NFRMPO
NORTH FRONT RANGE METROPOLITAN PLANNING ORGANIZATION

NORTH FRONT RANGE METROPOLITAN PLANNING ORGANIZATION

LONG RANGE TRANSPORTATION DEMAND MANAGEMENT PLAN

DECEMBER 2010

SUBMITTED BY: URBANTRANS NORTH AMERICA

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NFRMPO
NORTH FRONT RANGE METROPOLITAN PLANNING ORGANIZATION

RESOLUTION NO. 2010- 21
OF THE NORTH FRONT RANGE TRANSPORTATION & AIR QUALITY PLANNING COUNCIL ADOPTING THE LONG RANGE TRANSPORTATION DEMAND MANAGEMENT PLAN IN CONFORMANCE WITH FEDERAL REQUIREMENTS

WHEREAS, the North Front Range Transportation & Air Quality Planning Council (NFRMPO) is designated as the Metropolitan Planning Organization (MPO) in cooperation with local elected officials and is authorized to carry out the continuing, cooperative, and comprehensive transportation planning process that results in plans and programs that consider all transportation modes and supports community development and social goals; and

WHEREAS, the MPO has been designated by the U.S. Department of Transportation and the Colorado Department of Transportation (CDOT) to direct, coordinate, and administer planning processes as mandated by the Congress in Titles 23 and 49 U.S.C.; and

WHEREAS, the Safe, Accountable, Flexible, Efficient Transportation Equity Act: a Legacy for Users (SAFETEA-LU) requires that MPO's incorporate Transportation Demand Management in their Regional Transportation Plan (RTP) process;

WHEREAS, this resolution was recommended for approval by the Transit Advisory Group (TAG) on November 9th, 2010 and the Technical Advisory Committee (TAC) on November 17th, 2010;

NOW, THEREFORE, BE IT RESOLVED BY THE NORTH FRONT RANGE TRANSPORTATION & AIR QUALITY PLANNING COUNCIL (NFRMPO) THAT it adopts the Long Range Transportation Demand Management Plan to help maximize the efficiency of our regional transportation system the NFRMPO area as follows:

SECTION 1. The North Front Range Transportation & Air Quality Planning Council hereby accepts the Long Range Transportation Demand Management plan as proposed by the NFRMPO's Technical Advisory Committee and Transit Advisory Group for incorporation into the 2035 Regional Transportation Plan update.

SECTION 2. The North Front Range Transportation & Air Quality Planning Council hereby requests the prioritized programmatic strategies in the Long Range Transportation Demand Management plan be considered for inclusion, upon approval from this Council, in the Unified Planning Work Program (UPWP) for the NFRMPO.

SECTION 3. This Resolution shall become effective immediately upon passage and approval.

Passed and adopted at the regular meeting of the North Front Range Transportation & Air Quality Planning Council held this 2nd day of December 2010.

Julie Cozad, Chair

ATTEST:

Cliff Davidson, Executive Director

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NFRMPO
NORTH FRONT RANGE METROPOLITAN PLANNING ORGANIZATION

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Monday, December 20, 2010

Transportation Demand Management (TDM) are actions that improve the ***efficiency*** of the transportation system by altering transportation system demand rather than embarking on roadway capacity expansion projects. Quite simply, it is about ***getting the most out of the transportation system that we currently have.*** This Long Range TDM Plan proposes a series of strategies that strive to improve system efficiency.

TDM is more accurately defined as **Transportation Efficiency Programs** –a broad spectrum of strategies tailored to the unique travel needs of a region's commuters and travelers. It is a common misconception that the efficiency programs are strictly "getting people out of their cars." The primary methods for achieving a more efficient transportation system include:

- Shrink Trip Time or Length (*less time congesting roadway*)
  - Intelligent Transportation Systems
  - Commuter-oriented Development
- Encourage Off-Peak Travel *(travel during less congested periods)*
  - Alternative Work Schedules
  - Congestion Pricing
  - HOT Lanes
- Reducing Single Occupancy Vehicles *(less vehicles during congestion)*
  - Ridesharing Transit
  - Telecommuting

What Does the Plan Do for Northern Colorado?

The plan serves as long term guidance for Transportation Efficiency Programs in NFRMPO region. This guidance includes unique strategies for our region that include:

1. Assisting businesses in Northern Colorado to identify efficient and affordable transportation options for their employees.
2. Assisting our member governments in increasing the ridership of their existing transit systems, bike/ped programs, and ridesharing efforts.
3. Supporting the local and regional transportation planning and project selection efforts to ensure Transportation Efficiency Programs are considered and evaluated.

4. Improve existing transportation infrastructure with Intelligent Transportation Systems, facilities for bike/pedestrian/transit facilities, and monitoring equipment.
5. Monitoring the impact of Transportation Efficiency Programs and their return on investment for the region.

Who Will the Plan Help?

Transportation Efficiency Programs prioritizes helping commuters by investing time and resources in their employer or schools. The NFRMPO already supports individual commuters with online tripmatching (SmartTrips.org) and support of local transit services and transportation infrastructure. This plan helps the employer to implement transportation efficiency programs – allowing them to offer such programs to their employees.

The plan outlines eight Transportation Efficiency Programs that emphasize employer strategies:

1. SmartTrips Website Enhancements
2. Transportation Efficiency Program Workshops
3. Online Employer TDM Toolkit
4. Guaranteed Ride Home
5. Telework Assistance for Employers
6. Intelligent Transportation Systems / Technical Support
7. Employer Transportation Assessment Programs
8. Performance Evaluation

As per NFRMPO Council direction, NFRMPO staff will conduct a workshop in the Spring of 2011 to garner support from the business community for transportation efficiency programs. The findings from the workshop will be considered for future Unified Planning Work Plan (UPWP) integration of the proposed strategies and their corresponding budget request.

How Will the Plan Measure Success?

Ultimately, the NFRMPO Planning Council defines the "measurements of success" for these programs. The NFRMPO Planning Council can determine over time performance measures and goals for transportation efficiency programs through the UPWP. These may include:

- Businesses Utilizing Assistance Programs Annually
- Members Joining SmartTrips.org
- Commuter Miles Tracked (carpool, walk, bike) on SmartTrips.org
- Transit Ridership
- Percentage of Teleworkers in the Region
- ITS Infrastructure Deployment in Region

Acknowledgements

The NFRMPO would like to acknowledge the support and guidance from the Transit Advisory Group (TAG), the Technical Advisory Committee (TAC), the Weld and Larimer Mobility Councils, the Fort Collins, Loveland, and Greeley Transportation Boards, and the plan's Steering Committee members below:

- Nicole Hahn, Fort Collins
- John Vazquez, Windsor
- Joan Shaffer, Loveland
- Eric Boyd, Berthoud
- Elizabeth Relford, Weld
- Kathleen Bracke, Fort Collins
- Martina Wilkinson, Larimer County
- Brian Willms, Loveland Chamber
- Kathryn Johnson, American Council for the Blind
- Ina Zisman, CDOT
- Brad Patterson, Greeley

Special thanks to Corbin Davis, intern from the Federal Highways Administration (FHWA), for his work on the plan and support of the Steering Committee during his brief tenure with the NFRMPO.

Cliff Davidson
Executive Director, NFRMPO

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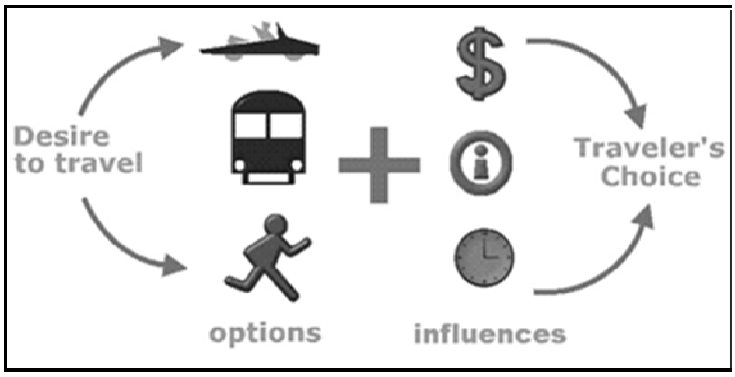
Table of Contents

Chapter 1: Introduction

1.1 What is Transportation Demand Management (TDM)



Transportation Demand Management includes actions that improve the efficiency of the transportation system by altering transportation system demand rather than embarking on roadway capital expansion.

It is a common misconception that TDM is strictly reliant on "getting people out of their cars" through methods like carpooling and transit. In reality, TDM is a broad spectrum of strategies that involve business owners, employees, non-profit organization, transportation and land use planning, and non-work commuters of the transportation system. TDM programs are tailored to the unique travel needs of a community or region. Like roadway expansion, transportation efficiency programs are measurable for their ability to reduce congestion, reduce commute costs, and improve air quality and livability.

The primary methods for achieving a higher efficiency of the transportation system include:

- Reducing Single Occupancy Vehicle Trips
  - Ridesharing (carpooling, vanpooling)
  - Transit
  - Telecommuting (working from home)
- Encourage Off-Peak Travel
  - Alternative Work Schedules
  - Congestion Pricing
- Shrink Trip Time or Length
  - Intelligent Transportation Systems (traffic routing, trip times, weather conditions)
  - Commuter-oriented Development (striving for a jobs / housing balance)

Nationwide and locally within Northern Colorado, TDM programs have been implemented by businesses, non-profit organizations, schools, and governments for the benefit of commuters and taxpayers. For example, many employers in Northern Colorado have instituted their own telework programs, flextime policies, subscribe to the VanGo™ program, and encourage bicycling by providing secure storage, showers, and other amenities.

In addition, many cities comparable to the size of cities in Northern Colorado have implemented local TDM programs. Examples of these cities include Missoula, MT; Ann Arbor, MI; Madison, WI; Bellevue, WA; and Tucson, AZ. Each of these cities work to implement their own programs, but also work with their regional partners to implement TDM strategies similar to the NFRMPO programs such as vanpooling, carpooling, and business outreach. In addition, many of them implement local strategies such as ridesharing incentive programs, parking management and pricing regulations, telework consulting, and subsidize transit pass discounts in business districts.

1.2. Defining TDM in Northern Colorado

Transportation demand management (TDM) is a term used to describe a wide range of strategies that makes the most efficient use of the transportation system by increasing person-carrying capacity. TDM strategies can include promoting alternative modes like transit and increasing vehicle occupancy through ridesharing programs like VanGo™. In addition, TDM strategies can facilitate shifting trips from peak hour

congested corridors to off-peak periods or other corridors. Also, some strategies eliminate vehicle trips altogether through strategies like telework.

Today, the North Front Range Metropolitan Planning Organization (NFRMPO) provides several TDM strategies in the form of the VanGo™ vanpooling program (about 85 vans), ridematching through the smarttrips.org web site, and business outreach services and events. A complete inventory of the TDM products and services offered throughout the region is presented in Chapter 2: Northern Colorado TDM Inventory.

1.3. Study Purpose

The purpose of the Long Range Transportation Demand Management Plan (TDM Plan) is to recommend TDM strategies for implementation through 2035. Supporting these recommendations is an outline for a clear process to select, fund, and evaluate these strategies. The TDM evaluation techniques developed for the plan were coordinated with the enhancement of the NFRMPO Congestion Management Process, which was updated concurrently with this TDM Plan.

Through involvement with local TDM partners and researching best practices from TDM programs nationwide, the primary focuses of the recommendations in the TDM Plan are:

- Using the knowledge and expertise at the NFRMPO to enhance the ability of local governments and employers to implement, fund, and evaluate TDM strategies
- Ensuring regional TDM funding is directed to strategically identified geographic locations to maximize allocated funding and have the greatest impact in reducing congestion
- Developing a clear and consistent evaluation methodology to assess the impact of implemented TDM strategies

These elements were the primary needs identified by NFRMPO as well as local TDM partners that were engaged during the planning process through a formal Steering Committee (the members of this Steering Committee are detailed in Section 1.5).

1.4 The History of TDM in Northern Colorado

In 1996, the NFRMPO began implementation of the SmartTrips program for Northern Colorado with allocated staff from the NFRMPO and the communities of Fort Collins, Greeley, and Loveland. The program was part of a package of strategies developed to reach the goals established in the Long Range Regional Transportation Plan (RTP), of reducing by 10 percent the number of trips made in single occupant vehicles (SOVs) by the year 2015.

By July of 2000, the SmartTrips™ program was staffed by 12 employees responsible for management, outreach and operations amongst the three cities and NFRMPO at an annual budget of approximately $1.4 M. The SmartTrips 2001-2006 Strategic Operations Plan recommended the development of one program as opposed to separate local and regional programs to reduce the confusion in roles and responsibilities that had developed as a result of the multiple programs. This led to the eventual dissolution of all three local programs along with their staff. The NFRMPO retained the administration for the carpool (CarGo) and vanpooling (VanGo™) programs.

1.5. Stakeholder Outreach and Plan Composition

The development of the TDM Plan was achieved through a collaborative process with state, regional, and local organizations that implement TDM. The stakeholders identified and engaged for this regional planning process included:

- Brian Willms — Loveland Chamber (Business)
- Elizabeth Relford — Weld County (Mobility Council)
- Eric Boyd — Berthoud (Mobility Council)
- Ina Zisman — CDOT Region 4 Traffic
- Joan Shaffer — Loveland (MPO Council)
- John Vazquez — Windsor (MPO Council)
- Kathleen Bracke — Fort Collins (TAC)
- Kathryn Johnson — American Council for the Blind (Non-Profit)
- Martina Wilkinson — Larimer County (TAC)
- Nicole Hahn — Fort Collins (TAG)
- Brad Patterson — Greeley (TAG)

Representatives from these organizations were formally requested to serve on a TDM Plan Steering Committee during the entire plan development process. The Committee helped develop the recommendations and TDM strategies for the NFRMPO through multiple avenues for input described below and described in Table 1. All meetings were held at the Loveland Chamber of Commerce.

Table 1: Steering Committee Topics and Dates

Topic	*Date*
Kickoff and Plan Purpose	February 25, 2010
Strengths, Weaknesses, Threats, and Opportunities Analysis	March 25, 2010
Focus Group and Employer Survey Update	May 26, 2010
Recommendations Workshop	July 29, 2010
Strategy Phasing and Final Draft Review	September 2, 2010

The NFRMPO created a webpage to support the Steering Committee and public relations effort for this project. All files can be found at: http://nfrmpo.org/Projects/TDMPlan.aspx.

At a kickoff for the TDM Plan and Steering Committee engagement, members attended a group meeting as well as one-on-one stakeholder interviews to provide knowledge and data about their local organizations and agencies. These interviews also included perspectives and thoughts for the purpose of the TDM Plan and the role of the NFRMPO regional TDM program. A summary of the one-on-one interviews is provided in **Appendix A** and an inventory of existing Northern Colorado TDM services is provided in **Chapter 2**.

A second Steering Committee meeting was held in March 2010 to conduct a planning assessment of the strengths, weaknesses and future opportunities and threats (SWOT) to the transportation system and the TDM strategies that support it in Northern Colorado. This information enabled NFRMPO to target TDM strategies to help relieve the weaknesses and threats to the transportation system. The staff of the NFRMPO shared the results of this SWOT analysis with the MPO Planning Council, Technical Advisory Committee, and Transit Advisory Group for additional analysis and feedback. The results of this analysis are summarized in **Appendix B**.

As part of the data gathering and assessment activities to target recommendations and strategies for the TDM Plan, NFRMPO also conducted an employer survey, a series of Focus Groups, and a travel market analysis. Each of these efforts informed the **Chapter 3: Regional Recommendations** and **Chapter 4:**

SmartTrips™ TDM Program Strategies components of the plan. A summary of the employer survey is contained in **Appendix C**. The Focus Group summaries are provided in **Appendix D** and the travel market analysis is provided in **Appendix E**.

With the knowledge gained from the efforts described above, draft recommendations for the NFRMPO TDM Plan were developed. The Steering Committee was involved in the delineation and refinement of these recommendations, including the operation of the regional NFRMPO TDM program as well as the strategies implemented through the SmartTrips™ program. **Chapter 3: Regional Recommendations** and **Chapter 4: SmartTrips™ TDM Program Strategies** are the result of this effort.

Chapter 2: Existing Conditions and TDM Inventory

This chapter summarizes the key transportation demand management (TDM) programs currently being implemented in the North Front Range Metropolitan Planning Organization (NFRMPO) region. This inventory is not an exhaustive list, but highlights the programs that are funded through local programs as well as funding through the NFRMPO.

The first section of this chapter provides an overview of travel characteristics and other information pertinent to TDM from the 2009 NFRMPO Household Travel survey. This information outlines existing travel behaviors and patterns in the region and also provides insight into the particular TDM strategies that will be the most effective given current travel behavior.

The second component of this chapter contains several succinct summaries about the characteristics of the active TDM programs in the NFRMPO area. These include the roles and relationships of regional and local organizations involved in TDM in the region.

2.1: 2009 Household Travel Survey and Implications for TDM

A travel survey was conducted in 2009 for Colorado's four Metropolitan Planning Organization (MPO) regions. Data was collected in the NFRMPO area as part of this effort. The survey was conducted in the same manner across all of the regions, providing a snapshot of current travel behavior across these areas of the state. These data can be used to target TDM service improvements for existing programs as well as exploring the potential for new services and programs in the NFRMPO region.

There are key differences between the cities and towns in the NFRMPO and household-level travel behavior reflects these differences. The differences are apparent in the data presented in the figures and tables in this section. Some characteristics of note for the region include:

- Greeley/Evans. Households in the Greeley/Evans area were the most different from the other four areas. Comprised of more retirees and minorities than other areas, these households tend to be smaller, with fewer vehicles, fewer students, fewer workers, lower incomes, and the highest disability rates. This area had higher rental rates, and respondents were more likely to hold a transit pass than other areas of the region with the exception of Fort Collins.
- Loveland. Loveland households generally tend towards average characteristics for the region. They reported somewhat lower household sizes and workers per household, but higher-than-average renters and above average transit usage.
- Fort Collins. Fort Collins households reported smaller household sizes than average as well as fewer vehicles. These households reported the highest levels of non-motorized travel in a typical week and the highest levels of holding a transit pass. Household members had higher-than-average education levels, and more students per household than the other areas.
- Larimer County. Household size in non-urbanized Larimer County was smaller than average, but reported the highest number of vehicles per household. They had the highest licensure rate, lowest levels of disability, above average workers per household, and had the highest reported income levels in the area.
- Weld County. Respondents in Weld County were similar to those in Larimer County, except that they had lower education rates and more Hispanic households than the regional average. They were younger, had more students, and reported the largest household size.

General travel characteristics

The primary reasons for traveling in the NFRMPO region are shown in Table 2. Nearly 34 percent were to return home for non-work-related activities. Other frequently reported reasons for traveling included for work (11 percent), routine shopping (9 percent), and attending class (6 percent).

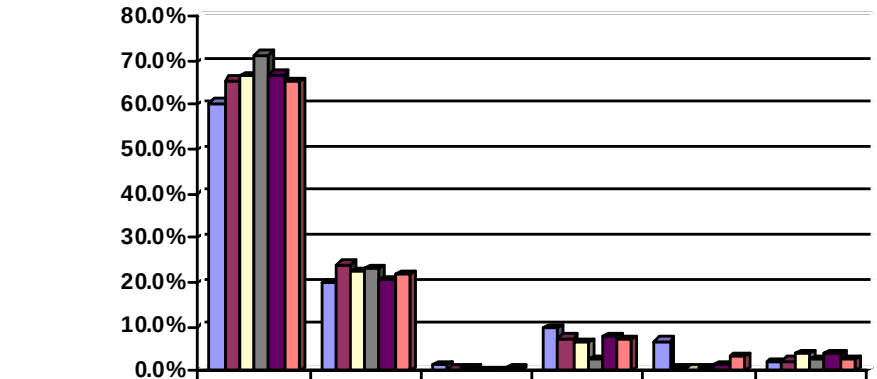
Table 2: Primary Reasons for Traveling

Main Reason for Traveling	N	%	Avg. Trip Duration
Working at home	127	0.90%	14.16
Shop at home	0	0.00%	--
On-line school at home	7	0.00%	8.8
All other at home activities	4920	34.00%	17.17
Work/job	1637	11.30%	19.34
All other activities at work	70	0.50%	17.82
Attending class	790	5.50%	15.53
All other activities at school	92	0.60%	11.75
Change of mode/transportation	354	2.40%	15.43
Dropped off passenger from car	566	3.90%	12.95
Picked up passenger from car	557	3.80%	14.6
Drive through	88	0.60%	9.93
Other – travel related	37	0.30%	10.97
Work/business related	618	4.30%	20.36
Service private vehicle	160	1.10%	13.21
Routine shopping (groceries, clothing, etc)	1236	8.50%	12.5
Shopping for major purchases or specialty items	91	0.60%	18.35
Household errands (bank, dry cleaning, etc)	475	3.30%	11.18
Personal business (attorney, accountant, etc)	241	1.70%	16.86
Eat meal outside of home	577	4.00%	12.09
Health care (doctor, dentist)	224	1.50%	18.59
Civic/religious activities	196	1.40%	14.89
Outdoor recreation/entertainment	254	1.80%	23.18
Indoor recreation/entertainment	516	3.60%	16.42
Visit friends/relatives	435	3.00%	33.89
Loop trip	18	0.10%	38.74
Other	180	1.20%	14.33
Total	14467	100.00%	16.76

Source: Front Range Travel Counts – NFRMPO HH Survey, weighted.

The majority of trips in the NFRMPO area are trips in single occupant vehicles (SOV), which are vehicles with a single occupant driver and no other occupants (identified as Auto-D in Figure 1 below). The differences in the percentage of SOV trips between the cities and towns in the region can be seen in Figure 1. Approximately 10 percent of trips (7 percent work; 3.1 percent bike) were made by non-motorized modes, and less than 1 percent of reported trips were made by public transit.

Figure 1: Travel Mode by Area



	Auto-D	Auto-P	Transit	Walk	Bike	Other
Fort Collins	60.5%	19.9%	1.2%	9.7%	6.7%	2.0%
Greeley/Evans	65.6%	24.0%	0.3%	7.3%	0.7%	2.2%
Loveland	66.5%	22.6%	0.5%	6.5%	0.3%	3.7%
Larimer County	71.4%	23.0%	0.0%	2.5%	0.6%	2.5%
Weld County	67.0%	20.4%	0.0%	7.7%	1.1%	3.8%
Overall	65.3%	21.6%	0.6%	7.0%	3.1%	2.5%

Looking only at work-related trips, Table 3 shows the primary mode to work by area. Again, drive alone automobile (auto/van/truck drive) is the primary mode to work for the majority of respondents. Non-motorized transport accounts for nearly 10 percent of work trips. Fort Collins leads the region in work trips made by bicycle, and Greeley has the highest percentage of work trips by pedestrians. Survey results also indicate that 13 percent of Greeley/Evans residents do not have driver's licenses, which may contribute to higher levels of walking.

Table 3: Primary Mode to Work by Area

	Area					
Work Mode	Fort Collins n=1175	Greeley/ Evans n=490	Loveland n=211	Other Larimer County n=709	Other Weld County n=315	Total n=2900
Walk	3.70%	5.10%	2.10%	3.20%	1.80%	3.40%
Bike	13.30%	4.20%	0.70%	0.60%	0.90%	6.20%
Auto/van/truck driver	76.70%	82.00%	89.70%	93.90%	90.80%	84.50%
Auto/van/truck passenger	4.40%	8.10%	6.20%	2.20%	6.10%	4.80%
Local Bus	0.70%	0.60%	1.40%			0.50%
Express Bus		0.00%				0.00%
Other	1.20%	0.00%	0.00%	0.20%	0.40%	0.60%
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Source: Front Range Travel Counts – NFRMPO HH Survey, weighted.

Household size also affects the number of trips per day. Households with the highest numbers of workers also recorded the highest number of trips. The household daily travel data is shown in Table 4.

Table 4: Number of Trips per Day by Number of Household Workers

Demographic	Trip Rate
1-person worker	3.09
1-person non-worker	4.39
2-person worker	6.45
2-person non-worker	7.61
3+ persons	14.52
Average	9.7

Source: Front Range Travel Counts – NFRMPO HH Survey, weighted.

Bicycling/Walking

The data in the previous tables and figures indicate that nearly 10 percent of work and non-work related trips in the region are by non-motorized modes. Bicycling and walking trips can be stand-alone trips or can augment transit trips. The highest percentage of non-motorized trips (34 percent) was to return home for non-work-related activities. The reasons for non-motorized travel are shown in Table 5.

Table 5: Reason for Non-Motorized Travel and Trip Duration

Main Activity	Frequency	Percent	Avg. Trip Duration
work at home	18	1.20%	7.38
on-line school	2	0.20%	1.62
Return home	499	34.30%	14.49
Work	147	10.10%	15.02
other act at work	7	0.50%	6.66
attend class	147	10.10%	14.84
other act/school	10	0.70%	5.3
Change mode	134	9.20%	7.26
drop off	7	0.50%	5.97
pick up	14	1.00%	4.72
drive through	2	0.20%	18.04
other travel	20	1.40%	7.76
work related	37	2.60%	7.63
service private vehicle	7	0.40%	3.99
routine shopping	52	3.60%	11.17
major shopping	2	0.10%	15.9
HH errands	26	1.80%	6.81
personal business	22	1.50%	11.74
eat meal out	59	4.10%	12.01
health care	6	0.40%	15.12
civic/religious	9	0.70%	11.64
outdoor recreation	72	4.90%	19.43
indoor recreation	58	4.00%	15.12
Visit friends/family	75	5.20%	19.89
loop trip	18	1.30%	38.74
Other	3	0.20%	5.8
Total	1454	100.00%	13.69

Source: Front Range Travel Counts – NFRMPO HH Survey, weighted.

Generally, non-motorized trips are taken more frequently to attend class. Fort Collins and Greeley have large college student populations, which likely contributes to the high percentage of bicycling to class.

The survey data indicates that about 70 percent of the households surveyed have at least one bicycle (Table 6). Fort Collins households report the most bicycles, with an average of 2.18.

Table 6: Household Bicycles by Area

HH Bicycles	Area					
	Fort Collins n=611	Greeley/ Evans n=263	Loveland n=116	Other Larimer County n=372	Other Weld County n=143	Total n=1,505
0	26.40%	46.40%	39.30%	27.40%	34.00%	31.90%
1	14.60%	16.70%	19.70%	19.40%	16.00%	16.70%
2	26.00%	19.80%	14.50%	25.80%	22.20%	23.60%
3+	33.10%	17.10%	26.50%	27.40%	27.80%	27.90%
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Average	2.18	1.32	1.6	1.86	1.85	1.87

Source: Front Range Travel Counts – NFRMPO HH Survey, weighted.

The Household Travel Survey also captured walking and bicycling behaviors in the region, with over 24 percent of respondents indicating that a household member walked or bicycled to school or work at least once per week. The highest numbers were reported for Fort Collins and the lowest numbers for non-urbanized areas of Weld County.

Table 7: Household Members Walk or Bike to Work/School at Least Once per Week by Area

Non-Motorized Travel	Area					
	Fort Collins n=611	Greeley/Evans n=263	Loveland n=116	Other Larimer County n=372	Other Weld County n=143	Total n=1,505
Yes	35.40%	20.50%	21.60%	14.20%	13.90%	24.40%
No	64.60%	79.50%	78.40%	85.80%	86.10%	75.60%
Total	100.00%	100.00%	100.00%	100	100.00%	100.00%

Source: Front Range Travel Counts – NFRMPO HH Survey, weighted

Transit

Transit use accounts for less than 1 percent of work-related and other trips taken throughout the region. A large portion of the region is comprised of rural areas that are not served by transit, which contributes to the low overall rate of transit use. Because transit users utilize at least one other mode of travel than transit (walk or bicycle), this shows up in the survey data as a change in mode of travel and is the most reported reason for transit trips in the survey. For the survey respondents who did report transit use, the reasons for their trips are illustrated in Table 8.

Table 8: Reason for Transit Trip and Duration

Main Reason for Traveling	N	%	Avg. Trip Duration
Working at home	0	0.00%	--
Shop at home	0	0.00%	--
On-line school at home	0	0.00%	--
All other at home activities	3	2.90%	5
Work/job	0	0.00%	--
All other activities at work	0	0.00%	--
Attending class	0	0.10%	35
All other activities at school	0	0.00%	--
Change of mode/transportation	77	84.30%	19.56
Dropped off passenger from car	1	0.70%	13
Picked up passenger from car	0	0.00%	--
Drive through	0	0.00%	--
Other – travel related	0	0.00%	--
Work/business related	0	0.00%	--
Service private vehicle	0	0.00%	--
Routine shopping (groceries, clothing, etc)	1	0.70%	13
Shopping for major purchases or specialty items	0	0.00%	--
Household errands (bank, dry cleaning, etc)	0	0.00%	--
Personal business (attorney, accountant, etc)	1	0.80%	5
Eat meal outside of home	3	2.90%	5
Health care (doctor, dentist)	0	0.00%	--
Civic/religious activities	0	0.50%	10
Outdoor recreation/entertainment	0	0.00%	--
Indoor recreation/entertainment	1	1.40%	7.14
Visit friends/relatives	0	0.00%	--
Loop trip	0	0.00%	--
Other	5	5.60%	12.69
Total	91	100.00%	17.9

Source: Front Range Travel Counts – NFRMPO HH Survey, weighted.

While transit accounts for less than 1 percent of trips in the NFMPO area, nearly 7 percent of travel survey respondents indicate that they use transit at least once per week. Transit use is highest in Greeley/Evans and lowest in outlying areas of Weld County.

Table 9: Households Use Transit at Least Once per Week by Area

Used Transit	Area					
	Fort Collins n=611	Greeley/Evans n=263	Loveland n=116	Other Larimer County n=372	Other Weld County n=143	Total n=1,505
Yes	6.90%	12.20%	8.60%	3.80%	2.10%	6.70%
No	93.10%	87.80%	91.40%	96.20%	97.90%	93.30%
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Source: Front Range Travel Counts – NFRMPO HH Survey, weighted.

Approximately 4 percent of adult survey respondents reported having a transit pass. Highest levels were reported in Fort Collins, which has the largest transit system in the region, and lowest levels were reported in outlying Larimer County.

Table 10: Adult Respondent Has Transit Pass by Area

Transit Pass	Area					
	Fort Collins n=1175	Greeley/Evans n=490	Loveland n=211	Other Larimer County n=709	Other Weld County n=315	Total n=2900
Yes	7.20%	2.10%	3.20%	0.50%	1.70%	3.80%
No	92.80%	97.90%	96.80%	99.50%	98.30%	96.20%
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Source: Front Range Travel Counts – NFRMPO HH Survey, weighted.

Less than 2 percent of survey respondents report that their employers provide a transit pass. Again, Fort Collins has the highest percentage of respondents who receive a transit pass from their employer. Outlying Weld County has the lowest percentage.

Table 11: Employer Provides Transit Pass by Area

Employer Provides Transit Pass	Area					
	Fort Collins n=1175	Greeley/Evans n=490	Loveland n=211	Other Larimer County n=709	Other Weld County n=315	Total n=2900
Yes	3.00%	1.10%	0.90%	1.80%	0.40%	1.40%
No	97.00%	98.90%	99.10%	98.20%	99.60%	98.60%
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Source: Front Range Travel Counts – NFRMPO HH Survey, weighted.

The lack of available transit options and sustaining revenue source are the likely cause of low transit pass deployment. Another factor that could explain the low rates of transit use in the region is the high percentage (nearly 95 percent) of employers that provide free parking for their employees. Employees have fewer incentives to utilize other modes of transportation when they have unlimited free parking at their destination.

Table 12: Employer Provides Parking by Area

Employer Provides Parking	Area					
	Fort Collins n=1175	Greeley/Evans n=490	Loveland n=211	Other Larimer County n=709	Other Weld County n=315	Total n=2900
Yes	89.60%	95.10%	97.80%	98.40%	96.40%	94.10%
No	10.30%	4.90%	2.20%	1.60%	3.60%	5.90%
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Source: Front Range Travel Counts – NFRMPO HH Survey, weighted.

2.2: I-25 Carpool Park and Ride Study

In the summer of 2010 the NFRMPO conducted a survey to determine the utilization of park and rides (PNR) along the I-25 corridor in Northern Colorado. The following six park and rides were surveyed during AM and PM peaks on weekdays during July and August 2010:

- Harmony Park & Ride (Fort Collins)
- SH 392 Park & Ride (Windsor)
- US 34 Park & Ride (Loveland)
- SH402 Park & Ride (Loveland)
- SH 60 Park & Ride (Johnstown)
- SH 56 Park & Ride (Berthoud)

The results of the surveys show a significant change in park and ride utilization compared to previous studies conducted by the NFRMPO. Table 13 displays results from the 2010 survey compared to previous surveys conducted in 2003, 2004, and 2006.

Table 13: Northern Colorado Park and Ride Utilization

		Spaces (including Handicap)				Cars Parked					Utilization				
		Mid-Summer 2003	Spring 2004	Summer 2006	Summer 2010	Mid-Summer 2003	Spring 2004	Summer 2006	Summer 2010 (Week1)	Summer 2010 (Week2)	Mid-Summer 2003	Spring 2004	Summer 2006	Summer 2010 (Week1)	Summer 2010 (Week2)
NFRMPO Area	SH-68	257	248	248	248	90	76	175	89	112	35%	31%	71%	36%	45%
	SH-392	36	32	38	43	36	36	36	12	11	100%	113%	95%	28%	26%
	US-34	116	106	108	142	105	82	91	57	63	91%	77%	84%	40%	44%
	SH-402	70	70	71	88	48	40	52	84	97	69%	57%	73%	95%	110%
	SH-60	32	32	32	33	26	22	30	32	31	81%	69%	94%	97%	94%
	SH-56	46	46	48	41	13	7	14	17	20	28%	15%	29%	41%	49%
Denver Metro	SH-66	52	55	53		18	20	27			35%	36%	51%		
	SH-119	102	102	102		27	35	36			26%	34%	35%		
	SH-52	94	94	94		26	15	36			28%	16%	38%		
	SH-7 West		75				19					25%			
	SH-7 East	30	15			16	8				53%	53%			

Source: 1-25 Carpool Park and Ride Study *(NFRMPO 2010)*

Highlights from the survey and the findings reported in Table 13 include:

- SH-402 and SH-60 approached or exceeded 100 percent capacity on the days surveyed. SH-402 currently has 88 paved spaces, but users of the PNR are also parking in a makeshift extension of the lot.

- SH-392 witnessed the largest drop in utilization from the previous surveys (from 36 vehicles in previous surveys down to 11-12 vehicles in 2010).

- 532 license plate numbers were collected over the course of the study that matched with home addresses in Northern Colorado. The license plate data reveals that 38 percent of the cars at the six PNRs were from the Fort Collins area while 25 percent were from the Loveland area. Greeley, Berthoud-Johnstown, and Denver-Metro each yielded between 9 and 10 percent.

- Carpools represent over 70 percent of the overall usage at PNRs in the NFRMPO region. Vanpools account for 24 percent of the morning vehicles leaving in the morning and 20 percent of the vehicles arriving in the afternoon.

- 54 percent of carpools in both the morning and afternoon contained two passengers while the three passenger vehicles accounted for 11 and 18 percent respectively.

- Harmony Road Park and Ride yielded the largest number of morning and afternoon carpools (39 and 48 vehicles respectively).

- 62 percent of carpoolers depart from the PNRs between 5:30 AM and 6:30 AM. 63 percent of carpoolers return to the PNR between 4:00 PM and 5:30 PM.

2.3: Local and Regional TDM Efforts

2.3.1 North Front Range MPO

The North Front Range Metropolitan Planning Organization is an association of 15 local governments working together to improve regional transportation and air quality. The NFRMPO does long-range and short-range planning, and prioritizes which projects in those plans will receive state and federal funding. The goal of the NFRMPO is to enhance air quality and mobility among northern Colorado communities, and between the North Front Range and the Denver Metro area, by developing cooperative working relationships and financial partnerships among its member governments. The MPO membership is as follows: Berthoud, Eaton, Evans, Fort Collins, Garden City, Greeley, Johnstown, Larimer County, LaSalle, Loveland, Milliken, Severance, Timnath, Weld County, and Windsor, the Colorado Department of Transportation (CDOT), Federal Highway Administration, and the Federal Transit Administration (FTA).

The NFRMPO encompasses small cities as well as small towns and rural areas. Providing services to the varied mix of areas served creates a challenging environment for the organization and for TDM. The MPO operates a number of TDM programs through the use of a dedicated business outreach employee (who performs this work on a part-time status) with an annual fiscal year 2010-2011 budget of $2,138,058 for TDM-related activities related to the revenue received from the VanGo™ Vanpool Services program. This budget is reliant on vanpooler monthly fares and the dollars received through the National Transit Database (NTD) for vehicle miles traveled (VMT) saved.

Table 14: NFRMPO FY 2010-2011 Revenue Derived From VanGO™ Vanpool Services

Funding source	*Amount*	*Percent of Total*
Federal Funding	$932,829	44%
STP Metro - $627,062		
Section 5307 - $305,767		
Local Funding	$76,442	4%
Other Funding and Program Revenue	$1,128,786	52%
Program Revenue – $991,850		
RTD - $136,936		
Total	$2,138,058	100%

The program funding can be further broken down into direct and indirect costs, with the vast majority of the budget going toward direct costs such as fleet maintenance and van purchases.

Table 15: NFRMPO TDM Program Costs

Funding expenditures	*Amount*	*Percent of Total*
Total Direct Costs (purchase vans, maintenance, operations)	$2,005,657	92%
Total Indirect Costs (outreach, staffing, marketing, and promotion)[1]	$132,401	8%
Total Costs	$2,138,058	100%

SmartTrips™ is one program of the NFRMPO programs that provides resources, information and incentives to help area residents travel by means other than by single occupancy vehicles. The NFRMPO serves as the regional coordinator for TDM programs in the NFRMPO area. Funding cuts in recent years have resulted in the scaling back of both the number and scope of TDM programs offered by SmartTrips™, particularly at the local level. The NFRMPO has focused on regional modes of transportation, including carpooling and vanpooling along with a ridesharing website smarttrips.org. There currently exists no dedicated local TDM staff except for a bike program coordinator in Fort Collins and transportation assessments associated with the Climatewise program also in Fort Collins.

Moving forward, it will become increasingly important to emphasize TDM efforts in the face of decreased funding for all transportation programs and increased competition for the remaining funds. TDM providers will also have to be increasingly creative and flexible in identifying long-term funding and funding from different sources such as public-private partnerships. Recommendations specific to the SmartTrips™ program are included in Chapter 4.

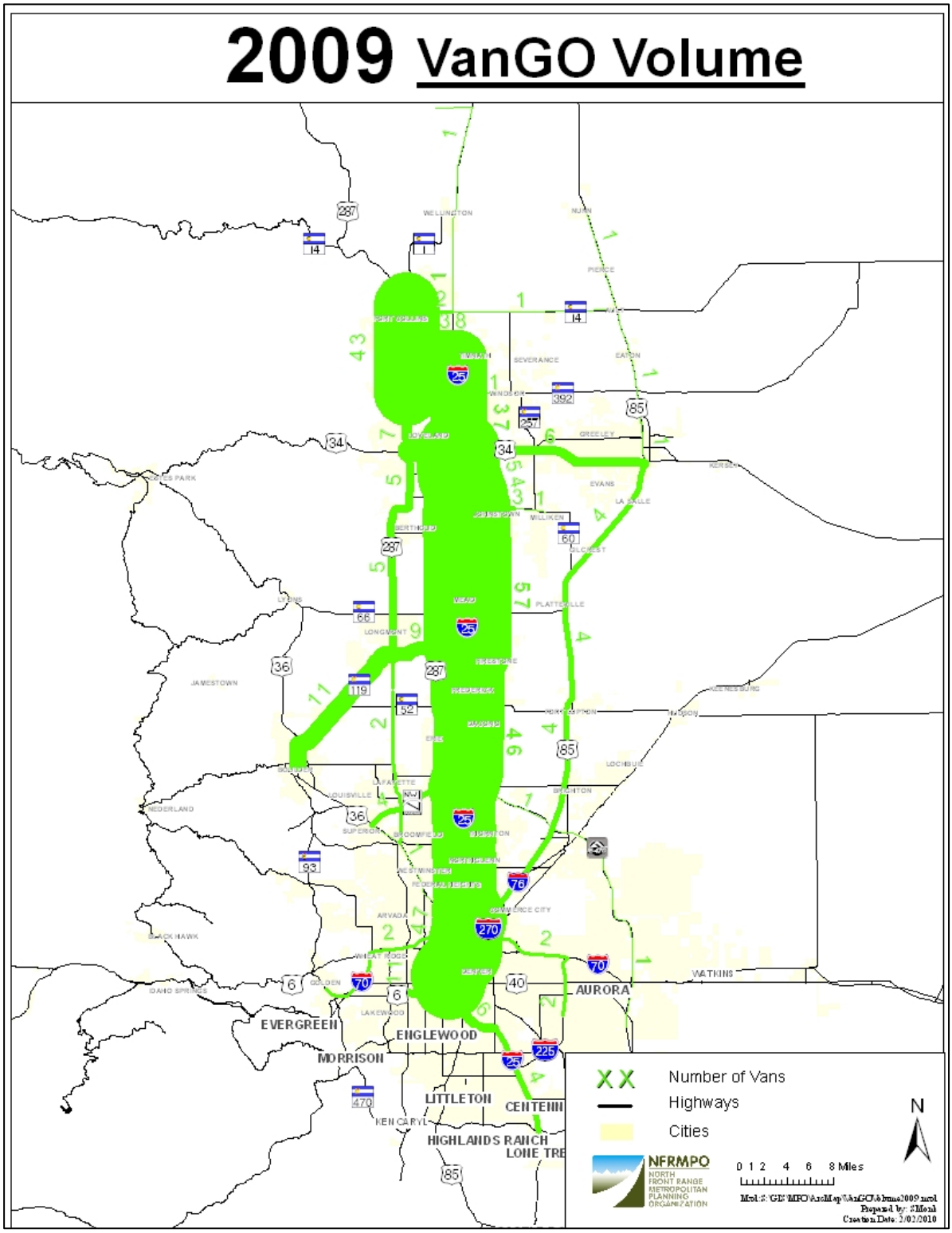
VanGo™

VanGo™ provides vanpool services to the NFRMPO area. Its vanpool matching tool assists travelers in finding vanpools that meet their origin and destination needs. The program started in 1994 with 9 vans and has steadily grown since its inception. VanGo™ is currently running over 80 active vanpools serving destinations all across the Front Range and extending into the Denver area.

The 2009 route volume graphic below (Figure 2) illustrates the majority of the vanpools travel along the I-25 corridor between Fort Collins and the Denver-metro area.

[1] It is important to note that VanGo revenue sources cover the cost of 0.5 FTE for payroll including benefits in FY2011 for $29,473. An additional $32,950 from VanGo revenue sources is used to conduct business outreach.

Figure 2: 2009 VanGo™ Route Volume



The program has grown significantly since its inception, as seen in the following chart (Figure 3). Detailed tracking of this participation since inception has shown an accumulated VMT savings of 97,876,754 miles between 1994 and 2009 (Table 16). The VanGo™ routes predominantly reduce VMT on the I-25 and 287 corridors within the regional system. The regionwide average from 1998 to the present is around 10 – 11 million VMT savings annually.

Figure 3: VanGo™ Ridership History

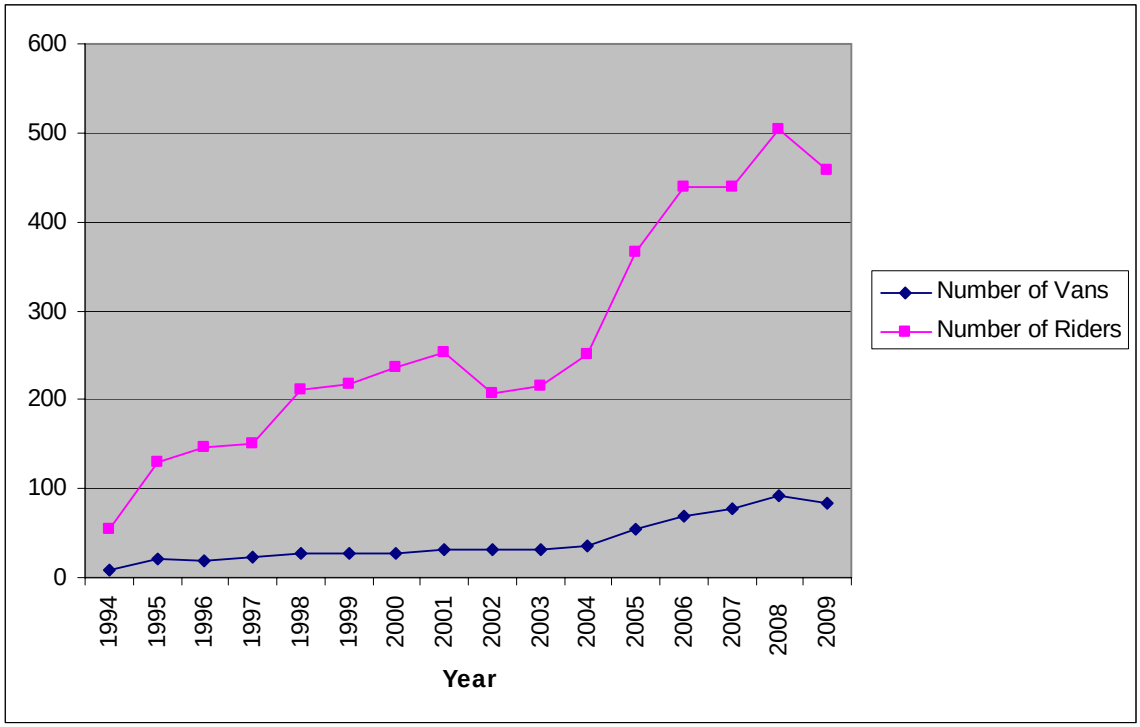


Table 16: VMT saved per year from participation in the VanGo™ program

Year	VMT Saved
1994	900,000
1995	1,600,000
1996	3,341,000
1997	4,075,025
1998	4,265,586
1999	4,482,948
2000	4,907,317
2001	5,108,289
2002	4,675,784
2003	4,993,882
2004	5,392,125
2005	7,192,364
2006	9,671,436
2007	12,068,164
2008	12,952,924
2009	12,249,910
Total	**97,876,754**

The VanGo™ program has been conducting annual surveys of its program participants since 2006. The most recent survey data available is for 2009.

One aspect of this survey data shows that monthly vanpool fees have been rising for participants (Table 17).

Table 17: VanGo™ Monthly Vanpool Fees

	Survey Year			
How much is your total monthly vanpool fee?	**2009**	**2008**	**2007**	**2006**
$30 or less	0%	0%	0%	1%
$31 to $60	0%	0%	0%	2%
$61 to $90	1%	17%	12%	9%
$91 to $100	13%	0%	11%	5%
$101 to $110	0%	7%	1%	6%
$111 to $120	5%	1%	2%	8%
$121 to $130	2%	1%	32%	4%
$131 to $140	2%	37%	15%	27%
$141 to $150	2%	5%	1%	13%
$151 to $160	37%	9%	1%	12%
$161 to $180	12%	16%	22%	10%
$181 or more	26%	7%	4%	3%

In 2009, 75 percent of VanGo™ riders paid more than $151 per month to use vanpools, which was a large increase from 2008 (32 percent) and subsequent years.

However, a positive sign to somewhat balance this escalating cost, the number of participants who receive $91 or more per month from their employer to participate in vanpooling has been steadily rising in the last three years (Table 18). In 2007, 47 percent of employers subsidized above the $91 level; by 2009, the percentage was 74 percent for the same subsidy level.

Table 18: Vanpool Subsidies

	Survey Year			
How much is your monthly subsidy?	**2009**	**2008**	**2007**	**2006**
$30 or less	8%	7%	15%	9%
$31 to $60	6%	18%	20%	11%
$61 to $90	12%	19%	18%	22%
$91 or more	74%	56%	47%	58%

Also, for those who do receive employer subsidies for vanpool fees, approximately 70 percent of respondents in the 2009 survey indicated that they would be likely or somewhat likely to continue in the vanpool even if their employer's subsidy was discontinued.

Parking pricing is also an important factor in influencing individuals to use alternative modes like vanpooling. In general, at sites where parking is free a higher number of people will drive alone than if that exact same location charged for parking, especially on a daily basis. In addition, participation in programs like vanpooling will likely increase if employers cover the cost of parking for that vanpool. From the results of the 2009 survey, the majority of vanpool riders park in locations that either have free parking (no daily parking fee) or their employer does not subsidize the parking fee for the vanpool (Table 19).

Table 19: Subsidized Parking for Vanpools

Does your employer offer subsidized or preferred parking for vanpoolers?	2009	2008	2007
Yes, subsidized	3%	5%	5%
Yes, preferred	13%	15%	9%
Not applicable, all parking is free	32%	30%	27%
No	52%	50%	59%

Finally, the survey results also indicate that approximately 85 percent of riders would drive alone to work if they were not in a vanpool.

CarGo

Carpool matching is provided by CarGo, a ridesharing system available through smarttrips.org web site (the same web site used by the VanGo™ program). The CarGo program enables users to receive personalized carpool matches based on criteria input by the user. The tool matches willing carpool participants who live near each other and are traveling in the same direction and during the same time to share the ride to school or work.

The NFRMPO has developed a new online commuter service called GreenRide, which will enhance the current services that allow commuters to find carpool matches, calculate commute savings and get information on commute options. Commuters will also be able track their carpool trips and earn incentives with the new GreenRide program. Users of both VanGo™ and CarGo may also track their savings, calories burned and reduction in carbon monoxide emissions by using a savings calculator.

The new tool can also be used by employers to promote and gather data on their own programs, to provide incentives for employees and to assist employers in implementing successful commute programs. GreenRide will be provided free of charge to employees and employers in the NFRMPO region.

NFRMPO I-25 Carpool Park and Ride Study (2010)

The NFRMPO works with CDOT and local governments to promote Bike Month and Bike to Work Day every June. In addition, there are over 290 miles of bicycle facilities (bike routes, paths, lanes and off-street trails) within

Bicycle programs

The NFRMPO works with CDOT and local governments to promote Bike Month and Bike to Work Day every June. In addition, there are over 290 miles of bicycle facilities (bike routes, paths, lanes and off-street trails) within a quarter mile of the regionally significant corridors in the region (I-25, US34, and US287 and parallel facilities, as defined in the 2035 RTP). Also, the smarttrips.org website allows users to

track miles of bicycle travel – tracking of these miles will serve as an important measure for the program. Personal and employer incentives will need to be employed to increase reporting participation.

2.3.2 Local Governments

Local governments in the NFRMPO region are also involved in TDM efforts. Transit and bicycle programs are the most common focus of TDM efforts in the NFRMPO region.

City of Fort Collins

The City of Fort Collins is the largest city in the NFRMPO region, with a population of 137,200. It is the economic and academic hub of the region and is home to Colorado State University (CSU).

Transfort

Transfort is the transit agency housed under the City of Fort Collins. Transfort provides local bus service in Fort Collins and generally operates from 6:30 a.m. to 6:30 p.m., Monday through Saturday. Transfort runs 19 routes with headways ranging from 20 minutes to 1 hour. Selected routes run only during CSU and Poudre Valley School District sessions. There is no service on Sunday. Transfort also provides transfer service to other transit service in the area. All Transfort buses are equipped with bike racks that can hold up to 3 bicycles at a time.

Transfort is a fee-paid activity for all full-time CSU students. They do not pay any additional fees to ride transit.

Transfort offers a pass program called Passfort, which is an employer-based bus pass program that enables employers to purchase bulk rate annual Transfort bus passes. This program is available to all Fort Collins businesses regardless of the size of company.

FLEX is a regional bus service operated by Transfort that offers service to Loveland, Berthoud, and Longmont.This service is available from 4:45 a.m. to 6:45 p.m., Monday through Friday and 6:15 a.m. to 7:25 p.m. on Saturday. Buses run year-round on an hourly timetable. There is no service on Sunday. FLEX buses are also equipped with bike racks that hold up to 3 bicycles at a time. FLEX offers connecting service to Loveland's COLT service and RTD in Longmont.

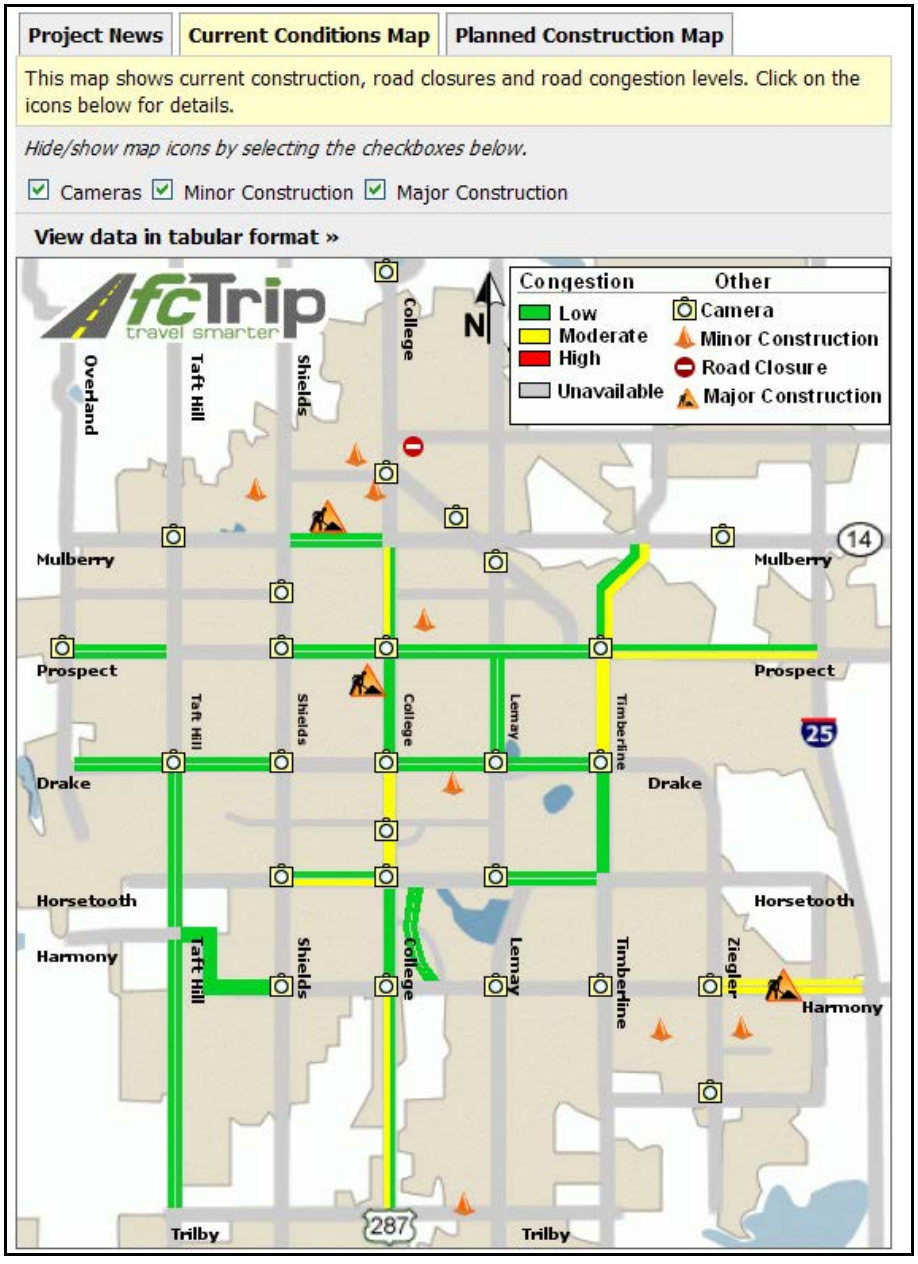
FCTrip

FCTrip is a web-based application that provides information to travelers in the City of Fort Collins. FCTrip provides:

- Timely and accurate information regarding traffic conditions
- Information regarding alternative modes of transportation
- Information on weather conditions, work area traffic/construction
- Links to Denver Metropolitan Area traveler information
- Technology foundation for future North Front Range Traveler Page

FCTrip provides this information through a network of closed-circuit television cameras, video detectors and pavement sensors. Users are able to view real-time maps that provide information on traffic conditions, congestion, construction and road closures. An example FCTrip map is shown below in Figure 4.

Figure 4: FCTrip Map



Map generated at http://www.fcgov.com/fctrip/

Traffic Signal Timing

The City of Fort Collins also recently released the results of a Citywide Traffic Signal Timing Project. The annual project benefit of the signal re-timing effort is $17.98 million when considering fuel savings and travel delay savings for motorists. Further benefits of this project include an annual reduction of 1.2

million pounds of vehicle emissions, consisting of carbon monoxide, nitrogen oxides and hydrocarbons. The project also benefited pedestrians, as City staff updated the yellow, red and pedestrian clearance intervals for all 180 traffic signals to bring them in conformance with the City's updated traffic signal timing guidelines.

Mason Corridor

The Mason Corridor is a five mile north-south byway within the city of Fort Collins. The corridor is centered along the Burlington Northern Santa Fe Railway property, located a few hundred feet west of College Avenue (US 287).

The Fort Collins voters and City Council approved the vision for the Mason Corridor in 1998 and 2000. In 2004, City Council adopted the Fort Collins Transportation Master Plan, which includes the construction of Mason Corridor (an update to the Transportation Master Plan is currently underway). The funding for the Mason Corridor project is primarily from federal and state sources that are dedicated to transit system improvements. The City is slated to receive 80 percent of the total project costs from the Federal Transit Administration's Small Starts program. The remaining 20 percent of the project costs are coming from the State's SB-1 Transit program as well as local contributions provided by the City of Fort Collins and the Downtown Development Authority.

The Mason Corridor includes a new bicycle and pedestrian trail as well as a planned Bus Rapid Transit (BRT) system in a fixed guideway for the majority of the corridor. The BRT service will operate nearly twice as fast as auto travel along College Avenue, as well as provide high frequency service every 10 minutes. Stations will incorporate new high-quality amenities that are similar to light rail, with low floor boarding platforms, sleek new busses, next bus arrival information, and pre-pay fare machines.

The Mason Corridor will link major destinations and activity centers along the corridor including the Downtown commercial, cultural, and business centers, Colorado State University, Foothills Mall, and South College retail areas. Additionally, future regional transit connections will link to the Mason Corridor.

A TOD (Transit-Oriented Development) Overlay Zone District in the City's Land Use Code has been implemented to guide development in the Mason Corridor. The code specifies standards for bicycle parking and pedestrian connections. The code states that a minimum number of bicycle parking spaces shall be provided, equal in number to ten (10) percent of the total number of automobile parking spaces provided by the development, but not less than four (4) bicycle parking spaces. This is higher than the City's existing development standards. Crosswalks must be provided at all intersections, and pedestrian safety is emphasized in the design criteria for parking structures.

Fort Collins Bike Library

The Fort Collins Bike Library[2] is an innovative service that promotes bicycling in the city. The bike library is a free service for residents, students, and visitors to Fort Collins. Members can borrow a bike for as short as one hour or for as long 7 days. The Bike Library is a cooperative effort between the City of Fort Collins, Bike Fort Collins (a local advocacy group) and the Fort Collins Bike Co-op, which provides maintenance and rehabilitation for the library's bikes. To date, there are 1,950 registered patrons who have logged 21,000 miles and 2,600 rider days, preventing 9.7 metric tons of CO2 from being released into the atmosphere (Bike Fort Collins).

In addition to these achievements, Fort Collins has achieved Gold Level designation by the League of American Bicyclists as part of their Bicycle Friendly Community program. This designation comes as a result of Fort Collins' efforts to promote bicycling and plans to continually improve the ease, convenience,

[2] The Fort Collins Bike Library is a pilot project funded by the North Front Range MPO for a period of 3 years. Funding is made possible by a federal Congestion Mitigation Air Quality (CMAQ) grant from the MPO Planning Council. Once the pilot period is over, local funding will need to be secured.

and safety of traveling by bike. The City has indicated its interest in pursuing Platinum Level designation by the League of American Bicyclists, further solidifying its commitment to promoting the use of bicycles as transportation.

FC Bikes

FC Bikes is the City of Fort Collins' bicycle program. The City completed a 2008 update to its 1995 Bicycle Plan and Program. The updated plan proposes improvements to nearly every facet of bicycling in Fort Collins. The goals, principles and policies that pertain to bicycling established in *City Plan* and the *Transportation Master Plan* have set the foundation for the current policies, projects, and programs as well as the focus for the numerous recommendations provided. In addition, FC Bikes promotes bicycling in the city by sponsoring events such as Bike to Work Day, Winter Bike to Work Day and BikeWinter. BikeWinter is promoted by FC Bikes as a way to encourage cyclists to ride throughout the winter months. Winter Bike to Work Day in December is the cornerstone event, with increased numbers of participants in each year since its inception in 2007. In addition, the City of Fort Collins Transportation Board just incorporated a bicycle sub-committee.

Climatewise

Climatewise is a free, voluntary City of Fort Collins program that is dedicated to helping local business and the environment. Through environmental assessments and creative solutions, the City of Fort Collins Climate Wise Team helps businesses tackle business challenges that impact bottom lines and the quality of life in Fort Collins. The goal of the Climate Wise program is to reduce greenhouse gas emissions by promoting waste reduction, energy savings, alternative transportation, water conservation, and practicing pollution prevention. The alternative transportation program promotes the NFRMPO CarGo and VanGo™ programs, as well as School Pool.

Colorado State University

Colorado State University, with an enrollment of approximately 25,000 students, has a significant transportation impact on the City of Fort Collins. The City's transportation network is also impacted by the student population. CSU's impacts are felt on a number of levels, with the presence of students and faculty affecting local demographics. For instance, Fort Collins has a higher level of bicycle commuting than the national average (and other cities in the region [2009 NFRMPO Household Travel Survey], some of which can be at least partially attributed to the student population). Over 35 percent of Fort Collins households reported that someone in the household walked or bicycled to work or school at least once a week (2009 NFRMPO Household Travel Survey). Other impacts are felt throughout the City, and CSU has implemented TDM programs to alleviate parking issues and congestion that impact the campus and its environs.

All CSU students receive a pass to ride the Transfort bus system at no cost per ride. In addition, CSU offers annual faculty/staff bus passes for $50. The new transit center at Lory Student Center, built in 2006, is certified LEED Gold. The enhanced space includes a Transfort customer counter, flat screen monitors displaying departure times and news stories and an indoor passenger waiting area to make public transportation more comfortable and convenient for CSU students and visitors.


Lory Transit Center, image courtesy of the CSU Facilities Management website

The Fort Collins Bike Library has a station at the Lory Student Center, which provides free access to bicycles to students, faculty and staff. Colorado State University has recently purchased hundreds of new, user-friendly bike racks to accommodate over 15,000 bicyclists daily (City of Fort Collins 2008 Bicycle Plan).

CSU also provides a full subsidy for employee vanpools through the VanGo™ program.

City of Loveland

City of Loveland Transit

The City of Loveland provides fixed route transit via COLT (City of Loveland Transit). COLT offers fixed route bus transportation 6:30 AM - 6:30 PM Monday - Saturdays. Each of the 3 routes operates hourly. There is no service on Sunday.

COLT service offers connecting service to the FLEX service. All COLT buses are equipped with bike racks that can hold 2 bicycles.

Bicycling

The City of Loveland also sponsors an annual Bike to Work Day event, including a business challenge to encourage employers to promote cycling as transportation to their employees. Additionally, the City of Loveland's Engineering department has partnered with the Thompson School District to promote the Safe Routes to School Program, a federally-funded program through the Colorado Department of Transportation (CDOT). This program benefits children and the community by reducing traffic congestion in school zones, improving air quality, increasing physical activity of children and adults, and promoting safe neighborhoods.

City of Greeley

Greeley-Evans Transit

The City of Greeley operates the GET (Greeley-Evans Transit) fixed route service that provides local transit service in Greeley and Evans. Each of the 6 routes operates on an hourly basis.

The Boomerang Route is an additional GET service for the University of Northern Colorado community during fall and spring semesters. Bus service runs Monday-Friday from early morning to mid-afternoon.

The Boomerang is free for all UNC students, faculty and staff. UNC students may also ride Greeley-Evans Transit (GET) free of charge with their UNC ID cards.

The University of Northern Colorado also operates a vanpool program for faculty and staff. Participants meet off-campus, join the vanpool and park on campus at no cost.

City of Berthoud

Berthoud Area Transportation Services

The City of Berthoud operates a demand-responsive transit service, the Berthoud Area Transportation Services (BATS). BATS operates from 7:30 – 5:00 PM Monday through Friday and is open to the general public. They will only serve Berthoud residents, although their trips may be destined for areas outside of city limits.

BATS is paid for through a city-wide 1 cent sales tax dedicated to paying for public improvements and services. The tax helps pay for 5 vehicles, drivers, and a part-time Executive Director.

Ridership was originally mostly a senior population, but today has evolved to providing service for students, particularly for after school activities. They also serve the disabled and receive federal funding for specialized transit.

The majority of the riders on BATS are transit-dependent. They are not riding transit by choice and therefore TDM efforts to boost ridership have not been pursued. Awareness of the program is mostly through community word of mouth, community newsletters, and the city website.

Weld County

Weld County Transportation

Weld County operates a demand-responsive transit service for rural Weld County residents. The service primarily connects elderly, disabled, low income persons, and the general public from outlying communities to Greeley. Within the City of Greeley, Greeley-Evans Transit (GET) described above is the primary provider of transit services.

Larimer County

Larimer County Specialized Transportation

Larimer County provides a demand-responsive service for residents of the county that live outside the Fort Collins and Loveland urban areas. The service is primarily intended for elderly, disabled, and low income persons in the county. The program is operated through an agreement with Larimer County and Transfort (the fixed-route bus service in Fort Collins).

2.3.3 Employer-based TDM programs

Employer-promoted TDM programs are an effective, locally-based mechanism to increase employee utilization of alternative modes for their commute to work.

A notable employer-based effort includes the New Belgium Brewery. New Belgium actively promotes and supports bicycle commuting, both by their own employees and nation-wide. New Belgium employees receive a custom cruiser bicycle after a year of employment with the company. New Belgium also sponsors the Tour de Fat, a series of bicycle festivals throughout the U.S. Team Wonderbike is New Belgium's bicycle commuter advocacy program which has more than 10,000 members who have pledged to offset more than eight million car miles by riding their bikes more over the next twelve months. New Belgium also offers local grants, sponsorships and product donations to applicants whose objectives align with New Belgium's.

Another notable employer-based effort in Northern Colorado is AMD (Advanced Micro Devices). Just over a year ago, AMD purchased GreenRide Connect™, a web-based ride matching and trip reduction solution recognized for its ease-of-use and top performance in engaging user and organizational participation. Connect identifies personally relevant and more environmentally friendly transportation matches for users such as carpools, vanpools, bicycle buddies, park and ride and transit. AMD also holds an annual transportation fair that encourages employees to seek out information on alternative methods of transportation. AMD has also solicited coupons and prizes from area bicycle shops to use as awards and incentives during their annual Bike to Work Month each June.

Two high tech companies in Fort Collins, Intel and LSI Corporation have taken the lead in establishing first class facilities for their employees that bike to work. Both companies invested heavily in constructing secure, lockable weatherproof bike lockers that are just outside the employee entrance to their facilities. The bike locker area at both companies is protected by around the clock video surveillance. In addition to the storage facilities provided, both companies have also built change facilities with lockers and showers. These facilities are available to all employees who ride or walk to work or who might want to work out during their lunch break. In addition to the bike facilities, both of these employers have also designated reserved parking spaces in their parking lots for carpools and hybrid/low emission vehicles.

An additional company that has encouraged alternative modes of transportation for some of their employees is Platte River Power Authority (PRPA) headquartered in Fort Collins. PRPA helped establish a vanpool for several of their employees who live in Loveland and Fort Collins that work at the remotely located Rawhide Power Plant 20 miles north of Fort Collins. The company has established a flexible benefits plan in which the employees monthly vanpool fare is pre-deducted from their paycheck, thus reducing their tax liability.

The Colorado Department of Transportation (CDOT) offers TDM programs to their employees located throughout Colorado. Employees that work in the NFRMPO region are provided with a monthly commuter check worth $35 to subsidize vanpool costs. Employees that travel to the Denver metro area for meetings are provided with an RTD Eco Pass to allow them to ride transit. Full-time employees that commute to the Denver region from the NFRMPO region are also provided with Eco Passes. CDOT sponsors Bike to Work Day events (Bike to Work Day is held in June) at all of its statewide offices and provide incentives for employees to ride their bikes to work through the month of July.

Several employers promote transportation alternatives in conjunction with other events at the workplace, most commonly health fairs. These employers include:

- Hewlett-Packard
- Intel
- Weld County
- Hach
- AMD
- Avago Technologies
- Platte River Power Authority - Rawhide Power Plant
- LSI Corporation
- Advanced Energy, Inc.
- Rickards Long & Rulon, LLP
- Gallegos Sanitation
- Poudre River Public Library District
- State Farm Insurance – Great Western Region
- Woodward Governor
- McKee Medical Center

2.3.4 Regional Air Quality Council

The Regional Air Quality Council (RAQC) works with regional organizations including the NFRMPO, the Denver Regional Council of Governments (DRCOG), RTD and local governments, citizens, non-profits, and local businesses to plan, implement, and monitor strategies that reduce emissions from transportation. The RAQC is implementing several transportation-related strategies to reduce air pollution along the front range, including portions of Northern Colorado.

Every Trip Counts

A new program launched by RAQC is the Every Trip Counts program (everytripcounts.org). This program provides information on transportation options and enables program participants to track trips and register for prizes and incentives. The program is a part of the RAQC's broader Ozone Aware campaign.
As the RAQC implements TDM programs such as Every Trip Counts, they will continue to work with NFRMPO and other regional partners to promote their programs and services to residents. The NFRMPO recently accepted a seat on the RAQC Board, which will increase the coordination and communication between the two organizations.

2.3.5 State of Colorado

Safe Routes to School

CDOT administers Colorado's Safe Routes to School (SRTS) program, from which several communities in the North Front Range have been provided grants to improve local infrastructure or develop educational campaigns. Colorado Safe Routes to School uses a comprehensive approach to make school routes safe for children when walking and bicycling to school. In the process, programs are working to reduce traffic congestion around schools, which is an important component of TDM.

Intelligent Transportation Systems (ITS)

ITS refers to efforts to add information and communications technology to infrastructure and vehicles to maximize the efficiency of the existing transportation system. ITS technology is used to improve safety, reduce vehicle wear, transportation times, and fuel consumption. CDOT crafted the 2004 ITS Region 4 Architecture plan. They will be updating the plan in 2011.

ITS is very broad and can encompass the following:

- Intelligent transportation *technologies*
  - Wireless communications
  - Computational technologies
  - Floating car data/floating cellular data
  - Sensing technologies
  - Inductive loop detection
  - Video vehicle detection
- Intelligent transportation *applications*
  - Electronic toll collection
  - Emergency vehicle notification systems
  - Cordon zones with congestion pricing
  - Automatic road enforcement
  - Variable speed limits
  - Collision avoidance systems
  - Dynamic Traffic Light Sequence

Tables 20 through 22 display what types of ITS technologies are deployed on major roadway corridors in the NFRMPO region. Note these are mostly ITS technologies versus applications of these technologies. The technologies are the infrastructure that can be applied to applications in the future.

Table 20: I-25 Corridor ITS Activities– 2007-2009

Device Type	Agency	Location
Backup Traffic Signal Control Cabinet	Fort Collins	Harmony and Ziegler
		Ziegler and Council Tree
		Timberline And Battlecreek
Closed-Circuit TV	CDOT	CCTV-SH-402-Johnsons Corner (P&R)-cam1
		CCTV-SH-402-Johnsons Corner (P&R)-cam2
		CCTV-US-34-RTD Lot-P&R-cam1
		CCTV-US-34-RTD Lot-P&R-cam2
	Loveland	I-25/US 34 (I-25/Crossroad)
		US 34/Centerra
		Centerra/Sky Pond
		Fairgrounds/Crossroads Intersections
	Fort Collins	Timberline and Drake
		Timberline and Prospect
		Ziegler and Kechter
Fiber Optic Comm Expansion	Fort Collins	Harmony from Ziegler to Lady Moon
		Ziegler from Harmony to Kechter & Council Tree
In-Pavement Sensors	Fort Collins	Timberline and Mulberry
		Timberline and Harmony
		Timberline to Ziegler
Installed Digital Cameras	Fort Collins	Timberline to Ziegler
Video Detection	Fort Collins	Timberline and Horsetooth

Table 21: US 287 Corridor ITS Activities– 2007-2009

Device Type	Agency	Location
Weather Station	Loveland	Taft Avenue/1st Street Intersection
		Wilson/50th St.
	Fort Collins	Shields Street at Harmony Road
		College Avenue at the Poudre River
Automatic Traffic Recorder	Fort Collins	College Avenue at Laurel Street
		College Avenue at Horsetooth Road
		College Avenue at Columbia Road
		Shields Street at Rolland Moore Park
		College Avenue north of Willox Lane
		Shields Street South of Mulberry Street
		Shields Street West of Prospect Road
		Shields Street South of Drake Road
		Shields Street South of Horsetooth Road
		Shields Street South of Harmony Road
		College Avenue South of Mulberry Street
		College Avenue South of Prospect Road
		Prospect Road West of College Avenue
		Taft Hill Road South of Prospect Road
		Prospect Road West of Taft Hill Road
		Taft Hill Road South of Drake Road
		College Avenue South of Drake Road
		Taft Hill Road North of Harmony Road
		College Avenue South of Horsetooth Road
		College Avenue South of Harmony Road
		Harmony Road East of College Avenue
Video Surveillance	Loveland	Taft Avenue/1st Street Intersection
	Fort Collins	College Avenue at Prospect Road
		College Avenue at Drake Road
		College Avenue at Foothills Parkway
		College Avenue at Horsetooth Road
		College Avenue at Harmony Road
		Shields Street at Prospect Road
		Taft Hill Road at Mulberry Street
		Taft Hill Road at Drake Road
		Shields Street at Elizabeth Street
		Shields Street at Drake Road
		Shields Street at Horsetooth Road
		Shields Street at Harmony Road
		College Avenue at Jefferson Street

Table 22: US 34 Corridor ITS Activities – 2007-2009

Device Type	Agency	Location
Backup Traffic Signal Control Cabinet	Fort Collins	Harmony and College
		Shields and Westbury
		Shields and Harmony
		SH287 Bypass and CR54G
Closed-Circuit TV	Loveland	Downtown Loveland
		US 287 south of 19th Street SE (Derby Hill)
	Fort Collins	College and Cherry
		Taft Hill and Mulberry
		Shields and Mulberry
		Taft Hill and Drake
		Shields and Drake
		Shields and Horsetooth
		Shields and Harmony
		College and Trilby
		Taft Hill and Prospect
Fiber Optic Comm Expansion	Fort Collins	Shields from Harmony to Westbury
		Harmony from Shields to Seneca
		Taft Hill from Horsetooth to Harmony
In-Pavement Sensors	Fort Collins	College and Willox
		Riverside and Mulberry
		Shields and Mulberry
		Shields and Prospect
		Shields and Drake
		Shields and Horsetooth
		Shields and Harmony
		Lemay and Harmony
Lane Control Sign	CDOT	VMS-S-I-25-Colo/Wyoming Border-MM 298.2
Pavement Condition Detection	Loveland	US 287 south of 19th Street SE (Derby Hill)
		Wilson Ave./50th Street
Precipitation Detection	Loveland	Wilson Ave./50th Street
Variable Messaging Sign	CDOT	WS-N-US-287-Vine St.-MM 347.25
	Loveland	US 287 south of 19th Street SE (Derby Hill)
Video Detection	Fort Collins	College and Mulberry
		College and Prospect
		Taft Hill and Prospect
		Taft Hill and Drake
		College and Drake
		Taft Hill and Harmony
		College and Horsetooth
		College and Harmony
Visibility Sensor	Loveland	US 287 south of 19th Street SE (Derby Hill)
Weather Station	Loveland	US 287 south of 19th Street SE (Derby Hill)

Chapter 3: Regional Recommendations

The recommendations in this chapter serve as a set of regional strategies for Northern Colorado in creating future TDM programs. These recommendations are comprehensive in nature and contain several specific categories to address the functionality of the regional TDM program as a whole. These categories include program mission, program structure, target markets, performance measurement techniques, funding recommendations, and annual benchmarking. The implementation of these categories together will support a regional TDM program in Northern Colorado that is cost effective, implementable, and of value to the travelers of the region.

These recommendations are supported, in part, by the assessments conducted for the plan and summarized in Appendices A through E. These include Steering Committee stakeholder interviews (Appendix A), the Strengths, Weaknesses, Opportunities, Threats (SWOT) Analysis (Appendix B), the Spring 2010 employer transportation survey (Appendix C), focus groups conducted with major employers (Appendix D) , and the travel market analysis (Appendix E). In addition, these recommendations were formed through extensive input from the Steering Committee for the TDM plan throughout the planning process.

3.1 Recommendation #1: Develop a Mission Statement for the NFRMPO TDM Program

The current SmartTrips™ program and web site, which is the primary outreach component of the NFRMPO TDM Program, has a program mission detailed below:

> *SmartTrips™ programs have one goal: to help you travel as often as possible by means other than driving alone in a car. We provide resources, information and incentives to help you do that. The result? Less road stress for you - more money in your pocket and less traffic congestion for everyone.*
>
> *The mission of this website is to provide information to help you use smart transportation options (how to get around without your car). These options include bicycling, carpooling, taking the bus, teleworking, vanpooling, and walking. All of these options, or "modes" have their own unique character and ease of use, depending upon your work and personal circumstances.*

However, the broader NFRMPO TDM Program does not have a mission statement. The purpose of the NFRMPO TDM program is broader than the efforts under SmartTrips™ and its web site. The broader focus is to help communities manage the movement of people in Northern Colorado and implement strategies that orient daily individual travel towards efficient transportation options. The NFRMPO TDM Program includes SmartTrips™, but the program can also play a strong role in areas such as STP Metro and CMAQ funding allocations, TDM program performance measurement, and education and outreach to local businesses. Each of these areas as well as others is considered further in these recommendations contained in the section. A mission that illustrates this broader perspective on the impact of TDM and the purpose of the NFRMPO TDM Program is detailed below:

> *To provide our local communities, agencies, and employers of Northern Colorado with the information, resources, funding, and tools needed to increase the efficiency of our regional transportation system.*

3.2 Recommendation #2: Identify Target Markets for TDM Services

The following recommendations identify target markets for regional TDM services by mode and location. The underlying data for these recommendations is provided in Appendix E: Travel Market Analysis. *Note these are recommendations for the regional TDM program and mostly focus on how the intra-regional travel that occurs between cities and counties should be marketed with TDM services. These are not target market recommendations for local intra-city travel.*

The mode specific recommendations for travel markets throughout the region are summarized below. These recommendations focus on where to concentrate TDM resources to increase the use of regional transit, bicycling, carpooling, vanpooling, and telework services.

- **Bicycling:** The expansion of bicycling infrastructure in Fort Collins, especially in regional connections, should be marketed through TDM programs and services. The strong use of bicycling particularly in Fort Collins and Greeley for work trips (13.3% of all work trips in Fort Collins and 4.2% of all work trips in Greeley as shown in Table 3 of this document) underscore the importance of continuing to provide TDM services related to bicycling throughout the region. The results of the Focus Groups (Appendix X) also found that connecting communities and employers with bicycle facilities and complementary TDM services will become more and more relevant as the bicycling culture continues to grow in Northern Colorado.

- **Transit:** The only regional transit link in operation today is the FLEX service between Longmont and Fort Collins. The market analysis shows this service could be very valuable to Loveland residents who commute to Fort Collins and locations outside the region on a daily basis. Figure 5 shows 22.5 percent of Loveland residents commute to Fort Collins on a daily basis according to the 2009 NFRMPO Household Survey. Also, a lesser but still significant percentage of Fort Collins residents commute every day to work in the Loveland area (7.5 percent of Fort Collins residents as shown in Figure 6). The relationship of jobs and housing between these two cities and the commuting flows between them are the strongest of any in the region. Therefore, targeting TDM services to increase the use of transit between these two cities is recommended. As regional transit services are developed in other corridors, joint marketing of TDM and transit services will continue to be useful.

Figure 5: Loveland Commute Destinations

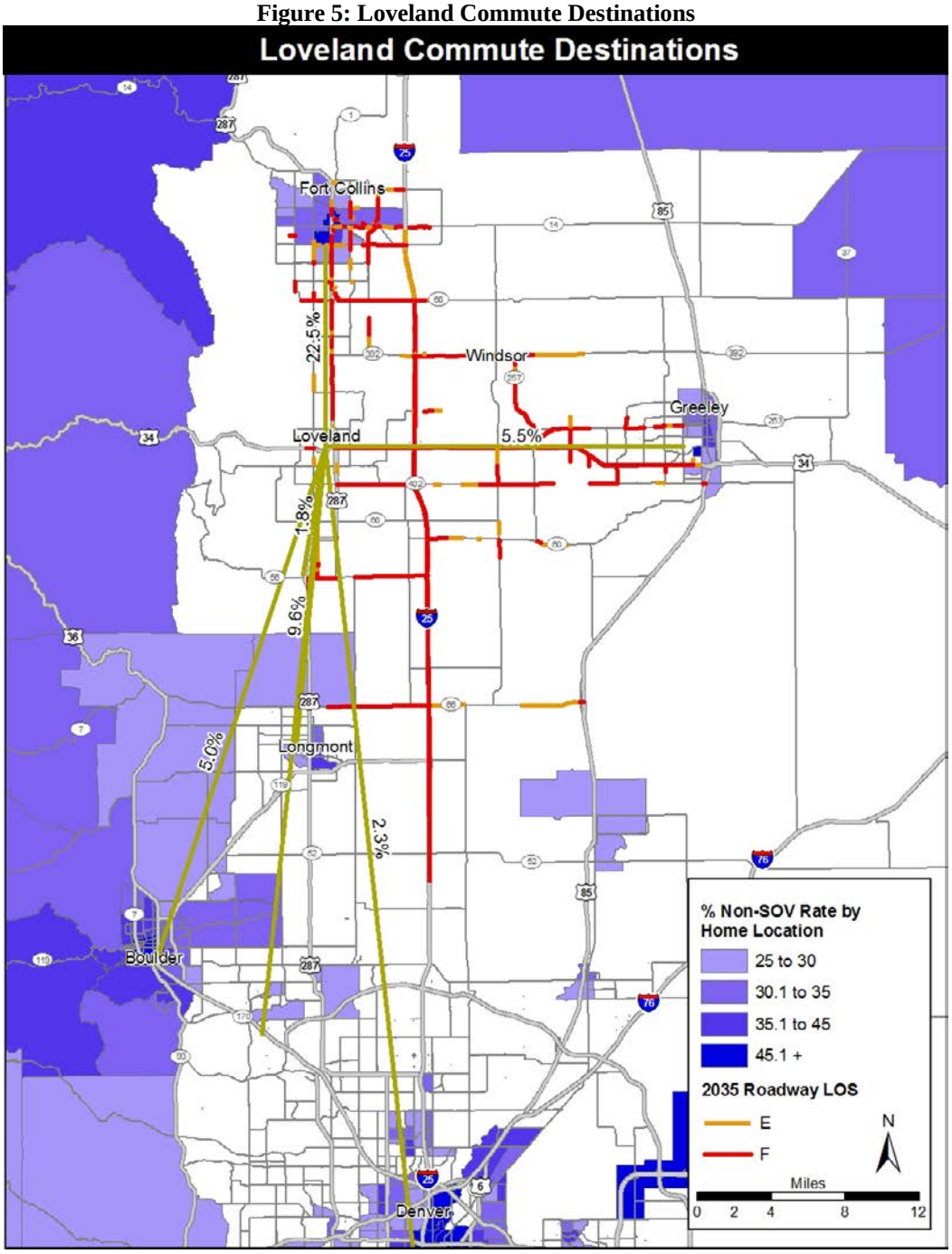
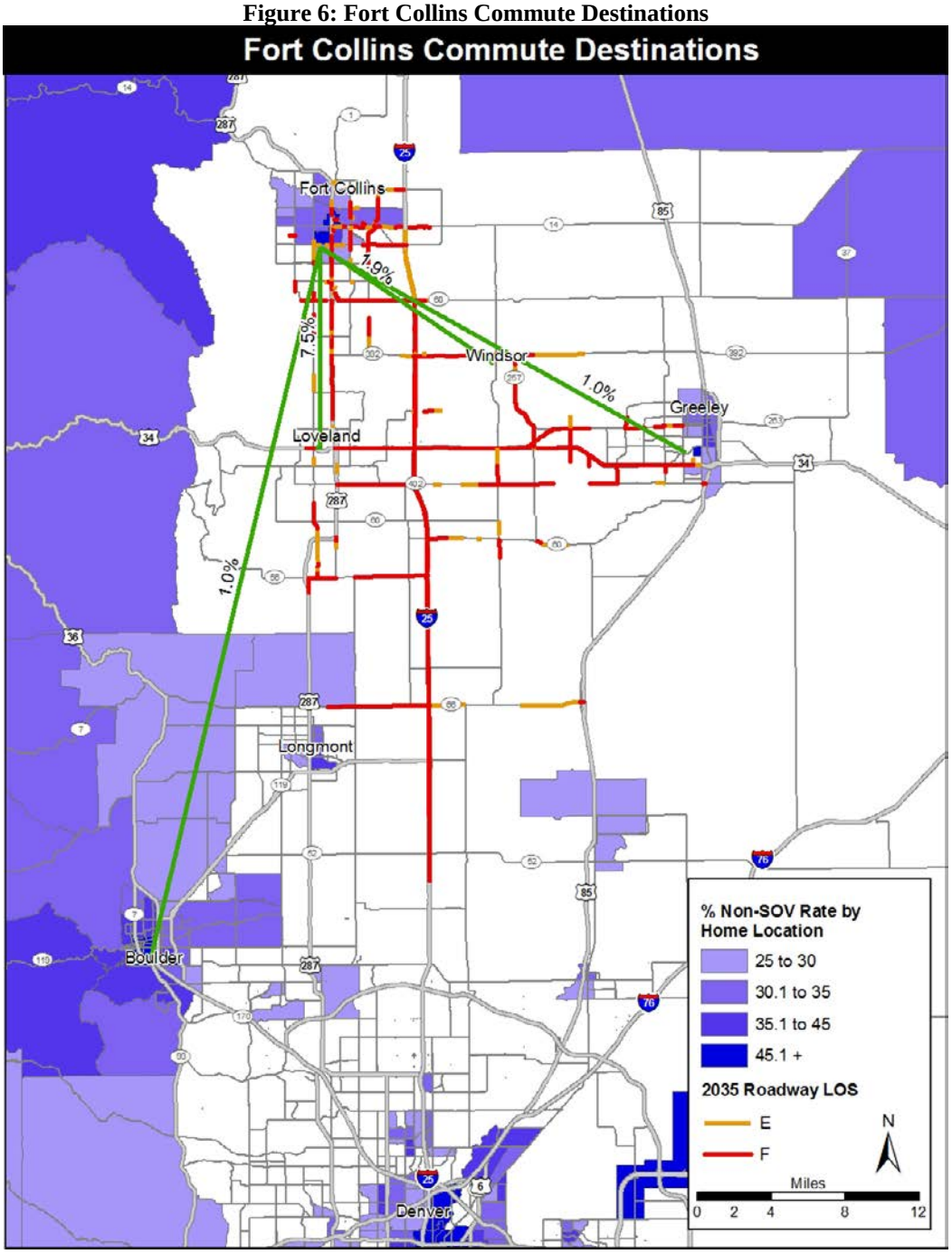
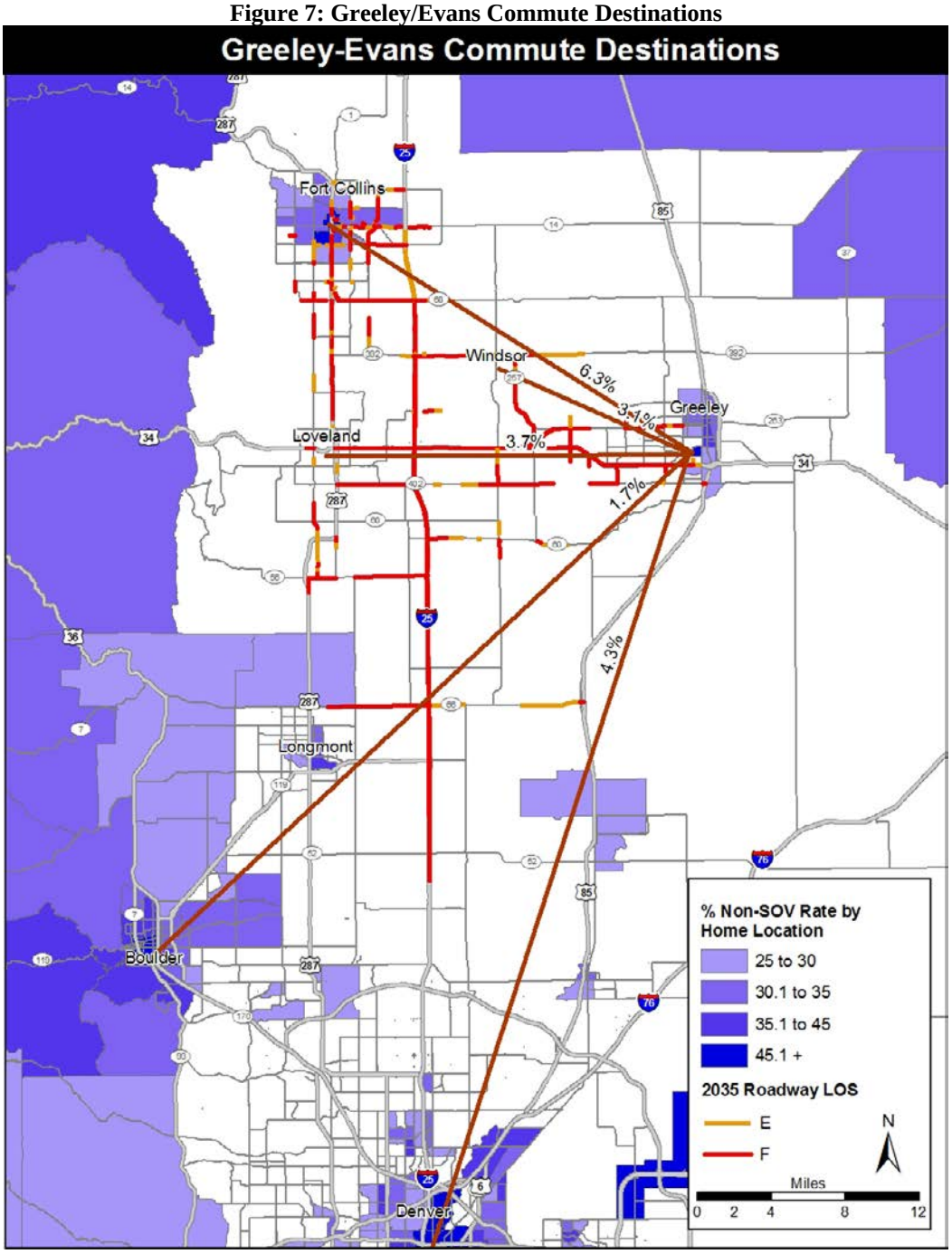


Figure 6: Fort Collins Commute Destinations



- **Carpooling:** Carpooling services should generally be targeted to areas that do not have regional transit services. Loveland is a particularly strong candidate for carpooling programs since over half of the residential population works in other cities throughout the region. In addition to Loveland residents who work in Fort Collins as mentioned above, another 22.4 percent commute to Longmont, Boulder, Berthoud, or Greeley/Evans (Figure 5). These trips could be targeted with carpool marketing. Similarly, Greeley/Evans also exports 13.1 percent of its workers to daily to destinations in Fort Collins, Loveland, and Windsor (Figure 7). These cities could also benefit from carpool marketing.

Figure 7: Greeley/Evans Commute Destinations



- **Vanpooling:** In general the VanGo™ program is very strong in the region for the long-distance commute market from Fort Collins, Loveland, and Greeley/Evans to points south including Denver, Boulder, and Longmont. The long distance nature of these trips makes them economical for vanpooling and the NFRMPO should continue to target this market for vanpooling. However, there is a relatively low awareness of vanpooling with employers within the region (as found in the 2010 Spring Transportation Survey summarized in Appendix C). The VanGo™ program could benefit from more intra-regional marketing and promoting the 16 ***destinations*** for vanpools that exist today in the region (11 in Fort Collins, 1 in Loveland, and 4 in Greeley).

- **Telework:** The use of telework is already a part of many large employers in Northern Colorado (see Section D.1.6 from the Focus Group summaries in Appendix D). These employers implement telework policies because they recognize many of their employees have long distance commutes and that the option to telework one or more days per week increases employee retention. A strong telework program that offers educational assistance, best practices from the region, and sample telework program policies will help facilitate telework program implementation at the local level and reduce congestion on the regional transportation network. Telework assistance should be targeted to employers throughout the region, including rural areas as well as cities.

Targeted marketing recommendations for the three major cities of the NFRMPO region are summarized below. Some of these cities act as significant attractors of journey to work trips (e.g., Fort Collins) and others act as exporters of these types of trips (e.g., Loveland).

- **Fort Collins:** From a regional perspective, Fort Collins is a significant trip attractor. The travel market analysis shows more travelers commute daily to jobs in the City of Fort Collins than any other city in the region. From this regional perspective, targeting large employers, higher education institutions and activity centers in Fort Collins to implement TDM strategies targeted to regional travel is important. This includes marketing carpooling, vanpooling, FLEX transit service, and telework strategies.

- **Loveland:** 54.1 percent of residents in Loveland travel to jobs outside of the city on a daily basis; therefore, an important regional marketing strategy for TDM in Loveland is to target residents who commute long distances to work in other cities such as Fort Collins, Greeley/Evans, Longmont, and Berthoud. Carpooling and vanpooling both have strong potential for these commutes.

- **Greeley/Evans:** The percentage of commuters leaving Greeley/Evans on a daily basis to other cities is fairly split between trips to Fort Collins (6.3 percent), Loveland/Windsor (6.8 percent), and points south such as Denver and Boulder (6.0 percent). In total, this represents almost 20 percent of daily journey to work travel in Greeley/Evans. While not as strong as Loveland for regional journey to work travel, this significant level of regional travel by residents of Greeley/Evans should be targeted with carpool, vanpool, and telework strategies.

3.3 Recommendation #3: Support the Planning and Development of a Regional Multimodal Transportation System

Fundamentally, the region must have a strong multimodal transportation system that can be utilized by TDM services. Today there are elements of this system in place, such as the FLEX bus route between Fort Collins, Loveland, and Longmont. However, more development of the system is envisioned and TDM should be a part of any future project to ensure that the new service is promoted and fully utilized.

3.3.1 Transportation System Improvements

Future opportunities to enhance the multimodal system in the region were envisioned in the SWOT analysis (see Appendix B) conducted for the TDM plan in March and April 2010. The opportunities uncovered in the SWOT analysis that are most relevant for TDM include:

- **Bus Service:** Develop and market new regional bus transit routes between major cities and activity centers as they are planned and implemented:
    - The FLEX service from Fort Collins and Loveland to Longmont and locations outside the region
    - Recommendations of the NFRMPO Regional Transit Element, including services along I-25, US 287, and US 85. As of September 2010, this plan is still in development.

    - Future implementation of the recommendations from the North I-25 EIS[3] for bus service.
- **Fixed guideway transit services:** Maximize the ridership of significant new capital transit projects in the region, including the Mason Corridor Bus Rapid Transit project.
- **Bicycle and Pedestrian:** Improve awareness and utilization of regional multiuse trails, paths, and bike lanes, particularly the Poudre River Trail. Towards this effort, continue to integrate bicycle and pedestrian route information with services like Google Earth.
- **Carsharing**: Explore the feasibility of carsharing throughout the region and identify several pilot locations for first-time implementation. Carsharing is a model of car rental where people can rent cars for a short period of time, usually only a few hours. Typically carsharing works best initially in downtown areas, dense neighborhoods, and university settings. The downtowns of Greeley, Fort Collins, and Loveland are potential pilot locations, as well as the campuses of Colorado State University and the University of Northern Colorado.
- **Intelligent Transportation Systems:** Provide the resources to enable local governments to collect data on multimodal travel (vehicle traffic as well as bicycle, pedestrian, and transit) and build ITS infrastructure as recommended in the *CDOT Region 4 Regional ITS Architecture.* Use ITS to provide travelers with better information to make decisions about when and how to travel throughout the region.
- **North I-25 EIS Recommended Strategies**[4]: Support the planned implementation of the preferred alternative for the North I-25 Environmental Impact Statement (http://www.coloradodot.info/projects/north-i-25-eis) and ensure that TDM strategies are used to fully utilize the following components:

    - Tolled Express Lanes (TEL): One buffer-separated TEL in each direction of I-25 from the existing High Occupancy Vehicle/toll lanes at 84th Avenue to SH 14 for use by carpoolers, vanpoolers, and the commuter buses to coincide with the additional revenue from the tolling system.
    - Express Bus: Express bus service with 13 stations along I-25, US 34 and Harmony Road with service from Fort Collins and Greeley to downtown Denver and from Fort Collins to DIA.
    - Commuter Rail: Commuter rail service with 9 stations connecting Fort Collins to Longmont and Thornton using the Burlington Northern Santa Fe Railroad, generally paralleling US 287 and tying into FasTracks North metro rail in Thornton which will connect to Downtown Denver. Passengers may also connect to the FasTracks northwest rail in Longmont, which will travel to Boulder.
    - Commuter Bus: Commuter bus service with 8 stations along US 85 connecting Greeley to downtown Denver.
    - Congestion Management: Some of the improvements include accommodations for ridesharing, carpools, and vanpools, along with additional bicycle and pedestrian facilities. In addition, signal timing, ramp metering on I-25 and signage could also be improved.
    - Adding and enhancing park and ride lots with commuter bus stops and carpool spaces

- **Corridor Plans:** Provide resources to support local governments and multi-agency partnerships to develop multimodal corridor plans, including access management plans, to improve long-term operating efficiency and safety for all modes of travel on regionally significant highway facilities.
- **Land Use planning:** Support local governments with the tools necessary to develop local land use policy and regulations that integrate sustainable transportation policy. While local and regional land use decisions are not within the purview of the NFRMPO, the effect of these decisions impact the regional transportation system. Local examples already pursued include development of

[3] Note: No regional transit operator or regional revenue source has been identified for these services at this time.

[4] Funding has been identified in the Long Range Transportation Plan for the first phase of the Record of Decision (ROD). At what point in time the funds will be available is currently unknown, so it is impossible to predict when construction along this corridor will begin.

flexible parking standards for mixed-use development, multimodal levels of service impact analyses for new development, and transit-oriented development overlay districts.

3.3.2 Add Incentives for Implementing TDM

An incentive for implementing a TDM strategy in concert with a major transportation investment should be considered for inclusion into the NFRMPO Transportation Improvement Program (TIP) process. In the application point system in TIP applications on all types of transportation projects, those applicants that commit to implementing a TDM program should receive an additional amount of points or credit that will enable the project to score higher than if a TDM program were not implemented. This will help incentivize local implementation of TDM programs.

3.3.3 Regional TDM Program Financing

A TDM focus within regional and local efforts to finance transportation system improvements or rehabilitation will also increase the efficiency of the multimodal transportation system. In addition to traditional roadway projects, these financing examples could fund improved transit services and amenities, construction of multiuse trails, park-and-ride expansion, and other attributes of a multimodal transportation system that are then promoted by TDM for maximum utilization:

- **Tax sharing agreements:** Establish tax sharing agreements and public-private partnerships that build a multimodal transportation system and a TDM program to promote it.
    - The Centerra development at the I-25 and US 34 interchange is an example of a public-private partnership that uses a small amount of funding for TDM-related services and promotion. The majority of the financing is oriented towards the reconstruction of the I-25 and US 34 interchange.
- **TDM centered organizations:** Continue to explore the potential for local partnerships between government and the private sector to form organizations that promote transportation options and advocate for multimodal system improvements
    - Monitor the willingness of the businesses and government agencies in the NFRMPO area to form a Transportation Management Organization (TMO).
    - Educate business leaders on the successful implementation of TDM strategies through local improvement districts and downtown development organizations, such as the TDM program through the Downtown Denver Partnership.
- **New Federal Transportation Legislation:** Lead discussion with elected officials who represent the region in Washington to provide transportation financing for capital improvements as well as demand management programs and strategies such as pricing mechanisms, commuter tax incentives, and telework strategies. Work with key legislative groupsto bring resources to develop a more comprehensive multimodal transportation system and supporting TDM strategies and programming. Explore the interest in hosting a NFRMPO Legislative Day on regional transportation issues.

3.4 Recommendation #4: Develop Performance Measurement Methods for TDM Evaluation

Accurate measurement of the performance of the TDM program is critical to demonstrate the effectiveness of demand management strategies. Consistent measurement methods in approach and frequency are strongly recommended for TDM as well as all modes of the transportation system. Also, all measurement results should be integrated into the NFRMPO Congestion Management Process, which includes an evaluation of congestion on the regional transportation system.

3.4.1 Measurement Methods

Four specific measurement methods are recommended for the TDM program. This coverage ensures that benefits are captured at the local and regional levels. The recommended measurement methods include:

1. **Site-based participant surveys.** These include surveys of the individual traveler who is engaged by any organization or community that implements a TDM program (travelers could be employees, college age students, children, neighborhood residents, a senior population, or others). This survey should be required if the program is funded through the MPO. Questions will provide information about the performance of the program in terms of single occupant vehicle traffic before and after the application of the TDM strategy(s). A standard method of no more than 10 survey questions should be developed to poll individuals who take part in TDM programs. At a minimum these questions should cover:
    - Modes used for trips to the site over past week, including work and non-work trips
    - Average vehicle occupancy
    - Typical arrival and departure time
    - Length of time participant was involved in a TDM strategy or program
    - Testing the response for new TDM strategies or incentives such as polling for use of a subsidized bus pass program if the site were to implement

2. **Regional bi-annual survey.** A regional survey of Northern Colorado residents should occur every two (2) years to measure the effectiveness of the TDM program as well as the performance of the transportation system as a whole (system-wide aspects could include roadway condition, safety, and traffic). With respect to TDM, the primary purpose of this survey is to evaluate specific strategies implemented in the region, both at a local and regional level. The responses to the North Front Range Spring 2010 Transportation Survey (Appendix C, Section C.2) and the Focus Groups (Appendix D, Section D.3) are useful in providing insight on what question themes should be used for a regional survey. These themes include:
    - *Mode Split of Resident*: Individual residents should be polled to discover how much they use transportation alternatives. Level of use could be determined by an individual's typical mode split throughout the week.
    - *Participation in TDM Strategies*: The survey should determine the level of participation by residents in specific TDM strategies. The most popular TDM strategies implemented at medium and large employers include telework, flexible schedules, bicycle facilities and programs, and guaranteed ride home. Once this information is obtained it can be compared to the mode split question summarized above. This will enable NFRMPO to clearly see how the travel behavior of residents that <u>do</u> participate in TDM strategies are different than residents who do not.
    - *Factors in Transportation Mode Choice:* Understanding the factors that motivate people to use transportation alternatives can be as important as measuring the existing use of transportation alternatives. Answers enable NFRMPO to understand why people choose to travel via single occupant vehicles and how TDM strategies can be applied to encourage mode shift. Sample elements that are typically important to people when choosing a mode to travel include ability to make stops between home and destination, convenience, financial savings, time savings, and positive impacts on health and the environment.
    - *Test new TDM strategies and ideas*: The NFRMPO and partner organizations will continually look to national best practices and new ideas for insight on how to implement effective TDM strategies. The biannual survey is an ideal opportunity to test the interest in new ideas or concepts related to TDM.

3. **Average Vehicle Occupancy (AVO) Counts on Regional Transportation System.** This measure is currently proposed to be collected annually through the Congestion Management

Process. Tier 1 TDM should have an impact, albeit small, on the average vehicle occupancy of the regional transportation system (I-25, US 287, and US 34). Vehicle occupancy data along these roadways will provide data on the effectiveness of the regional TDM program as a whole from site-specific programs at worksites and activity centers but also regional strategies like ridesharing. Over time these annual counts will show how travel behavior did or did not change compared to a baseline that existed before implementation of TDM and the longer term impacts after implementation.

4. **Bicycle and Pedestrian Counts.** This measure is also currently proposed for implementation through the Congestion Management Process. TDM programs will have an impact on these modes, particularly during the summer months. Automated bicycle and pedestrian counters available through CDOT should be installed on regional multiuse trails, near transit stations or centers, and other regionally significant facilities for pedestrian and bicycle traffic. These counters will add general supporting data for pedestrian and bicycle programs, particularly if the facilities measured are within close proximity to sites with strong TDM programs.

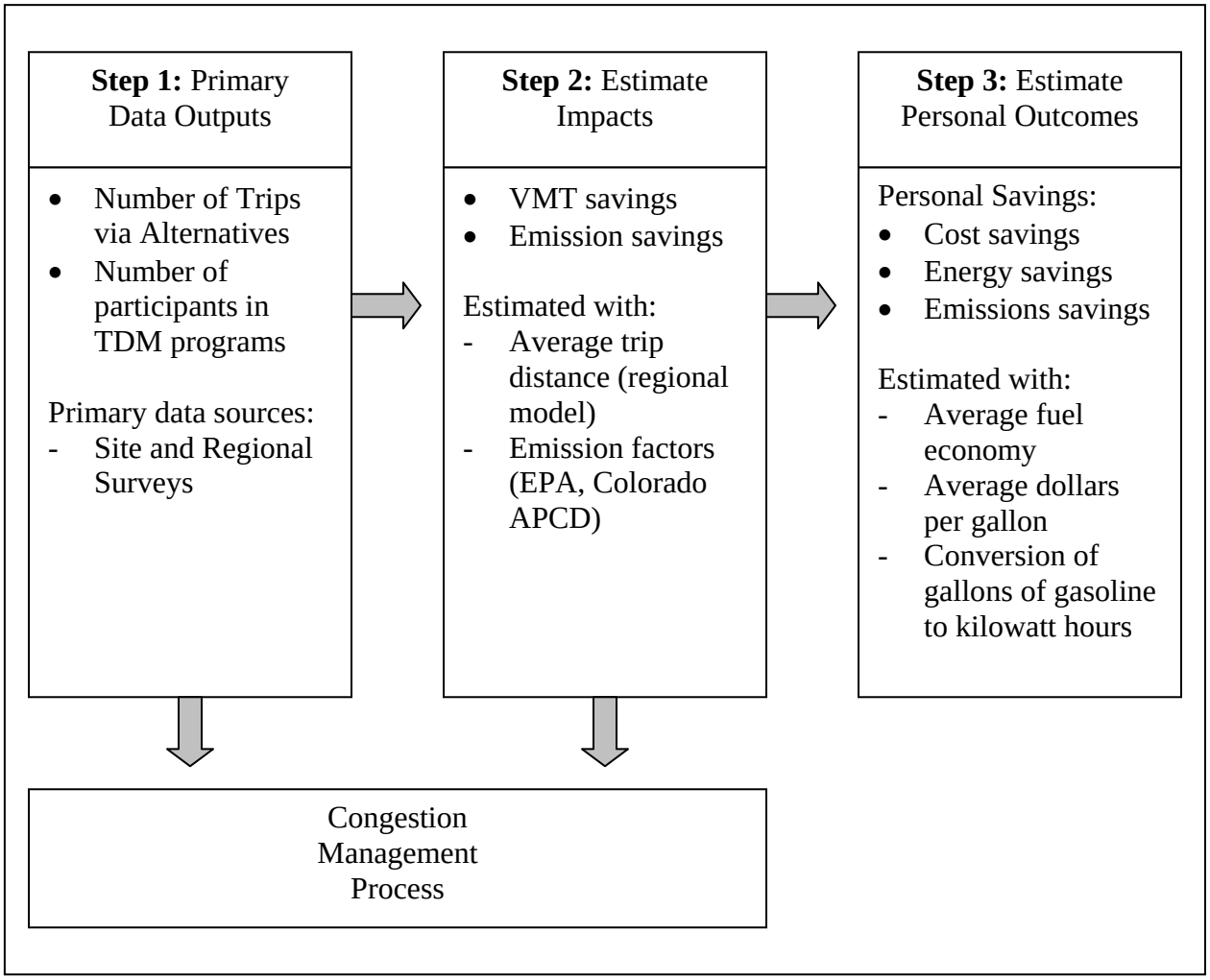
5. **New Technologies.** There will always be new technologies and techniques to capture the use of the multimodal transportation system. These new advancements should be used to inform the effectiveness of local TDM programs. An example of an emerging technology is the adoption of Radio Frequency Identification (RFID) chips embedded into transit pass cards which facilitates fare payment for customers but also can be used to deliver data to a transit agency on where bus riders board a bus on a specific route all times of the day. When data such as this is compiled by the responsible agency (e.g., the transit agency) it should be shared with NFRMPO and analyzed along specific routes to understand the effectiveness of local TDM programs.

6. **Consistent Reporting.** It is recommended that the region develop a TDM program evaluation manual that details how to implement site based surveys, how to develop estimates of VMT and other savings, and how this information should relate to the CDOT CMAQ Reporter process.

3.4.2 Congestion Management Process Integration

The integration of these sources of data into the Congestion Management Process (CMP) will enable the impacts of TDM strategies to be assessed regionally with other transportation system investments. The process described in Figure 8 details how to incorporate the measured primary data outputs of the TDM program into estimated impacts that are directly applicable to the overall Congestion Management Process. In addition, the results of the TDM program can be converted into personal outputs that will resonate with a broader, less technical audience.

Figure 8: TDM Program Performance Measurement and Integration with Congestion Management Process



The details on the steps of this table and how data from the TDM program should be used in the Congestion Management Process are summarized below:

1. **Step 1:** This first step gathers and summarizes the number of trips via alternatives and the number of participants in the TDM program. These elements are collected by site-specific and regional surveys. The primary data element that is critical to summarize are the number of trips taken by people via non-drive alone transportation options and how many times those trips were taken during a typical week and for what purpose (work or non-work). This number of trips should be summarized for each site-specific TDM program. The total should then be supplemented by regional TDM programs that are measured through the regional survey, such as ridesharing or participation in Bike to Work Day. The summary is then multiplied by factors and averages in the next step to derive VMT and emission savings.

   The results from both the local and regional surveys will feed directly into the Congestion Management Process. These data from the TDM program will inform performance measures in the CMP associated with Mode Shift. The specific performance measures that the TDM program can inform include average vehicle occupancy, vanpool/carpool ridership, transit ridership, bicycle and pedestrian volumes, and number of employer-based TDM programs.

2. **Step 2:** The second step takes the total trips taken via alternative transportation in Step 1 and multiplies it by average trip lengths to develop a VMT savings estimate. Average trip lengths can be extracted from the regional model for work and non-work trips and for specific sub areas throughout the region. For the impact of regional programs, regional average trip lengths should be used.

   Emissions savings are calculated using the VMT savings calculated earlier in this step. Typically emission estimates for CO_2, NO_X, CO, PM 10, VOC, and other pollutants are calculated using emission factors in terms of lbs of pollutant per mile. These factors are available through the EPA or the Colorado air pollution control division (APCD) and typically used for transportation conformity modeling already performed by the NFRMPO.

   The estimates of VMT and emission savings are the two variables that will feed into the overall Congestion Management Process. These two variables will inform the environmental category of performance measures, including mobile source air pollution emissions.

3. **Step 3:** The third step of the TDM program performance measurement process is to calculate the average personal savings of participants who engaged in a TDM strategy. These savings include personal finances, energy consumption, and emissions savings. These types of savings are easily transferable to the broader population, especially when they are portrayed at the individual traveler level. This information could also be helpful for future marketing efforts of the TDM program.

   These savings can be calculated using the following averages (note the NFRMPO could also collect the specific parameters for these calculations from TDM program participants, such as their actual vehicles fuel economy versus using national or regional averages):
   - **Cost savings:** These savings are calculated by using the average fuel efficiency of automobiles (21 miles per gallon) and the average cost of gasoline (dollars per gallon). These factors can be used with the VMT savings and number of TDM program participants from Steps 1 and 2 to calculate personal cost savings. Another important factor where parking is not free is the average daily savings in parking costs by using a transportation alternative.
   - **Emission savings:** Use total emission savings calculated in Step 2 and divide by the average number of participants in the TDM program. This resulting emissions saved per person is a rough average, but suitable for general marketing of the program.
   - **Energy savings:** The energy savings can be calculated based off the average gallons of gasoline saved by a participant in the TDM program. The VMT savings from Step 2 can be used with an average fuel economy (typically 21 miles per gallon) to derive the gallons of gasoline saved. Then divide this total gallons saved by the total number of participants in the TDM program for an approximate estimate of gallons saved per TDM program participant. Next, it is common to convert the energy potential of a gallon of gasoline into more familiar energy units, such as kilowatt-hours. One gallon of gasoline is equivalent to 33.4 kilowatt hours. For perspective, ten 100 watt light bulbs (1,000 watts total) burning for one hour is equivalent to 1 kilowatt hour of energy consumption. In other words, saving one gallon of gasoline is equivalent to the energy consumed by 334 individual 100 watt light bulbs over one hour.

   In each of these savings calculations, it should also be noted that there is always a financial, energy, and environmental cost using any transportation alternative as well. However, these costs are typically much lower than the savings when compared to using a single occupant vehicle. Marketing and promotion materials using these personal savings calculations should note this information.

3.5 Recommendation #5: Spend Financial Resources Responsibly

Transportation funding is very constrained in Northern Colorado and statewide. Also, within the hierarchy of transportation improvements, TDM has traditionally been a low priority. However, national research has shown that when applied to the correct market, TDM strategies typically have a very high yield for their investment. To become a higher priority in transportation funding allocation in the North Front Range, the TDM Program must prove its effectiveness.

Currently, the NFRMPO TDM Program is funded through STP-Metro. The VanGo™ program is also supported by user fares and revenue specific to vanpooling.

3.5.1 CMAQ Funding Allocation in Northern Colorado

The Congestion Mitigation Air Quality (CMAQ) program, a federal program of funding for transportation investments that improve congestion and air quality, provides another potential future source of funding for the NFRMPO TDM Program. In the NFRMPO, CMAQ funding is currently awarded competitively based on a project's potential to reduce congestion or improve air quality. In the current system used to allocate CMAQ funding, a regional TDM program project would have to compete for funding alongside any other project applications in the periodic call for projects.

Note that no CMAQ funding is currently used to support any of the regional NFRMPO TDM programs. The member communities have traditionally requested the NFRMPO to avoid competing for the allocation of CMAQ funding. This is contrary to the trend nationwide, where CMAQ funds are typically used at both the regional and local level to implement TDM programs. In addition, for core TDM programs such as regional carpooling and vanpooling services, 100 percent federal CMAQ funds can be used without any local match. For TDM programs other than ridesharing, a local match is typically required. The allocation of CMAQ funds for FY 2008 – 2011 are displayed in Table 23. An example TDM program from this table that is funded using CMAQ is the FC Bikes program. This program was funded with an 18 percent local match provided by the City of Fort Collins.

Table 23: NFRMPO CMAQ Funding for FY 2008-2011

Project Description/Location	*Sponsor*	*CMAQ Grant*	*Total Project Cost*
Capital and Other Projects			
Comprehensive Signal Timing	Fort Collins	300,000	300,000
Harmony Road Traffic Responsive Signal Timing	Fort Collins	340,000	340,000
N College Ave/US 287 Improvement	Fort Collins	250,000	500,000
Mason Trail Extension to Spring Creek	Fort Collins	545,000	685,000
Mason Trail Underpass at Troutman	Fort Collins	1,200,000	1,500,000
Jefferson Street / SH 114 Roundabout Study	Fort Collins	1,000,000	1,249,000
Test Ride Transfort	Fort Collins	136,000	170,000
Alternative Fueled Bus Replacement	Fort Collins	840,000	1,050,000
Laurel Street / Shields Intersection	Fort Collins	137,000	172,000
Drake Road / Lemay Intersection	Fort Collins	137,000	172,000
Mulberry / Shields Intersection	Fort Collins	239,000	299,000
Harmony Road / Lemay Intersection	Fort Collins	211,000	265,000
FoxTrot Extension: Loveland to Longmont	Loveland	1,219,000	1,472,000
Transfort Diesel Retrofit Bus Replacement	Fort Collins	1,325,000	1,600,000
Loveland I-25 Area ITS	Loveland	130,000	200,000
Northern Fort Collins Rail Crossing Signals	Fort Collins	248,000	300,000
US 34 (Eisenhower Blvd) & Garfield Ave (Loveland)	Loveland	130,000	200,000
Greeley Fiber Optic Communication	Greeley	1,525,000	1,525,000
Weld County CNG Fueling Stations	Weld County	832,000	832,000
Loveland I-25/US 34/Crossroads VMS	Loveland	370,000	450,000
Linden St. Streetscaping Improvements	Fort Collins	580,000	2,200,000
Signal Timing Pool: US 34 Business Rt	CDOT/Greeley	255,000	675,000
Signal Timing Pool: US 287	Loveland	120,000	120,000
Signal Timing Pool: Taft, Wilson, & US 34 W/O US 287	Loveland	125,000	125,000
Subtotal Capital and Other Projects		*12,194,000*	*16,401,000*
TDM Marketing and Promotion Projects			
FC Bikes	Fort Collins	476,000	579,000
Fort Collins Bike Library	Fort Collins	298,000	366,000
Traveler Info Web Page	Fort Collins	161,000	201,000
ITS Transit Information	Fort Collins	480,000	600,000
Subtotal TDM Marketing and Promotion Projects		*1,415,000*	*1,746,000*
Total Funding (including overmatch)		**$13,609,000**	**$18,147,000**

As shown in Table 23, the total federal CMAQ funding allocated in Northern Colorado by the NFRMPO for fiscal years 2008, 2009, 2010, and 2011 is $13,609,000. This funding was allocated to a mix of transportation improvements, services and strategies with an emphasis on capital expenditures such as intersection improvements, trail extensions, and traffic signalization. On the TDM marketing and program development side, the City of Fort Collins received $476,000 for expansion of the FC Bikes program and $298,000 for the expansion of the FC Bike Library fleet. In addition, Fort Collins received $161,000 for a Traveler Info web page project and $480,000 for an ITS Transit Information project. Using these four projects, approximately 10 percent of the CMAQ funding was used for TDM programming and marketing projects and the remaining 90 percent allocated to capital expenditures and service improvements.

3.5.2 National Examples of CMAQ Funding Allocation

The NFRMPO allocation of CMAQ for TDM marketing and promotion projects is similar to national trends. Other regions such as the Denver region and Minneapolis/St. Paul region allocated between 11 to 14 percent of their 2008-2011 CMAQ funding specifically to TDM marketing and promotion projects. In comparison, Northern Colorado allocated 10 percent (Table 24).

Table 24: National Examples of CMAQ TDM allocation (in $1,000's of Dollars; federal share only)

Agency	*Total CMAQ TDM Funding*	*Total CMAQ Funding*	Percent allocation to TDM	Year(s)
NFRMPO	$1,415	$13,609	10%	2008-2011
DRCOG	$10,555	$75,107	14%	2008-2011
Metropolitan Council	$12,830	$113,047	11%	2008-2011

However, a significant difference between other regions and Northern Colorado is how the CMAQ TDM funding is spent (Table 25). In Northern Colorado, 100 percent of the CMAQ TDM funding is allocated to local programs. ***Neither the SmartTrips™ program nor any other regional TDM efforts undertaken by the MPO are paid for using CMAQ.*** In contrast, the Denver Regional Council of Governments uses 72 percent of the CMAQ TDM funding to operate the regional Ride Arrangers program and its ridesharing, telework, business outreach, and bicycling efforts. Similarly, the Metropolitan Council in Minneapolis/St. Paul, Minnesota uses 62 percent of the CMAQ TDM funding to operate their regional ridesharing program.

Table 25: National Examples of Regional CMAQ TDM Allocation (in $1,000's of Dollars; federal share only)

Agency	*MPO*		*Local*		*Total CMAQ TDM Funding*	*Year*
	Dollars	Percentage	Dollars	Percentage		
NFRMPO	$0	0%	$1,415	100%	$1,415	2008-2011
DRCOG	$7,580	72%	$2,975	28%	$10,555	2008-2011
Met Council	$7,955	62%	$4,875	38%	$12,830	2008-2011

These examples illustrate a standard practice nationwide of funding TDM strategies such as regional ridesharing and business outreach through CMAQ. Typically, in terms of dollars spent per pound of pollutant reduced or vehicle mile reduced, TDM strategies can show a high return on investment of CMAQ program funding and are competitive compared to other types of projects. It is recommended in the long term the NFRMPO consider funding regional TDM efforts with funds from the CMAQ program.

3.5.3 Long Term TDM Funding Recommendations

Based on the success of the phase one TDM strategies implemented through local agencies and employers, the recommendations for the second phase have an emphasis on moving successful strategies and programs from a pilot stage to a more permanent source of funding.

One of the purposes of the public involvement conducted for this plan was to gather the perceptions and perspectives of employers in the region on how to fund expanded TDM programming in the long term. The types of funding mechanisms that were explored with employers during the planning process included STP Metro, CMAQ, RTD local sales tax funds, public-private partnerships through special districts and commercial owners associations, economic development corporations, air quality management districts,

Express Tolling as specified in the North I-25 EIS, and transportation management organizations. Each of these funding options is described in more detail below.

1. **STP Metro through the UPWP**. Consider the use of this flexible source of transportation funding for TDM programs.

2. **CMAQ**. As described in Section 3.5.2, it is common practice nationwide to fund regional TDM efforts with CMAQ funding. It is recommended in the long term the NFRMPO consider funding regional TDM efforts with funds from the CMAQ program

3. **RTD local sales tax funds**. These funds are made available to NFRMPO by agreement with RTD to administer National Transit Database funding on behalf of the VanGo™ program. Potentially a portion of these funds received by the VanGo™ program could be allocated to TDM-related projects, but only if backfilled with STP-Metro funding to maintain the MPO's maintenance of effort agreement with RTD. These do not have restrictions for use in transit or vanpooling and are available to NFRMPO for use in *any* area of transportation, including TDM.

4. **Special districts and commercial owners associations**. There are many examples nationwide of TDM programs and strategies receiving financial support from special districts and commercial owners associations. These include business and community improvement districts, parking management districts, and commercial owners associations. These are all examples of public-private partnerships where businesses in a specific area approve an additional levy or tax to impose upon themselves to fund improvements within the district's boundaries. Typically these improvements are capital projects, such as roadway interchanges, traffic signals, and sidewalks and the requisite maintenance it takes to keep these physical facilities in operation. However, some communities choose to spend a part of these funds to manage demand on the transportation systems rather than increasing their capacity.

   One example of a special district using a part of their funds for TDM is the Cumberland Community Improvement District outside of Atlanta, Georgia which operated one of the most successful vanpool programs operated between 2000 and 2008. Another example is a the Emery Go Round, a community shuttle in Emeryville, California that is financed by a local business improvement district and managed by a local transportation management organization.

5. **Community organizations.** This is a broad category of funding partners for TDM in Northern Colorado. If congestion and air quality issues continue to worsen in the region, several types of groups could be engaged to participate in supporting TDM strategies, either through direct funding or in-kind support. Example organizations include non-profit organizations like the United Way, economic development corporations, and chambers of commerce.

6. **Air Quality Management Districts.** With the designation of non-attainment status for ozone in the Denver and Northern Colorado regions, the applicability of using TDM as an air quality management tool is more relevant than ever. Other regions such as the San Francisco Bay Area utilize an air quality management district to help fund TDM programming. This relationship could be built over time with the existing Regional Air Quality Council in Denver, which is currently implementing a TDM program funded through the DRCOG CMAQ TDM Pool.

7. **Express Tolling on I-25.** As detailed in Section 3.1.1, a component of the preferred alternative from the North I-25 EIS includes a recommendation for express tolling on I-25. A part of the revenue created from this tolling could be earmarked for alternative transportation services and TDM programming to promote and fully utilize them.

8. **Transportation management organizations.** Transportation management organizations (TMOs) are typically non-profit organizations specifically targeted to manage demand in a local transportation system by implementing TDM strategies and increasing the utilization of transportation alternatives. TMOs are typically found in downtown, activity centers, freeway

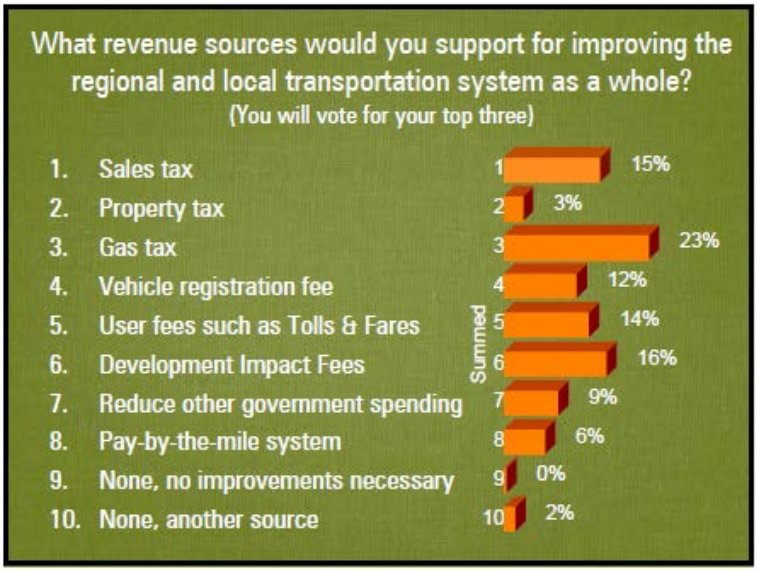
corridors, or other settings where the population density and provision of transportation alternative assets such as bus service, high occupancy vehicle lanes, or bicycle lanes and trails exist. In the Denver region, eight TMOs provide TDM services and are supported through CMAQ as well as both public and private local funding sources.

One characteristic that each of these funding options has in common is leadership and financial support through local business. Any permanent TDM strategies or programs will require this kind of partnership from the local economy.

3.5.4 Resident Perspectives on Transportation Funding

It is clear that funding sources must come from local sources more than ever to support the transportation system. This plan did not poll residents on what their preferred method of raising local revenue for the transportation system, however, it is helpful to understand the perspective of residents with respect to local taxation for transportation improvements in general. This question was asked of resident participants in the NFRMPO March 2008 Regional Summit. As shown in Figure 9, residents support increased gas tax over other taxation alternatives, although the gas tax option was not a strong leader. Other options that were in a close second tier include sales tax, vehicle registration fees, user fees such as tolls and fares, and development impact fees.

Figure 9: Local revenue sources for transportation
(NFRMPO March 2008 Regional Summit)



3.5.5 Monitoring and Evaluation Funding

As recommended in Section 3.4, it is important NFRMPO implement monitoring practices to evaluate the effectiveness of the regional TDM program as well as individual TDM programs that are implemented locally. Specifically, funding should be dedicated NFRMPO to:

1. Administer a bi-annual regional TDM survey
2. Provide assistance to local communities who receive CMAQ TDM grants to ensure they are monitored accurately and consistently.

The recommended sources of funding for these monitoring and evaluation tasks are STP-Metro or sources from the UPWP available to the NFRMPO other than CMAQ. The level of funding for the administration of the regional bi-annual survey should not exceed $28,000 in any one year.

Chapter 4: SmartTrips™ TDM Program Strategies (2010)

This section details a specific set of SmartTrips™ TDM program strategies that will enable the NFRMPO program staff to build upon successful efforts as well as move into several new areas. These strategies are summarized in Section 4.1 below. Annual cost estimates to implement these strategies are included in Section 4.2 and phasing for implementation is summarized in Section 4.3.

4.1 Strategy Recommendations

The region should continue to invest in strategies that are currently working well today but also refine or target new strategies for implementation over the long range horizon of the plan (through 2035). Some of the new strategies include development of TDM workshops, an online TDM toolkit, technical assistance for telework implementation, and an employer transportation assessment program. These new strategies respond to the comments and perceptions gathered from the employer community in the 2010 Spring Transportation Survey (Appendix C) and the Focus Groups conducted in May 2010 (Appendix D). It is clear that many employers are interested in TDM and already implementing strategies themselves (particularly telework and bicycling programs). These recommendations were developed to help expand these existing TDM strategies as well as introduce new concepts for implementation in the region.

4.1.1 SmartTrips™ Web Site Enhancements

The smarttrips.org web site is critical to the enhanced operation and marketing of NFRMPO TDM programs. The site has recently been reconstructed with an overall new site design, new banner, an online carpool and vanpool matching tool, and VMT tracking for individuals and groups. These improvements set an excellent platform to continue to use this communication portal for TDM services in the future. Specific recommendations to maintain the high quality of this site and suggested areas for future capacities include:

- **Promote regional services and resources.** As regional services such as vanpooling, carpooling, regional transit, and telework are improved or created, ensure they are promoted by smarttrips.org and that enrollment is facilitated by the web site. Online enrollment for the VanGo™ program is encouraged. New resources developed, such as the toolkit recommendation (section 4.1.4 below), should also be made available via this web site.
- **Provide user incentives to encourage use of smarttips.org VMT tracking tool.** One component of the smarttrips.org web site contains a personal trip tracking account where individuals log the trips they have taken using a transportation alternative instead of driving alone. This information is very valuable for monitoring the performance of TDM programs and a small incentive ($5-10 per month) should be dedicated to encourage continued use of this tool by participants.
- **Link to enhanced trip planning tools from local transit agencies.** Include links and information, especially real-time transit scheduling information as it is developed in local agencies, to the smarttrips.org web site.
- **Provide information on regional transit services.** As regional transit services are implemented or improved in the future, ensure that the smarttrips.org web site at a minimum links to these new services. The NFRMPO should investigate the feasibility of using the smarttrips.org web site as the primary portal for regional transit service information with core information such as travel planning, schedules, fares, and real-time schedule information.
- **Integrate with current mapping technologies.** Services such as Google Maps with expanding technology to display transit and bicycle routes should be integrated with the smarttrips.org web site as applicable. The NFRMPO should coordinate with local transit providers to incorporate their transit systems into these mapping services for use online and mobile handheld devices. There are many technologies emerging on the internet and the NFRMPO should be careful to select applications that are accurate and well maintained.
- **Explore online VanGO™ reporting through the smarttrips.org web site.** As the VanGo™ program continues to grow and web site technologies advance, explore the costs and benefits of enabling vanpoolers to perform their monthly reporting of trips taken, distance, and passengers served online. In general, the NFRMPO should continue to strive to stay ahead of the curve on web site innovation for vanpool services.

- **Link to ITS technologies.** The web site could also link to real-time traffic conditions technologies that are emerging in Northern Colorado and statewide. Currently the cotrip.org web site administered by CDOT is a great resource for real-time travel information on major roadways such as I-25. The City of Fort Collins fctrip.com web site is another example of a local government using ITS technologies to provide information to travelers in the city. Both of these web sites should be added to the smarttrips.org web site and a section dedicated to real time travel information and other traffic management strategies that are specific to an individual's commute route. CDOT, NFRMPO, and local governments in Northern Colorado are working together to develop more comprehensive ITS networks and these programs are developed, the smarttrips.org web site and NFRMPO TDM program in general should embrace these strategies.

4.1.2 Region-wide SmartTrips™ Marketing and Promotion

In addition to the web site enhancements described in Section 4.1.1, the SmartTrips™ program should continue working to grow and diversify its marketing and promotion efforts. Specific recommendations are described below:

- **Target marketing and promotion of ridesharing and regional transit.** Drawing from the recommendations in Section 3.2, market the intra-regional aspect of regional services such as the FLEX transit service, vanpooling, and carpooling between NFR cities and other major regional trip destinations.
- **Encourage employers to develop pre-tax programs for transit, vanpooling, and bicycling.** Many employers are not aware of the pre-tax benefits they could offer employees for using transit, riding in a vanpool, or bicycling to work. NFRMPO staff should develop materials and communication strategies that help establish these programs at the employer level. This could be an excellent resource distributed through the TDM Toolkit (see the Section 4.1.4 below).
- **Market vanpooling to major employers in Northern Colorado.** The results of the 2010 Spring Transportation Survey of employers in Northern Colorado showed that few employers are using the vanpool program today and don't perceive using it in the future. The NFRMPO should work to change the perception of VanGo™ as a program for commuters going only to Denver and communicate it can also be used for destinations within the region.
- **Provide incentives for carpooling and vanpooling within Northern Colorado.** The travel distance and time for vanpooling within the region will be less competitive than the current vanpool market to Denver. To encourage more vanpools within the region, the NFRMPO should consider providing incentives for intra-regional vanpools. These incentives should be provided to initially form the vanpools as well as maintain long-term commitment.

4.1.3 TDM Workshops

Building off the success of recent local workshops and campaigns (Climatewise) reported by local employers in the Focus Groups conducted for this plan (see Appendix D), it is recommended the NFRMPO integrate a series of TDM workshops for local employers and activity centers (higher education campuses, downtown districts, regional shopping centers, etc).

NFRMPO should conduct two (2) TDM workshops per year on average to build momentum and support for local TDM implementation. The workshops will generally be targeted toward employers, but could also include planners and decision makers who affect transportation and land use within the region. Individuals residing or working within Northern Colorado should be able to attend these workshops for free; individuals from outside Northern Colorado should be able to attend the workshops for a nominal fee. This pricing system will increase the perceived value of the workshops.

The theme of the first workshop should be a presentation and discussion of the results of the NFRMPO TDM plan. Of particular interest will be the employer transportation assessment program and the kind of NFRMPO staff and resources that will be available to employers who want to implement TDM programs. This first workshop should also provide information on all the TDM services and resources that are available through the NFRMPO SmartTrips™ program.

Sample discussion topics for future workshops include the implementation of alternative work schedules, company greening, emergency preparedness, and parking management. Regionally or nationally recognized speakers, especially employers within the region with well-respected TDM programs, should be brought in to share knowledge, implementation strategies, and attract attendance.

4.1.4 Online TDM Toolkit

The development of an online toolkit specific to Northern Colorado will be a primary resource for local government, employers, and other organizations that want to develop TDM strategies and services. Throughout the public involvement process used to develop this plan, the NFRMPO heard from local employers who had a strong interest in understanding more about TDM strategies and how they can benefit their business. This toolkit would serve as a primary educational tool developed by the NFRMPO for Northern Colorado. There are several elements suggested for the toolkit:

- Identify what TDM strategies may be appropriate for Northern Colorado employers and the travel markets in their area.
- Step by step guidelines for implementing TDM strategies.
- Case examples of TDM implementation in Northern Colorado, including telework programs, ridesharing, bicycling, and transit.
- Information on tax incentives for businesses and the Commuter Tax Benefit Program available for transit, vanpooling, and parking expenses.
- On-site employee survey development and implementation for evaluation of TDM strategies.
- Example partnership opportunities that fund and implement TDM in Colorado and nationally (such as Transportation Management Organizations, development authorities, and city business improvement districts).
- Consider the use of thumbdrives and other mobile electronic media for dissemination of these materials

There are several organizations that have developed transportation planning-related toolkit resources in the past. These references and others should be reviewed as the NFRMPO develops a toolkit for Northern Colorado. Some examples include:

- *The Transportation Demand Management Toolkit.* Provided by CDOT and available at: http://www.coloradodot.info/programs/commuterchoices/tdm.html
- *The Congestion Mitigation Toolkit.* Provided by the Denver Regional Council of Governments and available at: http://www.drcog.org/index.cfm?page=CongestionMitigationProgram-CMP
- *Transportation To Work: A Toolkit for the Business Community*. Provided by the Community Transportation Association of America and available at: http://web1.ctaa.org/webmodules/webarticles/anmviewer.asp?a=1442&z=75
- The Mixed-Income Transit-Oriented Development Action Guide. Provided by the Center for Transit-Oriented Development and available at: http://www.mitod.org/home.php

4.1.5 Guaranteed Ride Home

Currently the guaranteed ride home program is a part of the VanGo™ program. The NFRMPO should look toward expanding this program to include other modes such as carpooling and transit. For example, in the Denver region when an employer enrolls in RTD's EcoPass unlimited ride transit pass program, the Denver Regional Council of Governments provides a Guaranteed Ride Home with the pass for free to employers. Also, if an employer wants to purchase a Guaranteed Ride Home separate from other TDM services (transit

passes, vanpool subscriptions, etc), this product should be made available for a fee on a stand-alone basis (e.g., $3 per employee).

4.1.6 Intelligent Transportation Systems (ITS) Infrastructure

CDOT has developed the *CDOT Region 4 Regional ITS Architecture Plan* for ITS in Northern Colorado. CDOT is updating this plan by May 2011 with the help of regional and local traffic engineers and planners. The NFRMPO should continue to coordinate planning efforts and deployment of ITS technologies between state, county, and local government agencies. NFRMPO should consider convening the ITS Ad Hoc Committee over the shorter term, which could be tasked with forming funding partnerships to continue build-out of the system and complete recommended improvements from the North Front Range Regional Transportation Plan. Already contributing to this effort, an FHWA TIGER II grant application was submitted in August 2010 for funding to build an ITS network along I-25 between Thornton and the northern border of Colorado. If this grant is successful, several of the TDM components specified in the next paragraph will be enabled.

Part of the solution to obtaining more funding is by generating more awareness and use of the ITS elements that are in operation today. Several recommendations specifically for the NFRMPO TDM program include:

- Pointing travelers to information web sites like cotrip.org and fctrip.com.
- Work with CDOT on adding TDM messaging into variable message signs in operation on I-25 and other state roadways, particularly those near park-n-rides and future regional transit stations.
- Integrate regional transit routes with real-time schedule information as it becomes available into online technologies like Google Earth.
- Gather traffic count and monitoring data for incorporation into the Congestion Management Process Performance Report
- Display traffic conditions from cameras along regional routes in the smarttrips.org web site (see Section 4.1.1).
- Grant writing and technical analysis support.

4.1.7 Telework Assistance

The NFRMPO should develop a telework assistance program that will serve as a one-stop resource for private employers and local government agencies interested in developing, implementing, evaluating, and gaining information on telework. Telework is one of the top TDM strategies implemented in the region today and given the long distance commutes many employees face, telework can also be a powerful employee retention and emergency preparedness tool. NFRMPO can provide technical services to employers that express interest in starting a telework program or improving an existing program or policy.

Specific action items related to telework include:

- Develop an online guidebook and several sample workplace telework policies.
- Summarize the best practices of telework programs regionally and nationally.
- Track the implementation of telework programs in Northern Colorado and share lessons learned and successful examples with other employers in the region. A convenient portal for this information sharing could be through the Online TDM Toolkit described in Section 4.1.4 above.
- Publish a quarterly telework e-newsletter.
- Recognize outstanding efforts or results by a specific employer (e.g., a Telework Awards Summit).

4.1.8 Employer Transportation Assessment Program

Employers interviewed during the Focus Groups (Appendix D) and polled during the Spring 2010 Transportation Survey (Appendix C) expressed support for implementing more TDM strategies at their site and receiving support from NFRMPO to do so. To further this interest, the region may want to explore the development of a formal employer transportation assessment program.

The employer transportation assessment program would be a source of funding, assistance, and resources that employers could use to help implement site-specific TDM strategies. Initially this program could be piloted with two or three employers in FY 2011 – 2013. If successful the program could be implemented into the future with a target of five employers per year. NFRMPO staff would assist employers to select appropriate TDM strategies for their site including telework, site based ridesharing and incentives to signup for CarGo™ or VanGo™, transit challenge campaigns and incentives (e.g. to subsidize one monthly transit pass for employees interested in trying transit for the first time), and other strategies that may interest employers.

There are several elements that are required of the NFRMPO in the implementation of this program:

- Determine the level and source of funding for the assistance program. There are three options for consideration by the Planning Council to fund the program:
    1. The NFRMPO Planning Council may decide to employ this program by apportioning a percentage of CMAQ over the range listed for the 2017 Call for Projects.
    2. The NFRMPO Planning Council may elect to recommend a funding allocation in any year between 2011 – 2016 from STP Metro to pilot this program sooner.
    3. Further, the NFRMPO Planning Council may recommend that the NFRMPO staff apply for CMAQ dollars for any year during the 2011 – 2016 Call for Projects with the purpose of piloting this program. This third option could be similar in structure to the ITS CMAQ allocation administered by the NFRMPO for local ITS projects in 2010.
- Educate employers, particularly in the healthcare sector, about the benefits of implementing TDM programs as part of wellness and health programs (particularly bike and walk strategies).
- Provide technical assistance to employers in selecting TDM strategies and complementary incentives, establishing the program rules and policies, and recruiting participants.
- Monitoring the impacts of the program through site-specific employee surveys.
- Providing regional tools for site specific application, particularly the carpool ridematching system and the VanGo™ program.

4.1.9 Program Evaluation

This recommendation is not a specific TDM programming strategy but is a clear responsibility of the NFRMPO SmartTrips™ program. This recommendation incorporates all administrative activities related to the regional TDM program and supporting local partners. This primarily relates to administration of federal funds such as Congestion Mitigation Air Quality (CMAQ) program funds as well as regional and local funding sources. The specific recommendations include:

- **Serve as an ombudsman for TDM partners.** NFRMPO should maintain clear communication with local governments and funding organizations regarding the status of current contracts and opportunities for new funding (grant opportunities, public/private partnerships, etc).
- **Coordinate calls for projects process and selection.** NFRMPO should continue to select projects for CMAQ funding much as they do now.
- **Review work plans for CMAQ funding.** The NFRMPO should review the work plans of all CMAQ applications and determine if the level of effort is feasible for the requested funding and if the program will have a meaningful and cost effective impact in VMT reduction.
- **Monitoring and evaluation.** Following the evaluation methodology outlined in section 3.4 of Chapter 3: *Recommendation #4: Develop Performance Measurement Methods for TDM Evaluation*, the NFRMPO will conduct monitoring and evaluation activities through a bi-annual regional TDM survey as well as compile the results of local site-based TDM surveys and occasional surveys on the use of regional park-n-rides. These results will be input into the Congestion Management Process.

4.2 Cost Estimates

Table 26 provides the annual proposed costs to implement the proposed TDM strategies from the STP-Metro percentage allocated to the NFRMPO. The approval of this plan and recommended strategies does not commit to funding these strategies. These cost estimates are assumed using 2010 dollars for staggered implementation through 2016.

Table 26: Proposed Annual TDM Program Estimated Costs

			2012 – 2013 UPWP 2-Year Cycle		*2014 – 2015 UPWP 2-Year Cycle*		*UPWP 2-Year Cycle*
Recommended Strategy	*Cost*	*2011*	*2012*	*2013*	*2014*	*2015*	*2016*
TDM Workshops (Section 4.1.3) • 2 per year – private/public sector • Example themes: telework, company greening, parking management	$10,000	✓ (initial $5k for one workshop)	✓	✓	✓	✓	✓
Employer Transportation Assessment Program (Section 4.1.8) • Provide assistance to local employers to initiate TDM strategies at the work-site level.	$50,000		✓ (initial $30,000)	✓	✓	✓	✓
SmartTrips™ Web site Enhancements (Section 4.1.1) & Region-wide SmartTrips™ Marketing and Promotion (Section 4.1.2) • Promote regional services & link to local & CDOT trip planning resources (transit, ITS, etc) • User Incentives • Integrate mapping technologies	$20,000		✓	✓	✓	✓	✓
Guaranteed Ride Home (Section 4.1.5) • Expand to all modes supported by SmartTrips™ program	$7,500		✓	✓	✓	✓	✓
Program Evaluation (Section 4.1.9) • Implement region-wide bi-annual TDM survey	$28,000			✓		✓	
Online TDM Toolkit (Section 4.1.4) • TDM implementation examples and guidelines • Monitoring guidelines	$25,000				✓		✓
Intelligent Transportation Systems / Technical Support(Section 4.1.6) • Ad Hoc ITS Committee support regarding implementation, placement, and funding for ITS • Technical support for grant applications	$7,500				✓	✓	✓
Telework Assistance (Section 4.1.7) • Guidebook for employers, implementation planning, directory of local contractors, rollout phasing	$25,000				✓	✓	✓

In **Table 26**, the strategies and corresponding cost estimates outlined for FY 2011 would require a Unified Planning Work Program (UPWP) amendment to fund any of these options in 2011. The proposed strategies for 2012 and beyond could be evaluated and considered for funding in the UPWP during each two-year budgeting cycle (these periods are shaded to acknowledge the NFRMPO Planning Council budgeting and strategy evaluation period). The strategies past 2014 are considered Long-Term and reflect the phasing of additional strategies over time while acknowledging the necessary evaluation of Short Term strategies.

4.3 Implementation Phasing

The implementation of the recommended TDM strategies from sections 4.1.1 through 4.1.9 will be phased to reflect available staff support, available funding, and the prioritization obtained from the NFRMPO Council and its advisory committees and boards. Some of the strategies should be implemented within the next two years while others have a longer-term focus. The prioritization of strategies was performed by the NFRMPO Planning Council and supported by TAC, TAG, Mobility Councils, and the City Transportation Boards.

4.3.1 TDM Strategies for short-term implementation

Five out of the nine recommended TDM strategies were prioritized for implementation in the short term (1 – 2 years). These include the TDM Workshops, Employer Transportation Assessment Program, SmartTrips™ Web site Enhancements, SmartTrips™ Marketing and Promotion, and Guaranteed Ride Home. The following rationale was used by the Planning Council and the committees in choosing these strategies first:

- **Confirm support of the business community through TDM Workshops.** Both the Planning Council and regional committees (TAC, TAG) prioritized strategies that engaged the business community early and often in the implementation of the recommended strategies. The TDM Workshops (Section 4.1.3) are clearly a first step where contact with the business community would be made and their input considered for subsequent strategies of the regional TDM program.

- **Initiate the Employer Transportation Assessment Program.** The TDM Workshops are an easy recruitment tool for targeting employers who are interested in participating in the Employer Transportation Assessment Program (Section 4.1.8). This program is targeted for initial funding of $30,000 in the first year to test the concept with a group of employers interested in implementing or improving TDM strategies at the work-site level.

- **Improve regional TDM promotion and services.** To complement the TDM Workshops, several NFRMPO regional promotion services targeted towards regional transit (FLEX), VanGO, and/or carpooling should be prioritized for expansion or improvement. Also included is expansion of the Guaranteed Ride Home program (Section 4.1.5).

- **Update Communications Technologies.** Rapidly accessible, real-time transportation information technology is more available than ever and stakeholders in the planning process saw value in incorporating these technologies into regional TDM efforts. The SmartTrips™ web site is poised to be a central portal for real-time travel information in the short-term (Section 4.1.1). Recommended updates to this web site include: real-time FLEX route information, expansion of Google Maps capabilities for bicycling and transit, and links to local ITS web interface systems.

4.3.2 Long-term implementation

In the longer-term (three years and beyond), several strategies are also prioritized for implementation. In order of prioritization these include: Program Evaluation (Section 4.1.9), Online TDM Toolkit (Section 4.1.4), ITS Technical Support (Section 4.1.6), and Telework Assistance (Section 4.1.7). These strategies were recommended for longer-term implementation for several reasons:

- **Performance Evaluation of TDM is critical.** The Planning Council has expressed continued interest in establishing performance measures that can document progress towards achieving the goals of the Regional Transportation Plan. Therefore, performance measurement of the TDM program starting in year 3 is critical (Section 4.1.9). After the first two years of operation under this plan, the regional TDM program should have data available to measure performance and determine the cost effectiveness of strategy implementation.

- **Information is needed from implementation of short-term strategies.** The implementation of the TDM Workshops, the Employer Transportation Assessment Program, and the improvements to the SmartTrips™ web site will provide good information for the development of the Online TDM Toolkit (Section 4.1.4). The toolkit should be developed using as many local examples as possible, but augmented when appropriate with leading national examples of TDM implementation.

- **Telework and ITS programs are already in development.** Many employers already use telework and alternative work arrangements (Section 4.1.7) as an employee benefit, so this strategy is a lesser priority than other recommended TDM strategies. In the last call for projects many ITS projects were funded and will be constructed over the next few years. One of the longer-term TDM program objectives is to incorporate these improvements into information systems that can be used by travelers in real-time.

4.3.3 Future Factors Influencing TDM in Northern Colorado

The transportation system in Northern Colorado will be influenced by many factors in the future. Some of these factors are internal to the region and can be controlled by the member governments of the NFRMPO. Other factors are external and statewide or national in origin, which are harder to influence and in many cases Northern Colorado will have to adapt the best it can. Many of these factors have important ramifications for management of the transportation system and programs intended to optimize the efficiency of the system such as TDM. A summary of the factors known at this time and how they might impact the regional TDM program are presented below.

Internal Factors

Internal factors that will continue to affect the transportation system in Northern Colorado include:

- **Continued strong growth in key activity centers**. Regional activity centers such as Centerra will continue to grow in response to market demand. The development of TDM strategies to help manage congestion in these areas will be key to their economic success. Employer-based strategies should be complemented with ITS, transit, ridesharing, bicycling, and pedestrian infrastructure improvements. Over time, pricing strategies such as paid parking could be another mechanism to manage demand.

- **Increased need to have local champions demonstrate effectiveness of TDM**. The growth of TDM implementation in Northern Colorado is predicated on the successful results of programs launched in the next few years. Success stories from local TDM implementation, whether privately or publicly funded, need to be produced and presented by local champions. With public funding shortfalls predicted for the transportation industry, these local champions will be responsible for covering larger shares of the cost of implementation than in the past.

The NFRMPO *2010 North Front Range Strategic Action Plan (SAP)* also contains several implementation strategies and specific actions related to TDM. These include engaging the private sector, development of transportation performance measures and cost estimates, and developing alternative "livable communities" approaches to regional transportation planning. Specific goals and implementation measures related to TDM are summarized below:

- *SAP Goal 1: Focus on projects that are important to individual jurisdictions and the region that have direct positive impacts and use money in a meaningful way that serves the citizens of this region.*
    - This goal is focused on engaging all MPO jurisdictions as well as private interests in planning and financing the transportation system. Today both public and private sector groups are implementing TDM and more public/private partnerships will be implemented to expand TDM in the future. In addition, this goal contains directives to base policy decisions on solid data and provide the NFRMPO Planning Council with enhanced data

collection and analysis to evaluate policy options. The performance measurement recommendations in this plan (Section 3.4) will provide this enhanced data to determine the cost-effectiveness of TDM implementation efforts.

- *SAP Goal 2: Develop transportation solutions that benefit citizens by minimizing traffic congestion.*
    - One of the components of this goal is to develop performance measures that can be used to document progress towards objectives in the Regional Transportation Plan. TDM performance measures will be developed as part of implementation of this plan. This goal also includes a charge to MPO staff to develop cost estimates for the TDM plan's identified strategies. Those costs are summarized in Section 4.2, Table 26.

- *SAP Goal 4: Identify newly adopted and upcoming federal elements of transportation policy; and develop a strategy to position the North Front Range to meet those requirements, including the concept of "Livable Communities."*
    - Livability Principle No. 1 adopted by US DOT, HUD, and EPA includes development of safe, reliable and economical transportation choices. Principle No. 3 includes improved economic competitiveness through reliable and timely access. Both of these Principles are strongly TDM-related since TDM strategies influence both transportation choice and access. The NFRMPO can serve these principles by implementing, funding, evaluating, and advising on TDM strategies.

External Factors

There are several statewide and national factors that will likely affect transportation demand and how cities and counties will maintain and manage current resources. These factors include:

- Major shortfalls in state transportation funding due to the recession of 2008-2010
- Stalled progress on reauthorization of federal transportation policy (SAFETEA-LU reauthorization)
- Potential shift in federal policy as a result of national 2010 November election, particularly towards user-based fee systems if elected officials limit federal transportation funding to only gas taxes
- Increase in long term interest rates

Over the next several years, these and other factors will significantly influence how local government can pay for and provide transportation infrastructure and services. This in turn will influence how individual travelers use the transportation system and what modes of travel are preferred. The key determinants of individual travel behavior are financial cost and travel time cost; both of theses determinants can be influenced through TDM to modify behavior with the goal of maximizing transportation system efficiency.

4.3.4 Long Range TDM Plan Update Priorities (2040 RTP)

Looking ahead to the update of the Regional Transportation Plan and of this supporting TDM plan there are several elements to be prioritized for review. These elements include:

- **Future Regional TDM Program Financing Options**. Section 3.5 discusses the current funding of the regional TDM program in Northern Colorado and recommends funding diversification. Currently the NFRMPO TDM program is financed through STP Metro via the UPWP. Future recommendations include consideration of using CMAQ, RTD local sales tax funds, special districts and commercial owners associations, community organizations, air quality management districts, express tolling on I-25, and transportation management organizations. How these financing options were used and to what extent should be reviewed during the next update of the TDM plan.

- **Performance Evaluation.** The development of performance measurement tools for the regional TDM program responds to directive from the Planning Council to MPO staff to collect more data

about the transportation system that can inform policy decisions. The Congestion Management Process (CMP) is an important new mechanism to collect this data and the TDM program is integrated into the CMP as outlined in Section 3.4. During the update of this plan, a review of the effectiveness of the CMP as a monitoring tool for TDM should be reviewed and the results of the TDM program compiled. These results will also help understand the cost effectiveness of the SmartTrips™ TDM program strategies recommended in Chapter 4.

Appendix A: Steering Committee Interviews

Interviews were conducted with each Steering Committee member of the NFRMPO TDM plan. The primary purpose of the interviews was to understand current efforts with respect to TDM and multimodal transportation planning in the region. Secondary purposes included understanding how transportation is a part of local economic development, identify major employers and activity centers, and to solicit for ideas on realistic future TDM programs for the region.

The results of the interviews are summarized below.

A.1 Multimodal Transportation Planning

From the interviews it is clear that there is a large difference between the types of transportation planning that is conducted at the local scale. In general, significant multimodal transportation planning is mostly concentrated in the cities of Loveland, Greeley, and Fort Collins. Outside of those urban areas, transportation planning is focused mostly on maintaining current roadway conditions and in a few cases expanding or reconstructing roadways in congested areas. Like all regions of the country, however, Steering Committee members were very clear that budget for roadway expansion is very tight, as many communities are struggling to just maintain their current system. With that in mind, many of the interviewees saw a need for this plan to help lay a future framework for building more multimodal transportation in the region, especially with the forecast growth in population.

Some specific comments from interviewees include:

- The NFRMPO should be more involved in local land use decisions. Without influencing land use and development, it will be very difficult if not impossible to affect change towards more sustainable, multimodal transportation.
- What role should the MPO really have with TDM in the region, versus local and county governments? How does this TDM plan fit into the larger Council's work with the strategic action plan? Is this TDM plan even part of the strategic action plan?
- TDM must have a broader focus than just ridesharing, which has been the fault of TDM locally and regionally in the past.
- Fort Collins is just starting to update their community-wide Transportation Master Plan and TDM will play a significant part. Overall, the community has realized it will not build itself out of congestion.
- Fort Collins also uses a multimodal level of service transportation impact study. This study helps recognize the importance TDM could play in encouraging use of other transportation options than drive alone. As a part of traffic mitigation, a developer can opt to develop a TDM program and implement it onsite.
- Many interviewees are supporters of regional rail in concept, but don't see the ridership demand for the investment at this time. People are working towards garnering the private and public support needed to make funding available for this system.
- Plans for improvements to ITS infrastructure have been finalized along I-25 from the north Denver metro to the Wyoming border. However, funding sources have not been identified to make this improvement.
- Larimer County recently updated their design guidelines for shoulders on rural roadways. In addition to safety and maintenance enhancements, shoulders in these areas provide mobility for pedestrians, equestrians, bicyclists, and children waiting for bus service. The County will continue building these shoulders, but does not see any role in promoting them with TDM strategies.

- Larimer County is also working with local municipalities to adopt the Larimer County Urban Area Street Standards. Adoption of these standards will help communities build streets with multimodal capacity.
- In rural parts of Weld county (outside of Greeley and Evans), there is no multimodal transportation plan at this time. Federal grants are used to provide demand-responsive rural transit services but the county does not provide any additional service. Overall, there are no programs in TDM.
- For many non-urbanized parts of the region, TDM is not realistic today because congestion is mostly absent.
- The TDM plan should establish a policy that links how TDM will be used to maintain the future quality of life in the region.
- TDM strategies need to be linked to performance measurement and outcomes to help decision makers understand the importance of these programs.

A.2 Economic Development and Transportation Planning

When asked about economic development and transportation, most Steering Committee members responded that their agencies or the areas they represent on the Committee use tax incentives to attract large businesses and corporations. Overall, transportation access to a site is a key consideration, but the primary tool used to attract business is financial incentives. This is a common tool and not surprising, but important to note for future development of multimodal transportation infrastructure and TDM programs. It is clear if policies related to the development of transportation infrastructure and TDM can be linked to financial incentives in the future, it will garner much attention. Summaries of the interview comments regarding economic development are the following:

- Mobility of the workforce as well as freight mobility are important components of locating in the North Front Range. Mobility is probably within the top five elements that large businesses consider after leading elements like local taxes, regulations, education level of local workforce, and public-private partnerships.
- In Weld County, the most important component for economic development is no sales tax and very low mill levies. It is premature in this environment to build alternative transportation infrastructure or market it with TDM for the sake of business development.
- Similarly, Evans uses low taxes to encourage development in their city. They have established an incentive program to rebate a portion of sales tax collections for public-private improvements, such as sidewalks.

A.3 Groups with Potential Interest in TDM

The Steering Committee members identified several groups and organizations to be involved with TDM programming and implementation. These partners would be good candidates for focus groups and implementation workshops as the NFRMPO region looks forward to funding and implementing TDM strategies. Steering Committee member ideas included:

- Northern Colorado Economic Development Corporation
- Downtown Loveland Association and the Downtown Team
- SW Weld Economic Development Group and UpState Colorado
- Ft. Lupton Economic Development Group
- Evans Chamber of Commerce
- Greeley Chamber of Commerce
- Fort Collins Downtown Development Authority

In addition, the large employers and activity centers identified by the Steering Committee members included:

Loveland

- Thompson School District
- Northern Medical Center of the Rockies
- McKee Medical Center*
- City of Loveland
- Aglient Technologies
- Larimer County
- Group Publishing
- Centerra

Fort Collins

- CSU*
- Hewlett Packard*
- Poudre Valley Hospital

Weld County and Greeley

- JBS Swift & Company
- North Colorado Medical Center
- Weld School District 6
- Weld County
- State Farm Insurance Companies
- City of Greeley
- State of Colorado, Including UNC
- StarTek, Inc.
- Carestream Health
- Vestas Blades A/S
- Asurion
- Old Town Evans (activity center)

A.4 Ideas for Future TDM Strategies

Steering Committee members generally had many ideas for future TDM strategies. Most of these strategies are contingent upon future growth in the region to create demand for multimodal transportation and finding support at the local level, whether public or private. The summary of ideas are listed below:

- Express bus transit service between Loveland and Ft Collins (the FoxTrot extension) is an area of opportunity for TDM. Smaller cities along the route, such as Berthoud, would like to see a stop for their community and promotion activities to increase ridership.
- Marketing VanGo™ more in Berthoud and in particular at the park-n-ride east of the city's center.
- Create the ability to transfer fare between local transit providers as service grows in the region. For example, currently Transfort accepts a transfer from FoxTrot service.
- Potential for pay-as-you go transit services extended from Transfort to outlying communities.
- Expand the promotion of the Larimer County call center and the transportation information available there.
- Region is not prepared for congestion pricing or other tolling type measures. The congestion is simply not there yet, even along I-25.
- Future needs for signal prioritization, cue jumps, and other traffic signal optimization could be considered for future as congestion grows. But we are not there yet for the majority of the region.

- Is there potential for well-run shuttle services? Perhaps draw some examples from Summit Stage and other semi-rural transit providers throughout Colorado.
- Success of VanGo™ with service to Denver seems to warrant a more thorough look to understanding if a commuter bus could be run along I-25.
- Look for other areas of opportunity to re-route the 34X Express route. TDM strategies along that future route should follow.
- Marketing should always be positive. We have lots of environmentally conscious people up here and use of transportation alternatives can be positively marketed as a part of personal responsibility.
- A big push in future TDM for Ft Collins will be in education and enforcement with bicycling. Increase in bicycle activity has been significant in the city and they are now needed to educate and enforce both drivers and bicyclists.
- At select locations, what is the viability of carsharing in our region? It is realistic? Carsharing would facilitate use of alternative modes because people could use shared vehicles for mid-day trips.
- Provide more amenities at bus stop locations and make sure trash is collected and cleanliness maintained. Personal safety can also be a concern at many stop locations. Ensuring people can ride transit safely is a big component of TDM.

Appendix B: SWOT Analysis Summary

A Strengths-Weaknesses-Opportunities-Threats (SWOT) analysis was conducted for the NFRMPO TDM plan during March and April 2010. The first phase of the SWOT was conducted with the TDM Plan Steering Committee in late March. The results of this meeting were then shared with regional committees for feedback and additions, specifically the TAC, TAG, Weld Mobility Council, and Larimer Mobility Council.

B.1 SWOT Basics

SWOT's collaboratively assesses a region's resources and capabilities in the competitive environment in which it operates. In our case, we focused on the regional transportation system (infrastructure, commute options, funding, staffing, mobility, etc.). TDM was weaved into this analysis as we understood the strengths, weaknesses, opportunities, and strengths of the regional transportation system as a whole.

B.1.1 Strengths

Strengths include **current** aspects of the transportation system that are helpful and working well today. They are also **internal** aspects that an organization, area, or the North Front Range region as a whole can influence. The question was asked how can TDM compliment existing strengths?

B.1.2 Weaknesses

Weaknesses are **current** components of the transportation system that are not functioning well today and need improvement. Like the strengths, these should be issues or items that the region can influence and are **internal** problems. The question was asked how can TDM counter these weaknesses?

B.1.3 Opportunities

Opportunities are **future** positive aspects about the system that will increase mobility or have an overall benefit on the transportation system. These are **external** forces that are outside of the control of the North Front Range. The question was asked how can TDM compliment these opportunities?

B.1.4 Threats

Threats include **future** issues and obstacles for transportation that will affect mobility overall. These threats will mostly be driven by **external** forces and are not under the control of the North Front Range. The question was asked how can TDM help mitigate the impact of these threats?

In addition to analyzing the transportation system by these four categories, participants in SWOT meetings were also asked how TDM can be a part of the solution to help take advantage of strengths and opportunities, and counter weaknesses or threats. They considered the following elements when evaluating the transportation system:

- infrastructure and mobility,
- planning and staffing,
- connections to economic growth and development,
- funding for system (maintenance of existing as well as future expansion)
- community dynamics (government, business, school and educational system(s), etc).

B.2 NFRMPO SWOT Analysis Summary

The following summaries are a compilation of SWOT comments received from the Steering Committee, TAC, TAG, and Weld and Larimer Mobility Councils.

B.2.1 Strengths

Infrastructure and Systems

- Freight rail infrastructure connecting our cities within the region, which should be capitalized upon.
- Regional transit routes between NFRMPO communities (particularly Ft Collins to Loveland).
- Established transit maintenance facilities in Fort Collins, Greeley, and Loveland.
- Bicycle route system as it exists today and the plans we have developed to improve it.
- ITS infrastructure in Ft. Collins (FCTrips).
- Trail and pedestrian facilities are generally very good, especially Poudre River Trail and connections to this trail.
- Inter-city/inter-regional bus service: Greyhound, Stagelines, DIA shuttle (Greenride).

Planning & Policy

- Plans for the Mason Corridor: first bus rapid transit (BRT) in the state.
- Fort Collins has incorporated a "Complete Streets" policy into their land use and transportation planning practices.
- North I-25 EIS and the framework and tools that can be used now to provide for decisions regarding:
    - Regional express bus
    - HOT lanes
    - Commuter rail

Characteristics of Region

- Level of cooperation between communities, especially on economic development/chamber of commerce level.
- Significant population base in Northern Colorado.

B.2.2 Weaknesses

Infrastructure and Programming

- Discontinuity of the transportation system.
- ITS infrastructure not supplied throughout entire region, particularly along I-25 corridor.
- Not many TDM success stories in our region.
- Lack of TDM outreach staff in region.
- Aging infrastructure.
- Poor conditions for walking and bicycling in Evans/Greeley, Wellington, and Berthoud.
- Limited transit between cities and transit systems that do exist are inconvenient by time and coverage. Related, region does not have a desire to improve convenience of transit.
- Excessive use of traffic signals and no coordinated timing on US 34 in Greeley.
- No container lift in the North Front Range.

Planning and Policy

- Uncoordinated land use and transportation planning.
- Business community support of TDM strategies versus roadway expansion.
- Lack of density and sprawl.

- We have established that the demand for alternative modes is here, but we keep building roads.

Financial

- On-going funding for operations and maintenance much less improvements to the system.
- There are no strong local sources of funding for transportation.

Political

- Lack of political will on transportation issues, particularly funding. Also, TDM is perceived as something "extra."
- Region appears unwilling to prepare for future demand on transportation system.
- Residual resentment in region after RTA proposal did not pass.
- Level of distrust between multiple jurisdictions and competition for tax dollars. Local officials are primarily focused on tax issues.
- Jurisdictions have different priorities and are territorial.
- Communities along I-25 and in Larimer County get more emphasis than communities in Weld County and along US-85 corridor.

B.2.3 Opportunities

Infrastructure and Programming

- Expansion of regional transit routes to Longmont (and a tie-in with Denver region RTD service).
- Expanding modal options is becoming easier than ever through examples like transit pass programs, carshare, and shuttles.

Policy and Planning

- New Federal Transportation bill. There is an opportunity to influence now that is has been delayed. Congresswoman Betsy Markey sits on the House Transportation Committee.
- Market for green topics and focusing transportation issues on sustainability themes.
- Adopting local land use policies for multimodal environments.
    - For example, Ft. Collins currently has a transit-oriented development overlay zone that facilitates multimodal transportation environments with features such as zero parking minimums. TDM should be layered on top of these land use policies to maximize the utilization of transportation alternatives.

Regionalism

- Regional tax sharing agreements to support transportation. There is a good example just south of our region between Westminster and Thornton to build bridges across I-25.
- Share the benefits of regional collaboration and select opportunities to pilot such efforts (for example, regional bus service along US Highway 85).
- Connect local transit systems to regional transit services.
- Potential combination of Fort Collins, Loveland, and Greeley by FTA for transit funding purposes. This is an opportunity to work regionally.
- Future funding through public-private partnerships
    - Transportation Management Associations in the region could help bridge those public private partnerships.

Workforce

- Evolving workforce that is more virtual than ever (but do not forget about the manufacturing industry).
- Focus on employers that want to maintain good access to their sites and increase use of sustainable transportation options by their employees
- Now is time to educate employers and the public with TDM and battle perceptions.

Price of Fuel

- Price of fuel as a tool to promote alternatives. This price can also be considered a threat.
- Important for Transfort to plan now and not be reactive when fuel prices rise again.

B.2.4 Threats

Infrastructure

- Freight rail corridors and crossings in highly traveled areas as region continues to grow.
- Lack of congestion. People don't perceive an issue with our infrastructure as is.

Funding

- Term of life on many TDM and alternative transportation projects (CMAQ program 3-yr term).

Policy

- Potential changes to how tax increment financing (TIF) can be used at the state level. This could have a big impact on a city's ability to provide basic services like transportation in advance of development.
- Census may find that Greeley will be large enough to be a TMA, which will result in less FTA funding for operations but more for capital purchases. This is something we will have to adjust to.

Regionalism

- No regional cooperation into the future and continued distrust from RTA experience.
- Size of counties in this area, particularly Weld County and TDM planning for such a large, mostly rural county outside of population centers like Greeley/Evans.

Aging

- Aging population and addressing their mobility needs. It will be particularly important to place future senior living communities within close proximity to transit.

Appendix C: North Front Range Spring 2010 Transportation Survey

The North Front Range MPO administered a transportation survey in support of the TDM plan between April 22 and May 7, 2010. The purpose of the survey was to understand employer perceptions of the multimodal transportation system as well as poll the number of employers implementing site-based TDM strategies today. Perceptions of the multimodal transportation system are important for TDM since they show what an employer thinks is reasonable for their employees when it comes to using transportation alternatives. If employer perceptions show a low knowledge or acquaintance with a type of transportation alternative, TDM can be used to raise awareness about that alternative and promote more utilization.

The survey was advertised through emails, several e-newsletters, community newspapers, and other media. These advertisements briefly described the purpose of the survey and directed respondents to an online link where the survey could be completed.
The resources used to communicate the availability of the survey included:

- Emails to 800 person NFRMPO Stakeholder list
- Regional Chambers of Commerce Email Newsletter Distribution
- Press Release to Regional Papers
- Climatewise Business Email List
- NFRMPO News Email
- Northern Colorado Economic Development Corporation Email Newsletter

These communications were oriented to management and human resource representatives of organizations throughout Northern Colorado. It was made clear in the beginning introduction of the survey that it was intended only for management level employees to complete the survey and represent their organization as a whole, and not to represent their personal commute behavior.

A $250 gift certificate to a local retailer was also provided to encourage participation in the survey. This grand prize was advertised with survey communication efforts. The final winner of the gift certificate was chosen at random from the pool of individuals who fully completed the survey.

A total of 190 full responses were received, and 55 partially completed surveys (a grand total of 245 responses). This level of response provided a robust sample size for analysis. The following sections provide a summary of the survey results.

There was also an opportunity to comment on transportation issues in general and these comments are enclosed in Appendix C.1. A copy of the survey instrument is enclosed in Appendix C.2.

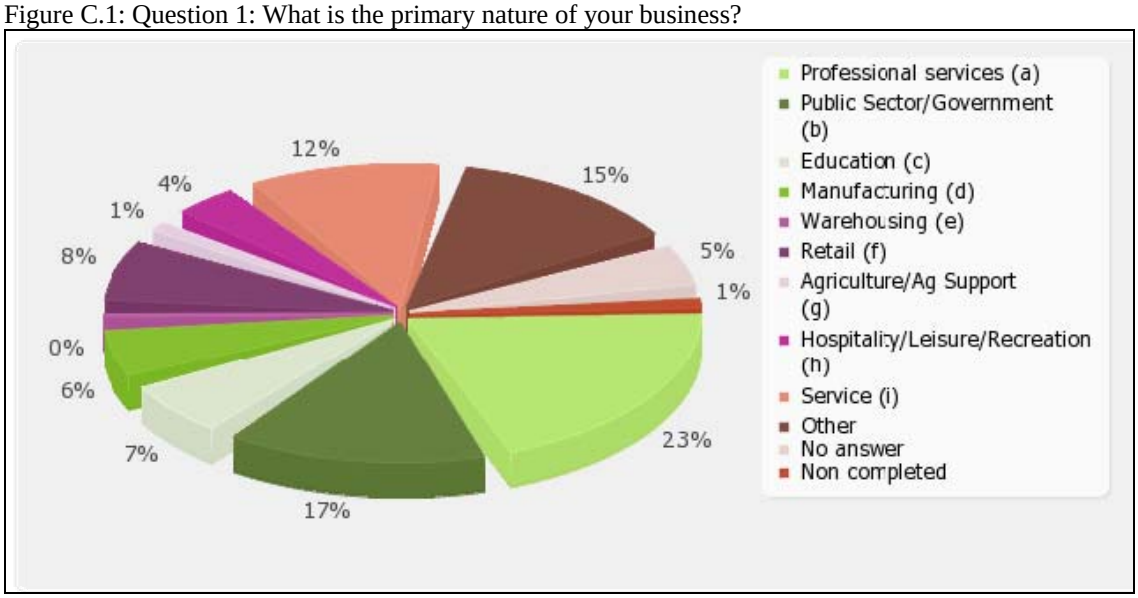
C.1 Economic Sector and Locations of Responding Employers

As shown in Figure C.1 and Table C.1, the survey was completed by a wide variety of employers in the North Front Range region. The highest single percentage (23 percent) of respondent type were professional services companies and organizations. Below this leading group of respondents, the public sector/government and services sectors were second tier respondents. The other category contained businesses predominantly in design and construction, property rental and management, and healthcare.

Table C.1: Question 1: What is the primary nature of your business?

Answer	*Count*	*Percentage*
Professional services	56	22.86%
Public Sector/Government	41	16.73%
Education	17	6.94%
Manufacturing	15	6.12%
Warehousing	1	0.41%
Retail	19	7.76%
Agriculture/Ag Support	3	1.22%
Hospitality/Leisure/Recreation	10	4.08%
Service	30	12.24%
Other	37	15.10%
No answer	13	5.31%
Non completed	3	1.22%
Total	245	100%

Figure C.1: Question 1: What is the primary nature of your business?

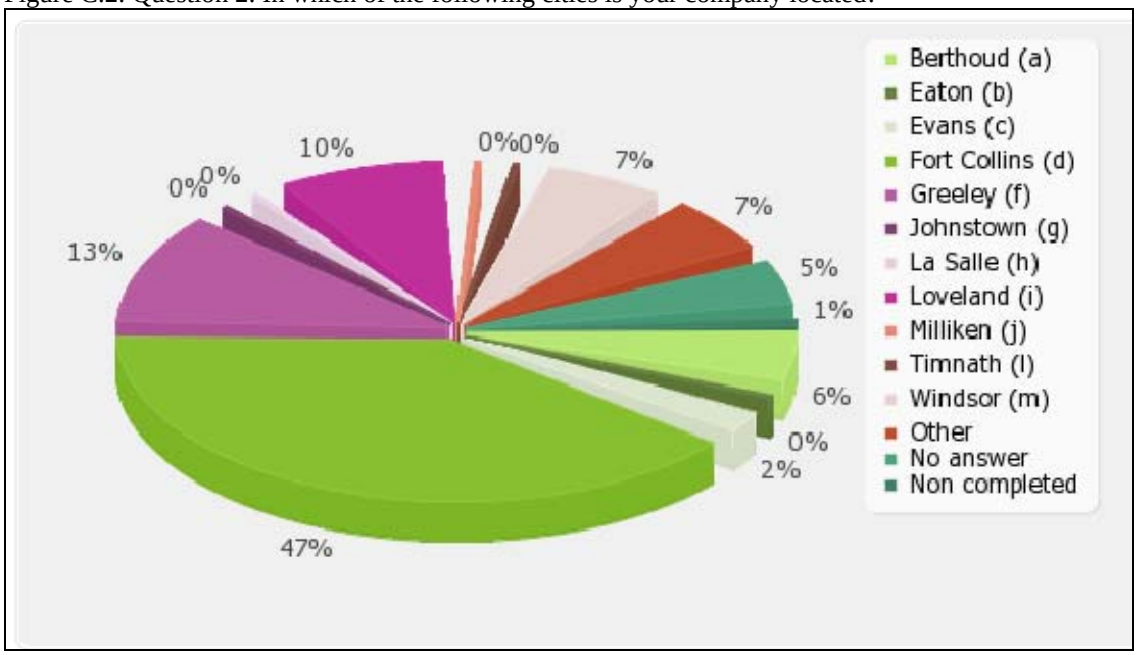


Employers who completed the survey were located throughout the Northern Colorado region (Table C.2 and Figure C.2). Fort Collins was the highest single location with employers that responded to the survey (47 percent of all employer respondents were located in Fort Collins). Greeley and then Loveland were the next highest respondents.

Table C.2: Question 2: In which of the following cities is your company located?

Answer	*Count*	*Percentage*
Berthoud	14	5.71%
Eaton	1	0.41%
Evans	6	2.45%
Fort Collins	116	47.35%
Garden City	0	0.00%
Greeley	32	13.06%
Johnstown	1	0.41%
La Salle	1	0.41%
Loveland	24	9.80%
Milliken	1	0.41%
Severance	0	0.00%
Timnath	1	0.41%
Windsor	17	6.94%
Other	16	6.53%
No answer	13	5.31%
Non completed	2	0.82%
Total	245	100%

Figure C.2: Question 2: In which of the following cities is your company located?



According to the US Census American Community Survey 2006-2008 employment estimates, the number of employees in Fort Collins represents 27 percent of the total employment in the two county region overall. Because the survey response had 47 percent response from Fort Collins (20 percent more representation in the survey than the actual employment in Fort Collins according to the American Community Survey), the survey results were isolated between Fort Collins and the other cities and towns in the region. This isolation was performed to ensure that the overall results in this summary were not biased from a dominance of Fort Collins responses. The following groupings of subareas were performed:

Fort Collins and vicinity (148 out of 245 responses):

- Fort Collins
- Severance
- Timnath

Loveland and vicinity (40 out of 245 responses):

- Berthoud
- Johnstown
- Loveland
- Milliken

Greeley and vicinity (57 out of 245 responses):

- Eaton
- Evans
- Garden City
- Greeley
- La Salle
- Windsor

C.2 Worksite Characteristics

75 percent of the employers who completed the survey had employment sizes of 100 people or less. The median employer size was 16 employees. However, the 25 percent of respondents with workforces larger than 100 employees generally had a large workforce, with the top employer (CSU) having 14,000 employees.

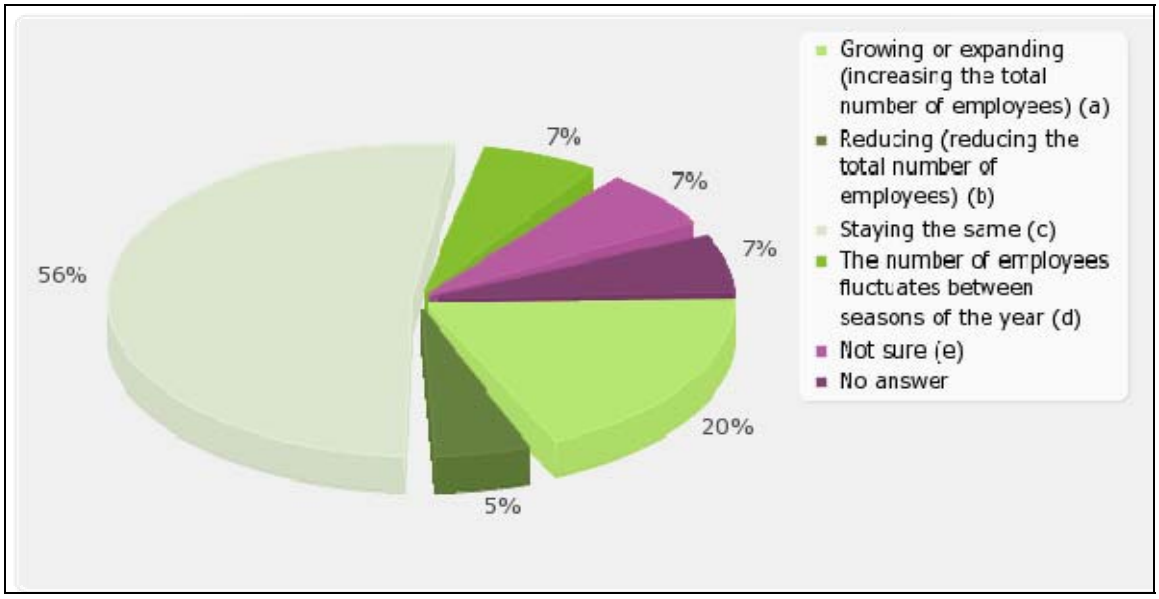
Due to these differences in employment size and the impact it could have on the responses to the survey the results were isolated between employers with 100 or less employees and the remaining larger employers (greater than 100 employees).

Respondents were also asked about the expansion or reduction in their workforce size. Controlling for location in the region, responses showed that between 52 to 68 percent of employers are staying the same in their current workforce size and about 20 percent are growing or expanding (Table C.3 and Figure C.3).

Table C.3: Question 4: Is your worksite currently or in the near future expanding or reducing its workforce size?

Workforce Characteristic	*Fort Collins & Vicinity*	*Loveland & Vicinity*	*Greeley & Vicinity*
Growing or expanding (increasing the total number of employees)	23.8%	25.0%	19.3%
Reducing (reducing the total number of employees)	4.0%	5.0%	5.3%
Staying the same	57.4%	52.5%	68.4%
The number of employees fluctuates between seasons of the year	7.9%	2.5%	5.3%
Not sure	6.9%	15.0%	0%
No answer	0%	0%	1.7%

Figure C.3: Question 4: Is your worksite currently or in the near future expanding or reducing its workforce size (entire region)?



C.3 Key Transportation Problems

Survey respondents were asked about the key transportation problems that affect the Northern Colorado region. For employers in Fort Collins and Loveland, the largest problems were traffic congestion and inadequate transit service. Second tier problems included safety, roadway conditions, and lack of sidewalks. For Greeley and vicinity, roadway conditions were more significant than traffic or inadequate transit service.

These results were also classified by employer size. They show that no matter the employer size, the biggest problems are traffic congestion and inadequate transit service.

The results of this question are summarized in Table C.4 for all survey groups. The solid circles indicate the problems that were of greatest concern versus others. The semi-solid circles are second tier problems. The hollow circles are problems that were ranked lowest by survey respondents.

Table C.4: Question 5: In your opinion, what are the key transportation problems affecting the **North Front Range region**?

Issue	*Fort Collins & Vicinity*	*Loveland & Vicinity*	*Greeley & Vicinity*	*>101 Employees*	*<100 Employees*
Traffic congestion/reduced commute speed	●	●	⭘	●	●
Safety	⭘	⭘	○	⭘	⭘
Roadway conditions	⭘	⭘	●	⭘	⭘
Inadequate access to businesses and major roadways (I-25, US 287, US 34, US 85)	○	○	○	○	○
Lack of sidewalks and/or bike lanes	⭘	⭘	○	⭘	⭘
Inadequate transit service	●	●	⭘	●	●
None	○	○	○	○	○

Symbol Definitions:
- ● Priority issue (50% or more of respondents indicate an issue)
- ⭘ Moderate issue (25 - 50% of respondents indicate an issue)
- ○ Low issue (less than 25% of respondents indicate an issue)

Employers were also asked for their opinion on the largest problems that affected their **worksite** (Table C.5). While responses to this question varied, they were some similarities to the regional question (Table C.4) summarized above. Inadequate transit service remained a key issue at the individual worksite no matter location or employer size. However, the perceptions of traffic congestion varied significantly between sites inside Fort Collins and Greeley.

There are several problems that employers, no matter where located or their size, consistently ranked as moderate problems. These include safety, lack of sidewalks, lack of parking for employees, lack of parking for customers, and length of employee commutes.

Table C.5: Question 6: What are the key transportation problems affecting **your worksite(s)**?

Issue	*Fort Collins & Vicinity*	*Loveland & Vicinity*	*Greeley & Vicinity*	*>101 Employees*	*<100 Employees*
Traffic congestion	●	⭘	○	⭘	⭘
Safety	⭘	⭘	⭘	⭘	⭘
Roadway conditions	⭘	⭘	●	⭘	⭘
Inadequate access to businesses and major roadways (I-25, US 287, US 34, US 85)	○	○	⭘	○	○
Lack of sidewalks and/or bike lanes	⭘	⭘	⭘	⭘	⭘
Inadequate transit services	●	●	⭘	●	●
Lack of parking for employees	⭘	⭘	○	⭘	⭘
Lack of parking for customers	⭘	⭘	⭘	⭘	⭘
Safe and secure access to parking	○	○	○	○	○
Length of employee commutes	⭘	⭘	⭘	⭘	⭘
Accessibility to customers	○	○	○	○	○
Access from local roads or arterials	○	○	○	⭘	○
None	⭘	⭘	●	⭘	⭘

Symbol Definitions:
- ● Priority issue (25% or more of respondents indicate an issue)
- ⭘ Moderate issue (10-25% of respondents indicate an issue)
- ○ Low issue (less than 10% of respondents indicate an issue)

Next, employers were polled about how transportation problems affect their organization (Table C.6). The trends in the survey results show that many employers do not know how transportation problems affect their organization or that they do not believe transportation problems have any impact. Some of the minor impacts include employee turnover and the organization being easily accessible by suppliers.

Employee productivity and recruitment ranked as moderate issues due to transportation problems.

These are key insights into the educational roles that TDM programs could serve to heighten awareness of transportation issues for employers and their commuting staff. In many cases, it is likely transportation *is* an issue for employees (e.g, personal cost, travel time, etc), but employers are not aware of them.

Table C.6: Question 7: How do transportation problems affect your organization?

Issue	*Fort Collins & Vicinity*	*Loveland & Vicinity*	*Greeley & Vicinity*	*>101 Employees*	*<100 Employees*
More challenging employee recruitment (a)	○	○	⭘	⭘	⭘
Reduced employee productivity (b)	⭘	○	⭘	⭘	⭘
Higher employee turnover (c)	○	○	○	○	○
Transportation problems do not affect the organization (d)	⭘	●	●	⭘	●
Not easily accessible to your customers (e)	○	○	⭘	⭘	⭘
Not easily accessible to your suppliers (f)	○	○	○	○	○
I do not know how transportation problems affect our organization (g)	●	●	⭘	●	●

Symbol Definitions:
- ● Priority issue (25% or more of respondents indicate an issue)
- ⭘ Moderate issue (10-25% of respondents indicate an issue)
- ○ Low issue (less than 10% of respondents indicate an issue)

C.4 Transportation Programs and Incentives

A key part of the survey was to poll employers on the kind of transportation programs they offer employees. As Table C.7 displays below, 25 percent or more of the employers polled implemented the following TDM strategies regardless of their location or size:

- Flexible work schedules
- Onsite parking

However, programs there implemented at a high or moderate level depending on location include the following:

- Secure Bicycle Parking
- Changing facilities and/or locker rooms with showers for cyclists
- A Guaranteed Ride Home program for employees in case of an emergency at work on a day they use a transportation alternative
- Matching employees to form carpools within the company
- Company fleet available for work-related trips
- Reimbursement for using airport shuttles
- Organizational policies that allow telework

On the other end of the spectrum, company sponsored vanpooling were the least implemented, along with personalized commute planning for individual employees or intranet/company web sites promoting transportation alternatives. It is not surprising to see many employers within the region do not support vanpooling since the program is mostly used by employees who commute long distances from Northern Colorado into the Denver region. ***These results also show that promotion and marketing needs could be an important TDM strategy as employers do not undertake these activities on a large scale themselves.***

Table C.7: Question 8: Do you **currently offer** the following transportation programs and incentives?

Transportation Program	*Fort Collins & Vicinity*	*Loveland & Vicinity*	*Greeley & Vicinity*	*>101 Employees*	*<100 Employees*
Secure Bicycle Parking	●	◉	●	●	●
Changing facilities and/or locker rooms with showers for cyclists	●	◉	◉	●	◉
Bus pass subsidies	◉	○	○	●	○
On-site bus pass distribution	◉	○	○	◉	○
Matching employees to form carpools within the company	◉	◉	◉	◉	◉
Flexible work schedules (variable start and end times)	●	●	●	●	●
Company sponsored vanpool service	○	○	○	○	○
Vanpool subsidies for Van Go	◉	○	○	◉	○
Intranet or company web sites(s) containing commute information	◉	○	○	◉	○
Personalized commute planning for individual employees	◉	○	○	◉	○
Guaranteed Ride Home in case of emergencies	●	◉	●	●	●
Onsite parking for employees and customers	●	●	●	●	●
Company fleet available for work-related trips	●	◉	◉	●	●
Reimbursement for using airport shuttles for work-related trips	●	●	◉	●	●
Organizational policies that allow employees to work from home (telework)	●	●	◉	●	●

Symbol Definitions:
- ● Over 25% of employers implement
- ◉ Between 5-25% of employers implement
- ○ Less than 5% of employers implement

If employers did not have one of the programs listed in the previous table, they were also asked if they would consider implementing these strategies (Table C.8). Importantly, these are the strategies available on the list for after many employers had already selected that they currently provide the TDM programming summarized in Table C.7 (e.g., bicycle parking, telework, and flextime summarized in Table C.7). These represent a sample of the additional ideas many employers may consider. The most popular strategies were the following:

- Bus pass subsidies
- On-site bus pass distribution
- Matching employees to form carpools within the company
- Intranet or company web sites(s) containing commute information
- Guaranteed Ride Home

Table C.8: Question 8: Would you **consider** offering the following transportation programs and incentives?

Transportation Program	*Fort Collins & Vicinity*	*Loveland & Vicinity*	*Greeley & Vicinity*	*>101 Employees*	*<100 Employees*
Secure Bicycle Parking	⭘	●	⭘	⭘	⭘
Changing facilities and/or locker rooms with showers for cyclists	⭘	⭘	⭘	⭘	⭘
Bus pass subsidies	●	●	⭘	●	●
On-site bus pass distribution	●	●	⭘	●	●
Matching employees to form carpools within the company	●	●	⭘	●	●
Flexible work schedules (variable start and end times)	⭘	⭘	⭘	⭘	⭘
Company sponsored vanpool service	⭘	⭘	○	⭘	⭘
Vanpool subsidies for Van Go	⭘	⭘	⭘	⭘	⭘
Intranet or company web sites(s) containing commute information	●	●	⭘	●	⭘
Personalized commute planning for individual employees	●	⭘	⭘	⭘	⭘
Guaranteed Ride Home in case of emergencies	⭘	●	⭘	⭘	●
Onsite parking for employees and customers	○	○	⭘	○	○
Company fleet available for work-related trips	⭘	⭘	⭘	○	⭘
Reimbursement for using airport shuttles for work-related trips	⭘	⭘	⭘	⭘	⭘
Organizational policies that allow employees to work from home (telework)	⭘	⭘	⭘	⭘	⭘

Symbol Definitions:
- ● Over 25% of employers would consider implementing
- ⭘ Between 5-25% of employers would consider implementing
- ○ Less than 5% of employers would consider implementing

C.5 Knowledge of Local Transit Services

Employers were asked several questions related to transit services to understand if the transit-related TDM strategies they would consider for their organization (Bus pass subsidies and on-site bus pass distribution in Table C.8 above) are realistic given the level of transit services available near their site.

First, they were asked about the availability of transit services within a quarter mile of the site (Table C.9). For those who *did* have transit service available within a quarter mile, specifics about the service available were asked in terms of frequency (Table C.10) and the day of week the bus is available (Table C.11). ***Part of the reason for asking these specific transit questions were also to understand if the employer even had knowledge about the transit services proximate to their site, which is key if they are going to implement TDM strategies that promote use of transit.***

Table C.9: Question 10: Is there a bus route(s) within one quarter mile (0.25) mile of your worksite?

Transit service within 0.25 mile	*Fort Collins & Vicinity*	*Loveland & Vicinity*	*Greeley & Vicinity*	*>101 Employees*	*<100 Employees*
Yes	88%	37%	49%	87%	61%
No	12%	63%	51%	13%	39%

Table C.10: Question 10a (if YES on Question 10): How frequently does the bus(es) arrive during the morning and evening rush hour?

Frequency of transit service in peak hours	*Fort Collins & Vicinity*	*Loveland & Vicinity*	*Greeley & Vicinity*	*>101 Employees*	*<100 Employees*
0-30 min	17%	8%	8%	15%	16%
30-60 min	17%	25%	21%	29%	13%
One hour or more	8%	25%	21%	12%	13%
I do not know	59%	42%	50%	44%	58%

For the worksites with transit service available, 8 to 17 percent of employers report that bus service with less than 30 min peak frequency is available. Like Question 9, however, this is mostly a test of employer awareness of transit service. Most likely there is a higher number of sites that have more frequent transit service than employers report. Employers in Fort Collins report their area has the most service, which makes sense given the size of the Transfort system relative to other transit services in the region.

Note that the answers to Question 10a (Table C.10) also vary extensively. This is due to the survey testing employers *awareness* of the transit options available to their employees. ***These data should be not interpreted as to what actually exists near their site; instead, it shows what employers know is available.*** As one can see, a large number of employers do not know how frequently bus service is provided near their site, regardless of their location or size. Interestingly, employers in Fort Collins have the least knowledge of the transit system, which is the very city in Northern Colorado that has the most transit service.

Table C.11 shows that a limited number of employers know when bus service is available for employees. However, for the employers that do know when bus service is available, it is realistic to expect that TDM incentives and strategies would complement these sites well.

Table C.11: Question 10b (if YES on Question 10): How many days of the week is the bus service available?

Days of week transit is available	*Fort Collins & Vicinity*	*Loveland & Vicinity*	*Greeley & Vicinity*	*>101 Employees*	*<100 Employees*
Only on weekdays	13%	8%	7%	9%	8%
Weekdays and weekends	16%	3%	12%	21%	8%
I do not know	58%	13%	21%	38%	30%
No answer	13%	51%	42%	13%	33%
Not completed	0%	26%	17%	15%	16%

C.6 Parking Management

The parking management questions mainly focused on the availability of parking for employees and whether worksites charged for this parking. The majority of respondents (75 percent) indicated they have no parking shortages at their site. Also, approximately 65 to 70 percent indicated parking supply is either owned by the organization, leased for employees, or arranged for employees off-site by the organization. The vast majority (over 95 percent) also indicated that employees park for free at worksites where parking is controlled by the employer.

However, there is one notable exception to these trends. Roughly 35 percent of the employers inside ***or outside*** of Fort Collins indicated that they have ***no*** designated parking for employees. In other words, employees find parking on their own. Some of these sites likely have higher potential for TDM strategy implementation since the employer is not providing free and convenient parking for employees.

C.7 Flexible Work Schedules

Employers were asked how flexible their work schedules are within their organization. This is important information to understand the magnitude of employers that would be able to flex the arrival and departure times of employees, which could help alleviate local congestion and peaking traffic issues. Table C.12 displays the results of this question.

Table C.12: Question 14: How are work schedules arranged at your worksite?

Work schedule arrangements	*Fort Collins & Vicinity*	*Loveland & Vicinity*	*Greeley & Vicinity*	*>101 Employees*	*<100 Employees*
Arrival and departure times are set by the company	43%	37%	40%	23%	44%
Employees can shift arrival/departure times with prior approval	39%	22%	21%	49%	24%
Employees can shift arrival/departure times at their discretion	35%	22%	23%	28%	25%

The results show that a large amount of employers allow employees to shift their arrival and departure times with prior approval or at their discretion. In general employers outside of the Fort Collins vicinity have less flexibility in employee arrival and departure times.

C.8 TDM Program Manager within Organization

The final question of the survey asked the employer if they had a person within the organization designated to help employees understand transportation options for their commute. These are individuals that employees could go to for information on company benefits related to transportation (e.g., bike parking, transit pass subsidies, telework policy, etc) and also find out information about bus service, bicycle facilities, and multiuse trails. The results of this question are displayed in Table C.13.

Table C.13: Question 15: Does your company have an employee(s) with responsibilities to help other employees with their commute?

Presence of TDM program manager	*Fort Collins & Vicinity*	*Loveland & Vicinity*	*Greeley & Vicinity*	*>101 Employees*	*<100 Employees*
Yes	14%	0%	9%	17%	7%
No	86%	75%	74%	68%	77%
No Answer	0%	0%	0%	0%	0%
Non completed	0%	25%	17%	15%	16%

Table C.13 shows that for employers in Fort Collins as well as employers with over 100 employees there is a greater chance that an organization will have a designated TDM program manager. The fact that even a small amount of these organizations do have TDM program managers is a positive sign for TDM implementation and shows there could be employer-based TDM program manager networks established with many organizations in the region.

APPENDIX C.1: Survey Comments

Survey respondents were asked if they had any general transportation-related comments at the end of survey. 66 responses were received and are shown below.

We need a regional bicycle education program to educate cyclists, motorists, and those who drive extensively for work.
need commuter transit (rail) from Fort Collins to Denver
We provide airport shuttle transportation and have grown our customer base to over 10,000 people. Service must be convenient, effective, competitive and not a burden for taxpayers to carry.
Not at this time
For court and probation clients and staff, the most critical barrier to using public transit is the long wait times on many bus routes.
We're an IT company and serice our clients at their locations. We have to rely on our vans to take equipment on site, so we really don't have any other options.
We have one employee who drives his motorcycle to work 60 plus days a year.
Some employees (me for one) live in the city but do not have public transportation from home. The Colorado Welcome Center, our other location, is not on TransFort route either. No ability to take transit there. Visitors to the Welcome Center must drive downtown, no bus access. Also, there is no location for RV parking downtown.
Thank you for asking
Since we do have a fair number of CSU students as work study positions, having a bus route or public transit system to our facility would benefit them the most.
Need to have safer access for bikes from all parts of town.
In my opinion public transportation in Fort Collins is in desperate need of a serious overhaul. The buses don't run frequently enough and the routes don't make sense. I wish I could ride the bus to work but the trip would take less time on foot!
For the region, the biggest bang for the buck will be connecting existing city centers so it is easy for people to get from one city to another.
We want light rail to Denver!
It would be nice to have some type of mass transit along I-25 from Cheyenne to Denver.
Naturally, Realtors need cars, but there are also 50+ employees out of our 6 offices. We could begin discussions of carpooling to office meetings and such, but also how our employees commute. The Transfort bus system is very innefective.
Not work related--but personal -- wish there was a transit from Boulder to Fort Collins
No.
Transportation for our clients to get to us and access our services (food stamps, cash assistance, medicaid, CCAP, LEAP, child support, child welfare services) is MUCH more of an issue for us than employees getting to work!
Safety is a primary concern of ours and would hope that the city could continue to find a way to make people drive more conservatively. IE slower, w/o cell phones and with out running red lights. This would improve survivability for bike riders and pedestrians.

Would love to see commuter rail implemented in the Northern Front Range.
the idea that you should build new buildings with the parking hidden is excruciatingly bad for business. The building at City Park and W Eliz SE corner is a prime example - people driving cannot see the parking from the street. If they aren't familiar with the lot in back, they won't come in. Who ever decided that this was a good idea needs to have their head examined. Another is the extremely poor access to the north side of Drake between Shields and Worthington while heading east. Those businesses are in a terrible position for access and I'd never consider leasing in that center because of the lack of access. I wonder how much the access caused the Steele's market failure. Why is this town so business unfriendly in that regard?
Bus service isn't often enough or to other cities.
None
No.
Only that the problem will get worse at the college, and though I included the students in our total number of commuters, I did not include the library patrons.
Walking thru the intersection of Drake & College is very dangerous due to vehicles turning right. It needs a "no right turn when pedestrian present sign desperately.
We have not done a transportation survey at R4, so commute choices may have slightly different answers, but primarily our people drive alone to work.
Roundabouts need more training for the community especially young bicyclists. Education on stopping and pushing the button and waiting for traffic to stop before pedestrians or bikers proceed into crosswalk. Thank you.
Adopt complete streets to allow the integration of biking and walking into transportation network. An electrical (via nuclear power plants) powered system of light rails, trolleys and express trains would be a great goal but unrealistic.
Our business relies heavily upon our employees commuting in their own vehicles. It is not possible for them to utilize public transportation due to the volume of supplies per job. However, we now provide a bicycle fleet, so our company is very interested in bike-friendly commuting.
Thank you, I work as a speech therapist doing home visits, so I have a home office for paperwork only & travel to see all clients. I would like to see a train service to/from Boulder/Denver, as it would allow me to expand my business as well as gain access to universities for teaching. Thank you.
I would really like to see the transportation a higher priority for the residents of my aparttments.
Take the money wasted on busing and spend it on street repairs.
I'm happy that the survey is looking at alternative options. I don't think the answer is to encourage more lanes for more traffic and prolific parking. I think it should be a little less convenient for people to drive their cars so using alternatives are more attractive.
Our best shot is probably commuting by bicycle. We have very good participation on Bike to Work Day and last year we had a Bike to Work Month. Will plan on having a Bike to Work Summer starting on June 1st, 2010 and continuing until August 31st. Thanks for all that you do.
I really feel we need a light rail system along the front range and an extension up the I-70 corridor. I know this is being studied, but is essential to congestion issues and pollution from cars. I also think we need to expand the Mason Street Corridor in Fort Collins to a light rail corridor in addition to bus lanes, bike lanes and sidewalks.
I'm not a fan of the Liberal Green Movement. I do not want to see the Mason Corridor or Showers for Bicyclist. In fact, I'm not in favor of loans from China. I believe we need to stay inside our budget. I realize my views are not popular with the International Council on Local Environmental Initiatives--Local Governments for Sustainability. So sorry, that's why I prefer anonymity.

no
Note that this is essentially a single-person consultancy with assistance from several others, including family. Our involvement with transportation issues will increase in a year or so when we become more active.
transportation for people living in the rural areas of either Weld or larimer counties is not av ailable when licenses are revoked for work or other treatment purposes. This often presents issues for these folks in complying with the different things they need to do.
The bus system does not advertise in Greeley so many employees are not aware of the bus system.
Bike racks provided by the city?
None
With the streets generally in such poor and deteriorating condition in the Greeley area, why are some speed limits being raised?
I-25 express connection to Denver RTD would be benficial.
Although we have 1 employee, the rest of us (9) are self employed and work out of the office. We do a lot of appointments at clients homes and therefore it is difficult to carpool/commute with other advisors.
No
Consider small, home-based businesses in your analysis. Not all companies follow the classic employer mode
Thank you for your interest in this topic!
We need taxi service in Windsor.
no
As a staffing service we have multiple employees who have a hard time getting to work if the location is not near a major bus line or close to where they live. Additional public transit would help these people become more self reliant and self sufficient.
No
We (Front Range) need light rail!!!!!
no
I am a handicapped business owner. Increased transit opportunities would help me in several ways.
We would love to see the planned light rail system for Northern Colorado go through Berthoud!
No
Looking forward to the bike overpass behind the Whole Foods!
No
Easing of congestion on I25 is a top priority for this region.
On a personal level, I am a huge advocate of public transportation, and I would love to see more convenient bus or train routes in Fort Collins. I also live in "downtown" Bellvue, and would like to put in my one vote for a bus/ shuttle system up there.
Employees' commute time is 2 minutes. Everyone lives in Berthoud where this office is located.
2)We have employees in Loveland and Estes Park. 3)This is an estimate for the number of employees in Fort Collins only ... 5),6),7) These would likely receive a different response from every employee. It is strickly my personal opinion that these situations may exist and in some cases are "problems" - they are not significantly impacting our ability to perform our core services. 8)Site / Departmental specific variations

exist. Some I do not know but was forced to provide a response. 9)I was not able to locate any data with which to respond to this chart. I did not wish to guess. 10),13)Site specific. Sorry I could not be more specific. It is a difficult survey for multiple locations with considerable variations.
Definitely more bikers in the summer.

APPENDIX C.2: Survey Instrument

Spring 2010 NFRMPO Transportation Survey

The North Front Range Metropolitan Planning Organization (www.nfrmpo.org) is interested in learning about transportation issues and concerns of area employers. The information you provide will be used to develop regional transportation programs. We are looking for your input to help us develop the most efficient transportation system possible for your employees and customers traveling every day in the North Front Range.

We appreciate your time and look forward to your response.

Part 1: Business Background

1. What is the primary nature of your business?

- ☐ Professional services
- ☐ Public Sector/Government
- ☐ Education
- ☐ Manufacturing
- ☐ Warehousing
- ☐ Retail
- ☐ Agriculture / Ag Support
- ☐ Hospitality / Leisure / Recreation
- ☐ Service
- ☐ Other: _____

2. In which of the following cities is your company located? _____

- ☐ Berthoud
- ☐ Eaton
- ☐ Evans
- ☐ Fort Collins
- ☐ Garden City
- ☐ Greeley
- ☐ Johnstown
- ☐ La Salle
- ☐ Loveland
- ☐ Milliken
- ☐ Severance
- ☐ Timnath
- ☐ Windsor
- ☐ Other _____

3. Approximately how many employees are employed at this worksite? _____

4. Is your worksite currently or in the near future expanding or reducing its workforce size?

- ☐ Growing or expanding (increasing the total number of employees)
- ☐ Reducing (reducing the total number of employees)
- ☐ Staying the same
- ☐ The number of employees fluctuates between seasons of the year
- ☐ Not sure

Part 2: Transportation Issues

5. In your opinion, what are the key transportation problems affecting the North Front Range region (check all that apply)?

- ☐ Traffic congestion/reduced commute speed
- ☐ Safety
- ☐ Roadway conditions
- ☐ Inadequate access to businesses and major roadways (I-25, US 287, US 34, US 85)
- ☐ Lack of sidewalks and/or bike lanes
- ☐ Inadequate transit service
- ☐ None
- ☐ Other: _____

6. What are the key transportation problems affecting your worksite(s)?

- ☐ Traffic Congestion
- ☐ Safety
- ☐ Roadway conditions
- ☐ Inadequate access to businesses and major roadways (I-25, US 287, US 34, US 85)
- ☐ Lack of sidewalks and/or bike lanes
- ☐ Inadequate transit service
- ☐ Lack of parking for employees
- ☐ Lack of parking for customers
- ☐ Safe and secure access to parking
- ☐ Length of employee commutes
- ☐ Accessibility to customers
- ☐ Access from local roads or arterials
- ☐ None
- ☐ Other: _____

7. How do transportation problems affect your organization?

- ☐ More challenging employee recruitment
- ☐ Reduced employee productivity
- ☐ Higher employee turnover
- ☐ Transportation problems do not affect the organization
- ☐ Not easily accessible to your customers
- ☐ Not easily accessible to your suppliers
- ☐ I do not know how transportation problems affect our organization
- ☐ Other: _____

Part 3: Commuting and Transportation Assistance

8. Below is a list of transportation programs and incentives. For each program or incentive please tell us whether your company offers it, would consider offering it, or is unlikely to offer it.

	Currently Offer This	Would Consider Offering This	Unlikely to offer
Secure bicycle parking	☐	☐	☐
Changing facilities and/or locker rooms with showers for cyclists	☐	☐	☐
Bus pass subsidies	☐	☐	☐
On-site bus pass distribution	☐	☐	☐
Matching employees to form carpools within the company	☐	☐	☐
Flexible work schedules (varying start and ending times)	☐	☐	☐
Company sponsored vanpool service	☐	☐	☐
Vanpool subsidies for Van-Go (www.smarttrips.org)	☐	☐	☐
Intranet or company web site(s) containing commute information	☐	☐	☐
Personalized commute planning for individual employees	☐	☐	☐
Guaranteed ride home in case of emergencies	☐	☐	☐
Onsite parking for employees and customers	☐	☐	☐
Company fleet available for work-related trips	☐	☐	☐
Reimbursement for using airport shuttles for work-related trips	☐	☐	☐
Organizational policies that allow employees to work from home (telework)	☐	☐	☐

9. To the best of your knowledge, how do your employees PRIMARILY commute to work? Please select an appropriate percentage range for each mode, even if 0%.

	0%	1-5%	6-10%	11-20%	21-40%	41-60%	> 61%
Transit							
Carpool							
Vanpool							
Bicycle							
Walk							
Work at Home							
Drive alone							
Other _____							

10. Is there a bus route(s) within one quarter (0.25) mile of your worksite?

- Yes <Go to 10.a.>
- No <Go to 11>

10.a. How frequently does the bus(es) arrive during morning and evening rush hour?

- 0-30 minutes
- 30-60 minutes
- One hour or more
- I do not know

10.b. On how many days of the week is the bus service available?

- Only on weekdays
- Weekdays and weekends
- I do not know
- Other _____

11. Which of the following best describes parking availability to employees?

- Adequate (no parking shortages)
- Somewhat adequate (occasional parking shortages or other difficulties)
- Not adequate (parking shortages are common)

12. What type of parking is available for employees at this location?

- Company owned spaces
- Company leased spaces
- Off-site parking arranged by the company
- No designated parking and employees find parking on their own

13. Do employees at your worksite park for free?

- Yes <Go to 14.>
- No <Go to 13.a.>

13.a. Do you pay to offset any of your employee's parking costs?

- Yes
- No

14. How are work schedules arranged at your worksite?

- ☐ Arrival and departure times are set by the company
- ☐ Employees can shift arrival / departure times with prior approval
- ☐ Employees can shift arrival / departure times at their discretion

15. Does your company have an employee(s) with responsibilities to help other employees with their commute?

- ☐ Yes
- ☐ No

16. Please provide your contact information and we'll enroll you in a random drawing for a $250 gift certificate to a merchant of your choice! This information will not be used for marketing or ANY other purpose, and will not be sold to other parties.

Company Name: _____
Contact Person:_____
Street:_____
Town/City: _____
ZIP: _____
Phone: _____
Email: _____

17. Do you have any additional transportation related comments?

THANK YOU FOR COMPLETING THE SURVEY!

www.nfrmpo.org

Appendix D: Private Employer and Higher Education Focus Groups

UrbanTrans Consultants, in coordination with North Front Range Metropolitan Planning Organization (NFRMPO) staff, conducted three focus groups on May 18 and 19, 2010 to inform the development of the TDM plan. The steering committee agreed to focus our attention on the largest employers. One focus group centered around the unique needs of a subset of the largest employers in Northern Colorado – the Universities and Colleges. A representative from every institution attended. The second focus groups were predominantly large regional employers.

Management representatives were recruited to participate in the focus groups and each participant was provided a $50 VISA gift card incentive. These representatives were recruited by direct calls, followed by emails to those businesses responding to the survey, and companies NFRMPO has business relationships with (like State Farm) through MPO ridesharing programs.

A complete list of the companies that sent representatives to the focus groups is attached as Appendix D.1. A total of 20 participants attended one of the three meetings. Focus group attendance per meeting totaled:

- May 18, Employer Focus Group One: Eight participants
- May 19, Employer Focus Group Two: Six participants plus one member of a local chamber of commerce
- May 19, Higher Education Focus Group: Five participants

The focus group questions were primarily designed to encourage participants to talk about what perceived modes are most realistic for employees to use on a daily basis and understand the current transportation programs or benefits their organization provides (if any). Participants were also engaged to provide their perspective on transportation issues in the region, at their worksite, and help the NFRMPO understand where TDM resources should be spent in the future.

The summaries of the discussions of the focus groups are provided below. Due to the diversity of perspective and opinions between the focus group participants, the results are divided into two categories: private employer and higher education.

D.1 Private Employer Focus Group

The focus groups with private employers concentrated on the transportation options that are available at their worksite and finding out what programs or incentives could be most effective at encouraging higher use of transportation alternatives. Employers were also asked about their perceptions by mode of transportation, about their current TDM programs (if any), and their willingness to support transportation demand management programs through funding partnerships with agencies and other private companies.

D.1.1 Perceptions of realistic modes to get to work

Employers were asked what modes they believe employees are using on a daily basis. The largest mode by far was the private automobile, but from each focus group the next highest mode was using a bicycle. After that, telework or transit were 3rd most popular modes and carpooling was the least popular. Other modes were also mentioned, but these modes were the main emphasis of the focus groups from this point forward.

Table D.1: What options can people use in the region to get to work?

Most popular	*May 18th Employers*	*May 19th Employers*
1st	Cars	Car
2nd	Bike (varies seasonally)	Bicycle
3rd	Transit	Telework
4th	Carpool	Carpool
5th		Bus

D.1.2. Modal Positives and Negatives

Once participants ranked the feasibility of using different modes to access their worksites they were asked to consider the positives and negatives associated with each mode. These perceptions of the positive and negative attributes of the transportation system were quite detailed and showed a high level of understanding of transportation alternatives by employers in general.

Table D.2: Transit: positives and negatives

Positives	*Negatives*
• Low cost • Consistent schedule • Don't have to fight traffic • Bikes on Bus • Capacity for wheelchairs • Greener & environmentally friendly alternative • Discount bus pass program offered to employers w/ tax benefits • Ability to multitask • No parking issues • Kids ride free; benefit for parents • Universally accessible	• Cost per rider to provide service (cost of subsidy) • Transfers • Pedestrian accessibility to bus stops • No viable service available or burdensome to schedule service (dial-a-ride) • Not flexible: individual's schedule must conform to the bus schedule • Connectivity to employee's home location • Connectivity to other modes • Routes are not direct • Travel time is too long • Hours of operation are too narrow • Stereotypes of bus riders • Comfort • Teenagers cannot ride for free between ages 13 and 16

Table D.3: Bicycling: positives and negatives

Positives	*Negatives*
• Exercise • Time cost is not a major issue, especially in downtown settings • Cost savings to individual • Cost to build and operate • Tax benefits available • Fun, feels good • Small environmental impact • State law enabling side-by-side riding • Fort Collins has wonderful access, but this is very specific to Fort Collins	• Safety for bicyclists: there have been several bicycle facilities in last years. • Personal safety on trails at night • Lack of connectivity in bicycle system outside of Fort Collins • Lack of bike parking • Weather dependent • No signal prioritization for bicyclists • Many employers don't have showers/locker rooms • Long distance commutes

Table D.4: Walking and Wheelchairs: positives and negatives

Positives	*Negatives*
• Exercise • Low tech	• Availability of sidewalks • Very localized: person must live and work in same place • Travel time • Safety

Table D.5: Carpooling and vanpooling: positives and negatives

Positives	*Negatives*
• Provision of free park-n-rides for travelers • Cost savings on longer commutes • Works well with shift workers with set schedules • Smarttrips program • Tax benefits • Less maintenance • Positive environmental benefits • Very cost effective • Government programs that support	• Park-n-rides can be opportunities for theft • Difficult to get people to do it (people want ultimate in flexibility and independence) • If commute is not long enough, no perceived cost benefits • Flexibility with scheduling and carpool partners • Cost to taxpayers for programs (VanGo™, carpool matching)

Table D.6: Telework: positives and negatives

Positives	*Negatives*
• Eliminates the commute • Convenience for employees • Time saver • Recruitment and retention • Occupancy cost savings can be significant.	• No negatives listed

Table 7: Single Occupant Vehicle: positives and negatives

Positives	*Negatives*
• Independence • Convenience • Flexibility • Trip chaining • More options • Easy to multi-trip, especially with kids • Storage • Cheap	• Cost to provide roads • Hidden costs that are expensive for all of us • Emissions and environmental degradation; large footprint • Parking • No drinking and driving • Dangerous – winter driving, higher speeds • Stressful • Many jobs depend on vehicles • Volume of vehicles on roads puts stress on infrastructure • Not healthy • Too cheap to operate and own a car

D.1.3 Key Access Issues at Worksites

Both groups of private company employers agreed that there were not major transportation access issues at their individual worksite. In general, it was their perception that there is not enough congestion to really push employees to use alternatives.

However, there were several issues related to using a transportation alternative to accessing the site. These issues included:

Bicycle:

- Bike parking at our building
- Connectivity to trails for bicyclists and pedestrians

Transit:

- Transit access and travel time (transfers)
- Integration of existing transit routes and systems between cities, schools, and counties to make it easier for the rider to understand and use system. Today the system is too fragmented.

In addition to these modal issues, there were several other transportation-related problems that were mentioned:

Parking management:

- Paid parking for employees. The referenced employer covers the cost of employee parking in downtown Fort Collins, which is a large expense to the company and also dissuades use of transportation alternatives.
- Several employers mentioned the provision of free parking at their sites facilitates driving alone to work.

Travel to Denver metro area

- Commute along I-25 corridor. Have tried carpooling, but the carpools fell apart. Telework is definitely an employee retention tool for our employees with long commutes.
- Connection to Denver. Many employees have to commute to Denver as part of their daily job.

Jobs/Housing balance in rural areas

- Lack of other options in more rural areas (Berthoud, Windsor). For manufacturing companies, this limits the competitiveness of their workforce because many qualified candidates cannot get to the facility and cannot afford to own a private vehicle. Also, big imbalance in the jobs-housing ratio in most communities (e.g., people live in a different community than they work in and commute long distances).

D.1.4 Solutions to Access Issues

Private company employers were then asked about what solutions exist within their individual organizations to mitigate these access issues. In both meetings, it was clear the emphasis on solutions should be in working with employers one on one and gaining a better understanding what options are realistic for employees. Once that understanding is clear, the worksite should develop programs and systems that promote these options.

Ideas that participants had regarding programs and policies that would effectively change travel behavior include:

- Implement programs that use financial incentives (e.g., parking cash out)
- Encourage adoption of telework policies
- Become an advocate within your own company and externally to support these programs and change perceptions
- Target the low hanging fruit of trips that are two miles or less (and lots of trips are this small distance)

- Setup company policies to encourage use of transportation alternatives instead of private vehicle for work-related trips (e.g., developing the equivalent of a gas mileage reimbursement for alternatives instead of private vehicles).
- Educate employers on the TDM programs that their local peers are implementing. Many employers are probably not aware that there are so many good programs going on.
    - Related to this perspective, there was support for having a third party come into companies to inform upper level management about the effectiveness of TDM strategies. This third party will likely get more traction than from the employee base.
    - The Climatewise program was successful, in part, because they were a third party providing information and analyzing cost and benefit to business leaders.
- Focus on some targeted marketing with employees and distribute these materials at events like new employee orientations.

D.1.5 Job Creation and Economic Development

Participants were asked how transportation related to economic development and job creation. Transportation was not viewed as a primary issue for job creation, but employers did acknowledge the region competes with like-sized regions for the best employees and an efficient multimodal transportation system does make those other regions more competitive. Issues included:

- For some parts of the region, transit and transportation access to sites is always a topic with potential employers and companies.
- In general, employee recruitment and retention is not an issue in the larger cities of the region. Many companies conduct national searches for employees and will relocate them to Colorado as necessary. In addition, with the current level of unemployment there are many talented people locally and we don't need to consider transportation needs to get really good employees.

D.1.6 Current Employer Programs

Generally employers thought it was part of their responsibility to implement programs and raise awareness about transportation alternatives for their workers. Examples of the types of programs that several employers either implement today or were amenable to implementing in the future included:

- Flextime
- Provide bike parking for employees and changing facilities
- Preferential carpooling and local ridematching
- Telework. Some have formal programs, almost all have some kind of telework. The exception is manufacturing. Some companies use flexible work spaces and require employees to telework to save on office space costs.
- Teleconferencing
- Challenge campaigns have been popular with participants in the Fort Collins based Climatewise program. Not many other employers sponsored their own programs outside of Climatewise or Bike to Work Day. Specifics on the examples include:
    - Participate in weekly/monthly challenges and track trips
    - Provide gift certificates (on order of $50) for employees who participate or a grand prize
    - Competitive programs between tenants popular in commercial districts (such as the Centerra Travelling Trophy challenge)
    - Events centered around Bike to Work Day
    - Companies generally have budgets, but some have been cut in recent economic challenges
- Climatewise is recognized business outreach and efficiency program . Raising awareness of climate issues and there is probably support for these issues that are transportation related.

- Some employers currently partner with their city's transit provider for an employee bus pass. More would if pedestrian accessibility issues were addressed or if bus service was even available in their area.

D.1.7 TDM management and funding partnerships

Overall, organizations would generally support a transportation-related management organization, but they would have to weigh the costs versus the benefits before they determined their level of participation. Several mentioned they are spending money internally to improve their own programs and would hesitate to spend money outside their organization.

One transportation-related revenue share program that exists today is with an intergovernmental agreement between Centerra and the city of Loveland. 100 percent of the improvements at the US 34 and I-25 interchange is being provided by the Centerra development itself (no public dollars). In the last 5.5 years, Centerra has contributed $30 million towards these improvements. However, these are all infrastructure-related improvements. The Centerra Commercial Owners Association (like a homeowners association) is the type of district that could be used for non-capital programming as it currently pays for landscaping improvements, holiday lighting, etc.

D.1.8 Cultural perspectives on the use of transportation alternatives

There were several cultural perspectives that employers felt their employees have about transportation alternatives. Questions about cultural issues were not specifically asked in the course of the focus groups, but the following statements were raised as related items to other discussion points:

- A Lack of interest in the employee base to use transportation alternatives. People don't seem to be motivated enough by these issues to change behavior.
- There is a cultural shift that is needed, which is broad and difficult to change. We should be offering these programs because they are changing perceptions and slowly changing our culture.
- We do need better public education in the true costs of automobile ownership and the benefits of the transportation options available.
- Our systems aren't good enough because people simply don't use it. If people used these options more the community would invest in them more. TDM can be used to demonstrate the investment needs.
- Our region does have enough congestion or feeling of "pain" (both in congestion and user costs) to shift people into other modes.

D.1.9 Public desire and political will for transportation improvements

While not a specific part of the focus group discussion guide, each of the two private company focus groups brought up the issue of public will to make alternative transportation improvements. Many felt that more resources should go towards building multimodal infrastructure and providing services like transit before large amounts are spent on TDM. Right now the alternative transportation system is largely inadequate to support robust TDM programs.

Related to this issue, there is not a high level of cooperation between local governments on transportation issues. Fundamentally local governments control issues within their borders and do not focus on regional issues, even though the travel is regional in nature. Until the region can overcome these barriers to working together locally, focus groups participants felt the multimodal transportation system and the region's travel behavior will not change significantly from what is today.

D.2 Higher Education Focus Group

The focus group with higher education concentrated on two types of travelers: employees and student commuters. Several campuses are implementing TDM programs and services today but see room for growth in the future. There are strong differences culturally between the institutions due to their location in the region and therefore the perspectives of each participant were diverse. A summary of the discussion of the higher education focus group is provided below. A complete list of the participating higher education institutions in this focus group is provided in Appendix D.1.

D.2.1 Perceptions of realistic modes to get to campus

Like the employer focus groups, participants noted that bicycle use is most likely the most prevalent use of any transportation alternative on campus (Table D.8). Following was transit, which is used primarily by students and could be used more if a greater number of route schedules were coordinated with class schedules.

About half of the participants noted that transportation access to campus is an issue for students and employees. This was particularly true of the commuter campuses. For some of the "traditional" institutions (not an commuter campus), transportation is not a major issue with students or employees at this time.

Table D.8: What options do faculty, staff, and students use to get to your campus?

Most popular	*Mode*
1st	Personal vehicle
2nd	Bicycle
3rd	Transit
4th	Carpooling
5th	Walking/skateboarding

D.2.2 Modal Positives and Negatives

Participants were also asked to consider the positives and negatives associated with each mode in the list above. Some of the entities survey their affiliates periodically and understand a great deal about the feasibility of using transportation alternatives to access campus. However, all of them reported they have a hard time keeping these alternatives "top of mind" for students and employees; they have to constantly work at educating travelers and marketing alternatives.

Table D.9: Transit: positives and negatives

Positives	*Negatives*
• Less parking demand • More green (if ridership is high) • Buses have bike racks • Potential advertising revenue source • Free to students • Less personal costs	• Schedules, especially evening student schedules and bus schedules • Cost structure of bus passes for students at multiple campuses • Working with multi-governmental agencies to change routes for students • Routes are not provided in places where we need them for a lot of student travel

Table D.10: Bicycling: positives and negatives

Positives	*Negatives*
• Low cost • Proximity of bike parking • Requires less space for parking • Promotes health • Ft Collins has a great biking system • More green	• Weather • Safety issues and accidents • Greeley does not have good bicycling facilities • Distance and required time to travel • Less opportunity to trip chain • Additional gear and supplies • Cultural (outside of Ft Collins) • Opportunity for theft

Table 11: Carpooling and vanpooling: positives and negatives

Positives	*Negatives*
• Cost sharing • Some campuses have preferential parking and a formal ridesharing program	• Scheduling. Lots of students and faculty come and go at different times; therefore, carpooling is only really feasible with classified staff who have regular hours • Flexibility • Getting word out to students to use: keeping it top of mind awareness

D.2.3 Key Access Issues at Worksites

Participants were asked to prioritize their primary transportation and/or access issue at their campus. One of the prevalent issues was parking, but just as important was coordinating transit and class schedules.

The most significant issues cited by participants were:

- Parking for employees and students
- Scheduling: classes versus bus routes and carpooling
- Awareness of issues and stigma associated with bus and carpooling
- Commuter campuses have adult students who go directly from work to school, which makes it hard to carpool or use the bus
- Maintaining and operating parking supply
- Culture does not support changing system

D.2.4 Addressing Access Issues and Increasing the Utilization of Transportation Alternatives

After listing the key access issues to their campuses, participants were challenged to think about how to address the access issues on campus. Specifically, they were asked to think creatively about how to increase the use of transportation alternatives and what TDM programs and services would be feasible for their organizations to implement. Comments received are summarized below:

<u>Transit-related</u>

- We should build the transit system around the demand (class schedules) and make it convenient for travelers to use.
- We need to make a paradigm shift region-wide and a huge investment in making transit a realistic alternative.
    - Related to this, this shift will have to come from us working together as a region. Until we start working together as a region and not just paying attention to our local

boundaries, we will not have the ability to build a viable alternative transportation system and the TDM programs to match it.
    - It is going to take time for this shift in Northern Colorado. Our growth has not put us into a crisis situation yet.

- Need to pilot some routes with smaller size investments, maybe small shuttles or jitneys, to prove the demand for more standard, fixed route service.
- Provide incentives to try these new alternatives and our institutions could help push the marketing.
- The region should supporting efforts that market and promote using transit to school aged children in order to establish this behavior early on.

Partnerships

- The Climatewise program is an excellent model of partnerships and we might build upon that resource.
- The Smarttrips program web site is being remodeled and there is real potential there for application at our campuses.
- The US Green Building Council is meeting at a regional level and perhaps there are potentials for partnerships through that organization

- Network with a diverse set of partnership stakeholders. This includes the producers of compressed natural gas and manufactures of fuel efficient vehicles. These companies could provide support for a more robust transit system and also meet air quality goals as well as utilize a local energy source (natural gas). Also, network with the EPA and other governmental agencies that can provide grants to implement these programs. Finally, bring in the user fees and make sure we charge people adequately to use these alternatives. If we want to change the structure and use of the transportation system, all of these stakeholders will have to be involved.
- In these partnerships, our institutions provide the target market: the ridership, the education, the marketing amongst the bodies of thousands of students.
- We also need to understand what other regions are doing. What are the best practices in partnerships as well as service provision that we can apply at our institutions?

Targeted Marketing

- The institutions can provide creative and relevant marketing for the specific demographic using their own student population. Some participants offered perhaps using students enrolled in marketing classes to help promote alternative transportation.
- We need to ask the people who are really suffering about what system improvements and TDM strategies would work for them. We should conduct focus groups and outreach with several student populations at several schools.

D.2.5 Current Campus Programs

Generally participants thought it was part of their institution's responsibility to target and implement TDM programs for students and employees. There are a variety of programs implemented between the different schools and the geographies they serve. Examples cited by participants include:

- Discounted bus passes for students and employees
- Ridesharing services
- Bike parking and changing facilities
- Preferential parking and discounted parking fees (only one institution)
- Compressed work weeks and telework
- Participation in Bike To Work Day, but this falls during our summer sessions with only a third of our students in attendance

Participants were interested in other ideas or modifying current services to match the demand better. A consistent comment was matching class schedules with bus transit service.

D.2.6 Future Issues and Opportunities at Institutions

No institution is on the cusp of implementing any major TDM programs and services. However, one is in the middle of a master planning process and as each institution makes improvements or builds new facilities, they are increasingly incorporating transportation access planning. The ideas participants has about future TDM programs and transportation system improvements are listed below:

- Several institutions are looking into providing free parking for carpoolers and bicyclists, but charging for single occupant vehicles. Right now everyone pays the same fee, so there is actually a disincentive to use an alternative.
- Definitely want to grow carpool and vanpool ridership (Smarttrips and Van Go)
- For state institutions there has been a push to incorporate transportation energy savings. Much of this push comes from the Governor's Office on Energy.
- There is some interest in bikesharing on campus, but past efforts have all been student led and have not sustained themselves over time
- There was moderate interest in commuter challenges and competitions, probably between departments or within departments.
    - A negative associated with challenges is there are a lot of limitations on the incentives that institutions could provide. The institutions would have to get prizes donated and the bureaucracy associated with implementing these programs can be overwhelming.
- The institutions will support transit service with a higher subsidy for bus passes if they feel the service is available and viable for students. For example, one institution is providing all adult evening students with transit passes at a new campus location adjacent to a station on Denver's light rail system. Typically adult evening students are not provided transit subsidies but in this case they are making an exception because of the proximity to the light rail.

D.2.7 Support for TDM programs and services

The participants strongly supported the continuation of TDM programs and services at their campuses. They saw the need to change behavior and change the operation of the system today that is unsustainable. If we can cooperate and coordinate, it frees up resources (fuel, roadway capacity, etc) and we are more efficient, which is something we'll have to address in the future.

APPENDIX D.1: Participating Organizations in Long Range TDM Plan Focus Groups

Employer Focus Groups (May 18 & May 19)

- Advanced Micro Devices
- Anheuser Busch
- Associated Thermoforming
- Avago Technologies
- CTI Thompson
- Greeley Center for Independence
- GreenRide Colorado
- LSI Corporation
- McWhinney Enterprises
- New Belgium Brewery
- Otterbox
- Rickards, Long, and Rulon, LLP
- The Neenan Company
- Water Pik
- Windsor Chamber of Commerce

Higher Education Focus Groups (May 19)

- Aims Community College
- Colorado State University
- Front Range Community College
- Regis University
- University of Northern Colorado

Appendix E: Travel Market Analysis

A travel market analysis was conducted to assist in the development of transportation demand management (TDM) program recommendations and to identify target markets. The analysis included a review of current travel behavior, available infrastructure to support non-single occupancy vehicle travel, and identification of roadways likely to suffer significant congestion in the future. Data used in the analysis came from Census Journey to Work information, the NFRMPO Household Travel Survey, the NFRMPO travel model, and data from local governments and transit agencies within the analysis area.

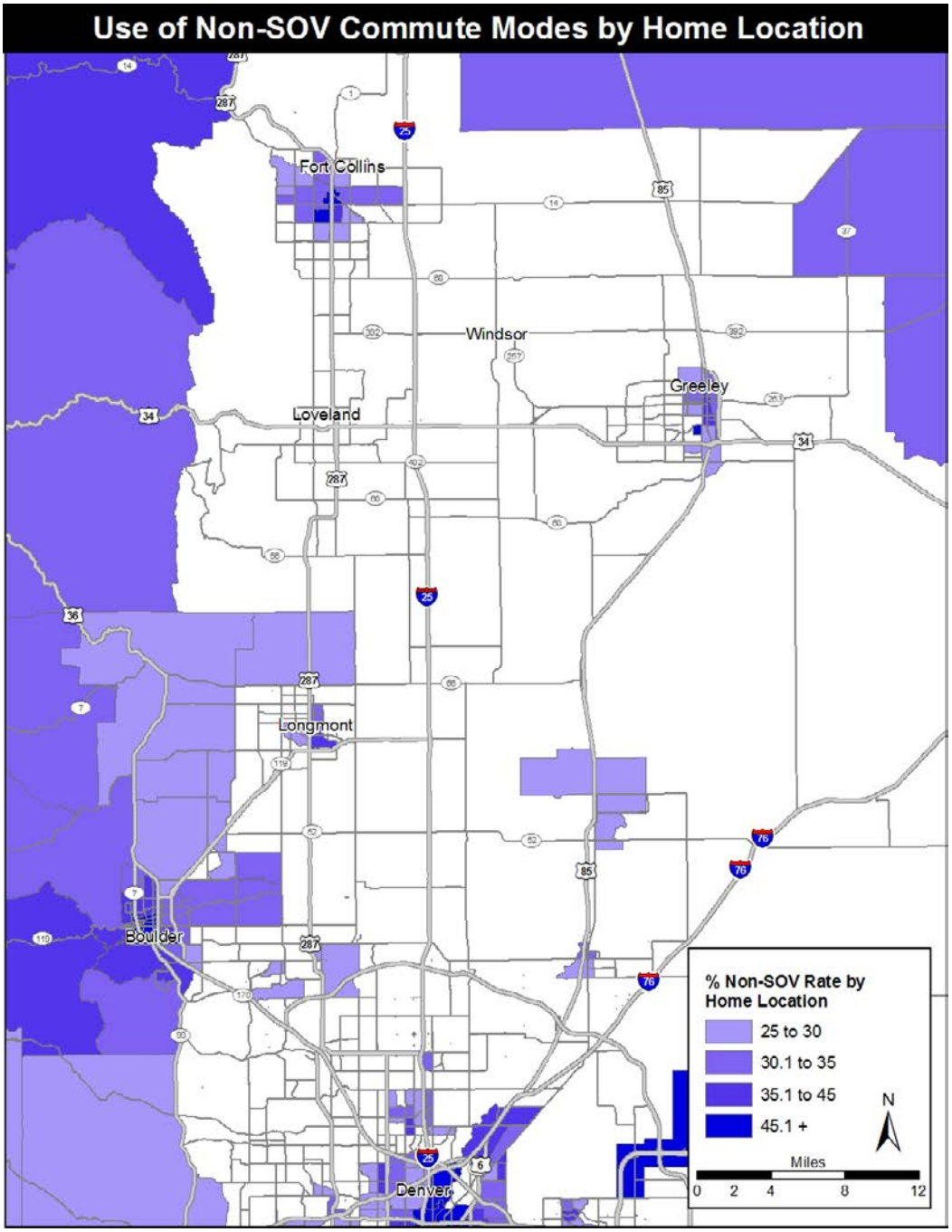
Data from the analysis is presented in a series of maps that are accompanied by general analysis. Recommendations associated with the analysis are provided at the end of this section.

E.1 Non-single Occupancy Vehicle Travel

Current travel behavior can often be an indication of the robustness of infrastructure and services that support the use of sustainable travel modes that include carpooling, transit, walking, and biking. In areas where a large percentage of travel occurs via single occupancy vehicles (SOV), successful TDM programs need to be well targeted and speak directly to the travel market.

The following map shows the percentage of commuters, by home location, that use non-SOV travel modes to get to work. The map uses data from the 2000 Census Transportation Planning Package. Non-SOV commute rates are shown by Census tract. Tracts where less than 25 percent of commuters travel to work via non-SOV modes are shown in white.

The data show that high levels of non-SOV travel occur primarily in Fort Collins and Greeley, both home to major universities, and rural areas. Traditional TDM programs that focus on a wide variety of travel modes and types of travelers are more likely to be successful in Fort Collins and Greeley. Outside of those areas TDM programs and services likely need to be focused on specific travel markets and modes.

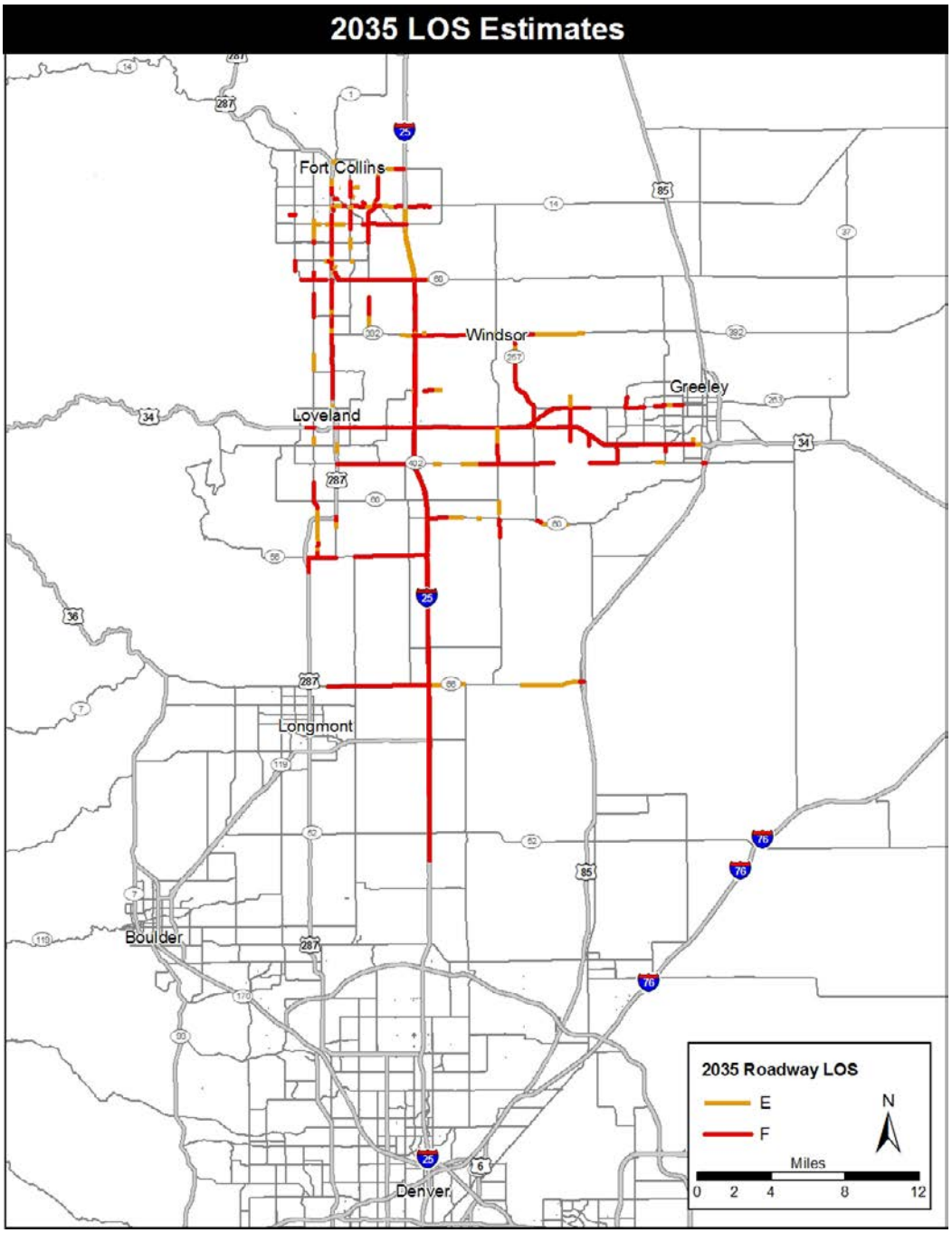


E.2 Roadway Level of Service (LOS)

Areas with high levels of congestion are more likely to support successful TDM programs and services. The following map shows predicted roadway level of service (LOS) data for 2035. Information is only shown for facilities likely to suffer an LOS of E and F, the two most congested levels. The map data are based on information from the NFRMPO travel model. Ideally TDM programs will target potential areas of congestion to lessen demand on the facilities and minimize delays for travelers and goods. To reduce future

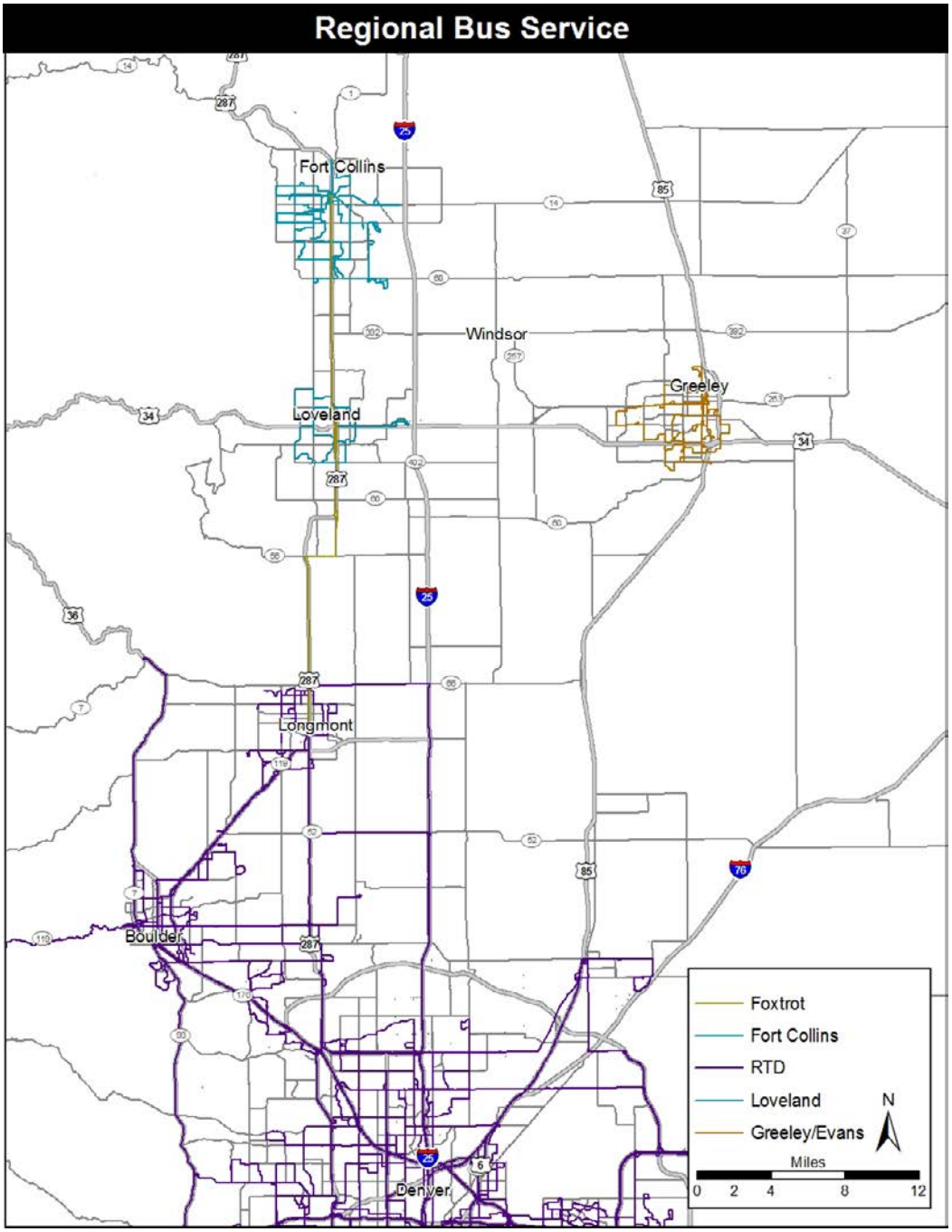
congestion the following travel corridors or areas will need to be targeted with TDM programs, transit service, bicycle infrastructure, or capacity improvements to avoid significant travel delays.

- Downtown Fort Collins
- I-25 and the major roadways that connect it to Fort Collins, Loveland, Windsor, and Greeley-Evans
- US 287 and other travel corridors between Fort Collins and Loveland
- US 34 between Greeley and Loveland



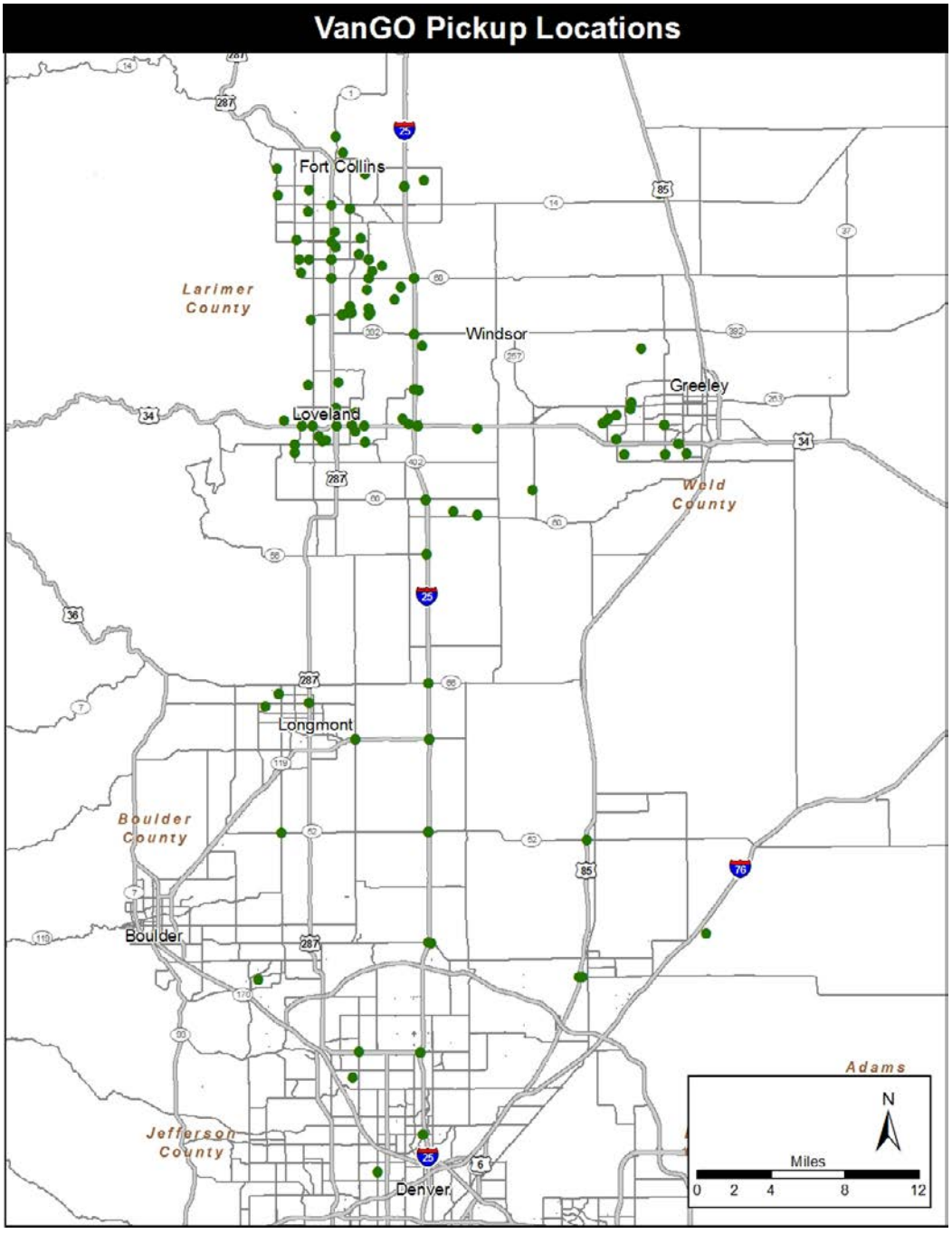
E.3 Transit Service

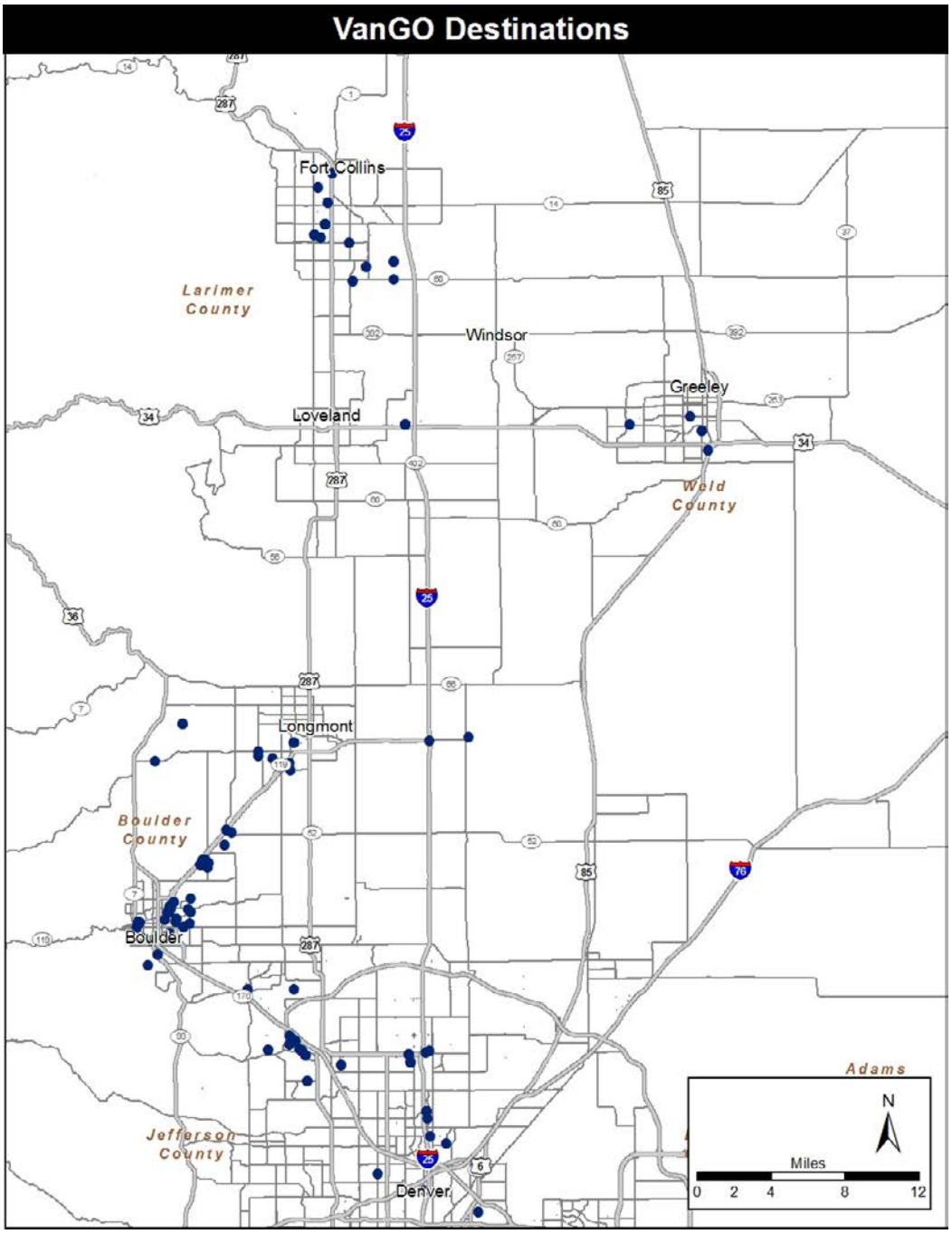
TDM programs can successfully encourage the use of transit if adequate service is available. The map below show the bus routes of the various transit providers serving the North Front Range area. While reasonable levels of transit service exist within Fort Collins and Greeley, few towns within the study area are connected to one another via transit service. The one exception is the Foxtrot route that connects Fort Collins, Loveland, and Longmont. This route, along with transit service in Fort Collins and Greeley, can be marketed through TDM programs.



E.4 VanGO™ Service

The NFRMPO operates a robust vanpool program called VanGo™. As of the writing of this plan the program carries almost 500 riders in vans of approximately six people between their home and work locations. The program targets individuals who commute 20 to 80 miles per day. The following two maps show the pick-up and drop-off locations of VanGo™ riders. A large percentage of the trips begin in the North Front Range area and end in the Denver Region, indicating that they travel along US 287 and I-25 and its connector roads, which currently suffer or are anticipated to suffer high levels of congestion.





E.5 Travel Destinations

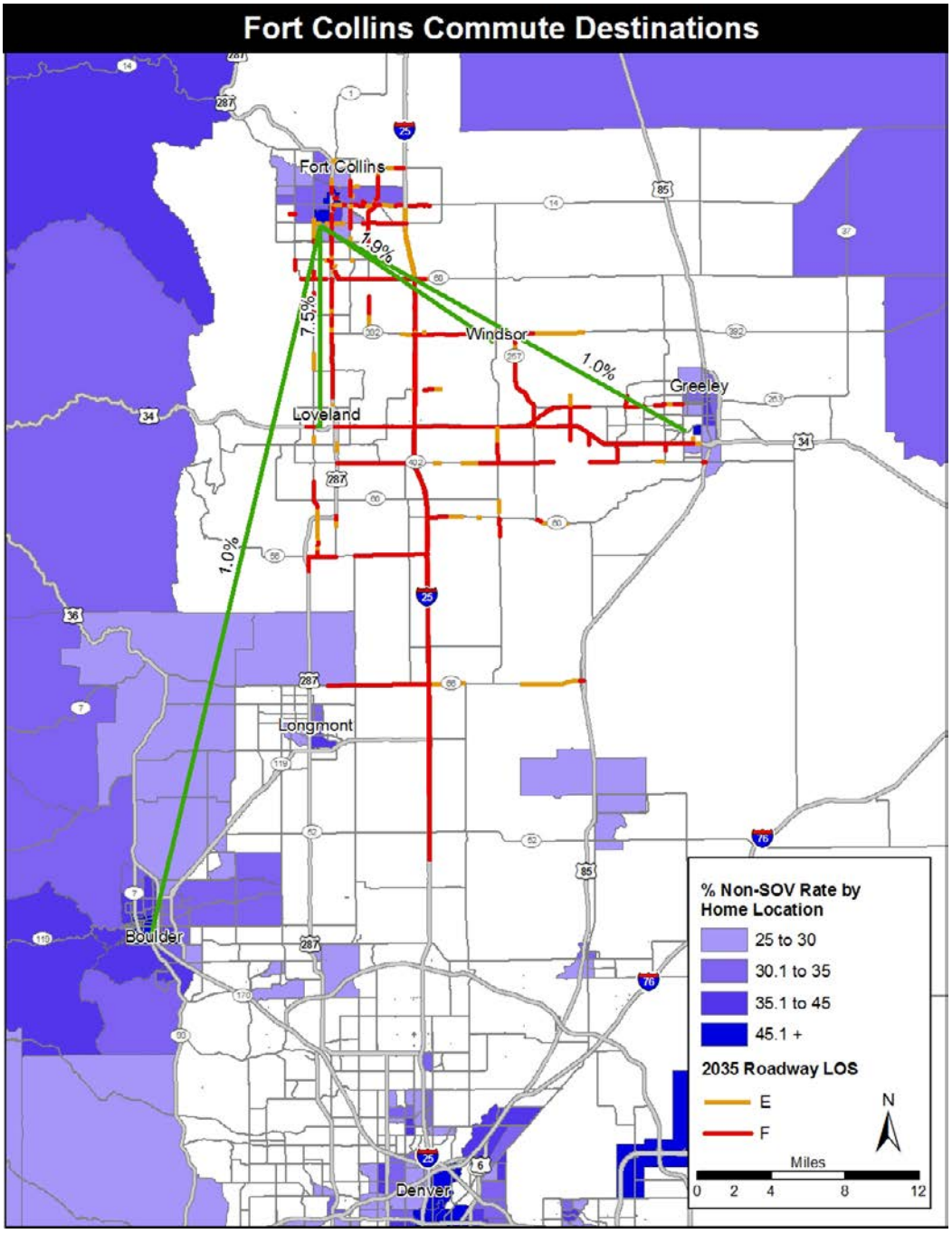
Knowing where people are traveling to can assist with the development of TDM programs that target specific trips, roadways, and transit routes. Three maps were developed using data from the NFRMPO Household Survey to show the major destinations of commute trips that start in Fort Collins, Loveland, and Greeley-Evans. The commute destination maps contain LOS and mode split data to allow for the

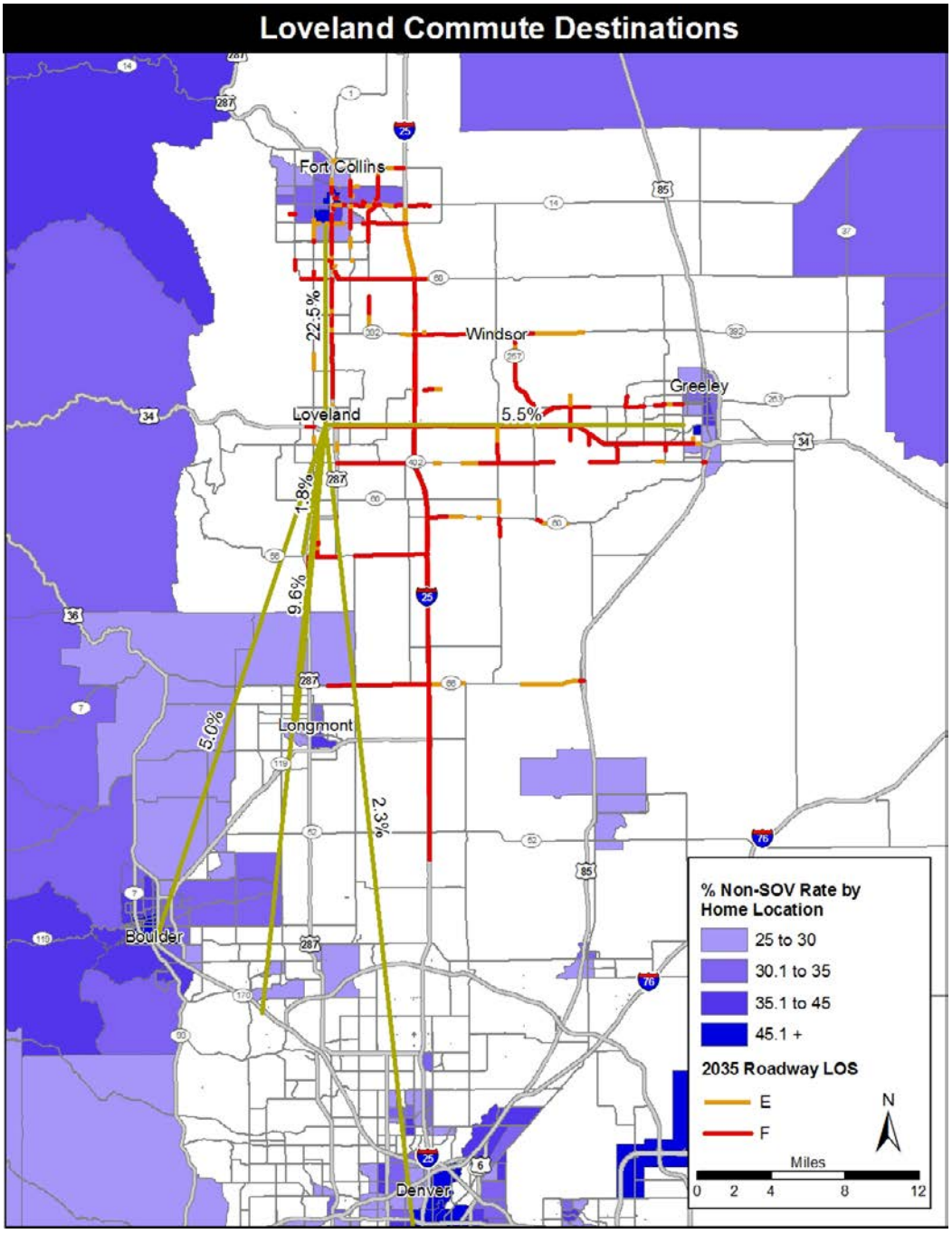
development of a full picture of travel behavior within the study area. In addition to the map data, the following table shows the percentage of commute trips that begin and end within Fort Collins, Loveland, and Greeley-Evans.

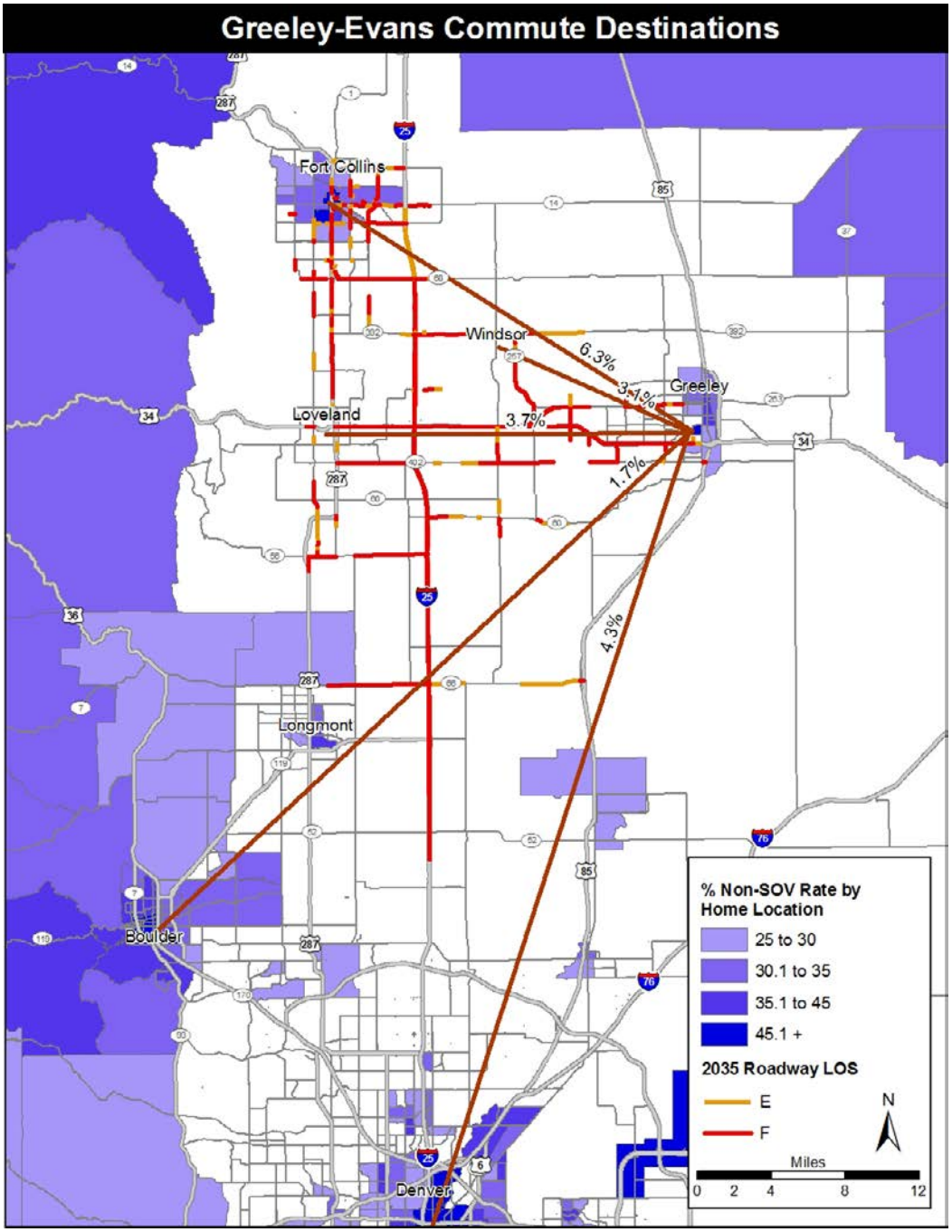
City	% Of Commutes that Begin and End within the City
Fort Collins	83.4
Greeley-Evans	66.4
Loveland	45.9

The large numbers of commute trips that both begin and end in Fort Collins makes the city a strong candidate for a local TDM program that focuses on intra-city trips. On the other end of the spectrum is Loveland, where the majority of commute trips that begin in the city end in another. A large percentage (22.5%) of Loveland workers commute north to Fort Collins. Another 16.9 percent of Loveland workers commute south to Longmont, Boulder, or Berthoud and 5.5 percent go east to Greeley-Evans. This large proportion of outbound workers commuting to relatively central locations has the potential to support carpooling.

The large number of commuters going north from Loveland to Fort Collins and south from Fort Collins to Loveland do so along a corridor that is expected to suffer significant congestion in the future (US 287). The same is true for commuters going from Loveland to Greeley-Evans (US 34).


Fort Collins Commute Destinations
Fort Collins
Windsor
Greeley
Loveland
Longmont
Boulder
Denver
1.9%
7.5%
1.0%
1.0%
% Non-SOV Rate by Home Location
25 to 30
30.1 to 35
35.1 to 45
45.1 +
2035 Roadway LOS
E
F
N
Miles
0 2 4 8 12


Loveland Commute Destinations
Fort Collins
Windsor
Loveland
Greeley
Longmont
Boulder
Denver
22.5%
5.5%
1.8%
9.6%
5.0%
2.3%
% Non-SOV Rate by Home Location
25 to 30
30.1 to 35
35.1 to 45
45.1 +
2035 Roadway LOS
E
F
N
Miles
0 2 4 8 12



E.6 General Findings

The findings from the travel market analysis indicate that TDM opportunities exist throughout the North Front Range area. High non-SOV rates within Fort Collins combined with high commute trip capture rates and levels of congestion are indicative of potential success for local TDM services that focus on a variety of travel modes and trip types.

Anticipated congestion levels along major travel corridors within the study area suggest that work should be done to reduce vehicle trips, specifically commute trips, between communities. Loveland residents are the source of many trips along US 287 and US-34, both of which are anticipated to suffer high levels of congestion. TDM programs that target Loveland residents who work in Fort Collins, Greeley, and Evans are likely to positively impact congestion. TDM programs can take advantage of existing Foxtrot service, VanGo™ service, and carpooling.

Additional effort should be made to address congestion along I-25. While no individual community within the study area generates a large number of peak-hour trips along the Interstate, the study area as a whole does. Addressing congestion along I-25 with TDM calls for a far-reaching but focused TDM strategy that encourages the use of non-transit travel modes such as carpool, vanpool, and telework.