in cars.

~ 9,500	**More People** are within 1/4 Mile of Premium Roadways (vs. Trend)
~ 612,500	**More People** are within 1/4 Mile of Frequent Transit (vs. Trend)

Transit Investment and Land Use Scenario

What would happen if light rail transit connected the largest population and job centers in Pinellas County? The investment in premium transit service would impact the entire county by increasing access to transit and through significant redevelopment near rail stations. This investment in a rail system would also begin to attract new jobs and people from around Tampa Bay, Florida, and nationwide. The light rail system would also be supported by vastly improved bus service as described in the Premium Bus and Land Use Scenario.

Where do people live? Housing choices are increased, and Pinellas County residents, including a substantial number of people new to the county, can find homes in stable neighborhoods with single family homes, as well as newly redeveloped areas near the stations with townhomes, condos, and apartments. New housing is mixed with other uses like neighborhood retail and office.

Where do people work? Employment growth is seen across the county, with new industries and jobs being attracted to station areas with their concentrations of activity and life.

~ 88,000	**More Jobs** are within 1/4 Mile of Premium Roadways (vs. Trend)
~ 487,000	**More Jobs** are within 1/4 Mile of Frequent Transit (vs. Trend)
~ 118,000	**More People** are within 1/4 Mile of Major Employment & Activity Centers (vs. Trend)

How do people get around? Substantially more people live and work within access to transit, bus and light rail, and key arterials. While cars are still common, it is not necessary to own or drive a car to get around Pinellas County conveniently. Tourists are able to travel to and from the airports, beaches, parks, and other attractions. Bicycle and pedestrian investments continue, and more people feel safe traveling by these modes. Students are able to get to neighborhood schools safely on their bikes or by walking.

~ 115,000	**More People** are within 1/4 Mile of Premium Roadways (vs. Trend)
~ 735,000	**More People** are within 1/4 Mile of Frequent Transit (vs. Trend)

Summary

After comparing the trend to the Premium Bus and Land Use and Transit Investment and Land Use Scenarios, the benefits of clustering development around transit service and stations are many. Both scenarios will provide mobility alternatives to the automobile and shorten the distance between home and work for a larger number of people. Focusing growth, as described by the Transit Investment and Land Use Scenario, also helps preserve existing, quality neighborhoods.

The expected growth in the number of people living and working in Pinellas County changes significantly between the scenarios. Under the Trend Scenario, about 64,000 new residents and 49,000 workers are expected in Pinellas County by 2040. The Transit Investment and Land Use Scenario predicts that more than 200,000 people will move to Pinellas County and create nearly 148,000 new jobs during the same timeframe.

Not only will Pinellas County experience more growth in the Transit Investment and Land Use Scenario, but it is efficient and focused growth that takes advantage of existing infrastructure and uses the investments in new infrastructure wisely. A substantial number of people will live and work closer to premium transit, making it that much easier and convenient to choose a mode of travel other than a personal vehicle.

So, imagine that transit is accessible, frequent, convenient, safe, and goes where people go. Imagine a Pinellas County where…

~1.2 X	**More people live** within 1/4-mile of Premium Roadways
~6.5 X	**More people live** within 1/4-mile of Frequent Transit Routes
~1.2 X	**More people work** within 1/4-mile of Premium Roadways
~6.7 X	**More people work** within 1/4-mile of Frequent Transit Routes
~1.2 X	**More people live** within 1/4-mile of Employment and Activity Centers

II. Methodology

As described, the scenario analysis focused on the amount and location of population and employment growth and distance from transportation. **Table 1** provides a detailed description of each Scenario and its components. **Table 2** summarizes growth projections by Scenario. **Figures 2** through **4** highlight these scenario components.

Table 1. Scenario Definitions

Trend Scenario	
Growth	Assumes growth similar to historic trends (Trend Scenario) while evaluating existing vacant properties and the growth, both in jobs and population, which could occur through redevelopment.
Targeted Employment and Activity Centers*	The Pinellas Planning Council (PPC) is currently updating their Countywide Land Use Plan. To ensure consistency between the MPO Scenario comparison and the PPC Plan, areas identified by the PPC as Targeted Employment and Activity Centers are used to define major employment areas.
Premium Roadways	All principal arterials and FDOT Strategic Intermodal System (SIS) facilities have been defined as major roadways for this evaluation. Examples range from Ulmerton Road to SR 60 to Interstate-275.
Transit	Trend Scenario transit network assumes the existing PSTA bus service and routes (2012).
Premium Bus and Land Use Scenario	
Growth	Assumes minor changes in growth as compared to the Trend Scenario, focusing new growth along frequent transit routes. However the amount of transit service is dramatically increased in this scenario — providing more service to more households and jobs.
Targeted Employment and Activity Centers*	Same as Trend Scenario
Premium Roadways	Same as Trend Scenario
Transit	Assumes a transit network with significant improvement to PSTA bus service based on future recommendations defined by the Community Bus Plan's optimal bus scenario. Frequent transit is defined as having service more frequent than every 15 minutes during the peak period.
Transit Investment and Land Use Scenario	
Growth	The Transit Investment and Land Use Scenario assumes significant changes in growth as compared to the Trend Scenario, focusing new growth near light rail stations. Similar to the Premium Bus and Land Use Scenario, the amount of transit service is also dramatically increased; providing more service to more households and jobs.
Targeted Employment and Activity Centers*	Same as Trend Scenario
Premium Roadways	Same as Trend Scenario
Transit	Assumes a transit network with significant improvement to PSTA bus service (similar to the Premium Bus and Land Use Scenario) with the implementation of light rail as recommended by the Pinellas Alternatives Analysis. Frequent transit is defined as having service more frequent than every 15 minutes during the peak period.

*At the time of this evaluation the PPC Countywide Plan was not complete and in draft form. It is recommended that this measure and its analysis be revisited when the PPC Countywide Plan is complete.

Table 2. Scenario Growth Projections

Scenario	Total Population	Growth vs. 2010	Total Employment	Growth vs. 2010
Trend Scenario	959,368	63,906	566,367	49,466
Premium Bus and Land Use Scenario	973,111	77,649	574,479	57,578
Transit Investment and Land Use Scenario	1,096,801	204,358	665,111	148,209

Figure 2.Targeted Employment and Activity Centers

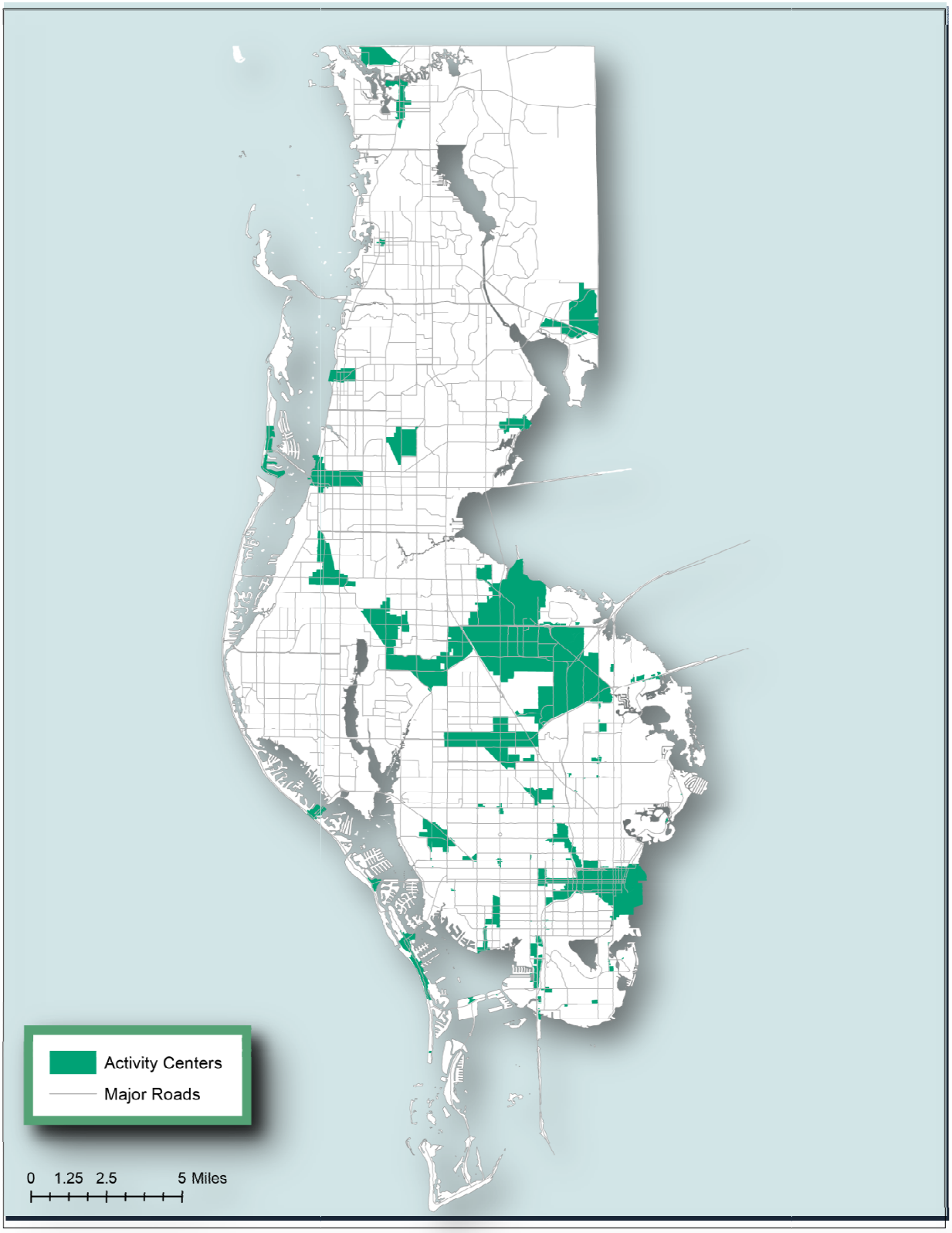


Figure 3.Premium Roadways

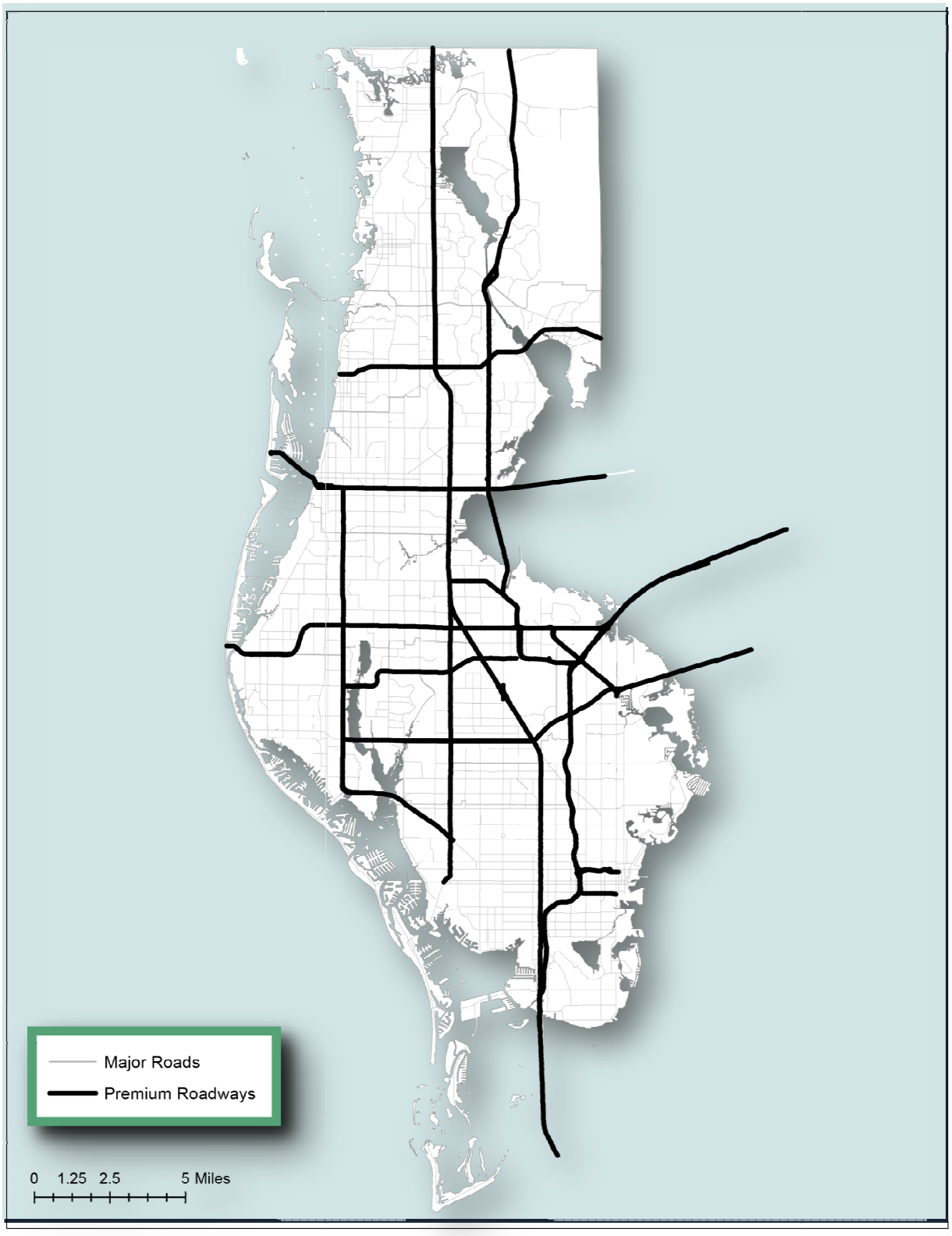
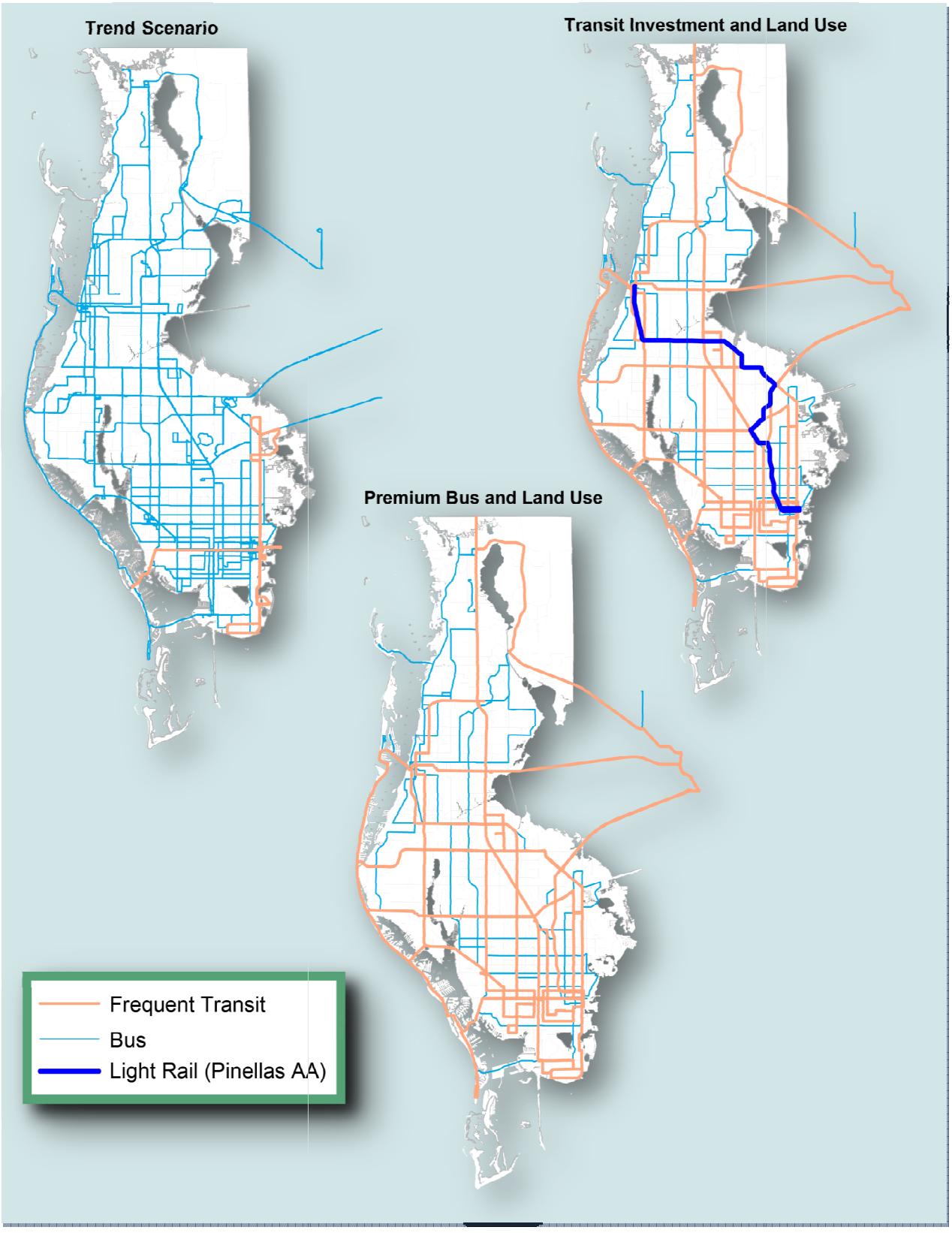


Figure 4. Transit



Performance Measures

A series of performance measures was coordinated with the PTP Goals and Objectives and then defined to evaluate and compare scenarios to the Trend Scenario. As stated, the placement of growth, access to employment, and access to transportation, were the focuses for each performance measure. **Table 3** describes these performance measures in detail.

Table 3. Quantitative Performance Measures

Strengthen Communities: Comparison of Growth	
Measure	Methodology
Location of Growth	Compare distribution of population growth by community
Strengthen Communities: Comparison of Mobility Benefits	
Measure	Methodology
Population with Access to Transit	Compare average population within 0.25, 0.5, 1, and 5 miles from all transit services for each scenario.
Population with Access to Premium Transit	Compare population within 0.25, 0.5, 1, and 5 miles from frequent bus service and the Pinellas LPA (Transit Investment and Land Use Scenario Only).
Population with Access to Premium Roadways	Compare population within 0.25, 0.5, 1, and 5 miles from premium roadway infrastructure for each scenario.
Access for Transit Dependent	Compare number of transit dependent households (0 and 1 car households) within 0.5 miles from transit service for each scenario.
Create Jobs: Comparison of Employment Benefits	
Measure	Methodology
Access to Activity and Employment Centers	Compare growth in population within 0.25, 0.5, 1, and 5 miles from employment and activity centers (as defined by the PPC Countywide Plan Update) for each scenario.*
Jobs with Access to Transit	Compare average job density within 0.25, 0.5, 1, and 5 miles from all transit services for each scenario.
Jobs with Access to Premium Transit	Compare number of jobs within 0.25, 0.5, 1, and 5 miles from frequent bus service and the Pinellas LPA (Transit Investment and Land Use Scenario Only).
Jobs with Access to Premium Roadways	Compare number of jobs within 0.25, 0.5, 1, and 5 miles from premium roadway infrastructure for each scenario.

*Note: At the time of this evaluation the PPC Countywide Plan was not complete and in draft form. It is recommended that this measure and its analysis be revisited when the PPC Countywide Plan is complete.

III. Detailed Comparison of Results

Using the performance measures above, the Premium Bus and Land Use and Transit Investment and Land Use Scenarios were compared against the Trend Scenario. **Figures 5** through **16** illustrate growth compared to the scenario performance measures. Using the geographic analytical tool, GIS, each scenario's projected job and population forecasts for 2040 were compared against each scenario's performance measures. **Tables 4** through **9** detail the results of that analysis.

Figure 5. Trend Scenario Growth Compared to Targeted Employment and Activity Centers

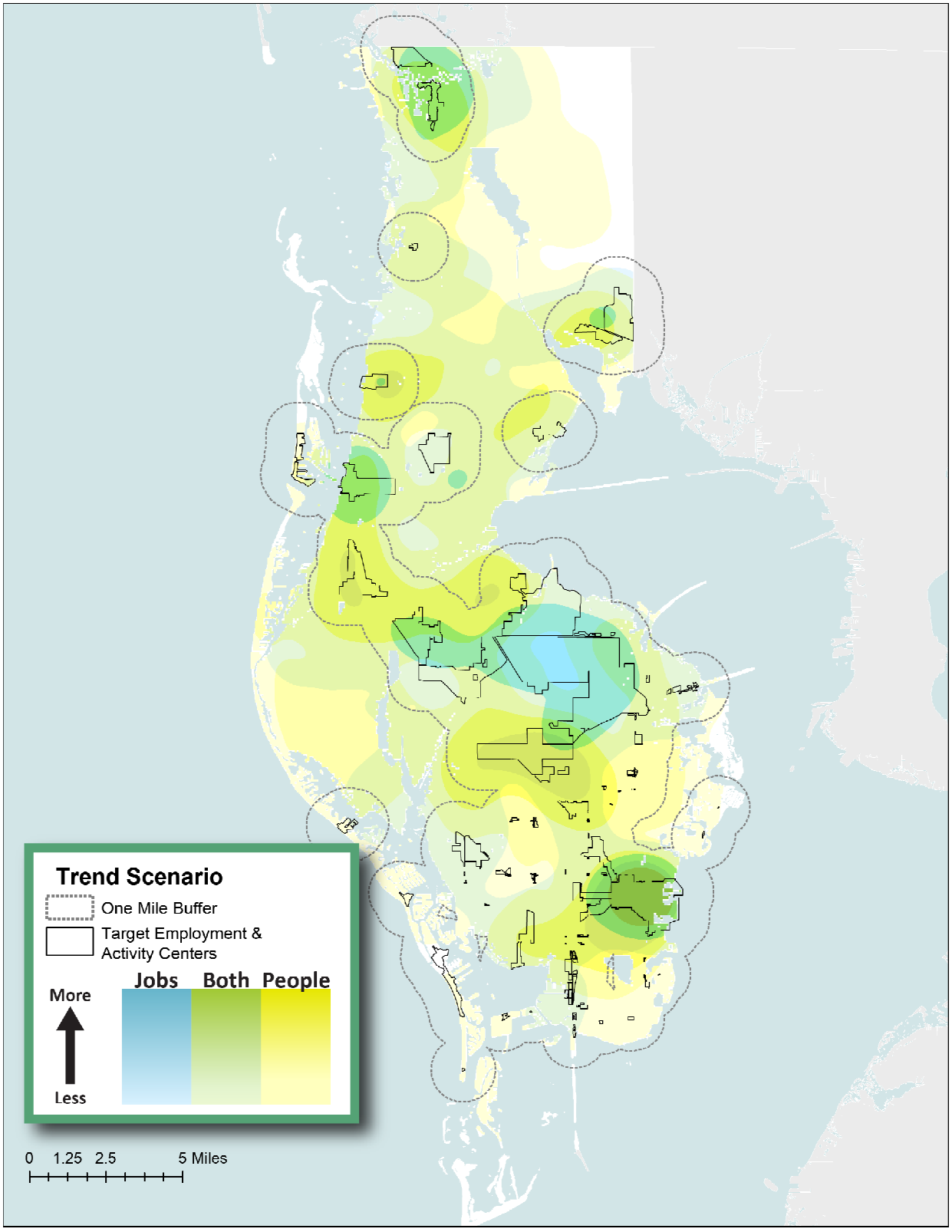


Figure 6. Premium Bus and Land Use Scenario Growth Compared to Targeted Employment and Activity Centers

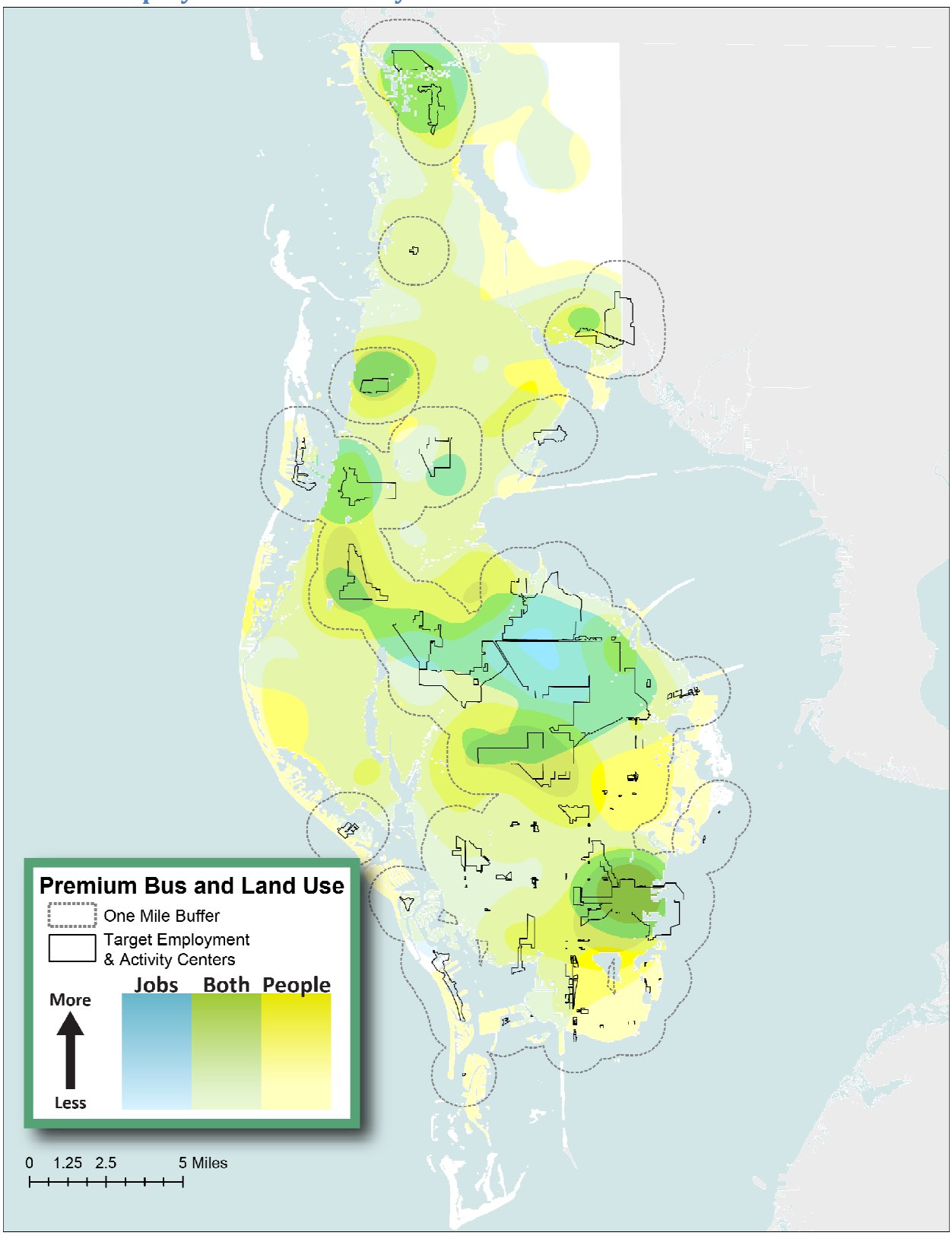


Figure 7.Transit Investment and Land Use Scenario Growth Compared to Targeted Employment and Activity Centers

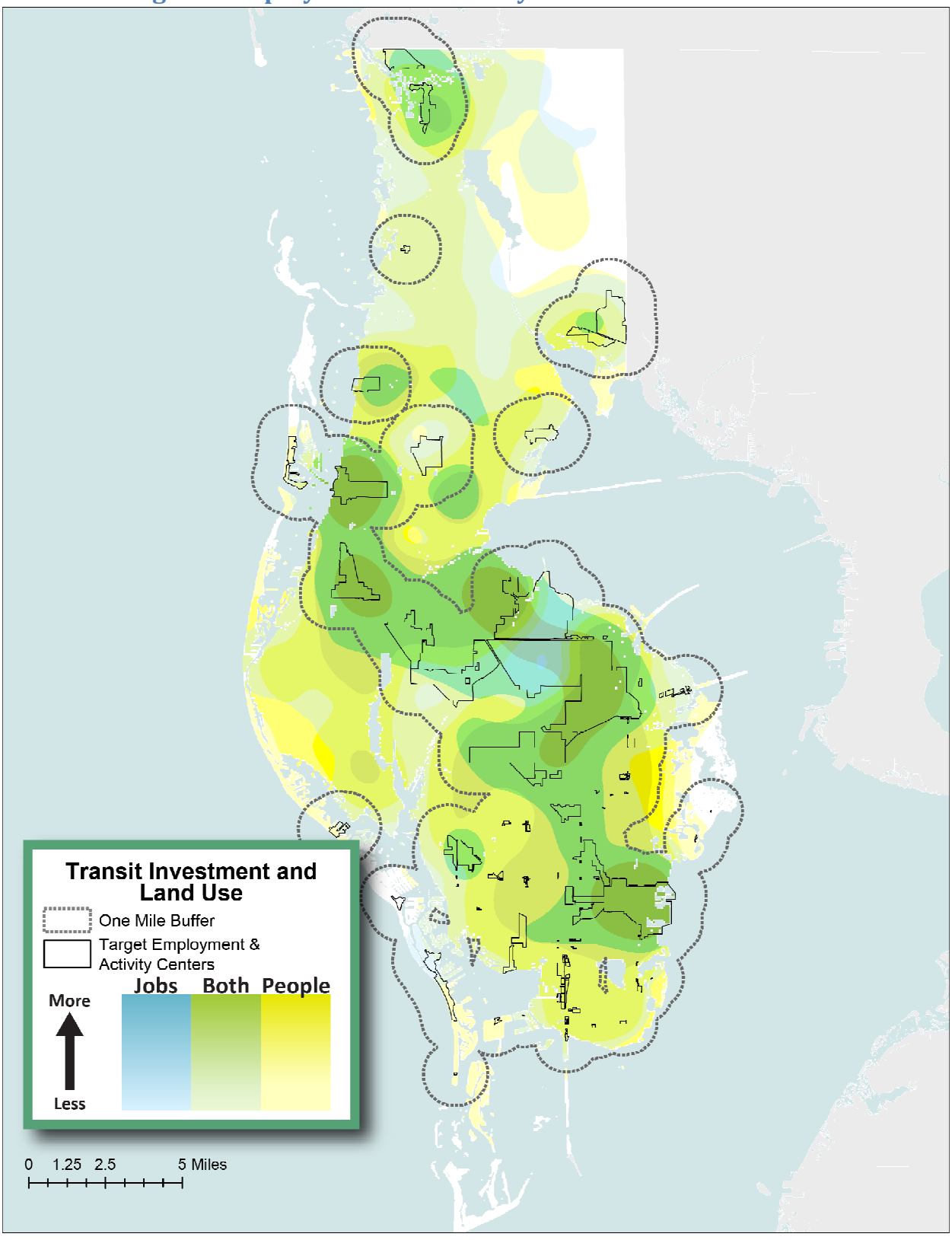


Figure 8. Trend Scenario Growth Compared to Premium Roadways

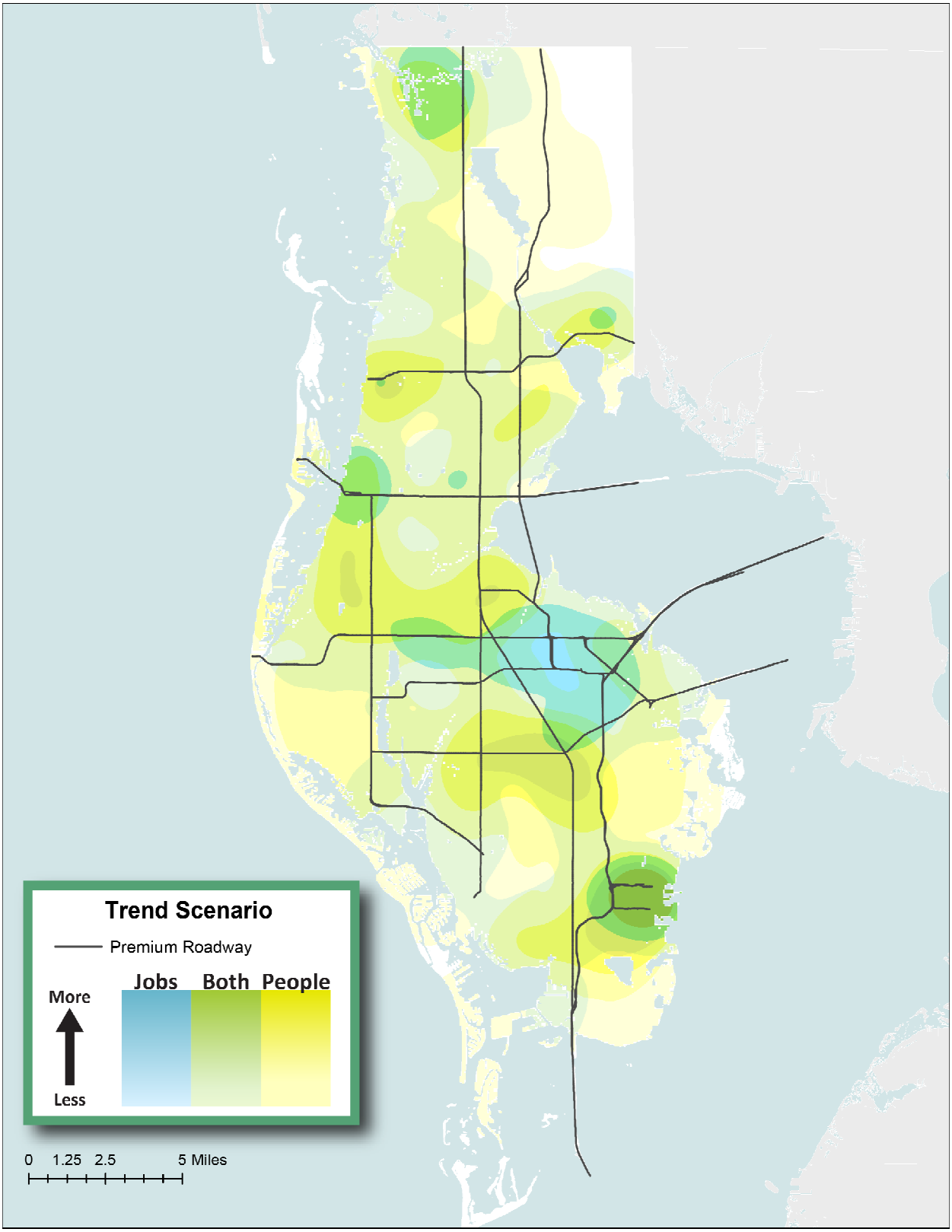


Figure 9. Premium Bus and Land Use Scenario Growth Compared to Premium Roadways

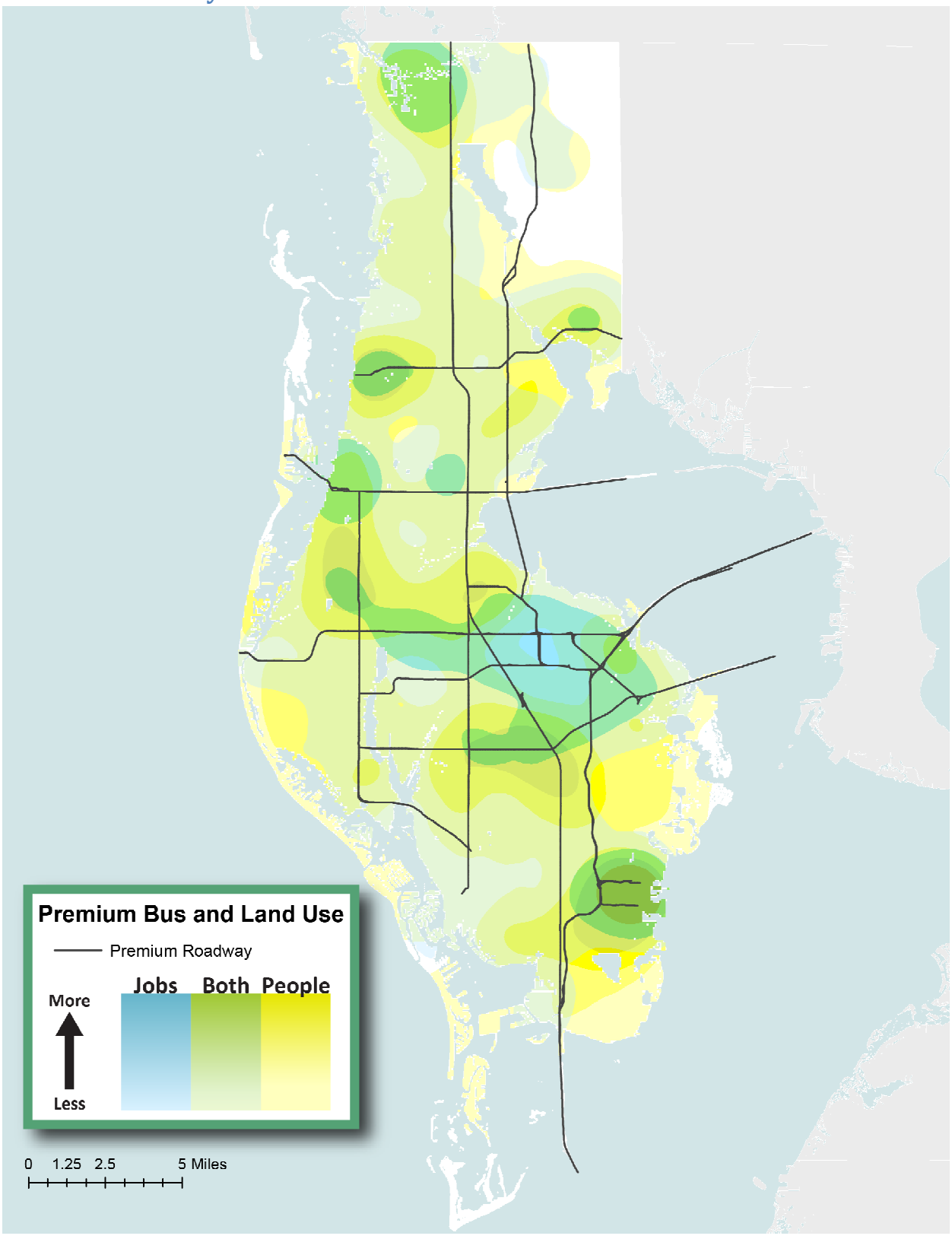


Figure 10. Transit Investment and Land Use Scenario Growth Compared to Premium Roadways

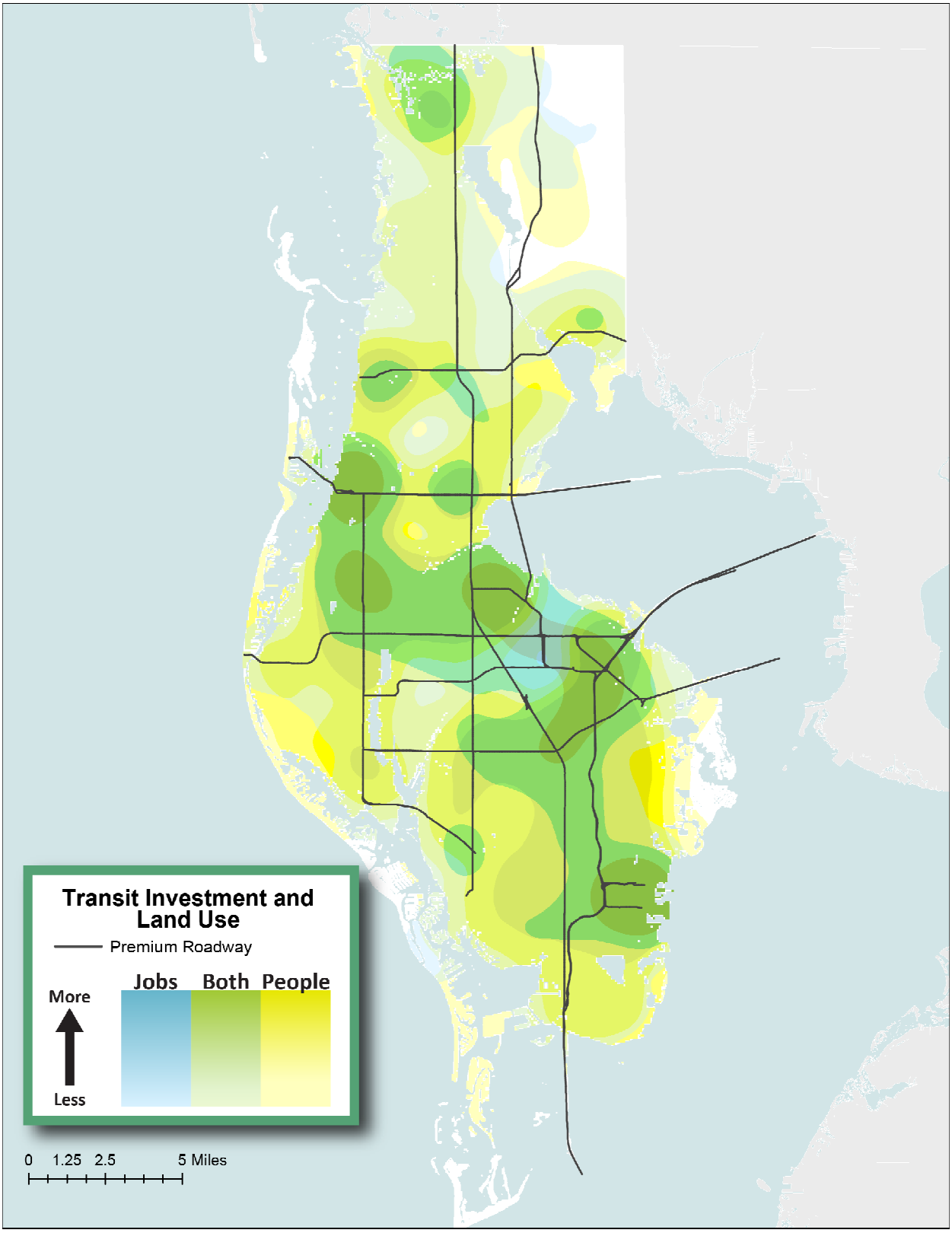


Figure 11. Trend Scenario Growth Compared to Transit

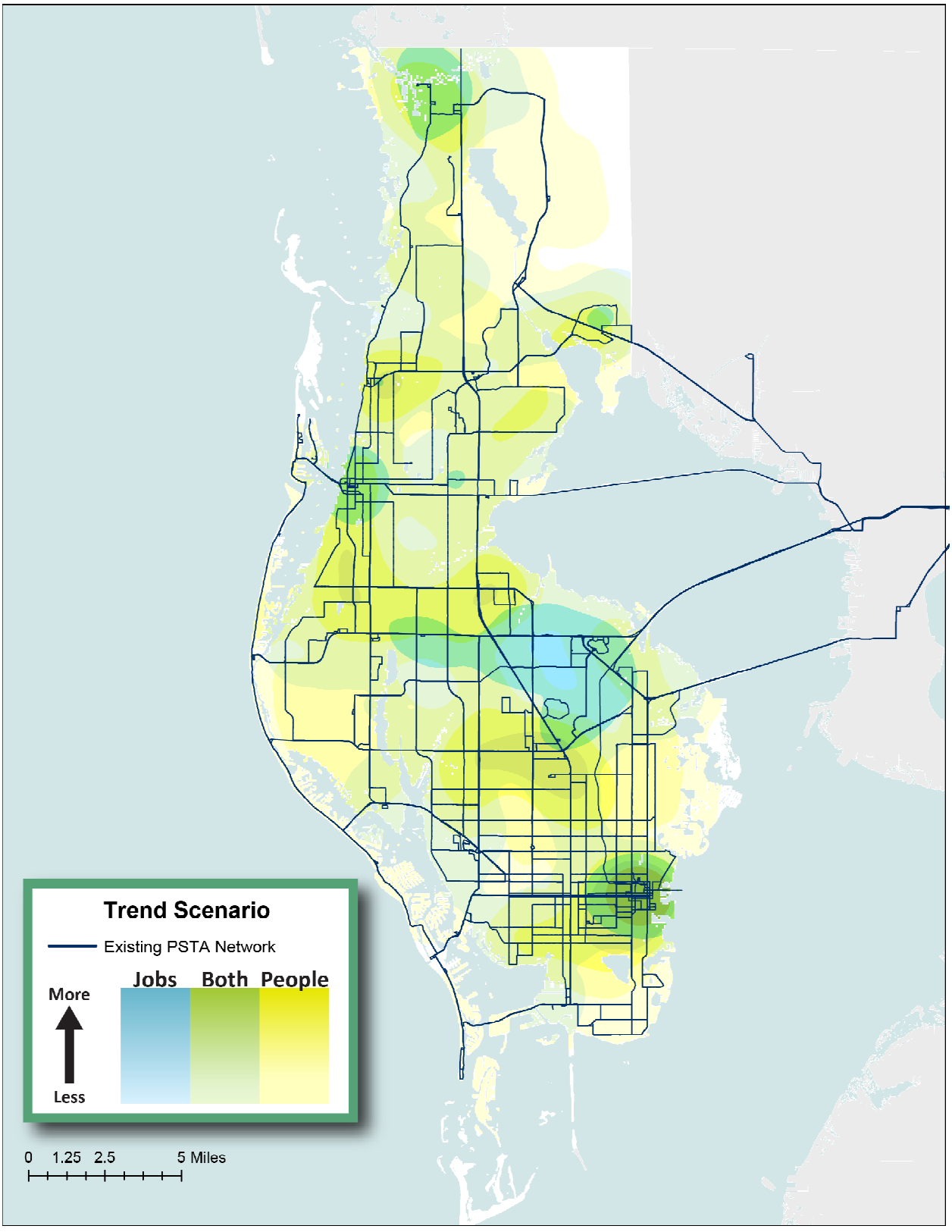


Figure 12. Premium Bus and Land Use Scenario Growth Compared to Transit

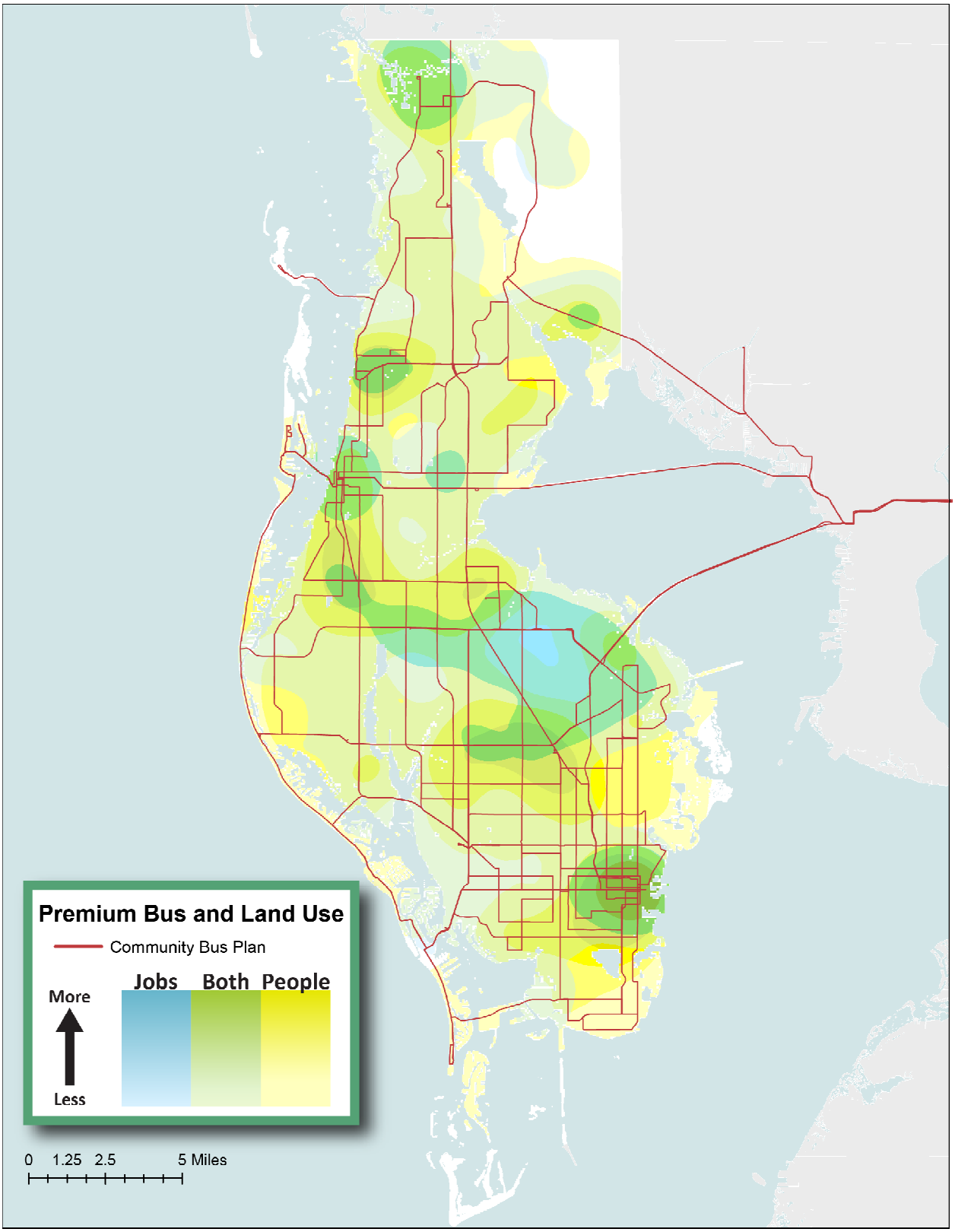


Figure 13.Transit Investment and Land Use Scenario Growth Compared to Transit

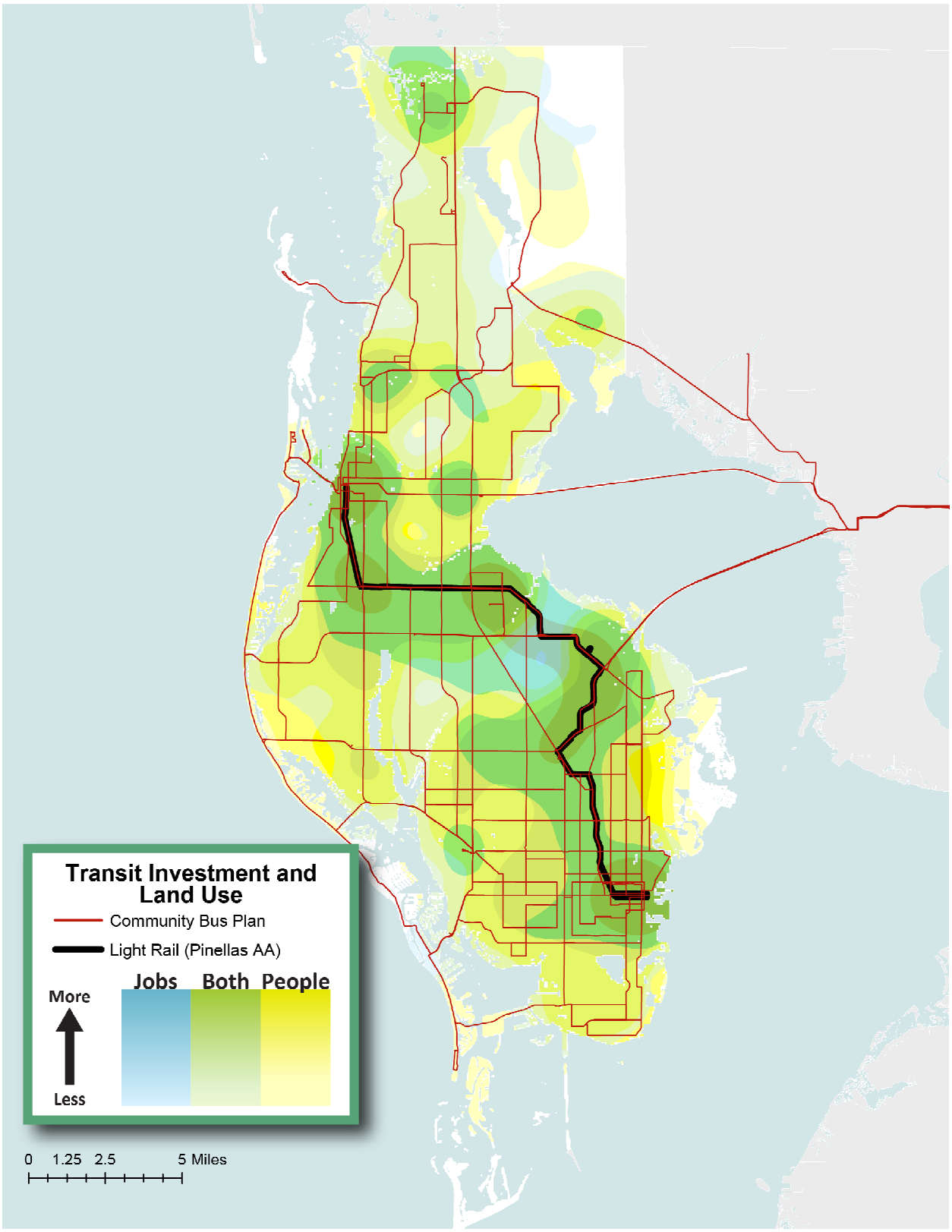


Figure 14. Trend Scenario Growth Compared to Frequent Transit

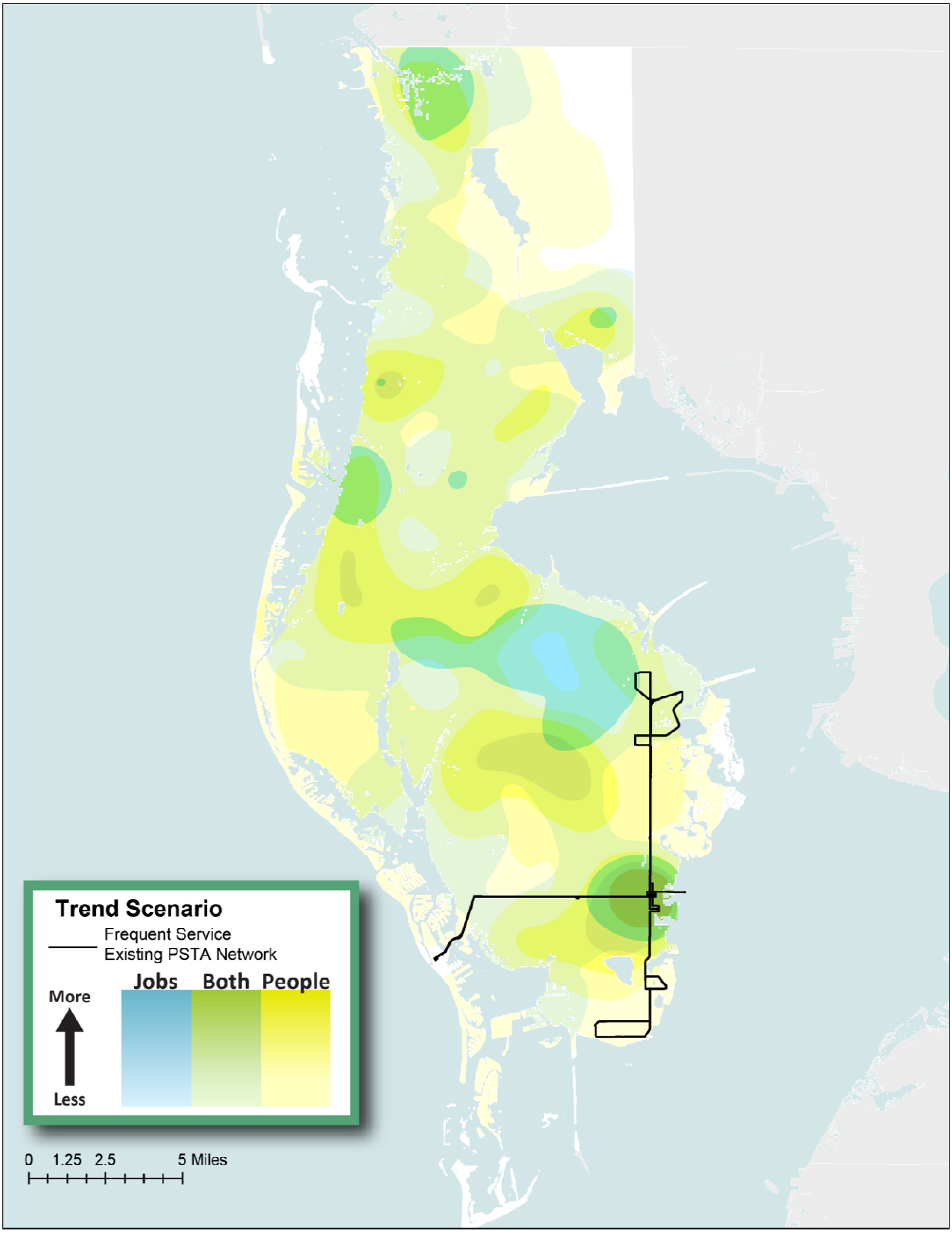


Figure 15. Premium Bus and Land Use Scenario Growth Compared to Frequent Transit

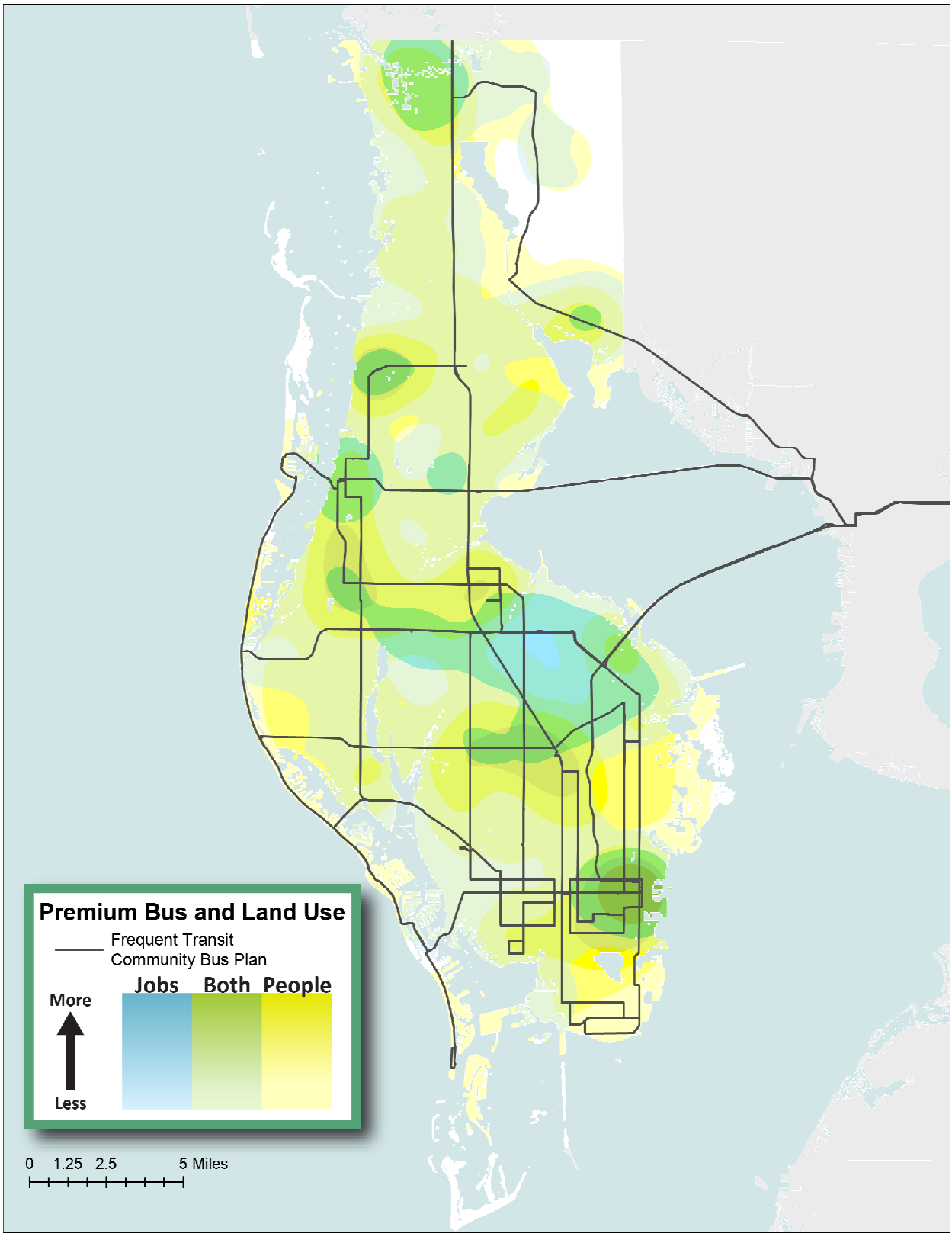


Figure 16. Transit Investment and Land Use Scenario Growth Compared to Premium Transit

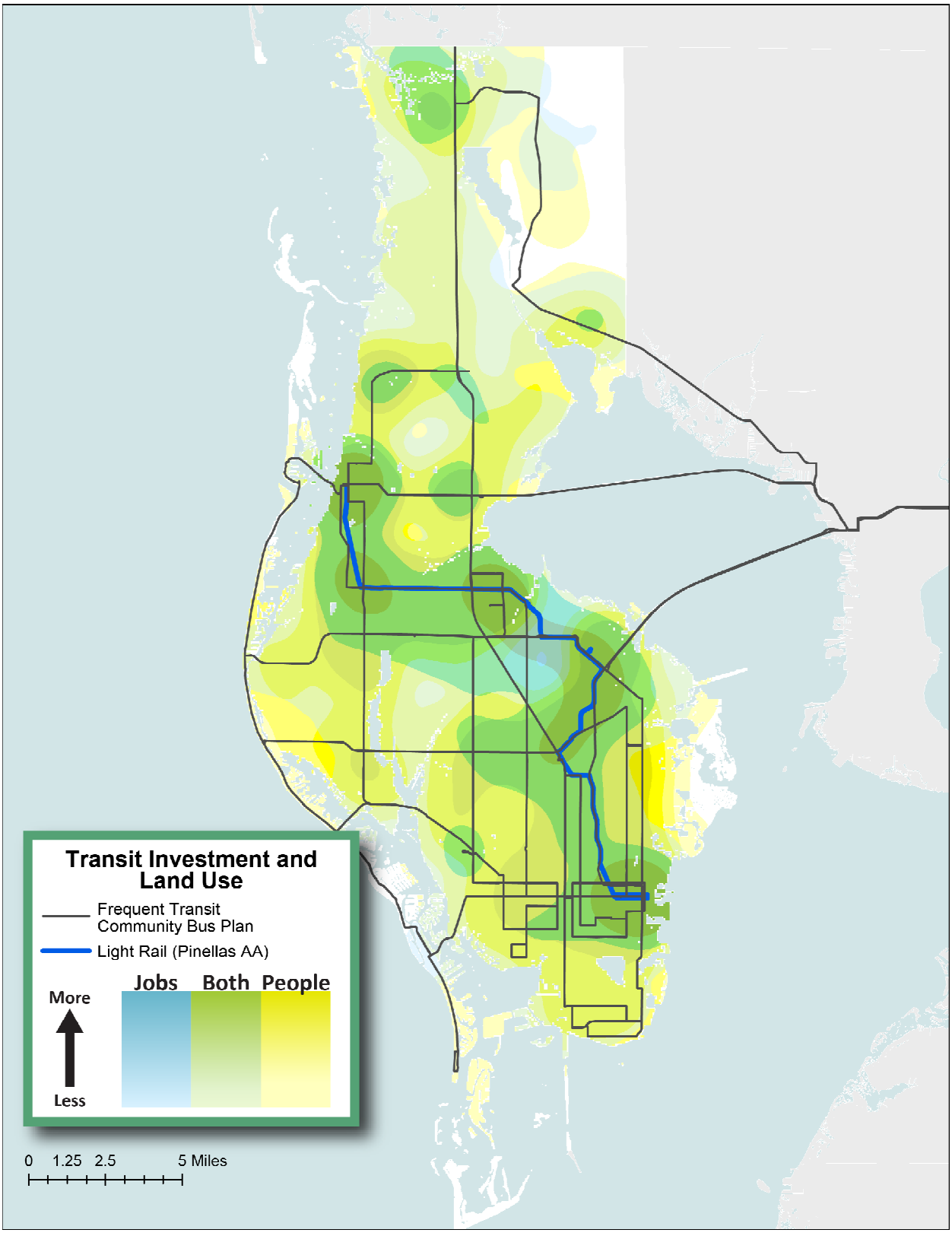


Table 4. Distance to Targeted Employment and Activity Areas

Trend Scenario		
Distance	Population	Jobs
Within 0.25 Miles	520,727	406,300
Within 0.5 Miles	607,073	435,577
Within 1 Mile	743,286	482,806
Within 5 Miles	959,368	566,367
Premium Bus and Land Use Scenario		
Distance	Population	Jobs
Within 0.25 Miles	529,885	411,958
Within 0.5 Miles	617,610	441,807
Within 1 Mile	755,353	489,623
Within 5 Miles	973,111	574,479
Transit Investment and Land Use Scenario		
Distance	Population	Jobs
Within 0.25 Miles	638,700	493,173
Within 0.5 Miles	733,591	528,481
Within 1 Mile	877,367	578,960
Within 5 Miles	1,096,801	665,111
Premium Bus and Land Use Scenario Compared to Trend		
Distance	Growth in Population	Growth in Jobs
Within 0.25 Miles	9,158	5,658
Within 0.5 Miles	10,537	6,230
Within 1 Mile	12,067	6,817
Within 5 Miles	13,743	8,112
Transit Investment and Land Use Scenario Compared to Trend		
Distance	Growth in Population	Growth in Jobs
Within 0.25 Miles	117,973	86,873
Within 0.5 Miles	126,518	92,904
Within 1 Mile	134,081	96,154
Within 5 Miles	137,433	98,744

Table 5. Distance to Premium Roadways

Trend Scenario		
Distance	Population	Jobs
Within 0.25 Miles	547,445	426,826
Within 0.5 Miles	651,235	467,543
Within 1 Mile	799,397	521,384
Within 5 Miles	959,368	566,367
Premium Bus and Land Use Scenario		
Distance	Population	Jobs
Within 0.25 Miles	556,968	433,687
Within 0.5 Miles	662,039	474,717
Within 1 Mile	811,614	528,928
Within 5 Miles	973,111	574,479
Transit Investment and Land Use Scenario		
Distance	Population	Jobs
Within 0.25 Miles	662,760	514,981
Within 0.5 Miles	774,951	562,960
Within 1 Mile	929,389	618,327
Within 5 Miles	1,096,801	665,111
Premium Bus and Land Use Scenario Compared to Trend		
Distance	Growth in Population	Growth in Jobs
Within 0.25 Miles	9,523	6,861
Within 0.5 Miles	10,804	7,174
Within 1 Mile	12,217	7,544
Within 5 Miles	13,743	8,112
Transit Investment and Land Use Scenario Compared to Trend		
Distance	Growth in Population	Growth in Jobs
Within 0.25 Miles	115,315	88,155
Within 0.5 Miles	123,716	95,417
Within 1 Mile	129,992	96,943
Within 5 Miles	137,433	98,744

Table 6. Distance to Transit

Trend Scenario		
Distance	Population	Jobs
Within 0.25 Miles	924,415	559,188
Within 0.5 Miles	940,642	561,443
Premium Bus and Land Use Scenario		
Distance	Population	Jobs
Within 0.25 Miles	924,434	562,995
Within 0.5 Miles	945,614	568,234
Transit Investment and Land Use Scenario		
Distance	Population	Jobs
Within 0.25 Miles	1,048,124	653,444
Within 0.5 Miles	1,069,304	658,866
Premium Bus and Land Use Scenario Compared to Trend		
Distance	Growth in Population	Growth in Jobs
Within 0.25 Miles	19	3,807
Within 0.5 Miles	4,972	6,791
Transit Investment and Land Use Scenario Compared to Trend		
Distance	Growth in Population	Growth in Jobs
Within 0.25 Miles	123,709	94,256
Within 0.5 Miles	128,662	97,423

Table 7. Distance to Premium Transit

Trend Scenario		
Distance	Population	Jobs
Within 0.25 Miles	134,111	85,274
Within 0.5 Miles	170,881	104,785
Within 1 Mile	226,589	134,657
Within 5 Miles	422,603	286,590
Premium Bus and Land Use Scenario		
Distance	Population	Jobs
Within 0.25 Miles	746,607	480,813
Within 0.5 Miles	822,193	515,184
Within 1 Mile	919,067	553,757
Within 5 Miles	973,111	574,479
Transit Investment and Land Use Scenario		
Distance	Population	Jobs
Within 0.25 Miles	869,224	572,054
Within 0.5 Miles	947,114	605,872
Within 1 Mile	1,042,757	644,389
Within 5 Miles	1,096,801	665,111
Premium Bus and Land Use Scenario Compared to Trend		
Distance	Growth in Population	Growth in Jobs
Within 0.25 Miles	612,496	395,539
Within 0.5 Miles	651,312	410,399
Within 1 Mile	692,478	419,100
Within 5 Miles	550,508	287, 889
Transit Investment and Land Use Scenario Compared to Trend		
Distance	Growth in Population	Growth in Jobs
Within 0.25 Miles	735,113	486,780
Within 0.5 Miles	776,233	501,087
Within 1 Mile	816,168	509,732
Within 5 Miles	674,198	378,521

Table 8. Transit Reliant Distance from Transit

Scenario	Transit Reliant Homes within 0.5 Miles of Transit
Trend Scenario	Measures to be evaluated in Fall 2013.
Premium Bus and Land Use Scenario	
Growth of Premium Bus and Land Use Compared to Trend Scenario	
Transit Investment and Land Use Scenario	
Growth of Transit Investment and Land Use Compared to Trend Scenario	
Scenario	**Transit Reliant Homes within 0.5 Miles of Transit**
Trend Scenario	Measures to be evaluated in Fall 2013.
Premium Bus and Land Use Scenario	
Growth of Premium Bus and Land Use Compared to Trend Scenario	
Transit Investment and Land Use Scenario	
Growth of Transit Investment and Land Use Compared to Trend Scenario	

Qualitative Performance Measures

There are also a number of other qualities that are important, but difficult to measure. These qualitative performance measures were also considered, as follows and are described in **Table 8**:

- Compare each individual's average annual cost to use an automobile vs. transit
  - Currently it costs $9,122 annually to own and operate a car[2].
  - PSTA's monthly pass, The Passport, allows unlimited access on all PSTA and Hillsborough Area Regional Transit services and costs $85. Annually it costs $1,020.
- Increased housing choices for current and future residents
- More cost-effective development that takes advantage of existing resources
- Potential impacts to air quality and dependence on fossil fuels

[2] AAA Auto Club, April 2013. Costs include maintenance, fuel, tires, insurance, and depreciation, and are based on driving a sedan 15,000 miles annually.

Table 9. Qualitative Performance Measures

Measure	Result		
	Trend	Premium Bus and Land Use	Transit Investment and Land Use
Compare each individual's average annual cost to use an automobile vs. transit			
Increased housing choices for current and future residents			
More cost-effective development that takes advantage of existing resources			
Potential impacts to air quality and dependence on fossil fuels			
Legend	 Worse Than Today	 Slightly Better Than Today	 Much Better Than Today