Local Motion Long-Range Transportation Demand Management (TDM) Plan

Local Motion

DRAFT FINAL

prepared for

City of Alexandria

prepared by

Cambridge Systematics, Inc.

with

LDA Consulting
Southeastern Institute of Research

February 2011

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Executive Summary

Since the mid-1980s, the City of Alexandria has been at the forefront of Transportation Demand Management (TDM) efforts in Virginia as one of the first local government members of the regional Commuter Connections program sponsored by the Metropolitan Washington Council of Governments (MWCOG). The City's local TDM program, formerly known as *AlexRide*, initially operated as a traditional rideshare program relegated largely to ridematching activities between similarly interested carpool and vanpool partners. Heightened sensitivity to the need to conserve energy, and the strive to improve air quality in non-attainment areas, were strong catalysts for initiating local and regional rideshare grants by the Commonwealth of Virginia. As a prominent urban gateway within the Washington Metropolitan region, the City of Alexandria was one of several recipients of these "rideshare enhancement" grants, which have been extended to the City annually since the program's existence.

Over the past 25 years, Alexandria's TDM program has broadened its scope of activities from its nascent focus on marketing carpools and vanpools into a full-service program that promotes all non-drive alone modes of transportation through both traditional, and increasingly innovative, means. A result of this evolution was a recent rebranding of the program into a new name— *Local Motion*—and folding in its (formerly) independent website presence into the City's main website, where program information has been hosted, maintained, and updated ever since. By promoting a range of tools and resources for accessing destinations throughout the City, Local Motion affirms the program's commitment to improved multi-modal mobility for residents and employees who live, work, or travel within the Alexandria community. Its expanded range of service offerings now include: outreach and engagement of local employers, hosting and participation in City community and business events to promote alternatives to single-occupancy vehicle (SOV) travel, supporting private partners (such as Zipcar) and offering financial incentives for residents and businesses to employ carsharing strategies, and administration of transit subsidies to the City's employees.

As an established program within the City of Alexandria, Local Motion reinforces and actively supports other City goals and policies, including: site plan coordination for potential TDM impacts associated with high-traffic potential land uses/developments covered under the City's Transportation Management Plan (TMP) Zoning Ordinance, participation with cross-City initiatives such as Eco-City Alexandria to link alternative mode strategies to the City's environmental goals, and support for the City's multi-modal vision as outlined in the 2008 Comprehensive Transportation Master Plan and 2010-2015 Alexandria City Council Strategic Plan, which both view land use and

transportation as interconnected characteristics of internal mobility and regional connectivity for Alexandrians.

Similar to the 18 other TDM agency programs throughout the Commonwealth, Local Motion seeks to meet several broad goals for its target markets, which include City residents, employers, employees, and visitors. These goals include improving local mobility and quality of life, providing time and money savings for the area's commuter population, mitigating congestion on local roadways, and reducing environmental impacts caused by vehicle emissions, roadway expansion, and other transportation-related factors. In sum, Local Motion contributes to both local and regional congestion, mobility, and air quality goals.

Local Motion, like other TDM agencies and programs in the Commonwealth of Virginia which depend on annual grant funding cycles, has operated in the context of a very short, one-year time horizons. As a result, up until now, Local Motion has not participated in long-range planning processes to develop a far-reaching vision for its program, supported by long-term goals and strategies to attain that vision. Beginning in 2009, the Virginia Department of Rail and Public Transportation (DRPT) required all agencies receiving State grants in support of TDM programs and activities to prepare, adopt, and submit a Long-Range TDM Plan for their agency covering a 25-year time horizon. The Long-Range TDM Plan prepared for Local Motion is intended to describe the TDM services currently provided in the City of Alexandria, to outline desired improvements in services to be carried out over the Plan's long horizon, and to identify the financial resources and potential partnerships necessary to implement these services and improvements.

Local Motion's goals, objectives, and strategies within this Long-Range TDM Plan are organized under three time frames: 1) short-term, measuring one to six years, 2) mid-term, measuring seven to 15 years, and 3) long-term, measuring 16 to 25 years. An overarching Plan purpose is to tie Local Motion's future State grant applications through the Virginia Department of Rail and Public Transportation, or DPRT, to the goals and strategies laid out in the Long-Range TDM Plan and to use the Plan to monitor progress toward goals over time. The Plan should be updated as necessary— at least every six years per DRPT guidance— to account for major change in Plan assumptions, such as revised demographic projections and observed travel patterns, new financial constraints, and unforeseen opportunities affecting the TDM program.

Three critical elements of the Local Motion Long-Range TDM Plan—namely recommendations for the program's **business operations, marketing strategy and implementation, and program evaluation and tracking--** are outlined in Sections 4.0 through 6.0. Taken together, these Sections form the strategic elements of the Plan.

The following is a summary of overall Plan contents by individual section:

- **Role of TDM and Long-Range Plan Purpose –**This first section describes the breadth of activities and strategies that fall under TDM, as well as their

benefits. The context and purpose for the City of Alexandria's local TDM Plan is also explored, in addition to the anticipated outcomes of this long-range planning effort for various program stakeholders, including the key program users/clients, the City of Alexandria and its local decision-makers, and State funding partners.

- **Overview of Local Motion -** This section includes the history of the program, its current service offerings and activities, a summary of its governance and organizational structure, and a description of the program's service area in the City of Alexandria.
- **Service Area Characteristics—**This section contains a summary of the current service area and trends that may impact the program in the future, including projected changes in the area's demographics and employment, as well as areas of future growth in the locality.
- **Local Motion Strategic Plan—**This section includes a discussion of strengths, weaknesses, opportunities, and threats (i.e., SWOT analysis) for the program, Local Motion's Mission and Vision, a description of goals, objectives, and strategies to fulfill that vision. As part of the Strategic Plan, this section also outlines historical funding trends for the City's TDM activities, as well as constrained and unconstrained short-term program expenses.
- **Marketing Plan –** This section includes the formulation of an overall communications and marketing strategy for Local Motion's service offerings, including an implementation "road map" for advancing its marketing efforts to affect the incremental phases of behavioral change, as highlighted by the four levels of the classic TDM Marketing Model: namely, 1) awareness, 2) familiarity, 3) consideration/trial, and 4) behavioral change.
- **Program Evaluation and Reporting –** This last section provides an evaluation approach to support and guide future program decision-making to direct resources to services that will produce the greatest benefits to the City of Alexandria, reinforce existing customers' participation, attract new clients, and enable Local Motion to respond to market demand with desirable program enhancements. The approach defines performance indicators that are relevant to the expectations set for Local Motion, establishes a methodology that will enable Local Motion to compare the performance of its various services in a consistent manner, identifies tools that Local Motion can use to collect performance-related data, and defines options to report progress to stakeholders.

1.0 Role of TDM and Context for Long-Range Plan

1.1 WHAT IS TDM AND WHAT ARE ITS BENEFITS?

Transportation Demand Management (TDM) is a set of policies, strategies, or programs that emphasize managing the *demand* for motor vehicle travel, in contrast to the more expensive alternative which involves increasing the *supply* of transportation services (e.g., typically through road capacity expansion). TDM efforts reduce motor vehicle trips through several means, including: accommodating the same number of people in fewer motor vehicles (e.g., transit, carpooling, vanpooling, bicycling, walking), eliminating trips entirely (e.g., teleworking), and redistributing the timing of trips from most congested "peak" periods to less busy "non-peak" times (e.g., flextime benefits through employers). TDM strategies readily lend themselves to reducing, eliminating, or altering daily trips to and from a place of employment by employees (i.e., commuters).

Commute trips are traditionally the key target of TDM programs since they comprise the largest proportion of total trips that take place during peak periods of traffic congestion (i.e., typically between 7-9am and 4-6pm). Moreover, these trips are characterized by the same set of commuters traveling along a route from the same origin (home) to the same destination (work or school) on a daily basis. The habitual patterns of the commute trip make it an effective target of TDM strategies, such as carpooling and vanpooling formation among employees. A comparable, although less traditional tool, is informal or casual carpooling known as "slugging" which has had tremendous success in Virginia particularly for northbound commuters along the Interstate 95 (I-95) corridor in Prince William County. In this case, the TDM program role deviates from the traditional function of "matching" potential ridesharing partners, but rather in designating/supporting potential locations where such activities can occur (including provision of the necessary infrastructure where needed, such as park and ride lots), and informing interested residents of the availability of this option.

In summary, TDM programs throughout Virginia promote a wide range of transportation alternatives to driving alone using single-occupancy vehicles (SOV) to the commuter market. These alternatives include traditional ridesharing (carpooling or vanpooling), informal ridesharing or "slugging", public and private transit options, walking, bicycling, and alternative work arrangements.

Alternative work arrangements reduce the number of commuting days or shift commute travel to non-peak periods. They can be grouped into three major categories, including:

- Compressed work week schedules, in which employees work a full work week in fewer than five days;
- Flexible work schedules, in which employees shift their "start" and "end" work times to less congested periods of the day; and
- Telecommuting, in which employees work one or more days at home or at a satellite work center which is located closer to their homes than the work site.

TDM strategies also encompass improvements in transportation services, financial incentives, support services that make the use of alternatives more convenient or remove psychological barriers to using alternatives, information dissemination, and marketing activities that heighten awareness and interest in using alternatives. The common feature of the below strategies is that they all strive to change behavior and attitudes about alternative modes as a viable option to SOV travel:

- Transportation service improvements, such as shuttle buses, vanpool programs, car sharing services (e.g., Zipcar), bike sharing;
- Financial incentives, employee transportation allowances or subsidies for transit users;
- Tax incentives for employers;
- Congestion pricing;
- Parking management programs, including parking pricing and reduction of supply;
- Priority treatment for ridesharers, such as preferential parking for carpools/vanpools, high occupancy vehicle (HOV) lanes, signal priority or dedicated transit lanes;
- Information and marketing of transit schedules, bicycle/ pedestrian facility maps, online commuter tools (e.g. cost calculators), ridematching and other services;
- Support services, such as Guaranteed Ride Home (GRH) programs;
- Employer on-site amenities, including secure bicycle storage, lockers and showers, quality child care, as well as proximity to dining and establishments where employees can run errands without the use of a car;
- Land use, planning-related efforts; and
- Bicycle and pedestrian infrastructure, including trails.

TDM programs can serve a variety of markets, including non-commuters, tourists, and residents who do not own a car or, for whatever reason, are unable

to drive. Therefore, TDM can serve much broader mobility goals than more narrowly-focused commuter goals. Figure 1.1 illustrates the wide range of potential benefits of TDM programs.

Figure 1.1 Potential Benefits of TDM Strategies

Throughout Virginia and the City of Alexandria, TDM programs play an important role in maintaining a high quality of life by:

- Assisting individuals in identifying transportation options for traveling to work, school, and other destinations;
- Improving the operational performance of the transportation system;
- Mitigating congestion and "wear-and-tear" on Virginia's roadways;
- Reducing the environmental impact of vehicle emissions, roadway expansions, and other transportation-related factors; and
- Promoting the benefits associated increased walking, bicycling, and transit use, such as improved air quality, increased exercise and public health, and stress reduction.

The following section describes how TDM programs affect a number of key air pollutants and ranks different strategies in terms of their cost-effectiveness across these pollutant categories.

1.2 COST-EFFECTIVENESS OF TDM STRATEGIES IN REDUCING ENVIRONMENTAL POLLUTANTS

The aim of TDM strategies is to reduce vehicle miles of travel (VMT), especially that of single-occupancy vehicles. Reducing VMT has several public benefits including reduced congestion, improved safety through reduced crash exposure, and improved air quality through reduced vehicle emissions. The primary types of vehicle emissions are ozone precursors such as nitrogen oxides (NO_x) and volatile organic compounds (VOC), air toxics, particulate matter (PM), carbon monoxide (CO), and greenhouse gases (GHG). These emissions are described below.

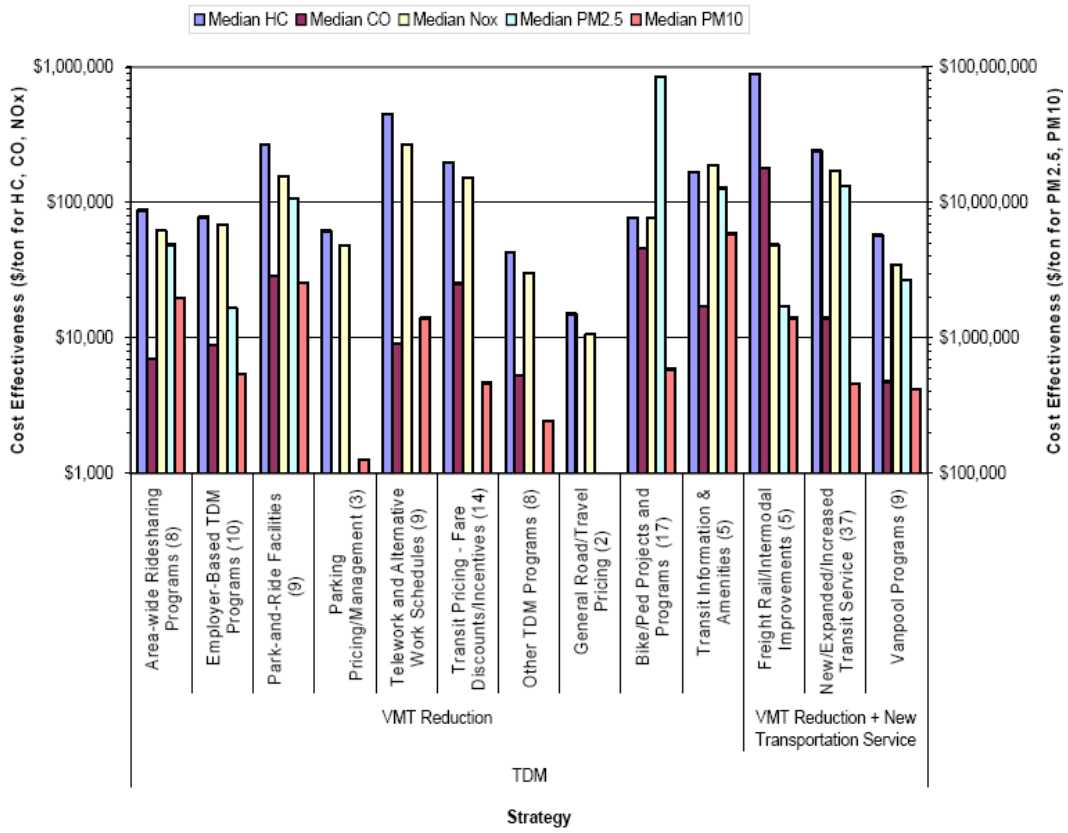
- **Nitrogen oxides (NO_x)** are found in the exhaust of any internal combustion engine but are more prevalent in diesel engine exhaust that they are in gasoline engine exhaust. NO_x reacts in the presence of hydrocarbons and sunlight to form ground-level ozone, a pollutant that irritates the eyes and damages the lungs. Improvements in vehicle technology have been and are continuing to reduce NO_x emissions per vehicle mile traveled.
- **Volatile organic compounds (VOCs)** also referred to as hydrocarbons (HC) are the result of incomplete combustion and are found in the exhaust of internal combustion engines. VOCs along with NO_x are ozone precursors and contribute to smog.
- **Air toxics** are comprised of a wide variety of hazardous pollutants that include mercury, arsenic, benzene, formaldehyde among many others. They are found in the exhaust of internal combustion engines and come from impurities in fuel, incomplete combustion, and other mechanisms.
- **Particulate matter (PM)** is a general term that refers to a mixture of solid particles and liquid droplets in the air. Similar to the other types of vehicle emissions described, it is produced in internal combustion engines. The greatest effect on health is from particles 2.5 microns or less in diameter ($PM_{2.5}$). Exposure to $PM_{2.5}$ is associated with several serious health effects. People with asthma, cardiovascular or lung disease, as well as children and elderly people, are considered to be the most sensitive to the effects of inhaling fine particulate matter. PM is also responsible for environmental effects such as corrosion, soiling, and damage to vegetation and reduced visibility.
- **Carbon monoxide (CO)** is a colorless, odorless, toxic gas that reduces the uptake of oxygen into the blood. It is a by-product of incomplete combustion.

- **Greenhouse gases (GHG)** such as carbon dioxide (CO_2) are not directly hazardous to human health, but as heat-trapping agents they contribute to climate change. CO_2, unlike the other emissions identified here, is not a product of fuel impurities or incomplete combustion, but is the expected chemical by-product of combustion.

TDM strategies can be classified into strategies that primarily reduce VMT (by reducing vehicle-trips, reducing trip lengths, and/or encouraging travelers to shift modes), and strategies that provide additional transportation services (e.g., transit) to encourage the reduction of VMT by shifting travel to other modes. VMT-reduction strategies can be expected to reduce all types of emissions in rough proportion to the corresponding level of VMT reduction achieved. However, if congestion is reduced, there may be some additional emissions impacts due to improved traffic flow. In contrast, strategies that supplement direct VMT-reduction efforts through the addition of other transportation services may cause increases in some types of emissions from these services that offset (to varying degrees) the emissions reductions from reduced passenger vehicle VMT. The amount of the offset will depend upon the relative efficiencies, load factors, and emissions characteristics of the vehicles involved.

The American Association of State Highway and Transportation Officials (AASHTO) Standing Committee on Environment commissioned a study to quantify the effects of different air quality control strategies on a range of pollutants. This study, *NCHRP 25-25 (Task 59): Evaluate the Interactions between Transportation-Related Particulate Matter, Ozone, Air Toxics, Climate Change, and other Air Pollutant Control Strategies*, released July 2010, showed that TDM projects are frequently cost effective ways to reduce pollution from auto emissions. However, a wide variation in cost effectiveness across individual projects was evident, revealing that cost effectiveness depended in part on how effectively the TDM project was implemented. This variation is evident in Figure 1.2.

Figure 1.2 Cost-Effectiveness of TDM Strategies



Source: NCHRP 25-25 (Task 59): Evaluate the Interactions between Transportation-Related Particulate Matter, Ozone, Air Toxics, Climate Change, and Other Pollutant Control Strategies, 2010

The number of strategies evaluated by project type is shown in parentheses on the x-axis and the various colored bars show the range of implementation costs associated with the removal of one ton of the specified pollutant by project type. Figure 1.1 underscores a wide range in cost per ton of pollutant removed among similar projects.

One challenge in comparing cost-effectiveness across pollutants is that the values scale differently depending on the relative mass or weight of the various pollutants. For example, CO emissions are typically an order of magnitude larger than VOC or NOx emissions, which in turn are perhaps an order of magnitude greater than PM emissions. Comparing *relative* cost-effectiveness is one way to address this problem. Table 1.1 lists TDM strategies in descending order of cost-effectiveness. Those that cost more than the median value (i.e., are less cost effective) are in the top row, while those that cost less (i.e., more cost-effective) than the median value are in the bottom row.

Table 1.1 Relative Ranking of TDM Strategies by Pollutant Based on Median Cost-Effectiveness – *Dollars per Ton*

Range	HC (VOC)	CO	NO_x	$PM_{2.5}$
Above Median	Telework and Alternative Work Schedules ($452,704) Park-and-Ride Facilities ($268,460) New/Expanded/Increased Transit Service ($241,528) Transit Pricing – Fare Discounts ($196,551) Transit Information and Amenities ($168,276)	Bicycle/Pedestrian Projects and Programs ($46,278) Park-and-Ride Facilities ($28,791) Transit Pricing – Fare Discounts ($25,345) Transit Information and Amenities ($17,081)	Telework and Alternative Work Schedules ($268,961) Transit Information and Amenities ($188,430) New/Expanded/Increased Transit Service ($172,977) Park-and-Ride Facilities ($156,997) Transit Pricing – Fare Discounts ($152,617)	Bicycle/Pedestrian Projects and Programs ($84,823,991) New/Expanded/Increased Transit Service ($13,287,023) Transit Information and Amenities ($12,797,808) Park-and-Ride Facilities ($10,800,387)
Median – All Strategies	**$145,450**	**$16,511**	**$88,426**	**$4,910,989**
Below Median	Employer-Based TDM Programs ($78,078) Bicycle/Pedestrian Projects and Programs ($77,096) Parking Pricing/Management ($61,713) Vanpool Programs ($57,315) Other TDM Programs ($42,876) General Road/Travel Pricing ($15,060)[a]	New/Expanded/Increased Transit Service ($14,076) Telework and Alternative Work Schedules ($9,128) Employer-Based TDM Programs ($8,826) Other TDM Programs ($5,341) Vanpool Programs ($4,773)	Bicycle/Pedestrian Projects and Programs ($77,096) Employer-Based TDM Programs ($68,801) Parking Pricing/Management ($48,604) Vanpool Programs ($34,735) Other TDM Programs ($29,941) General Road/Travel Pricing ($10,623)[a]	Vanpool Programs ($2,685,195) Employer-Based TDM Programs ($1,668,784)

Source: NCHRP 25-25 (Task 59): Evaluate the Interactions between Transportation-Related Particulate Matter, Ozone, Air Toxics, Climate change, and Other Pollutant Control Strategies, 2010

Based on the study findings, none of the TDM strategies evaluated showed a median increase in emissions. Some general observations by project type, with a particular focus on VOC and NOx findings, include:

- Employer-based TDM, regional rideshare, and vanpooling projects tended to perform relatively well, below the median on most pollutants;
- Bicycle/pedestrian projects showed mixed/moderate results; and
- Telework, transit (including new service, price incentives, information, and amenities), and park-and-ride projects tended to perform relatively poorly, above the median on most pollutants evaluated. This is due in large part to the high cost of implementing these types of projects.

It is important to note that improvements in air quality are only one category of benefit associated with TDM projects. Other benefits such as traveler savings

and improved mobility must also be considered when determining the cost effectiveness of various TDM strategies.

While these environmental benefits of TDM strategies are based on a review of programs across the nation, they are indicative of what may be achieved in Alexandria, particularly through the synergy of the local TDM program and the City's flagship environmental initiative, Eco-City Alexandria.

1.3 TDM PLAN BACKGROUND AND PURPOSE

As part of the City of Alexandria Department of Transportation & Environmental Services (T&ES), the Transportation Planning Division and its designated TDM program, Local Motion, sought external assistance to evaluate and prioritize its current, intermediate, and future program activities and to document these activities in a Long-Range Transportation Demand Management (TDM) Plan. In addition to serving as an internal management/operational plan for the program, this Long-Range Plan will fulfill the TDM Plan requirement established by the Virginia Department of Rail and Public Transportation (DRPT). Since 2009, DRPT has required all agencies receiving State TDM grant funds to prepare, adopt, and submit a Long-Range TDM Plan that details the programs currently provided, outlines potential improvements, and illustrates the financial resources necessary to implement these improvements. This document establishes the scope and benefits of the Local Motion program and acts as the basis for DRPT to incorporate the program into all relevant State transportation plans and future funding decisions.

Local Motion is tasked to deliver a program of forward-looking TDM services that is responsive to its major stakeholders and demonstrates success relative to program goals, objectives, and financial constraints. Its success rests on its ability to make concrete contributions to the City's and region's top priorities, including congestion, air quality, single occupancy vehicle (SOV) usage, and mobility-related concerns. Core activities aimed to shift SOV drivers to alternative modes have been ongoing throughout this TDM program's existence. However, a comprehensive long-term blueprint that articulates and measures the effects of these ongoing activities— and potentially new services—has not been developed since the program's inception. Moreover, future trends including the aging of the population, a keener sensitivity to the environment and quality of life issues, a potential reoccurrence of spikes in gas prices (as occurred in 2008), and more generous possibilities for workers to engage in telework all provide the necessary impetus for TDM programs, including Local Motion, to continually examine their relevance in the local and regional context and to refine their strategies and efforts in accordance with changes in real world circumstances and stakeholder needs.

The process of developing the Long-Range TDM Plan provides an opportunity for Local Motion to take a far-reaching and introspective view of its current base of TDM services and to evaluate the cost, needs, and outcomes from these services from a strategic planning perspective. Plan development includes the formulation of a clearly defined overarching mission and vision statement that is supported by goals, objectives, and strategies to guide existing and future program activities. The performance of these activities rests on the guiding assumption that a quantifiable and results-driven TDM program can achieve greater transparency to its stakeholders, provide a clearer linkage to related City strategies and initiatives, strengthen its role as a significant player within an integrated approach between land use and transportation, and offer a better return on investment to its Federal, State, and local funding partners by prioritizing activities with the strongest potential to affect behavioral change in the traveling public. The outcomes from this self-evaluation process culminate in a Long-Range Transportation Plan document to serve as a roadmap for the future of the TDM program in the City of Alexandria.

In comparison with other Long-Range TDM Plans developed for other TDM agencies throughout the Commonwealth of Virginia, the Local Motion Plan is intended to be more comprehensive in scope (e.g., through the addition of a marketing chapter and results from a web-based survey to gauge the attitudes and perceptions of residents and employees), while being inclusive of opportunities for public outreach and comment, and specifically tailored to address specific attributes and challenges faced by the City of Alexandria and its TDM program. A notable example of a unique near-term challenge concerns the provision of alternative travel options to about 6,400 future employees at the BRAC 133- Mark Center site to meet a far-reaching City goal to reduce SOV trips at the site by 40 percent. BRAC-133 presents an unparalleled opportunity for the TDM program to work collaboratively with other City partners—including the on-site BRAC TDM/TMP Coordinator, Virginia Department of Transportation (VDOT), interested residents, employers, employees, and other stakeholders—to develop transportation solutions that elevate the role of transit and TDM.

The Local Motion Long-Range TDM Plan will fulfill the needs of several internal and external program stakeholders, including: the Transportation Planning Division; other City of Alexandria departments, oversight bodies and decision-makers (including the City Council and the Transportation Commission); City residents; employers and their employees (including City employees); the Metropolitan Washington Council of Governments (MWCOG); the Virginia Department of Rail and Public Transportation (DRPT); and the Virginia Department of Transportation (VDOT). In addition, the Plan will tie into other already developed City of Alexandria plans, including the newly adopted Eco-City Plan, the Transportation Master Plan and the City of Alexandria 2010-2015 Strategic Plan, which contain a transit-supportive, multimodal vision of mobility within the City. It is also the intent of the Long-Range TDM Plan to be broad enough to support future City initiatives and goals, including those centered on the local economy, quality of life, and environment.

This document will serve as Local Motion's long-range operational plan for 2011 through 2036, with activities and financial resources outlined for three distinct time frames: short-term (one to six years), mid-term (seven to 15 years), and long-term (16 to 25 years). It builds upon the TDM program's past successes and strengths, future challenges, and opportunities in the context of existing and planned transportation infrastructure, demographic and commuting patterns, City plans and policies, and external factors that will likely impact the landscape for TDM activities (e.g., potential volatility in gas prices, advances in technology and its influence on ridesharing behavior, etc). This Plan outlines a strategic framework (goals and objectives) for Local Motion, as well as program enhancements and financial resources that will be necessary to retain and improve the program's relevance to its key customers and stakeholders. The purpose of the Plan is to expand upon preliminary TDM needs and future strategies identified in the City of Alexandria Comprehensive Transportation Master Plan and to help the City continue to integrate its land use and transportation planning efforts. The Plan establishes program performance measures that will assist Local Motion, the Alexandria City Council, and others in evaluating the effectiveness of TDM efforts and allocating future funding effectively.

1.4 PUBLIC INVOLVEMENT

This Plan presents a "bottom up" approach to identifying City residents', employees', businesses', and other stakeholders' vision for the future of Alexandria's transportation system and TDM services. The Plan was developed through extensive review of City, regional, and State documents; interviews with City staff, civic associations, employers, advocacy groups, and other stakeholders; and an online survey of Alexandria residents' and employees' travel behavior, needs, and preferences. Development of the Plan was led by Local Motion staff with guidance and oversight by members of the Transportation Commission and DRPT. The Plan incorporates relevant information from existing Local Motion and Alexandria planning documents and is consistent with long-range plans prepared by the City of Alexandria, the Metropolitan Washington Council of Governments (MWCOG), the Virginia Department of Transportation (VDOT), and DRPT.

1.5 ACKNOWLEDGEMENTS

The City of Alexandria would like to acknowledge the members of the Alexandria Transportation Commission TDM Plan Sub-committee - Donna Fossum (Transportation Commission), Kevin Posey (Traffic and Parking Board), and Jennifer Mitchell (Citizen Representative) – for assisting in the development of this Plan. In addition, the City would like to thank the Alexandria Federation of Civic Associations, Alexandria Chamber of Commerce, and Alexandria City

staff for their input, review, and assistance distributing the TDM web-based survey.

2.0 Overview of Local Motion

2.1 HISTORY OF THE PROGRAM

The City of Alexandria has been at the forefront of Transportation Demand Management (TDM) efforts in the Commonwealth of Virginia for approximately 25 years. Alexandria was among the first local government members of the regional Commuter Connections TDM program operated by the Metropolitan Washington Council of Governments (MWCOG) and continues to be an active member of this network. As the key TDM program in the region, Commuter Connections is a significant component of MWCOG's strategy to improve air quality in the Washington DC-MD-VA Region, so that the region continues to meet Federal requirements for reducing fine particles ($PM_{2.5}$). In March 2008, the Metropolitan Washington Air Quality Committee (MWAQC) has approved a new air quality plan to reduce fine particle pollution in the region. This plan goes beyond Clean Air Act requirements in an effort to gain further reductions in fine particle pollution. In its approved November 2008 *National Capital Region Climate Report*, MWCOG voluntarily adopted stringent goals for reducing the region's greenhouse gas emissions by proposing to return to 2005 levels of regional greenhouse gas emissions by 2012.[1] In its recently revised 2010-2015 Strategic Plan, the City of Alexandria adopted this regional goal as its own, and spells out initiatives to achieve Citywide emissions reductions.[2]

While the regional Commuter Connections program under COG provides an umbrella of regional awareness and marketing services related to improved air quality and reduced automobile emissions that cut across its member jurisdictions, the City of Alexandria's designated local program—Local Motion—exists, first and foremost, to serve the businesses and residents of Alexandria and to support the City in achieving its goals for mobility, air quality, and reduction of single-occupancy vehicle usage. Since its inception, Local Motion has grown and evolved to meet the changing transportation needs and challenges facing the City.

Beginning in the mid-1980s, the program was initiated through the first rideshare grant provided by the Virginia Department of Transportation (VDOT). Its immediate focus was to provide carpool and vanpool ridematching services. It was not until a few years later that TDM's role in the Alexandria community was

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[1] The mid-range goal reflects a reduction of 20 percent below the 2005 levels by 2020, while the long-term goal reflects a reduction of 80 percent below 2005 levels by 2050.

[2] Alexandria City Council Strategic Plan; adopted September 2004 and revised June 2010.

considerably augmented through a newly constituted, and much more direct, connection between land use (i.e., new development) and mitigation of related traffic impacts through a variety of TDM strategies. This linkage between land use and transportation planning was made concrete by a zoning ordinance passed by the City Council in May 1987, known as the Transportation Management Plan (TMP) - Special Use Permit ordinance. From that time to the present, TMPs remain a unique and enduring tool to fund, develop, and administer alternative transportation strategies at approximately 50 sites throughout the city (with an additional 20 TMPs approved, but not yet active). As micro-area plans that successfully integrate transportation demand with specific peak period single occupancy vehicle (SOV) trip reduction goals, TMPs require developers and subsequent building tenants to fund and participate in site-specific TDM programs. These TMP funds are established to finance transportation strategies that may include incentivizing transit use (offering transit subsidies), providing disincentives to those commuters who drive alone (market rate parking fees), providing additional funding for shuttle bus service, registration fees for car sharing, bus shelter construction and maintenance, bicycle lockers and parking facilities for carpoolers/vanpoolers, and limited marketing and administrative costs of the program. Since the program's inception, the TMP ordinance had undergone its first major update in December 2010, which is discussed in more detail in a later section.

In addition to administration of TMPs for certain office, retail, industrial, and residential uses and traditional ridematching functions, the early activities of Alexandria's TDM program were focused on employer incentives. These incentives were supported by external consultants and funded by Federal Congestion Mitigation and Air Quality (CMAQ) funds, which are administered by the Virginia Department of Transportation (VDOT). This program, named Transportation Emission Reduction Measures (TERMs) still remains the core of Local Motion's services, and centers on outreach services provided to private sector employers with more than 100 employees to help them voluntarily implement alternative commute (trip reduction) programs.

In recent years, the program has garnered greater visibility with the Alexandria community and other population segments, including visitors and residents. The opening of the Old Town Transit Shop in 2002 to serve residents, employees, and visitors alike illustrates this broader external orientation. Increasingly, the TDM program has marked its presence during community events and specifically tailored transportation fairs, which generally draw large concentrations of people and allow broad distribution of promotional media while providing encouragement for alternative modes with small incentives (e.g., grab bags, specially designed totes, pens, writing pads, SmartTrip cards, etc). By 2007, the former AlexRide program had changed its name to *Local Motion* to underscore its commitment to increased mobility options across all modes of transportation in the Alexandria community. The reinvigorated program had increased service offerings, greater visibility with the public, and became more cemented as a valued municipal service (similar to other City programs) relative

to its predecessor, AlexRide. By that time, the popularity of alternative modes of transportation, principally bicycling, was increasing due to improved on-street amenities (e.g., addition of bicycle racks), and increased connectivity and safety.

As of this report, Local Motion touts several TDM service offerings for the City's residents, employers, and their employees, including:

- Engaging local employers in TDM issues through outreach, commuter challenges, and incentives;
- Distribution of information on alternative modes and TDM resources to residents on the Local Motion website (http://alexandriava.gov/localmotion/);
- Distribution of transit information, sale of transit passes, and personalized travel assistance to residents and tourists in its Old Town Transit Shop;
- Administration of transit subsidies for the City's employees;
- Custom, personalized travel assistance by phone;
- Technical support for residents using the Commuter Connection online database to sign up for programs such as ridesharing and Guaranteed Ride Home;
- Site plan review for potential TDM impacts and related coordination of approximately 50 approved Transportation Management Plans (TMPs) throughout the City;
- Maintaining an active public presence by hosting and participating in City community and employer events;
- Supporting and promoting key regional TDM efforts such as *Bike to Work Day* and statewide efforts such as *Try Transit Week*;
- Supporting private partners such as Zipcar and offering financial incentives for residents and businesses to employ carsharing strategies;
- Coordinating with other City Departments (e.g., Planning and Zoning, Office of Transit Service, Office of Environmental Services) and cross-City initiatives, such as Eco-City Alexandria, to link TDM efforts with related City policies, strategies, and efforts.

Going forward, Local Motion will continue to explore new and expanded services to meet the transportation needs of Alexandria businesses and residents and to maintain the City of Alexandria as a high quality place to live and work.

Figure 2.1 shows some historic milestones in the program's history from the 1980s to the present.

Figure 2.1 Historical Timeline of TDM-Related Activities in Alexandria

Early 1980s

Alexandria becomes one of the first local government members of the Metropolitan Washington Council of Governments' (MWCOG) Commuter Connections program (then known as the RideFinders Network). The City begins providing some part-time ridesharing services for residents and employees.

1985

The City's first formal TDM program is established. The program initially has two full-time staff members – administrative assistant and program coordinator – and provides only carpool/vanpool ridematching services.

1987

The Transportation Management Special Use Permits ordinance requiring creation of Transportation Management Plans (TMPs) for large and mixed-use developments is enacted by City Council to offset traffic impacts of new development.

1990s

The Alexandria Employer Services program is started, utilizing Federal Congestion Mitigation and Air Quality (CMAQ) funds and grants from other sources. The program is operated with consultant support.

1996

MWCOG's RideFinder's Network changes its name to Commuter Connections. By this time, services provided by the Alexandria TDM program and Commuter Connections have grown to include transit route and schedule information, a regional Guaranteed Ride Home program, bicycle to work information, park-and-ride lot and HOV lane information, telecommute and telework program assistance, and commuter information services through

2002

The Old Town Transit Store is opened near the King Street Metrorail station to provide transportation information and transit fare media sales. Management of the Old Town Transit Store is transferred from the City of Alexandria to DASH Transit in 2002.

2006

The City has prepared 54 TMPs for developments throughout the City.

2007

The City of Alexandria partners with Virginia Tech's Department of Urban Affairs and Planning to design and facilitate a new, strategic collaborative planning process, called Eco-City Alexandria, to create an Eco-City Charter and Environmental Action Plan to guide Alexandria toward sustainability.

2008

-AlexRide is renamed "Local Motion" to reflect the expanding range of services that the program provides. A new Local Motion website is launched. The City of Alexandria is ranked 30th of America's 50 Greenest Cities in a survey conducted by *Popular Science* Magazine and is named by *Prevention* Magazine as the Best Walking City in Virginia.

2009

-NuRide, employee rewards incentive program, is launched. Almost 400 employers are now signed up as partners. Alexandria is named a Bicycle-Friendly Community (Bronze Level) by the League of American Bicyclists, achieves Platinum Certification in the Virginia Municipal League's Go Green Government Challenge, and receives the Green Innovation Award from the Virginia Sustainable Building Network.

2.2 GOVERNANCE AND ORGANIZATIONAL STRUCTURE

The Local Motion program has a unique governance structure among other TDM agencies in the Commonwealth of Virginia. It operates as one of many municipal programs in the City of Alexandria, whose activities are overseen by a council-manager form of city government. This form of governance centralizes legislative authority and responsibility in the elected City Council. Meanwhile, administrative authority and responsibility rests with the City Manager. As a program that relies both on local and non-local sources of funding (i.e. state and federal grant programs) to expand its activities or programming, Local Motion must obtain City Council approval for the expenditure of any local funds that serve as a match for state or federal funding. By the act of a formal resolution, the City Council must approve project funding requests and authorize the City Manager to act on the City's behalf by applying for grants and entering into grantor/grantee agreements (typically with a state agency, such as the Department of Rail and Public Transportation or the Virginia Department of Transportation) for the purposes of grant execution. The City Council is similarly involved in program funding requests that have no local match requirement (hence, impact to the City's finances) as in the case of Congestion Management and Air Quality (CMAQ) program and Regional Surface Transportation Program (RSTP) funding.

Under Alexandria's charter, the City Council has other powers which can affect the way Local Motion operates as a municipal program. Specifically, the City Council can: determine the needs to be addressed and the service to be provided by the administrative branch of the City government; determine policy in the fields of planning, traffic, finance, etc.; establish administrative departments, offices, and agencies; inquire into the conduct of any office, department, or agency of the City and make investigations; and provide for an independent audit.[3]

Whereas program/project approval and funding decisions involve the City Council and City Manager at the highest level of Alexandria's government, the independent Transportation Commission plays a significant role in vetting and prioritizing transportation (including TDM-related) projects/activities proposed by staff before they are finally considered by the City Council. The Transportation Commission solicits public input in the process of making its recommendations, and ensures that all projects are aligned with the City's adopted Comprehensive Transportation Master Plan and support the plan's multi-modal transportation vision.

[3] *Know Your City: A Citizen's Guide to Alexandria*

The day-to-day program operation and administration of Local Motion falls under the newly created Division of Transportation Planning, which also includes related functions such as Bicycle and Pedestrian Planning, Parking Planning, Transportation Management Program (TMP) Coordination and Administration, and oversight and coordination with the Old Town Transit Shop, which is operated and staffed on a contractual basis by the independent Alexandria Transit Company (ATC).[4]

Table 2.1 describes the position and duties of each staff affiliated with the Local Motion program. Using a very broad estimate, there are a total of 11 staff whose responsibilities contribute to, or complement, Local Motion's TDM efforts. On a Full-time Equivalent (FTE) basis, this equates to about 7.5 FTEs. For example, the Transportation Planning Division Chief, Parking Coordinator, and Bicycle Coordinator provide oversight or ancillary services that benefit the program (in addition to their other duties). Meanwhile, three "core" staff are devoted to the program full-time, including the TDM Coordinator, the Employer Benefits Coordinator, and the TMP Coordinator, who is involved in administering the City's site-specific TMP program. In addition to City staff, Local Motion also employs consultant assistance for about 28.5 hours weekly (less than one FTE) to administer its Employer Outreach program, which comprises roughly 16 percent of total staff time (split between the consultant and Local Motion staff).

Table 2.1 Local Motion (and Affiliated) Staff Descriptions

FTE*	Position Title	Role/ Description of Duties
0.3	Transportation Planning Division Chief	Performs management/ administration functions for the Division, including overseeing TDM program staff; conducts program evaluation of activities; engages in community outreach
0.3	Office of Transit Services Division Chief	Oversees Office of Transit Services, which coordinates Metro-related services, Alexandria DASH bus service, DOT paratransit, VRE commuter rail, bus stop amenities, etc; coordinates with regional bodies; performs transit planning activities.
1	Transit Specialist/ TDM Coordinator	Oversees TDM management activities, including consultants; prepares grants and funding applications (e.g., DRPT and CMAQ); performs marketing and promotion tasks; represents Local Motion at local, regional, and state meetings and events; provides staffing at community and employer outreach events and fairs.
1	Transit Services Assistant/ Employer Benefits Coordinator	Provides administrative support and staffs program events; responds to phone information requests; prepares matchlists; redeems SmartBenefits transit vouchers; manages rideshare data; prepares program reports.
1	Transit Planner/	Administers the City's Transportation Management Program (TMP);

[4] The Alexandria Transit Company (ATC) operates the City's municipal bus service, DASH.

	Transportation Management Plan (TMP) Coordinator	collaborates with on-site TMP Coordinators throughout the City; offers technical assistance to TMP Coordinators with program administration; collects and reviews Semi-Annual TMP Fund Reports and Annual Surveys for each TMP property; compiles mode share trends by TMP property.
0.8	Parking Coordinator	Performs variety of planning, coordination, and outreach functions related to the City's parking infrastructure.
0.8	Bike and Pedestrian Coordinator	Performs variety of planning, coordination, and outreach functions related to the City's bicycle and pedestrian infrastructure.
0.5	Transportation Planner	Performs a variety of transit and TDM projects, ranging from development of transit amenities to assistance with site plan reviews and transit operations planning; plays role in evaluation and improvements of City's transit and TDM system.
0.4	Old Town Transit Shop Manager	Manages and oversees operations of the Old Town Transit Shop, which distributes region-wide transit information to residents, and visitors, and sells transit fare media (including bus, commuter rail, and Metrorail passes); performs marketing/ advertising functions for the shop.
0.4	Old Town Transit Shop Associate I	Staffs the Old Town Shop; fulfills information requests; sells fare media; engages in marketing and advertising activities.
0.4	Old Town Transit Shop Associate II	Staffs the Old Town Shop; fulfills information requests; sells fare media; engages in marketing and advertising activities.
0.7	Consultant Assistance	Manages Employer Outreach contract; promotes alternative modes to employers in the City with over 100 employees; reports performance data to VDOT.
7.5	**TOTAL FTEs**	

Source: Local Motion

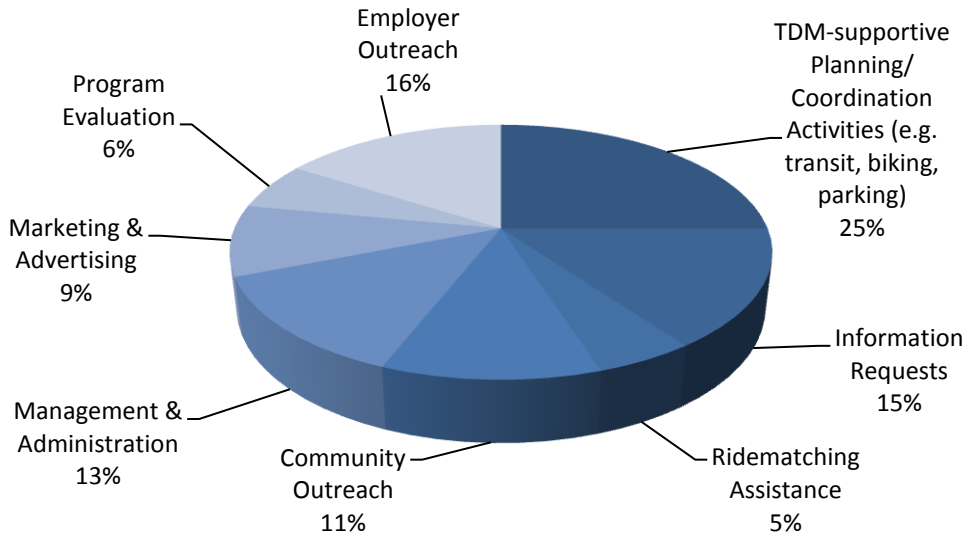
Note: *Percentages of Full-time equivalent (FTE) staff are calculated by dividing the number of weekly hours spent by each staff person on Local Motion activities by total weekly hours (i.e. 40 hours).

Figure 2.2 contains a rough approximation of percentage of staff time devoted to core functions by each position. These core functions have been grouped into eight broad categories for the purpose of providing a snapshot of how program resources are currently allocated. These categories are as follows:

- Fulfilling information requests (15 percent of staff time);
- Ridematching assistance (5 percent);
- Employer outreach (16 percent);
- Community outreach (11 percent);
- Program evaluation (6 percent);
- Marketing and advertising (9 percent);
- Management and administration (13 percent);
- TDM-supportive planning/coordination activities (25 percent).

The lowest and highest percentages, as illustrated by Figure 2.2, are ridematching assistance and TDM-supportive planning/coordination activities, respectively. This is not surprising given that Local Motion leverages the core rideshare infrastructure (i.e. the regional database) provided through the Metropolitan Washington Council of Governments (MWCOG) Commuter Connections program. Since this rideshare application allows direct access by users, Local Motion's role is limited to support and technical assistance for those who experience difficulties with the registration process or Commuter Connections website. In contrast to ridematching, the high percentage of staff time expended on TDM-supportive planning activities is also anticipated given the close integration of multi-modal transportation planning (bicycle planning, pedestrian planning, etc., performed by other key staff) to Local Motion activities that effectively market and promote these multi-modal options. The expression of these promotional efforts, captured by employer and community outreach, also reflects a prominent share of Local Motion activities, approximately 27 percent. Local Motion's staff resources spent on marketing and advertising, as well as program evaluation, are limited in scale and account for less than 10 percent of total staff time.

Figure 2.2 Local Motion (and Affiliated) Staff Responsibilities by Function



Source: Local Motion

The entire Transportation Planning Division, consisting of Local Motion and related staff (as well as other staff that not affiliated with Local Motion), comprises one of eight divisions within the larger City Department of

Transportation & Environmental Services (T&ES).[5] The other Divisions within T&ES are: Administration, Construction and Inspection, Engineering and Design, Maintenance and Operations, Office of Environmental Quality, Solid Waste, and Office of Transit Services. Two divisions— the Office of Environmental Quality and the Office of Transit Services— perform complementary functions that support and enhance Local Motion activities. These two divisions have the strongest affinity with the goals of Local Motion, and are described in more detail in Section 2.4, *Stakeholders and Program Partners*.

2.3 PROGRAM ROLE IN ELEVATING STATE, REGIONAL, AND LOCAL GOALS

Commonwealth of Virginia Goals

One of the Virginia Secretary of Transportation's primary goals is to ensure that the State has a safe and efficient multimodal transportation system that supports economic growth and prosperity. The efficiency of such a system is made possible by moving more people in a fewer number of vehicles; moving travelers out of peak travel periods; or eliminating travel altogether, as in the case of teleworking. Growing congestion in the Commonwealth's more populous areas necessitates the use of alternatives to single occupancy vehicle (SOV) travel– such as transit, carpooling, vanpooling, walking, biking, and teleworking.

Virginia uses a well-developed approach of program partners at all levels—state, regional, and local agencies—to make significant impacts in this area. A 2010 Report to the Virginia General Assembly titled *How Virginia Is Using Transit and Transportation Demand Management Programs to Address Highway Congestion and Single Occupant Vehicle (SOV) Travel* identifies these program partners as:

- Virginia Department of Transportation (VDOT);
- State Office of Intermodal Planning and Investment;
- Department of Rail and Public Transportation (DRPT);
- Planning District Commissions (PDCs);
- Metropolitan Planning Organizations (MPOs);
- Transportation Management Associations (TMAs)
- 60 transit agencies;
- 18 Transportation Demand Management (TDM) agencies or local Commuter Services programs; and

[5] Prior to its transition into the Division of Transportation Planning, the Local Motion program was administered by the Office of Transit Services.

- A network of private companies, such as VPSI (national vanpool company), NuRide (national ridematching service through employers that use incentives) and participants in DRPT's Telework!VA program.

Under the current Governor Bob McDonnell and Secretary of Transportation Sean Connaughton, the Vision for Multimodal Transportation in Virginia in summarized as:

> *Virginia will have a coordinated system of roads, rails, ports, transit, bicycle, pedestrian and aviation resources that provides integrated and efficient options that meet citizen, visitor, and business transportation needs.*

The Local Motion program activities support this vision and influence its implementation at the local level. Specifically, the TDM program plays a key role in the collaborative partnership outlined above as one of the Commonwealth's 18 TDM programs. Local Motion provides services to one of Northern Virginia's core urban areas, the City of Alexandria. Its success is influenced by other key partners— such as the City's municipal transit system and regional transit systems, VDOT, DRPT, MWCOG, and others—who work to support this coordinated, people-centered vision of multiple transportation options.

Washington Metropolitan Region Goals

At the regional level, the Transportation Planning Board (TPB) of MWCOG also has goals and objectives that stress connectivity, reduced reliance on the automobile (particularly within the regional core and activity centers), and minimization of impacts on the environment. These are all goals that Local Motion addresses through its program and service offerings.

In addition, the Local Motion TDM program directly supports the comprehensive regional marketing campaign and services provided by MWCOG's Commuter Connections, which focus specifically on work travel. The Commuter Connections website advertises Local Motion on its website, including its brick-and-mortar commuting store known as the Old Town Transit Shop. MWCOG's program is part of a regional strategy to employ strategies to decrease vehicle emissions and support climate change goals, including bringing the area into Federal attainment by reducing greenhouse gas emissions to historical (2005) levels. The Local Motion program provides "on the ground" support to local efforts that directly buttress regional goals related to the decrease in single occupancy vehicle (SOV) use.

City of Alexandria Goals

The Local Motion program supports the vision of "*a transportation system that encourages the use of alternative modes of transportation, reducing dependence on the private automobile"* that underpins the 2008 Comprehensive Transportation Master Plan.

The program's local role strengthens and ties into the City's vision for the future, as envisioned by the City Council 2010-2015 Strategic Plan. Local Motion most clearly and directly supports *Goal # 3* of that Plan, which calls for:

> *"A multimodal transportation network that supports sustainable land use and provides internal mobility and regional connectivity for all Alexandrians."*

Under this goal, the program can respond to several objectives that include:

- "Promote strong linkages and coordination between transportation and coordination between transportation and land development" (underlying initiatives include development of appropriate parking policies and adoption of zoning ordinance changes to the TMP program);
- "Ensure safe and accessible travel for pedestrians, bicyclists, transit and motorists on Complete Streets with design and implementation that is context-sensitive"; and
- "Increase transit options for locally oriented and through trips emphasizing inter-jurisdictional coordination".

While the connection and relevance to Goal # 3 is obvious, the TDM program has the ability to positively impact other related goals. It has a particular resonance with Goal # 2, which focuses on improvements in environmental quality and reduction of greenhouse gas emission. The program can in fact support, advocate for, or directly contribute to a variety of initiatives under several, if not most goals. A sampling of these initiatives include:

- *Goal # 1: "Alexandria has quality development and redevelopment, support for local businesses and a strong, diverse and growing local economy."*
  - "Emphasize integration of transportation and land use, strengthening that integration where needed"("Support business recruitment, retention, and expansion by proactively determining and quickly implementing actions the City can take to enhance its competitiveness"
  - "Improve access, circulation and parking, making it easier and more pleasant for visitors to travel by all modes to the King Street/Waterfront area, locate their intended destination and parking options, and discover additional places of interest"
- *Goal # 2: "Alexandria respects, protects and enhances the health of its citizens and the quality of its natural environment."*
  - "Develop and implement a plan to support the achievement of Citywide greenhouse gas reductions to below 2005 levels"
  - "Develop a series of environmental benchmarks, indicators and performance measures for the City and community that quantifies progress towards sustainability"
  - "Increase community education and outreach efforts for Eco-City related activities focused on sustainability, such as energy and water

conservation, green buildings, Eco-City audit, behavioral changes, etc. and improve coordination across the City"

- "Increase access to safe walking and biking trails in the City"

- *Goal # 5: "Alexandria is financially sustainable, efficient, community-oriented and values its employees."*
  - "Diversify sources of revenues"
  - "Improve the effectiveness and efficiency of City programs and activities in achieving results that are valued by the public"
  - "Provide high quality City services that meet the needs of residents, businesses, and customers throughout the community"
- *Goal # 6: "Alexandria is financially sustainable, efficient, community-oriented and values its employees."*
  - "Create and plan for livable communities, accessible and affordable to persons of all ages and abilities, including strategies for enabling seniors and persons with disabilities to age or remain in place".

2.4 CURRENT PROGRAMS AND SERVICES

On its City-hosted website, Local Motion offers information about local transportation programs and resources, as well as useful travel tools and information about biking and walking, bus and rail service, and opportunities for rideshare in Alexandria.

The Local Motion website promotes alternative transportation programs and commuting choices for Alexandria residents and businesses, as well as visitors. The primary programs include:

- **Employer Services –** Local Motion staff participate in employer fairs, such as the widely attended fair at the Patent and Trademark Office (PTO) in the past year. Staff also make efforts to promote outreach with businesses through larger forums, such as the local Chamber of Commerce. In an effort to augment resources to fulfill the regional goals of voluntary employer implementation programs (known as Transportation Emission Reduction Measures, or TERMs), Local Motion employs an external Outreach Specialist to help businesses with more than 100 employees tailor programs specifically to the commute needs of their employees.

  As illustrated by Table 2.2, MWCOG recognizes four levels of participation by employers in transit/TDM programs. Level 1 (bronze) participants are expected to obtain a less than 1 percent reduction in employee trips, while Level 2 (silver) participants are expected to achieve a reduction of up to three percent without telework/compressed work schedules and up to nine percent with telework/compressed work schedules. Level 3 (gold) is expected to accomplish a two to five percent trip reduction without

telework/compressed work schedules and a five to 20 percent reduction with telework/compressed work schedules, while Level 4 (platinum) is expected to produce a two to eight percent trip reduction without telework/compressed work schedules and five to 30 percent with telework/compressed work schedules.

As of March 2010, the distribution of employers in the program by each level was as follows:

- Level 1 employers = 53
- Level 2 employers = 35
- Level 3 employers = 76
- Level 4 employers = 23

Table 2.2 Employer Services Participation Levels

Level	Strategy Type	Likely Range of Trip Reduction
Support Strategies	Express Interest and/or distributes/displays information on Air Quality Action Days	0%
	Employer provides information to conduct a density plot map	
	Employer promotes and organizes carsharing program	
Level 1-Bronze	Expresses interest in telework, transit benefits, Smart Benefits, or other TDM strategy	0% to 1%
	Conducts Commuter Survey	
	Distributes alternative commute info to employees	
	Posts alternative commute information, on employee bulletin board(s), intranet sites, newsletter or e-mail	
Level 2-Silver	**Implements two or more of the following strategies:**	0% to 3% without Telework/Compressed Work Schedules 0% to 9% with Telework/Compressed Work Schedules
	Installs a permanent display case or brochure holders and stock with alternative commute information	
	Provides preferential parking for carpools and vanpools	
	Implements a telework program with 1-20% of employees participating	
	Implements flex-time or staggered work schedule	
	Implements compressed work week for 1-20% of employees	
	Installs bicycle racks or lockers	
	Installs shower facilities for bicyclists and walkers	
	Establishes an Employee Transportation Coordinator (ETC) who	

	regularly provides alternative commute information to employees	
	Becomes a Commuter Connections member and provides on-site ridematching	
	Supplements GRH program with payment for additional trips or own program	
Level 3-Gold	**Implements at least one of the following (in addition to the two or more Level 2 strategies):**	2 %to 5% without financial incentive/disincentive Telework/Compressed Work Schedules 5% to 20% with financial incentive/disincentive, Telework/Compressed Work Schedules
	Implements a telework program with more than 20% of employees participating	
	Implements compressed work week for 21%+ of employees	
	Implements a transit/vanpool benefit, Smart Benefits, or parking "cash out" program	
	Implements a carpool/bicycle/walk/ financial benefit	
	Provides free or significantly reduced parking fee for carpools and vanpools (valid only for companies where employees pay for parking)	
	Implements a parking fee (valid only for companies that previously did not charge for parking)	
	Provides employee shuttle service to transit stations	
	Provides company vanpools for employees' commute to work	
	Implements a comprehensive Bicycle/Walking program (includes installation of showers, bicycle racks/lockers, and financial incentives for bicycling and/or walking)	
Level 4-Platinum	**Implements two or more of the Level 3 TDM programs (in addition to the two or more Level 2 strategies) and actively promotes these programs and alternative commuting.**	2% to 8% without financial incentive, Telework/Compressed Work Schedules 5% to 30% with financial incentive, Telework/Compressed Work Schedules

Source: Commuter Connections, 2008

- **Community Outreach** – Local Motion staff participates in several outreach events throughout the year to increase awareness of the program with the

local community and to encourage trial of alternative modes. A sample of those events in FY 2010 includes:

- Patent and Trademark Office (PTO) Employee Fair
- Department of Defense (DoD) Transportation Fair held at the Pentagon
- King Street Plaza TPM Transportation Fair
- 675 Washington Street TMP Fair
- Annual Bike to Work Day
- Delray Neighborhood New Resident Welcome Event
- Homeownership Fair
- NOVA Community Festival
- VRE/Lynchburg Event at Alexandria's Union Station

The program also promoted the Commonwealth's "Try Transit week" initiative, sponsored by the DRPT. Local Motion set an aggressive target to increase Transit Week pledges from 23 in 2009 to 205 in 2010.

- **Ridematching and Guaranteed Ride Home (GRH) –** Web-based ridematching services for carpools and vanpools among interested Alexandria residents, as well as the complementary Guaranteed Ride Home (GRH) program, are core commuter programs administered by MWCOG's Commuter Connections on behalf of its members, including City of Alexandria residents. The goal of GRH is to remove barriers for persons who would otherwise carpool or vanpool by allowing them a restricted number of free rides home, should unpredictable circumstances occur. In other words, GRH functions as a kind of insurance policy for vanpoolers and carpoolers. Upon request, users of these two complementary programs obtain technical assistance from Local Motion staff on the use of the ridematching software or registration process.
- **Outreach and Communications –** The Local Motion website offers materials for employers, their employees, and residents to educate them about their transportation options in the City and region. Employers can obtain employer kits, educational pamphlets/brochures, transportation system maps to include in new employee orientation packets, meeting materials, and Local Motion displays for work events. Residents can also benefit from a variety of multi-modal information about their travel options, as well as numerous resources and tools included on the website. Anyone can sign up to receive a Transportation Alternatives e-newsletter and an RSS feed for important announcements.
- **Carshare Alexandria -** As a benefit to residents and business in Alexandria, the City provides a monetary incentive for using this program as a replacement for car ownership. Zipcar provides a network of vehicles throughout the region (including Alexandria) in a number of accessible

locations for residents or employees that only need a car for a limited amount of time. For residents, the City provides the initial application fee and the first year of membership. Businesses receive up to $50.00 from the City for company membership fees and half of each employee's membership fee. Businesses can benefit from carsharing by reducing taxi or fleet expenses. Participants in the program are surveyed nine months after joining to gauge the impacts on travel behavior and car ownership. Summary findings indicate that non-single occupancy vehicle (non-SOV) travel goes up and vehicle ownership goes down.

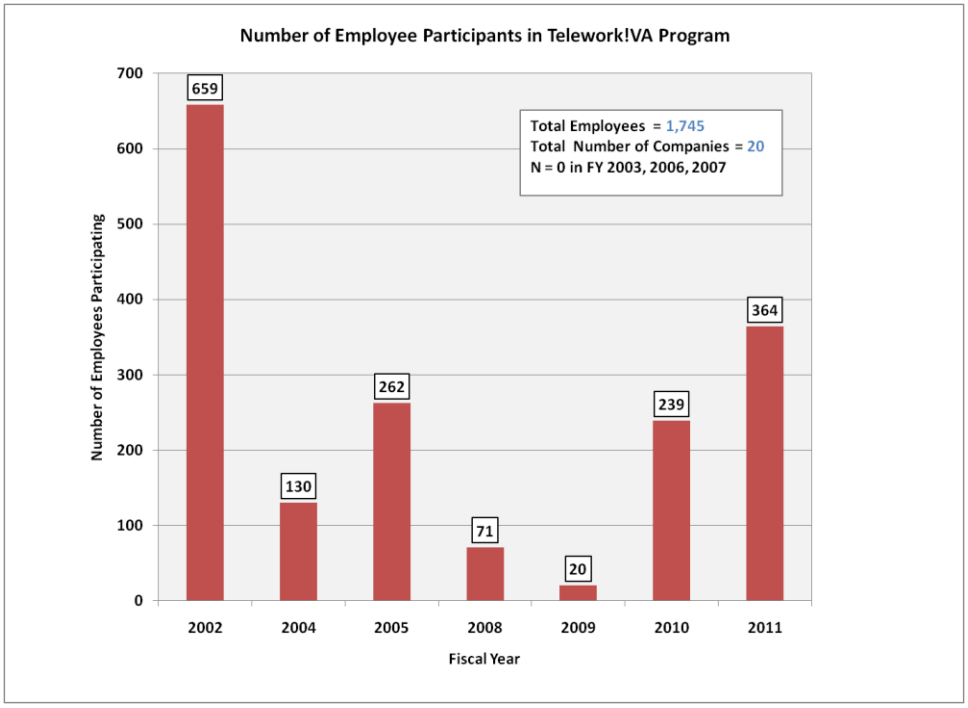
- **Financial incentives/ subsidies** -- Other employee services promoted by Local Motion and the employer services program include SmartBenefits, which allows employers to subsidize alternative transportation options for their employees, specifically on transit services provided by WMATA. As a large employer, the City of Alexandria also offers transit subsidies for its employees. In FY 2009, a total of 213 employees (around 8 percent of the City's workforce) participated in this program. In FY 2010, a total of 261 employees participated (almost 10 percent of all employees). Finally, in FY 2011, a lesser number – 215 employees (or 8 percent)—participated.

- **Telework!VA --** This program is administered by the Virginia Department of Rail and Public Transportation (DRPT), although Local Motion also promotes it at the local level. Telework!VA provides financial assistance to Virginia companies wanting to establish or expand a telework program. The program goal is to provide opportunities for businesses to increase the number of teleworkers for their worksite. Through Telework!VA, businesses may qualify for up to $35,000 in reimbursements for various expenses, including:

  - Equipment leases
  - Telework center space
  - Technical assistance toward program development and equipment installation
  - Training for teleworkers, non-teleworkers, and management

  Figure 2.3 illustrates the number of Alexandria employees participating in the Telework!VA program from FY 2002 to FY 2011. For this time period, 20 companies and 1,745 employees participated in the program. It should be noted that, while this is a very small share of total employees in the City, the program presents an opportunity for Local Motion to leverage its resources. Local Motion can complementing the free technical assistance supplied by the program by providing the Telework!VA consultant responsible for operating the program with generated leads from its employer outreach efforts.

Figure 2.3 Telework!VA Program Participants in Alexandria (FY 2002-2011)



Source: DRPT Telwork!VA Program Manager

- **Local Motion Ambassadors** – While this program is still advertised as an ongoing program of Local Motion, it may not be continued in the future. It served as a pilot program using a CMAQ rideshare enhancements grant to develop a volunteer group of transportation enthusiasts to provide public outreach, information and support to individuals seeking to learn about, and potentially transition to, alternative commute choices. Ambassadors can represent the City at festivals and transportation fairs, host a Local Motion display in their community or at their workplace, write articles, or speak on behalf of Local Motion during events. To engage volunteers in the past, Local Motion partnered with the Washington Area Bicyclist Association (WABA) to recruit ten middle school students and speak at local events to promote bicycle travel.
- **Pool Rewards - Cash for Carpools**- The Pool Rewards program encourages commuters to carpool by offering monetary incentives. Participants can earn $2 ($1 each way) for each day they carpool to work over a consecutive 90-day period, up to a maximum of $130. Each new carpool must commute to work an average of two or more weekdays for the duration of the 90-day program. This service is part of the Commuter Connections program, run by the Metropolitan Washington Council of Governments, but Local Motion promotes the program to encourage Alexandria residents to participate.

- **NuRide Reward Program** - The free NuRide program offers incentives and rewards to commuters who walk, bike, telecommute, carpool, vanpool, take a subway, train, bus, or work a compressed week. Participants track the savings they accumulate by taking greener trips and then turn them in for rewards, such as restaurant gift certificates. The amount a person can earn depends on the trips they take and the rewards they select. Rewards are provided by local and national sponsors and vary based on where people live and travel. Active NuRide members typically redeem around $300 a year in rewards. This is an independent service, but Local Motion promotes it as a way to incent Alexandria residents to use transit and rideshare options.
- **Information Assistance and Transit Media Sales -- Old Town Transit Shop** The Old Town Transit Shop is open Monday-Friday from 7:00am – 7:00pm and sells transit passes, tokens, and SmarTrip Cards. The store also provides bus and commuter rail schedules for all of the transit providers that serve Alexandria and neighboring areas. This shop is supported by a grant from the Virginia Department of Rail and Public Transportation (DRPT) and is managed by a contract with the Alexandria Transit Company (ATC), which operates the City's DASH bus system. The Division of Transportation Planning and its Local Motion program provide oversight and coordination activities over the Old Town Transit Shop. Local Motion advertises the Old Town Shop through its website, although the shop is currently located in a rather low visibility site across the King Street Metro Station.

  Figure 2.4 and 2.5 shows available historical data for the Old Town Shop.

Figure 2.4 Old Town Transit Shop Historical Fare Sales Data

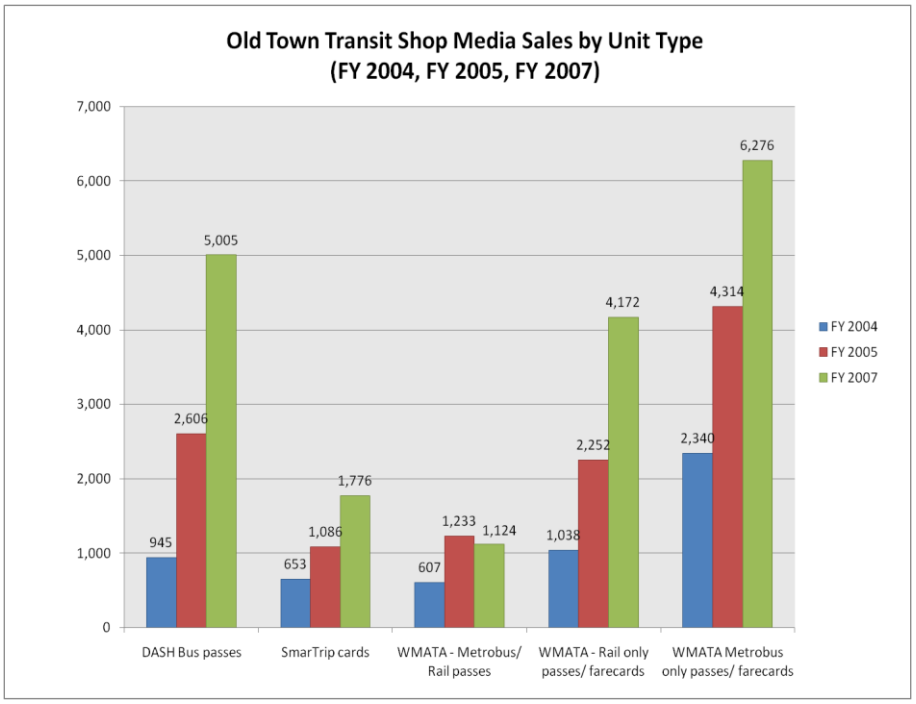
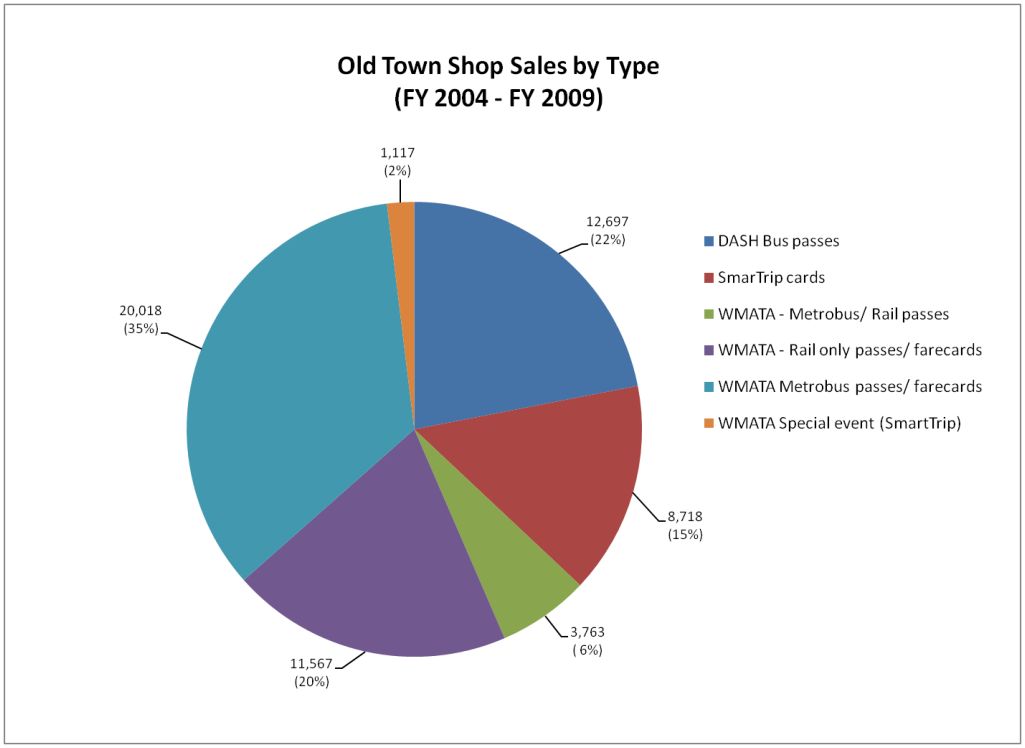


Figure 2.5 Old Town Shop Sales by Type (FY 2004- FY 2009)



Other TDM-Supportive Programs

- **Transportation Management Plans (TMPs) –** These plans are part of the City of Alexandria Zoning Ordinance and are required for residential, business, office, mixed-use, and retail buildings of a certain size and, hence, more severe traffic impacts. The purpose of these plans is to address the problem of congestion associated by managing the transportation demand of a given development. The program requires development projects of a certain size to fund a TMP that includes programming to incentivize transit and to provide disincentives to those commuters who drive alone.

2.5 STAKEHOLDERS AND PROGRAM PARTNERS

A variety of public and private stakeholders that serve as beneficiaries, service delivery partners, or funders for the program have expectations that the services provided by the Local Motion program are consistent, easy to understand, and feasible. They perceive the program as a way to increase mobility, decrease congestion, and as another way to save time and money by utilizing alternatives to SOV driving — and expect that their needs will be fulfilled in a timely and professional manner. Several stakeholder expect measurable results that clearly demonstrate that the program's goals and objectives are being met.

Core Markets/ Beneficiaries

- **Employers/ Employees –** As stated on its website, "The Local Motion program exists first and foremost to serve the businesses and residents of Alexandria." The Employer Services program was established to support and inform employers of the benefits of TDM programs for their employees. Local Motion obtains consultant assistance to perform employer outreach and maintain a database of all the employers in the City, as well as their levels of participation in a transit/TDM program. As a large employer in its own right, the City of Alexandria encourages its own employees to use transit through the offer of transit incentives.
- **Residents --** Residents in the City of Alexandria are a key beneficiary of transit and TDM programs and continue to be updated on programs through the Local Motion website and the e-Alert subscription service. Residents also interface with the program during community events, such as fairs and special regional events (e.g., Bike to Work Day). Residents can also visit the Old Town Transit Store in order to obtain fare media and request travel-related information. Residents in buildings that are covered by the Transportation Management Plan (TMP) Zoning Ordinance typically receive products and services provided by Local Motion (including on-site assistance) through their designated on-site TMP Coordinators. The numerous citizen and community associations throughout the City can serve as effective distribution channels to advertise the program among their members.
- **Transportation Management Program (TMP) Tenants –** There are about 50 existing— as well as 20 approved— residential, business, office, mixed-use, and retail developments throughout the City which are governed by the City's TMP Zoning Ordinance due to their size and anticipated traffic impacts. Resident or employer tenants in those designated sites are required to fund and implement various TDM strategies to reduce peak period SOV trips.
- **Visitors** – Visitors can receive information generated by the Local Motion program through the City's main website and Local Motion's home page. Many visitors stop by the Old Town Transit Shop to obtain assistance.

City of Alexandria

- **Local Decision Makers and Oversight Bodies** -- As a program of the City which obtains local funding to support its staff and operations, the Local Motion program is accountable to its ultimate decision-making body, the Alexandria City Council. Similar to other transportation initiatives, new and proposed Local Motion projects and efforts are overseen by the independent Transportation Commission.
- **Related City Departments and Functional Areas** – The Office of Transit Services and the Office of the Environment within the Department of

Transportation and Environmental Services (T&ES), as well as the Department of Planning and Zoning (P&Z), perform planning activities that support a direct role for TDM strategies. Key examples include Air Quality Action Days, site plan reviews for traffic impacts, planning for expanded transit services, etc.

- **Eco-City Alexandria** – The City's flagship initiative, Eco-City, has a very strong synergy with the goals of Local Motion, since both programs aim to improve environmental outcomes from transportation. The Eco-City initiative originated through a partnership between the City of Alexandria and Virginia Tech's Department of Urban Affairs and Planning to jointly plan for the economic and environmental future of the City. This partnership culminated in the Environmental Action Plan (EAP) 2030, which provides the framework and supporting strategies to address the challenges of climate change in Alexandria. One of the strategies for reducing carbon relies on the reduction of single occupancy vehicles (SOV) and the increased use of different modes of transportation, such as bicycle and pedestrian networks, and public transit. One of the 2020 goals for the EAP is to "Increase the number of commuters who use public transportation by 25%..." The actions for achieving this goal include the implementation of TDM concepts and programs, which are aligned with the activities of Local Motion.

Service Delivery Partners

- **Local and Regional Public Transit Providers –** The Washington Metropolitan Area Transit Authority (WMATA), DASH, and the King Street Trolley are the key public transportation entities in the City of Alexandria.
  - WMATA provides rail, bus, and paratransit services regionally and provides oversight for funding, operating, and expanding the transit facilities. Environmental planning documents are currently underway to evaluate a potential new Metrorail station in the Potomac Yard area of the City. The Mayor of Alexandria serves as an Alternate Director of the Metro Board.
  - The DASH system provides bus service within the City of Alexandria and connects with Metrobus, Metrorail, VRE, and other local bus systems. DASH serves all of the Alexandria Metrorail stations and the Pentagon Metrorail station during morning and evening peak periods. Service expansions of DASH system routes are anticipated to play a significant role mobility solutions related to BRAC-133. DASH also plays a key role in the operations of the brick-and-mortar Old Town Transit Store, which assists in information requests and sales of fare media.
  - The King Street Trolley is a free service that transports residents, visitors, and those who work in Old Town, between the King Street Metrorail Station and the Potomac River waterfront. There are currently plans to expand service into the Del Ray neighborhood of the City.

- **Regional TDM Programs --** As a program of the National Capital Region Transportation Planning Board (TPB) coordinated by the Metropolitan Washington Council of Governments (MWCOG), Commuter Connections is a regional network of member transportation organizations that includes the City of Alexandria and its Local Motion program, among many others. Commuter Connections promotes and advertises rideshare/TDM programs in Maryland, Virginia, and the District of Columbia on its website, including information of infrastructure components that support these programs, such as park-and-ride locations, HOV facilities, transit facilities, and transit stores.

  Commuter Connections also provides information on a variety of commuter programs (Guaranteed Ride Home, ridesharing, transit, teleworking, transit, bicycling/walking), employer programs (computerized ridematching for carpools/vanpools, Guaranteed Ride Home program information and registration, telework program development, transit information, Live Near Your Work Initiative, Air Quality Action Days development, etc.), and commuting resources (telework centers, vanpool services, rideshare programs, carsharing, etc). Due to its extensive database for registering applicants for ridesharing and the Guaranteed Home Program, and creating carpool and vanpool matches, the Local Motion program relies fully on Commuter Connections for this function. However, Local Motion provides support to residents who need technical assistance with the registration process.

- **Neighboring Jurisdictions –** The Alexandria City Council and the Arlington Board have recently engaged in joint dialogue and collaborative efforts with respect to transportation needs and challenges that transcend their individual boundaries, including projects such as the Crystal City-Potomac Yard Transitway and the Columbia Pike Streetcar. Both the Council and the Board agreed that significant investments in multi-modal transportation projects, including high capacity transit, are needed to support future growth in the region. There is also strong interest in improving the connectivity between the two areas. The City of Alexandria will be participating with Arlington County in an environmental analysis to study streetcars as a possible option for connecting the two jurisdictions. Additionally, Local Motion will continue to meet with Arlington County's TDM program to learn more about its evaluation and performance measurement activities, as well as service offerings.

- **Advocacy Groups –** Local Motion often partners with other like-minded advocacy groups, such as the Washington Area Bicyclist Association. WABA is a non-profit organization in the greater Washington, DC region that promotes bicycling as an affordable mode of transportation. They provide a number of bicycle oriented services, including trainings, events, safety classes, and discussion forums for the District of Columbia, the City of Alexandria, and the counties of Arlington, Fairfax, Montgomery, and Prince George's. Local Motion continues to partner with Commuter Connections

and WABA to host an annual Bike to Work Day. In 2010, the event resulted in nearly 7,000 commuters bicycling to work.

- **Independent local organizations (Economic Development, Tourism, etc) --** Local Motion is in the early stages of establishing a collaborative partnership with the following groups: the Alexandria Convention and Visitors Association (ACVA), the Alexandria Economic Development Partnership (AEDP) and the Alexandria Chamber of Commerce. By viewing these agencies as both stakeholders and partners of Local Motion's mobility and commuter service offerings, the program can leverage the resources of these groups to assist in promoting its services and to serve as broad distribution channel s to their membership base.
- **Private Providers –** While Local Motion does not work directly with private companies in the formation of vanpools (like several TDM programs in Virginia, primarily GwRideConnect in Fredericksburg), Zip Car and Nu Ride are the two partners that contribute to Local Motion's service offerings. The free NuRide program offers incentives and rewards to commuters who walk, bike, telecommute, carpool, vanpool, take a subway, train, bus, or work a compressed week. Meanwhile, the Zip Car service provides carsharing options designed to replace car ownership, resulting in savings to both residents and businesses.

State and Regional Funding Partners

- **Virginia Department of Rail and Public Transportation (DRPT) –** DRPT is a significant promoter and funding partner of TDM programs throughout Virginia, including the Local Motion program. DRPT provides technical assistance, training, marketing support, and financial support to Local Motion through two major grant programs-- Transportation Demand Management (TDM)/Commuter Assistance grants and Transportation Efficiency Improvement Funds (TEIF).
- **Virginia Department of Transportation (VDOT) –** VDOT is another significant program funder of Local Motion's Employer Outreach program, as well as other TDM supportive projects, such as bicycle-friendly infrastructure at transit stops and on buses, Old Town Transit Shop operations, a grant-funded public transit intern position to augment current transit staff, etc. VDOT controls Congestion Management and Air Quality (CMAQ) and Regional Surface Transportation Improvement Program (RSTP) funds in the Commonwealth, which formerly flowed from MWCOG.
- **Northern Virginia Transportation Commission (NVTC) –** The NVTC manages and controls the functions, affairs, and property of the Northern Virginia Transportation District which is comprised of six member jurisdictions, including Alexandria. NVTC provides a policy forum for its region and allocates state, regional, and federal transit assistance. NVTC

allocates CMAQ and RSTP funding for projects throughout the region, including those proposed by Local Motion.

Regional Planning/ Coordination Partners

- **National Capital Region Transportation Planning Board (TPB) –** The TPB is the federally designated Metropolitan Planning Organization (MPO) for the region, and plays an important role as the regional forum for transportation planning. The TPB has been associated with the Metropolitan Washington Council of Governments (COG) since 1996; while it functions as an independent body, its staff is provided by COG's Department of Transportation Planning.

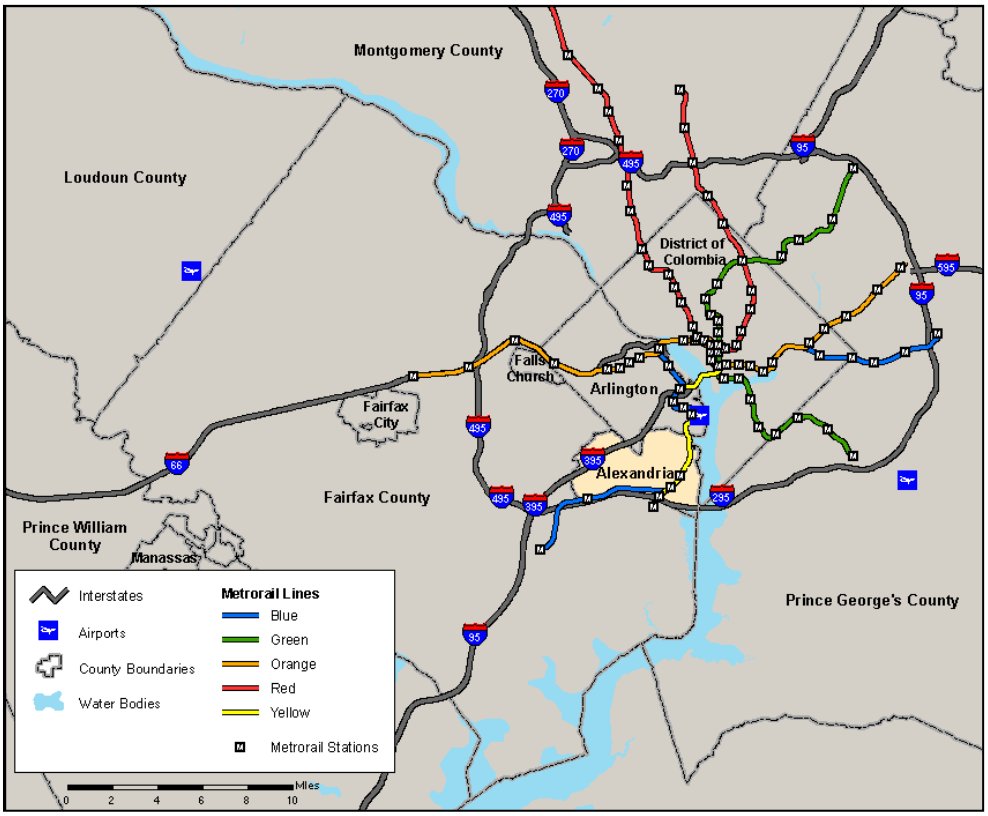
  The TPB prepares plans and programs that the federal government must approve in order for federal-aid transportation funds to flow to the region. The TPB does not exercise direct control over funding and does not implement projects, but it does perform a range of activities that promote an integrated approach to transportation development. The requirements of federal law compel the key transportation players in the region to work through the TPB process.

  TPB members include representatives of local governments, state transportation agencies; the Maryland and Virginia General Assemblies; the Washington Metropolitan Area Transit Authority; and non-voting members from the Metropolitan Washington Airports Authority and federal agencies. City Council Member Kerry Donley represents the City of Alexandria as a member of the TPB.

3.0 Service Area Characteristics

Figure 3.1 illustrates the Local Motion service area within the City of Alexandria, located just southwest of Washington, D.C. and south of Arlington, Virginia in the heart of the Washington Metropolitan area. Although it has an area of only 15 square miles, the City is ranked as the most densely populated city/county in Virginia. Alexandria contains an extensive multimodal transportation network, including: interstates, local roads, HOV lanes, local and commuter buses, local and commuter rail service, bicycle trails, sidewalks, and water taxi and trolley. Alexandria also contains a diverse array of communities with widely varying transportation needs.

Figure 3.1 Local Motion Service Area and Washington Metropolitan Region

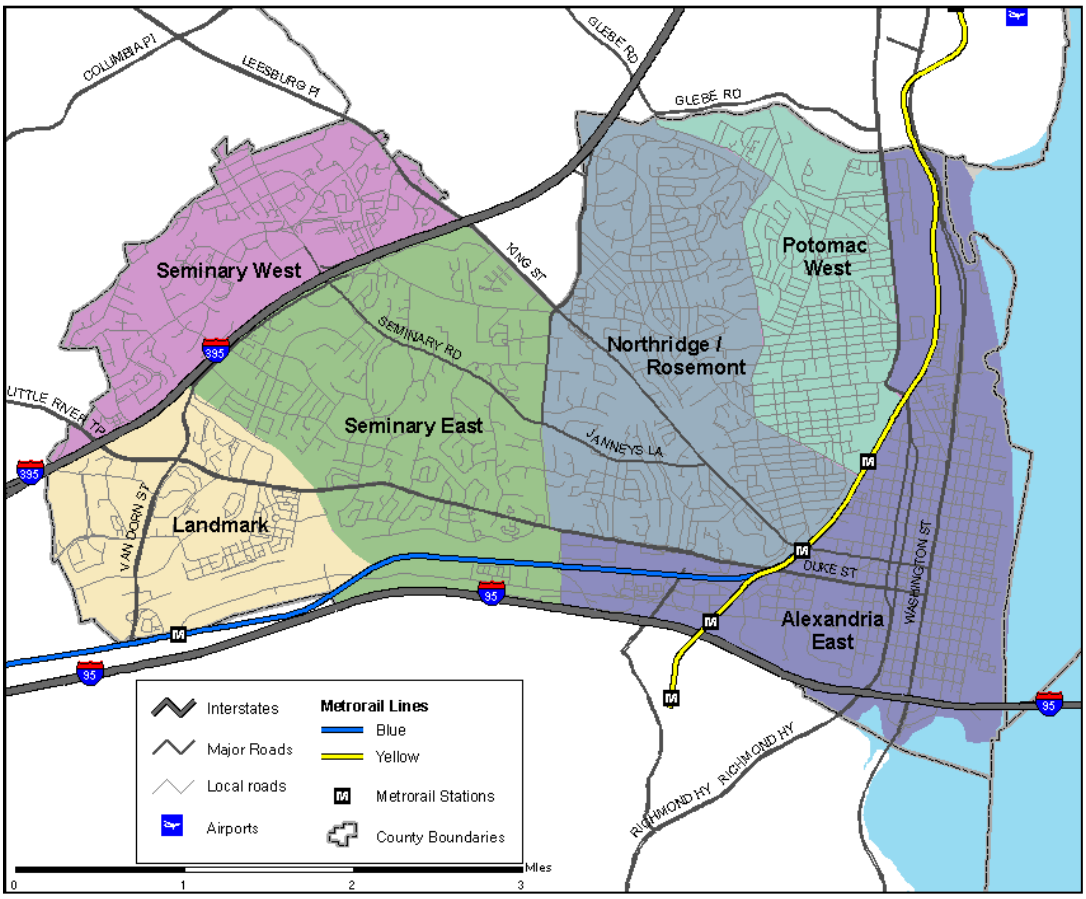


Source: Cambridge Systematics

Figure 3.2 shows sub-areas of the City of Alexandria as defined by the U.S. Census Bureau. Areas in the eastern half of Alexandria are well-known for compact, mixed-use neighborhoods such as Old Town, while areas in the western half of Alexandria are characterized by high density residential developments and larger office and commercial uses focused around the I-395 corridor. Alexandria also contains a significant amount of industrial land uses

compared to other regions in the Washington Metropolitan Area; these uses are concentrated primarily along the Eisenhower Avenue and I-95 corridors.

Figure 3.2 Local Motion's Service Area and Census Sub Areas



Source: Cambridge Systematics; based on City of Alexandria data

3.1 DEMOGRAPHIC AND EMPLOYMENT PROFILE

MWCOG has identified three areas within the City of Alexandria as regional activity centers. Downtown Alexandria and Eisenhower Avenue are identified as Mixed Use Centers, while Beauregard Street is identified as a Suburban Employment Center. As shown in Table 3.1, the number of jobs and households in each of these activity centers is expected to increase significantly over the next 20 years, with jobs more than doubling and households more than tripling in the Eisenhower Avenue area. In addition to these regional activity centers, MWCOG has identified three Regional Special Attractors in Alexandria, including: Landmark Mall with 962,272 square feet of retail space, Potomac Yard Center with 589,856 square feet of retail space, and the Northern Virginia Community College Alexandria Campus with an enrollment of 20,729 students. These regional activity centers and attractors generate large amounts of traffic to

multiple destinations in a small area and present opportunities for focused TDM efforts.

Table 3.2 lists the Top 25 Alexandria employers in terms of number of employees. The largest employer, the PTO, has implemented one of the most aggressive telework strategies in the area, and has realized a variety of benefits from this arrangement.

Table 3.1 Job and Household Growth Projections for Alexandria Activity Centers

	2005			2030			% Growth	
Activity Center	**Jobs**	**House-holds**	**Ratio**	**Jobs**	**House-holds**	**Ratio**	**Jobs**	**Households**
Eisenhower Avenue	16,871	1,457	11.6	34,251	5,529	6.2	103.0%	279.5%
Downtown Alexandria	39,423	11,593	3.4	46,056	14,741	3.1	16.8%	27.2%
Beauregard Street	10,283	10,353	1.0	19,024	10,905	1.7	85.0%	5.3%

Source: Metropolitan Washington Regional Activity Centers and Clusters, MWCOG, April 2007

Table 3.2 Alexandria's 25 Largest Employers (2010)

Rank	Employer	Ownership	Size Class
1	U.S. Department of Commerce (PTO)	Federal Government	2,000 – 10,000 employees
2	Alexandria City Public Schools	Local Government	2,000 – 10,000 employees
3	U.S. Department of Defense	Federal Government	2,000 – 10,000 employees
4	The Alexandria Hospital	Private	500 – 2,000 employees
5	Washington Metro Area Transit Authority	Local Government	500 – 2,000 employees
6	ABM Janitorial Services M Inc	Private	500 – 2,000 employees
7	Institute for Defense Analysis	Private	500 – 2,000 employees
8	Commonwealth of Virginia	Local Government	500 – 2,000 employees
9	CNA Corporation	Private	500 – 2,000 employees
10	Gali Service Industries	Private	500 – 2,000 employees
11	U.S. Army Non-Appropriated Funds Division	Federal Government	500 – 2,000 employees
12	Grant Thornton LLP	Private	500 – 2,000 employees

13	City of Alexandria (King Street)	Local Government	500 – 2,000 employees
14	U.S. Department of Defense	Federal Government	500 – 2,000 employees
15	Oblon Spivak McClelland PC	Private	200 – 500 employees
16	U.S. Department of Agriculture	Federal Government	200 – 500 employees
17	City of Alexandria (Eisenhower Avenue)	Local Government	200 – 500 employees
18	Public Broadcasting Services	Private	200 – 500 employees
19	Pierce Associates INC	Private	200 – 500 employees
20	System Planning & Analysis INC	Private	200 – 500 employees
21	Woodbine Convalescent & Nursing Home	Private	200 – 500 employees
22	Fitness First of Landmark	Private	200 – 500 employees
23	Comcast Cablevision	Private	200 – 500 employees
24	City of Alexandria (Jefferson Street)	Local Government	200 – 500 employees
25	Inter Con Security Systems	Private	200 – 500 employees

Source: http://www.alexecon.org/files/Top%2050%20VEC%20List(2).pdf

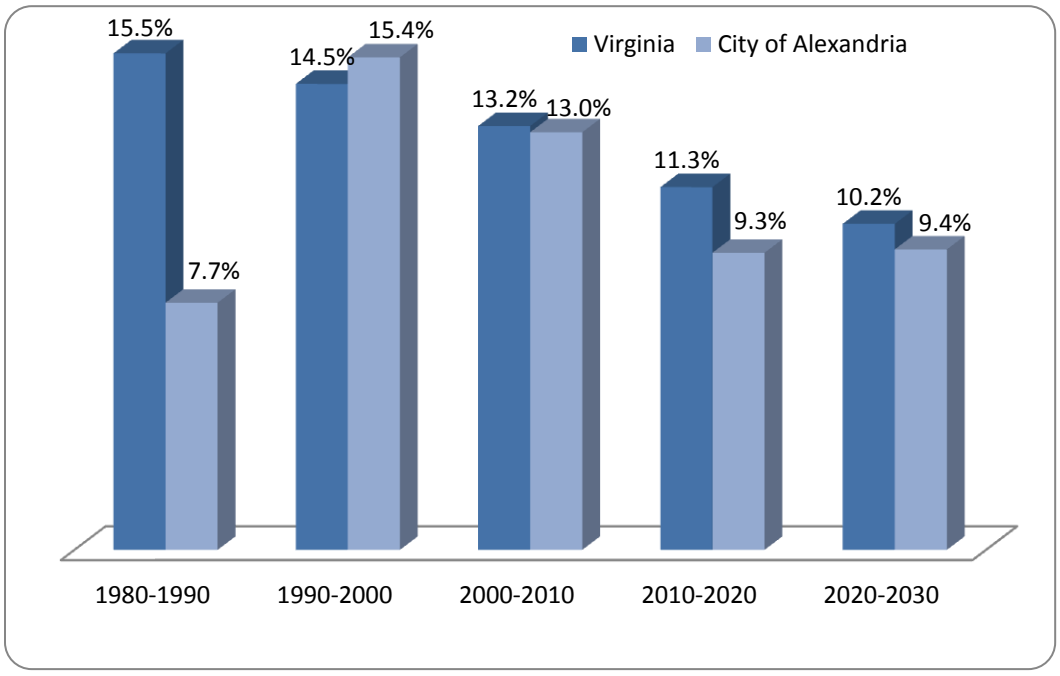
Overall, the diversity of Alexandria neighborhoods creates multiple transportation challenges and opportunities. Currently, among the most pressing transportation concerns are congestion, availability of transportation options, air quality, and transportation services for disadvantaged persons.

In 2000, the City of Alexandria was the most densely populated jurisdiction in Virginia, with 9,132 residents and 4,283 housing units per square mile. Today, Alexandria continues to be one of the densest urban areas in the Commonwealth and is home to approximately 145,011 residents and 108,823 jobs.[6] Over the last 20 years (1990-2010), the City's population has increased by 30 percent, and it is projected to grow by another 20 percent over the next 20 years (2010-2030). As Figure 3.3 shows, the population of Alexandria has grown at nearly the same rate as the population of the Commonwealth as a whole since 1990. Over the next 20 years, as the City becomes more built out, Alexandria's population is expected to grow at a slower rate. However, the City will continue to gain more than 13,000 new residents every ten years. This population growth will increase pressure on the City's transportation infrastructure and emphasize the need for TDM as road capacity constraints spur the City to identify alternative transportation options. The high turnover in the City's population base creates challenges for the TDM program since this constant change necessitates a continuous re-education and re-introduction of the benefits of alternative modes to the City's residents,

[6] Metropolitan Washington Council of Governments 2010 Cooperative Forecast

employees, and employers. On the other hand, the dynamic nature of these shifts presents tremendous opportunities for TDM to test new ways of affecting behavior of newcomers to the City at an early stage (i.e. before their habits are preformed and they are willing to try new approaches to enhance their mobility).

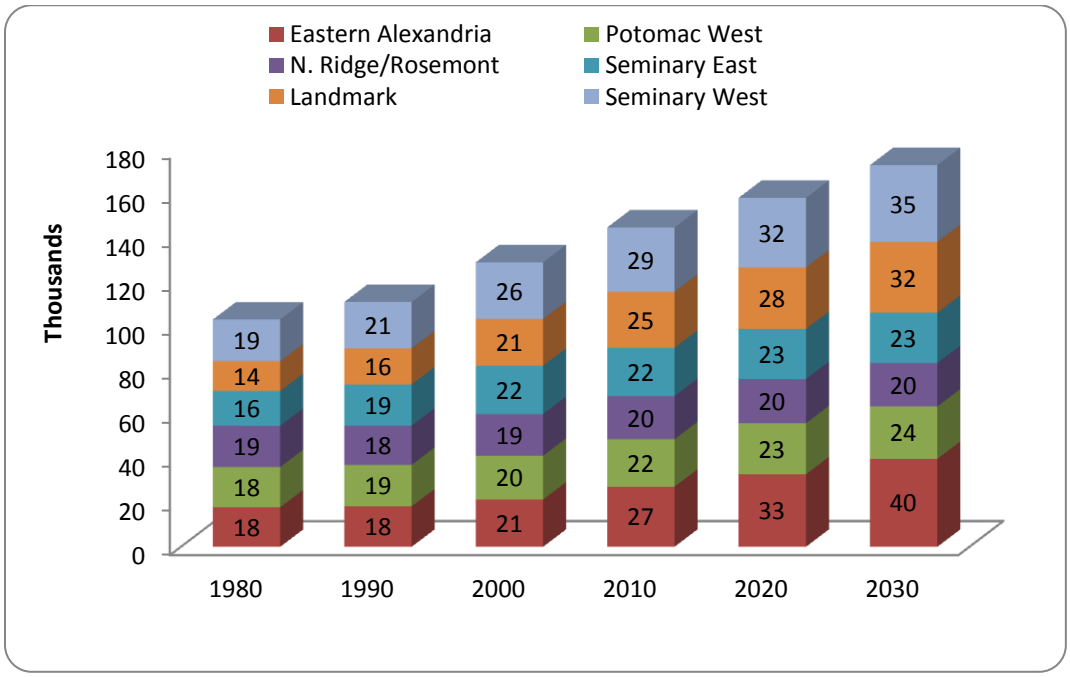
Figure 3.3 Population Growth Rate in Virginia and Alexandria (1990-2030)



Source: Virginia Employment Commission, US Census Bureau, MWCOG Cooperative Forecast

Figure 3.4 shows actual and projected population in each Alexandria sub area from 1980 to 2030. Seminary West currently has the largest population of any sub area in the City (20 percent of residents), followed by Eastern Alexandria (19 percent of residents). Eastern Alexandria, however, has the highest projected population growth rate in the City and is expected to surpass Seminary West in population by 2020. Both Seminary West and Eastern Alexandria are expected to grow by at least two percent annually, which will likely increase congestion on major corridors in these areas (e.g. I-395 and Jefferson Davis Highway) and the need for additional transportation options.

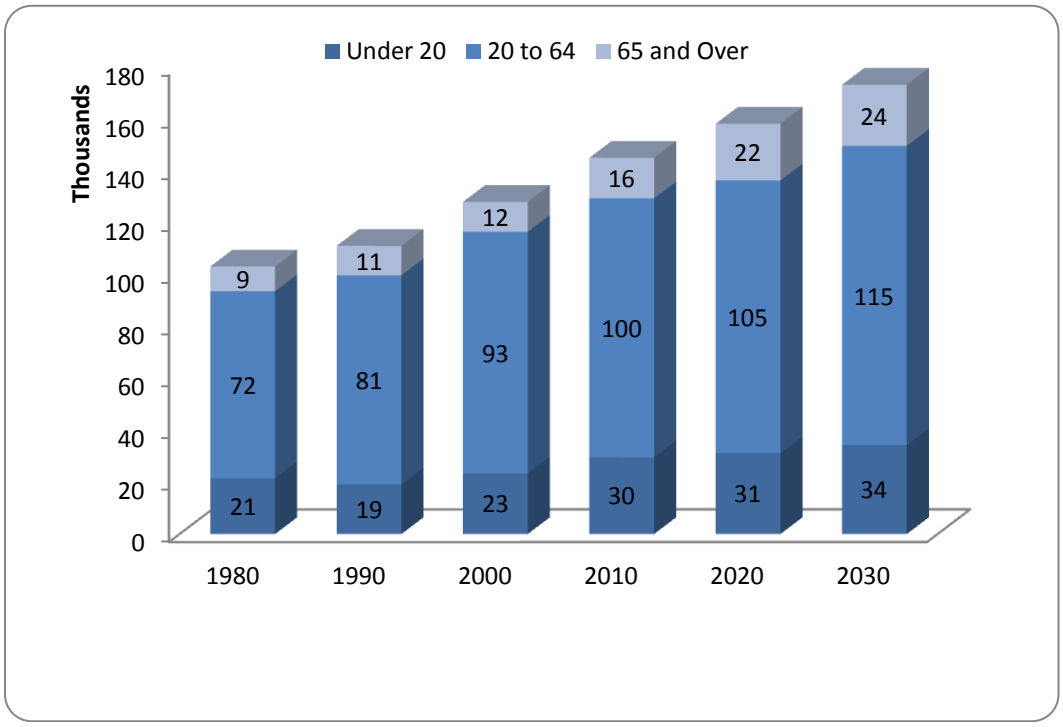
Figure 3.4 Alexandria Population by Sub Area (1980-2030)



Source: U.S. Census, MWCOG Cooperative Forecast

Also of interest in planning TDM strategies is the projected age structure of residents. The aging of the "baby-boom" generation is anticipated to significantly impact public budgets due to a dramatic increase in the number of individuals dependent on public health care insurance, social security programs, and public transportation services over the next 20 years. Figure 3.5 shows the age distribution of Alexandria residents from 1980 to 2030. Between 2000 and 2030, the number of Alexandria residents age 65 and over is expected to double. While this change is less extreme than what is expected in other areas of the state, it will likely have a significant impact on transportation needs for this segment of the population. Specifically, this is a group that is likely to have a greater interest in social mobility travel options (particularly if they are unable to drive) as opposed to the commute needs of the working population.

Figure 3.5 Alexandria Population and Age Distribution



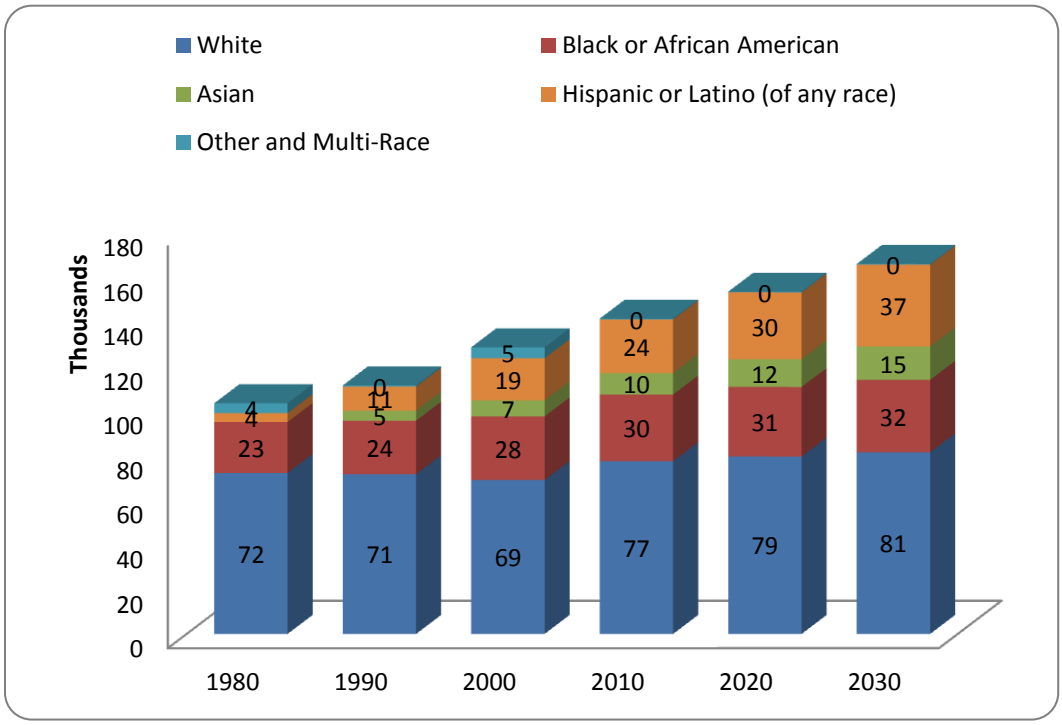
Source: US Census Bureau, Virginia Employment Commission, MWCOG Cooperative Forecast

The final element of population change that should be considered in future TDM strategies is the racial and/or ethnic composition of residents, as shown in Figure 3.6. Over the last 20 years, Alexandria has become an increasingly diverse City and home to growing Ethiopian, Latin American, and other communities. This trend is expected to continue over the next 20 years. Growth and change in the ethnic composition of Alexandria residents may impact the types of transportation and TDM services needed. It is anticipated, for example, that marketing outreach and promotion may need to be tailored differently to successfully engage hard-to-reach populations, including non-English speakers. This could involve the translation of marketing and application materials into other languages, particularly Spanish.

In summary, TDM programs— like Local Motion— that are trying to promote walking and biking as alternative modes should be attuned to how ethnicity, age, car ownership, and geography can affect the decision to walk or bicycle. According to the recently published *Bicycle and Pedestrian Plan for the National Capital Region* (October 2010), persons under the age of 44 are more likely to walk or bicycle than persons over the age of 44, while persons over 65 have the lowest rates of walking and biking. Persons living in households without cars also show a greater tendency to walk or bike. Those living in households with one car are also more likely to use those modes (relative to persons living in two-car households). Middle-income groups are slightly less likely to walk or bicycle

than either low-income or high-income groups. Whites are also more likely to bicycle.[7]

Figure 3.6 Alexandria Population by Race/ Ethnicity (1980-2030)



Source: Virginia Employment Commission and US Census Bureau

3.2 TRANSPORTATION SYSTEM PROFILE

Three significant planning efforts undertaken by City staff, in partnership with Alexandria citizens, have developed the blueprint for Alexandria's future transportation system. These resulting vision and implementation plans have culminated in the *City of Alexandria Strategic Plan (2010-2015)*, the *Comprehensive Transportation Master Plan (2008)*, and the *Pedestrian and Bicycle Mobility Plan (2008)*—three documents that provide a strategic course of action in regard to the City's transportation network.

Key goals of the three documents include:

- ***City of Alexandria Strategic Plan*** – sets objectives for "*a multimodal transportation network that supports sustainable land use and provides internal mobility and regional connectivity for Alexandrians.*"

[7] Source: National Capital Region Transportation Planning Board

- ***Comprehensive Transportation Master Plan*** – sets a vision for "*a transportation system that encourages the use of alternative modes of transportation, reducing dependence on the private automobile. This system will lead to the establishment of transit-oriented, pedestrian friendly village centers, focused on neighborhood preservation and increased community cohesion, forming a more urban, vibrant and sustainable Alexandria. The City will promote a balance between travel efficiency and quality of life, providing Alexandrians with transportation choice, continued economic growth and a healthy environment.*"
- ***Pedestrian and Bicycle Mobility Plan –*** sets goal "*to reduce dependence on private automobiles and provide citizens with transportation choices. One way to accomplish this goal is to improve access for persons with disabilities, pedestrians, and bicyclists. This Plan provides a blueprint for 10 years of on-the-ground safety, mobility and connectivity improvements.*"

In sum, each plan sets the stage for a multi-modal system that will help residents, employees, and visitors travel more efficiently throughout the City. The current transportation network is comprised of the following features, providing a solid foundation for advancing the goals of the City of Alexandria.

Roadways

The City of Alexandria owns most roads within the City limits, while the Virginia Department of Transportation (VDOT) controls the areas within the limited access right-of-ways (including highway access to the BRAC-133 site in the Beauregard/ Seminary Road area). As described in the 2008 Comprehensive Master Plan, the City has an intricate street system made up of expressways, arterials, primary collectors, residential collectors, and local streets. The major highways that run through and around the City include I-95, I-395, and the 495 Beltway. Both I-95 and I-395 have High Occupancy Vehicle (HOV) Lanes, which are lanes that promote the efficient use of roadways by restricting certain lanes at certain times to vehicles that carry multiple passengers. Three primary routes within the City, including Patrick Street, Henry Street, and Washington Street, also have functioning HOV lanes during peak periods of the day.

The Street Section of the Comprehensive Transportation Plan lays out the goals for the future of Alexandria, including:

- Integrated solutions for connectivity, providing mobility and access to all modes of transportation
- Development of a comprehensive, integrated, connected network that accommodates all users
- Recognizes the need for flexibility: that all streets are different, serving differing functions, priorities and user needs
- Focus on the application and development of context sensitive solutions that guide and complement street function

A major focus for the City in the near future will be the development of multimodal corridor design guidelines, which will address the connection between transportation and land use and focus on context sensitive designs, accessibility and adoption of a Complete Streets policy.

Park and Ride Lots

The City lacks any park-and-ride lots, which form the basis of TDM infrastructure, used to encourage people to link with carpools, vanpools, or transit. The nearest park and ride lot to the City is located in the Franconia Springfield section of Fairfax County.

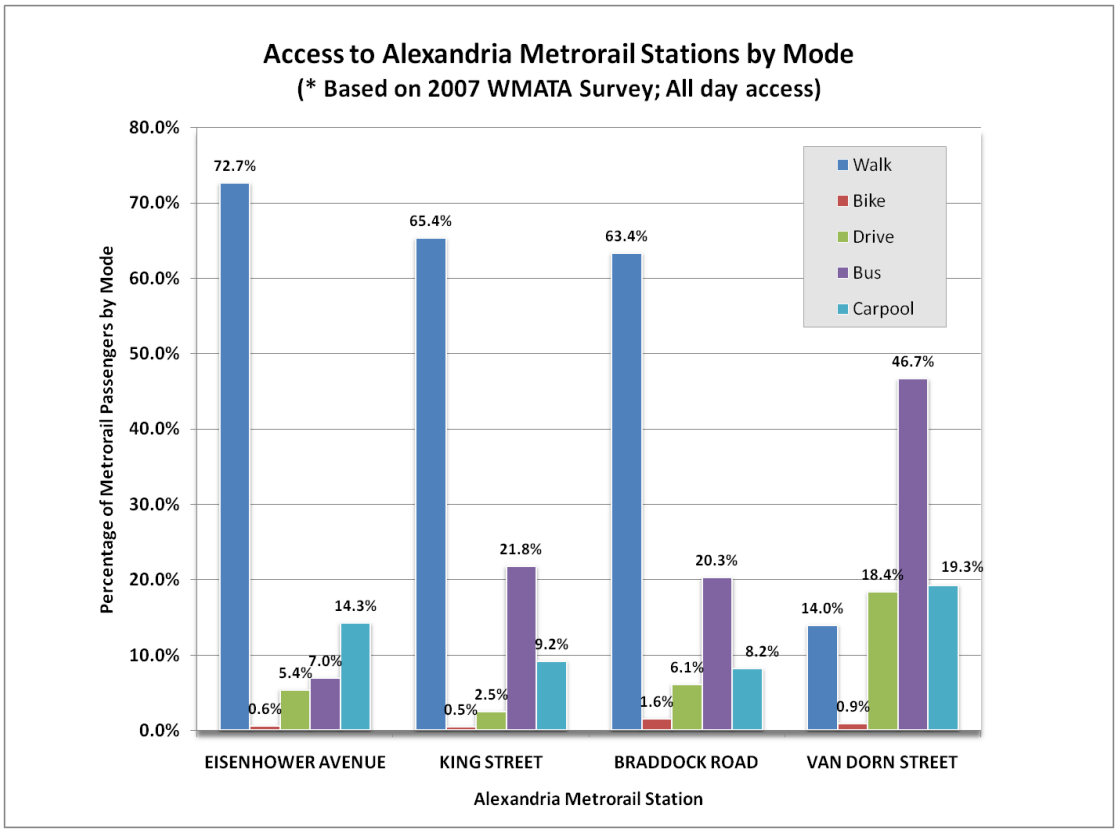
Public Transportation

The City of Alexandria currently has six rail and bus options for commuters. The DASH, King Street Trolley, Metrobus, Fairfax Connector, Metrorail and Virginia Railway Expressway (VRE) collectively form the public transportation system for the greater Virginia, Maryland, and Washington D.C. region, but each of these also service the City of Alexandria.

- **DASH** – The DASH system provides bus service within the City of Alexandria and connects with Metrobus, Metrorail, VRE, and other local bus systems. DASH serves all of the Alexandria Metrorail stations and the Pentagon Metrorail station during morning and evening peak periods.
- **Washington Metropolitan Area Transit Authority (WMATA) Metrobus** – WMATA operates Metrobus, which consists of 335 routes and 15,000 bus stops throughout Virginia (including the City of Alexandria), Washington D.C., and Maryland.
- **Washington Metropolitan Area Transit Authority (WMATA) Metrorail --** The Washington Metropolitan Area Transit Authority also operates Metrorail, which consists of 106 miles of rail lines and 86 stations throughout Virginia, Washington D.C., and Maryland. The City of Alexandria is served by four stations; a fifth station at Potomac Yard is currently under consideration and has been subject of ongoing planning efforts.

  Figure 3.7 displays these four stations; namely, Eisenhower Avenue, King Street, Braddock Road, and Van Dorn Street—by the mode of access to each station by all Metrorail passengers (including Alexandria residents). The Eisenhower Avenue Station has the highest percentage of the walking share (72 percent), while King Street and Braddock Road Stations are roughly similar with 65 percent and 63 percent shares, respectively. The Van Dorn Street Station has the lowest walking share of only 14 percent of passengers. The bicycle share is highest for the Braddock Road Station. Meanwhile, carpool/drop-off shares are highest for the Van Dorn Street Station (19 percent) and lowest for the Braddock Road Station (8 percent).

Figure 3.7 Access to Alexandria Metrorail Stations by Mode



- **Fairfax Connector** – The Fairfax Connector is a bus system that serves a number of communities throughout Fairfax County as well as areas of Alexandria and Arlington. The bus "connects" people with employment centers, transit stations, and park and ride lots.
- **Virginia Regional Transit (VRE)** - Commuter rail service, operating Monday through Friday from as early as 5:05 a.m. until as late as 8:25 p.m. depending on the route, and mainly serves people traveling to and from work. Service is provided from Northern Virginia suburbs to Alexandria, Crystal City, and downtown Washington D.C.
- **King Street Trolley** -- The King Street Trolley is a free service that transports residents, visitors, and those who work in Old Town, between the King Street Metrorail Station and the Potomac River waterfront. The trolley operates along the one-and-a-half mile route seven days a week.

Bicycle and Pedestrian Infrastructure

Alexandria has achieved many accolades when it comes to its pedestrian and bicycling achievements. The City was recognized by Prevention magazine and the American Podiatric Medical Association as one of the top 100 Walking Cities in America. The City also selected as the Best Walking City in the Commonwealth of Virginia. For its bicycle network, Alexandria was recognized by the League of American Bicyclists as a bronze-level community.

The Local Motion website, which provides a wealth of information on bicycling in the City, also has a 2009-2010 Alexandria Bikeways map, depicting all of the trails and on-road bike routes in the area.

Despite the recent accolades and extent of the current bicycle and pedestrian network, the City still strives to do more. In the 2008 Pedestrian and Bicycle Mobility Plan, the key recommendations for improvements included:

- A total of 17.5 miles of new sidewalks and 11.8 miles of reconstructed sidewalks
- Removal of 274 sidewalk obstructions
- A total of 645 new marked crosswalks and 672 re-striped crosswalks
- A total of 251 new pedestrian countdown signals and 243 new pedestrian pushbutton signals
- A total of 418 new accessible curb ramps and 464 reconstructed accessible curb ramps
- A total of 148 bus stop improvements
- A total of 13 new and 2 reconstructed pedestrian and bicycle overpasses/underpasses
- A total of 10.1 miles of new shared-use paths and 3.54 miles of reconstructed shared-use paths
- Removal of 68 shared-use path surface obstructions and 10 clear width obstructions
- A total of 16.3 roadway centerline miles of new bicycle lanes
- A total of 3.7 roadway centerline miles of new climbing lanes for bicycles
- A total of 16.4 roadway centerline miles of new shared lane markings for bicycles
- A total of 12.31 miles of shared use pathways alongside roads

Transportation Demand Management

TDM is another significant element referenced in the Comprehensive Transportation Master Plan. The plan recognizes the role that vanpools,

carpools, and transit subsidies play in helping to improve the overall operation of the system by providing alternatives to single occupancy vehicles (SOVs). In Alexandria, Local Motion and the Old Town Transit Shop are primary commute assistance services. The City of Alexandria, through the Local Motion program, provides an array of transportation services and amenities, discouraging residents and visitors from driving alone. With the Strategic, Comprehensive, and Bicycle/Pedestrian Plans serving as a guide for the future transportation system, decision-making in the City of Alexandria will continue to support multi-modal investments.

3.3 TRAVEL PATTERNS

Knowing where and how residents, employees, and visitors travel for work and non-work activities also helps determine the TDM services that best fit their needs today and the types of programs that will attract customers to non-SOV modes in the future. Considering current travel and commute trends, combined with future population, employment, and development patterns can give clues to what types of services will be needed and where marketing should be targeted.

Mode split is commonly used as a performance measure for TDM programs. In Virginia, approximately 83 percent of commuters drive alone, 7 percent carpool or vanpool, 6 percent take transit, 3 percent telework, and 2 percent walk, bike, or use other means.[8] Alexandria has one of the lowest percentages of drive alone commuters and in the Commonwealth. As shown in Figure 3.7, the percentage of Alexandria commuters driving alone dropped from 75 percent to 60 percent between 2001 and 2007 while the percentage of commuters taking transit, carpooling or vanpooling, and teleworking increased significantly.

Declining drive alone rates may be due to increasing congestion and vehicle ownership costs expanding alternative transportation options, or increased public awareness of transportation options due to programs such as Local Motion and Commuter Connections[9]. Whatever the reason, the results of these changes have been positive:

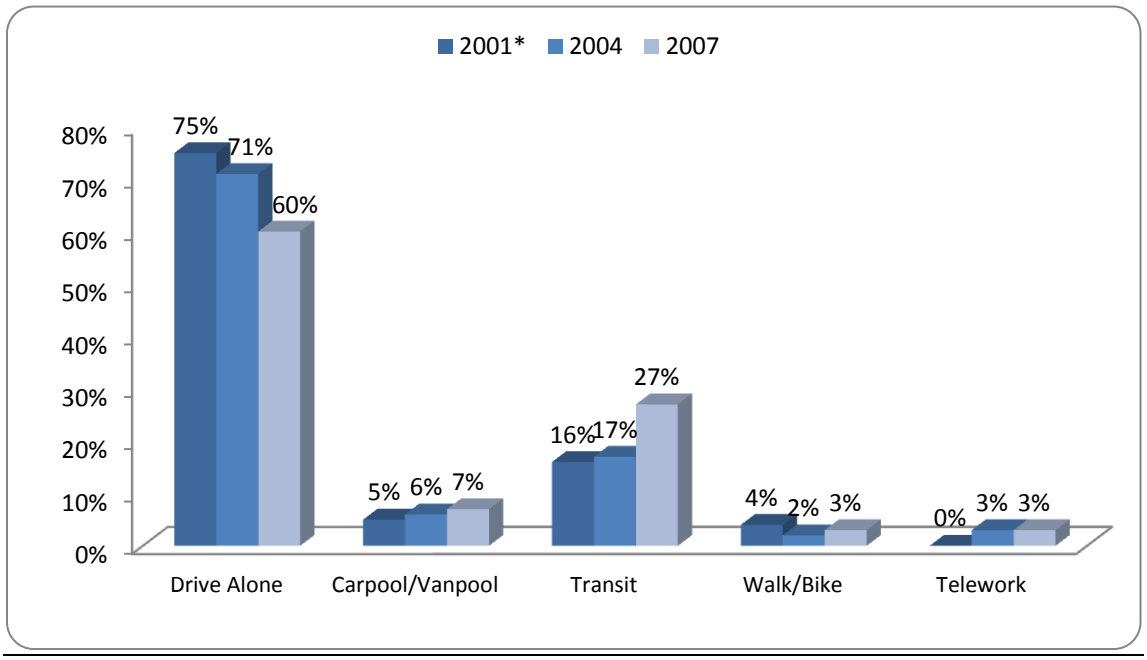
- Less than one quarter (22 percent) of Alexandria residents reported that their commute is more difficult than last year;
- A total of 17 percent of residents reported their commute is easier than last year; and

[8] Virginia State of the Commute Study, 2007

[9] Eleven percent of Alexandria households have no vehicle, the second lowest rate of vehicle ownership in Virginia. Twelve percent of Arlington households have no vehicle. Source: 2000 U.S. Census.

- Only 9 percent of residents say they are "dissatisfied" with their commute.[10]

Figure 3.8 Alexandria Mode Split (2001-2007)

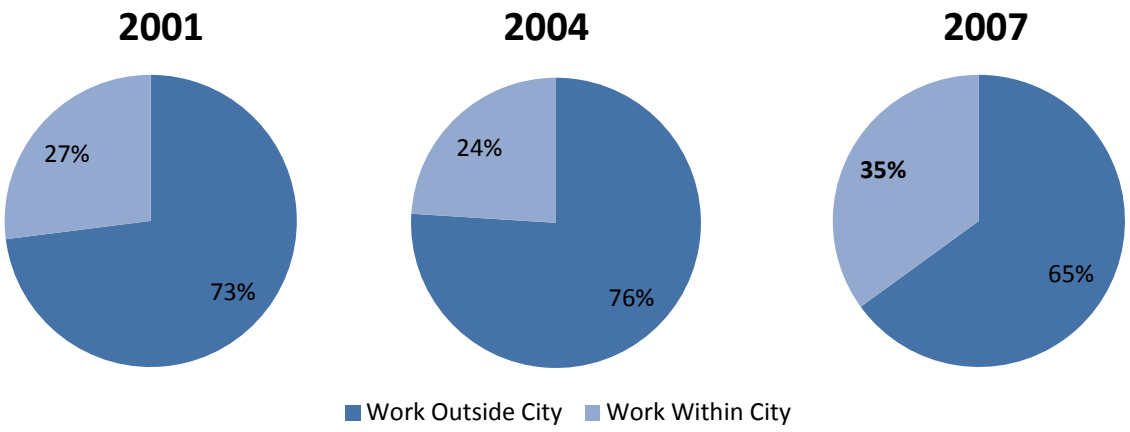


*Note: 2001 data is only for individuals who work in Alexandria, 2004 and 2007 data is for individuals who live or work in Alexandria. Source: 2001, 2004, and 2007 Virginia State of the Commute Surveys

Commuting patterns also have a large influence on a TDM agency's programs and customers. Areas with a large percentage of inbound commuters may want to emphasize employer services, while areas with a large percentage of outbound commuters may want to focus on residentially based programs. A large percentage of Alexandria residents commute out of the City for work compared to other cities and counties in Virginia. As shown in Figure 3.8, about 73 percent of residents commuted outside the City for work in 2001; this number decreased to 65 percent by 2007. Similarly, Figure 3.9 shows that average commute times and distances have decreased for individuals who work in Alexandria. Together, these trends mean that many Alexandria residents and employees are choosing to live closer to where they work and are reaping the benefits of shorter commute times as a result.

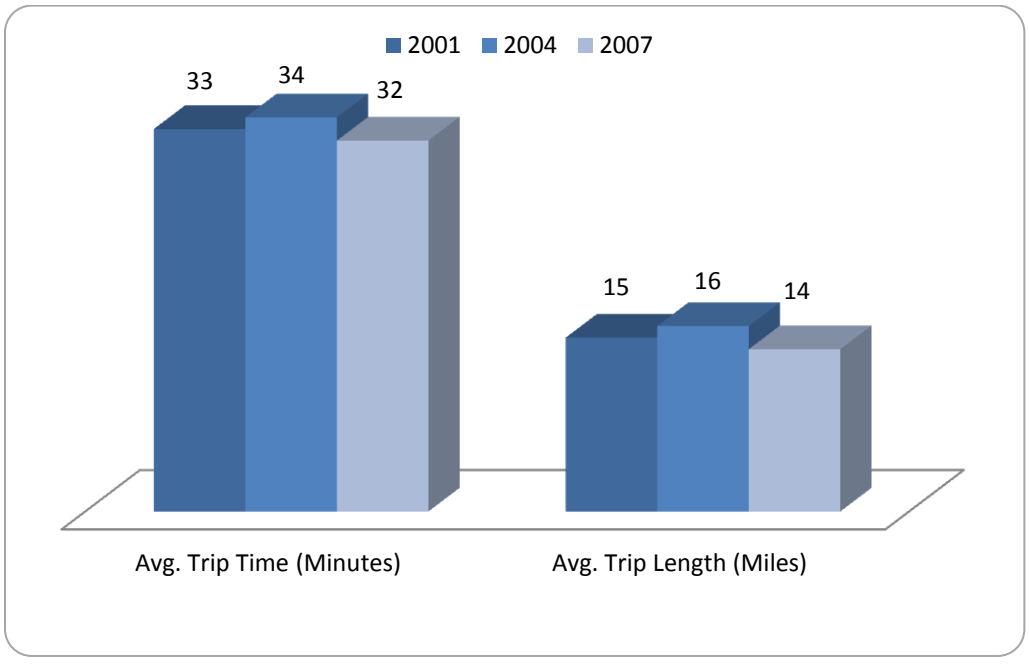
[10] Virginia State of the Commute Study, 2007

Figure 3.9 Percentage of Alexandria Residents Who Commute Out of the City (2001-2007)



Source: 2001, 2004, and 2007 Virginia State of the Commute Study

Figure 3.10 Average Commute Time and Distance for Alexandria Workers (2001-2007)



Source: 2001, 2004, and 2007 Virginia State of the Commute Study

On a typical work day, Alexandria residents make over 85,000 work trips.[11] As Table 3.2 shows, the majority of these trips are to jobs within the City of Alexandria (35 percent) or the nearby District of Columbia (30 percent). A significant portion of residents also commute to neighboring Fairfax and Arlington Counties (12 percent each) for work.

Table 3.3 Top 10 Areas Alexandria Residents Commute To (2000-2007)

Residents (%) Commuting to:	2000	2007
District of Columbia	23,292 (30%)	25,980 (30%)
Alexandria city	19,473 (25%)	30,154 (35%)
Fairfax County	14,643 (19%)	10,528 (12%)
Arlington County	10,755 (14%)	10,530 (12%)
Montgomery County, MD	2,484 (3%)	1,424 (2%)
Prince George's County, MD	1,813 (2%)	1,100 (1%)
Fairfax city	818 (1%)	1,356 (2%)
Loudoun County	666 (1%)	220 (1%)
Prince William County	486 (1%)	572 (1%)
Falls Church city	418 (1%)	764 (1%)
Total Resident Commuters:	**77,061**	**86,448**

Source: 2000 U.S. Census and 2007 Virginia State of the Commute Study

Table 3.4 Top 10 Areas Alexandria Workers Commute From (2000-2007)

Workers (%) Commuting From:	2000	2004	2007
Fairfax County	27,641 (34%)	30,256 (36%)	25,038 (27%)
Alexandria city	19,473 (24%)	19,728 (23%)	30,154 (33%)
Prince George's County, MD	7,372 (9%)	9,815 (12%)	7,997 (9%)
Prince William County	6,184 (8%)	5,724 (7%)	8,667 (9%)
Arlington County	4,962 (6%)	4,632 (6%)	8,486 (9%)
District of Columbia	4,040 (5%)	2,690 (3%)	4,287 (5%)
Montgomery County, MD	2,685 (3%)	4,155 (5%)	3,372 (4%)
Stafford County	1,319 (2%)	2,552 (3%)	-

[11] U.S. Census Bureau, 2007 Virginia State of the Commute Study

Carroll County	1,087 (1%)	-	-
Loudoun County	757 (1%)	1,379 (2%)	1,743 (2%)
Charles County, MD	-	2,247 (3%)	1,920 (2%)
Frederick County, MD	-	-	633 (1%)
Total Workers:	**81,367**	**84,554**	**92,682**

Source: 2000 U.S. Census, 2004 and 2007 Virginia State of the Commute Study

3.4 KEY TDM OPPORTUNITIES

The following large-scale efforts are likely to comprise significant challenges and opportunities for the Local Motion program in the future due to the significant changes in land use, as well as employment and residential patterns, they are anticipated to pose throughout the City. These projects will require strong TDM strategies and partnerships, in tandem with expanded transit service enhancements.

Base Realignment and Closure (BRAC-133)

BRAC (Base Realignment and Closure) is the congressionally authorized process by which the Department of Defense (DoD) periodically reorganizes its military base structure to more efficiently and effectively support the armed forces, increase operational readiness, and facilitate new ways of doing business. In 2005, the BRAC process mandated the move of many DoD offices from leased office space to secure sites that could meet DoD's high anti-terrorism security standards. By Federal statute, DoD is charged with implementation of BRAC moves and changes within six years of the BRAC Commission recommendation date (hence the September 15, 2011 deadline opening date for the Mark Center building).

Up to 1.8 million square feet of office space is being developed at Mark Center to house relocation of the DoD's Washington Headquarters Service. The site also has approximately 1.4 million square feet of existing office space which could be made available to accommodate future expansion of WHS or related private office uses.

BRAC-133 is the numerical designation given to Alexandria's Mark Center, the new planned location for the Washington Headquarters Service (WHS), and a number of other DoD agencies. The facility, now owned and currently under construction by the federal government, while technically part of Fort Belvoir, is on Mark Center property located at the intersection of Seminary Road and Beauregard Street at the I-395 interchange.

BRAC-133 will bring 6,400 new jobs to Alexandria when it is completed in September 2011. The new buildings will be one of the most visible landmarks on

the City's West End. However, BRAC-133 is not subject to the local land use regulation, so the City does not have any authority over plans for the site. However, DoD has worked with the City and has agreed to substantial improvements in building architecture. Additionally, growth of this magnitude will bring complex transportation issues that will affect businesses, residents, and other commuters in the area. The City is aware of these challenges, and City leaders, staff, and the BRAC-133 Advisory Group have been working, and continue to work with our state and federal partners on solutions.

The City Council letter of recommendations to VDOT based on a public hearing in January 2010 stated: "*Transportation solutions should include multi-modal enhancements to adequately address the transportation needs of BRAC-133 and the surrounding area. The solutions to serve the transportation needs of the area should include a multitude of actions with transit and transportation demand management (TDM) solutions playing a key role.*"

In developing the *Guiding Principles Relating to VDOT's BRAC Access Interchange Justification Report,* the BRAC/Mark Center Advisory Group (the "Advisory Group") supports direct access from Route 1-395 to the Mark Center campus with the following guiding principles concerning future improvements:

1. Be transit-oriented and accommodate HOV lanes;
2. Be consistent with the existing and proposed Transportation Management Plans and the City's Transportation Master Plan;
3. Provide for amenities/incentives to encourage alternate transit use;
4. Reduce the traffic impacts to the 1-395 and Seminary Road Interchange;
5. Serve the entire Mark Center campus;
6. Protect the Winkler Botanical Preserve;
7. Be designed/built for the long term usage, being the most transit efficient alternative, not necessarily the least expensive or most expedient;
8. These improvements need to consider/accommodate the potential future redevelopment of the surrounding areas (e.g., Mark Center and Beauregard Corridor); and
9. Be funded by the Federal Government through the design and construction phases.

The recommended roadway and service improvements around the area include:

- Mark Center traffic studies conducted by City will require widening of Seminary Road and expansion of turning capacity from Seminary Road into the site (funded by developer)
- Shuttle from Mark site to Metrorail in Pentagon City or Pentagon
- Transit expansion to grow transit use to 40 percent (the City plans to double service and capacity of DASH system)

- The City's TMP contemplates bus rapid transit on Beauregard Street, and Van Dorn Street and Eisenhower Avenue.
- Recent agreements in regard to HOT lanes on I-395 include funding of a significant increase in transit service in the Van Dorn corridor in both Fairfax County and Alexandria
- Expand existing TMP measures: DASH, Metrobus, shuttle Service, governmental shuttle service

Alexandria's Inspector General interviewed City staff about their role in the BRAC 133 TMP development, with an interest in defining the events leading to the cooperative agreement between the DoD and DASH, as outlined below. In response to the inquiry, the City identified a number of its efforts to assist in development of specific programs to mitigate BRAC 133's transportation impacts:

- The City encouraged discussions about TDM programs, tailored to the suburban site, that would offer alternative commute options to BRAC 133 employees. For example, as BRAC is not located within walking distance of a Metro station, additional transit support services, such as Metro station to Mark Center shuttles (supported by WHS), were recommended establish transit connectivity to Mark Center and to facilitate transit use by BRAC 133 employees.
- In consultation with the DoD, the City discussed the role that bus transit services, such as the AT1 and AT2 routes, would serve in serving BRAC 133 commuters. These routes do not directly enter Mark Center, but do stop on the Beauregard Street near Mark Center and have heightened service during commute hours. These routes will serve a limited number of BRAC 133 employees.
- Identifying a need for enhanced transit, the City participated in discussions leading to a cooperative agreement with DASH that led to additional transit support services for BRAC 133 employees.

For the BRAC 133 TMP, an Ad Hoc Committee was established to assist in the development and review of the proposed TMP.[12] The Committee includes Vice-Mayor Donley, members of the Alexandria Transportation Commission, and T&ES staff. The Committee has worked with the DoD to make improvements to the TMP in an effort to influence positive outcomes in the BRAC 133 area.

The City and DoD have negotiated a Memorandum of Understanding (MOU) regarding the City's continuing role in implementing and monitoring the TMP.

[12] This committee is considered Ad Hoc, as the TMP is not legally required for the BRAC 133 development, as the DoD has land use authority of this parcel, therefore negating the city's approval requirements customary for other TMPs in Alexandria.

As the transportation impacts of the BRAC 133 development are very significant to the City of Alexandria, its employees, and residents, the City will continue to encourage and support transportation demand management for this employment center to the greatest extent possible.

Potomac Yard Redevelopment

Plans are underway to rezone an existing retail center and develop a 7,525,000 square foot urban, mixed-use community in North Potomac Yard. The developer is proposing to construct a network of streets, and parks and plazas, in addition to a mixture of office, residential, hotel, entertainment, retail, restaurant and civic spaces. The plan includes a new Metrorail stop (Potomac Yard Metrorail station) and suggests additional transportation options to decrease single occupancy vehicle (SOV) numbers. A Transportation Management Plan (TMP) was completed for this development and sets aggressive SOV reduction goals. The goal of the first phase of development is to reduce SOV by 20 percent. When the Crystal City/Potomac Yard (CCPY) Transitway becomes operational, the reduction goal is 30 percent. Once the Metrorail station is operational, the reduction goal increases to the ultimate goal of 50 percent reduction within North Potomac Yard district. The intent is to develop additional transportation infrastructure to compl*e*ment the Metrorail service. These include Local and Circulator Transit Service, Potomac Avenue, Fine-Grained Internal Street Network, and New Commuter and Recreational Bicycle/Pedestrian Facilities. The transportation analysis for this development shows that travel times increase and speeds decrease on the surrounding roads with the construction of North Potomac Yard. The proposed transportation options, as well as strong TDM programs, will help achieve these SOV reduction targets and keep congestion at a mini**i**mum.

Landmark Redevelopment

The Landmark/Van Dorn Corridor Plan and the City of Alexandria Transportation Master Plan examine the opportunities for redeveloping the Landmark Mall, and the major parcels to the south, as a mixed-use center with retail, residential, office, and hotel uses. The potential redevelopment would provide a walkable grid of urban blocks and a new bridge over Duke Street to connect the Landmark Mall with the rest of the town center and surrounding neighborhoods. The Master Plan states that the redevelopment and infill would provide opportunities for a range of transit amenities and could serve as a hub for regional and local transit services. In its current state, the area is mainly served by the Fairfax Connector, WMATA bus lines, DASH, and the Van Dorn Metro station. However, Backlick Run and the Norfolk-Southern rail line are barriers between the station and the rest of the Plan area. The goals for future development, as proposed by the Landmark/Van Dorn Advisory Group include:

- Create a more connected, urban grid system, with walkable blocks, to increase mobility for both pedestrians and vehicles.

- Increase transit ridership through reliable, convenient and coordinated transit services, with an emphasis on effective transit service on Van Dorn Street between Landmark Mall and the Van Dorn Street Metro Station
- Provide safe, convenient and attractive pedestrian and bicycle access to all transit nodes, centers and stations
- Provide off-street, dedicated pedestrian and bicycle paths to connect transit, activity centers, neighborhoods, open space, and community facilities.

This redevelopment is still in the planning phases, but there is great potential for future transit investments as well as TDM programs for residents and businesses.

Expanded Transit – High Capacity Corridors

The initiation of three new transit corridors throughout the City, as recommended for implementation by the Transportation Master Plan, present a significant opportunity for Local Motion to partner with the City's transit system and actively promote these new services to residents and employers, once they come online.

Currently, the City is conducting a *Transitway Corridor Feasibility Study*, focusing on three select corridors which may benefit from dedicated transit service: North-South, Duke Street, and Van Dorn/Beauregard. The goal of the study is to establish a strategy for enhancing transit in each corridor and to provide an action plan for the future. Implementing dedicated transit services in these corridors would serve an important role for TDM efforts by improving connectivity between the city's major population and employment centers. The study is anticipated to be completed in 2011 and involves four separate tasks: a) planning, b) conceptual level of engineering, c) concept-level environmental study, and d) public outreach and coordination.

The high capacity corridors considered for dedicated transit service include:

- North-South—This corridor follows US 1 and connects to future transit corridors in Fairfax and Arlington Counties. The North-South corridor would provide service to commuters and residents with origins and destinations throughout the corridor. It has the potential to serve as an alternative to Metrorail Blue and Yellow line services and would offer connectivity to destinations within Alexandria and in Fairfax and Arlington Counties such as Old Town, Potomac Yard, Crystal City, the Pentagon, and Ft. Belvoir.[13]
- Duke Street—This corridor would provide connectivity to areas west of Alexandria in Fairfax County. The corridor would potentially serve the Eisenhower East area, Landmark Mall, Foxchase, Alexandria Commons, the

[13] http://www.alexandriava.gov/HighCapacityTransit

King Street Metrorail station, and portions of Old Town. The east/west alignment of the Duke Street corridor would allow connectivity with the North-South and Van Dorn/Beauregard corridors.

- Van Dorn Street/Beauregard Street—This approximately east/west corridor would travel along Beauregard Street and Van Dorn Street. At the northern end of the corridor, there is potential to link to Columbia Pike, Fairfax County, and the Pentagon area. At the southern end, the corridor would directly connect to the Van Dorn Street Metrorail station. The corridor would connect key destinations including: the Van Dorn Street Metrorail station, Landmark Mall/Van Dorn Street commercial areas, Kingstowne, the Mark Center (and BRAC-133 site), Shirlington, and the Pentagon.[14]

Revised Transportation Management Plan (TMP)

The recently considered policy changes to the City's TMP program present tremendous opportunities to use the program's resources more wisely and to allow for the possibility for expanding the Citywide TDM program. A proposed revision to the TMP program would include a commitment of additional resources from developers and subsequent property owners to expand the reach of the program. Under the revised program, small TMPs would pay into the Citywide program, while mid-size developments would also be allowed to voluntarily "opt in".

Figure 3.11 highlights TDM activities that are currently being funded through the TMP program, while Figure 3.12 displays historical trends in mode share for TMP tenants across the program from 2003-2009.

[14] Ibid.

Figure 3.11 TMP Funded Activities

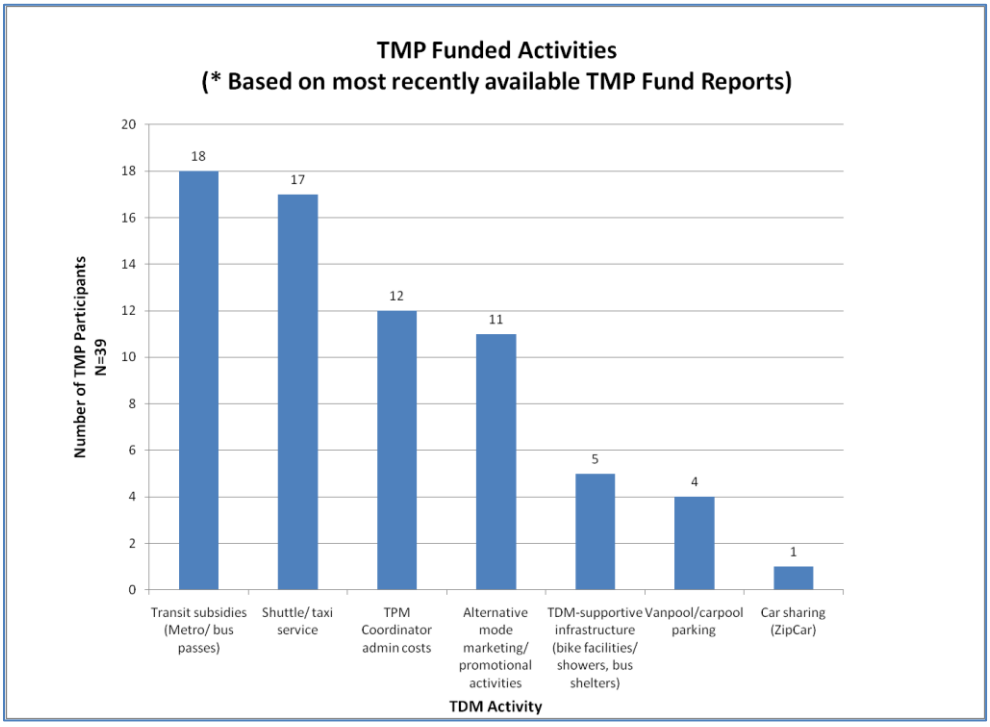
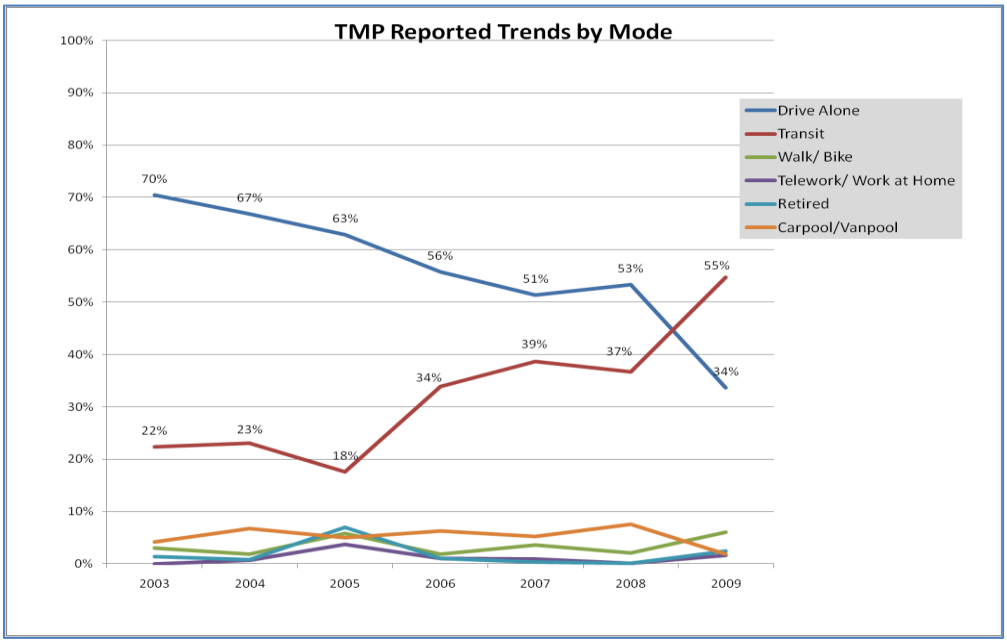


Figure 3.12 Historical Mode Split for Tenants of TMPs (2003-2009)



4.0 Local Motion Strategic Plan

As the City of Alexandria continues to experience changes in its land use and travel patterns— as well as changes in its demographic makeup and existing transportation infrastructure— over the near-, mid-, and long-term, the mobility services needed and desired by residents, businesses, employees, and visitors may evolve as well. Existing services may need to be expanded to better meet the needs of a growing customer base, and new services may need to be developed to meet the needs of new customer and stakeholder groups.

This section outlines the strategic framework that will guide the growth and development of the Local Motion program over the short-, mid-, and long-term timeframes. Through outreach to Local Motion staff, partners and stakeholders, an analysis of the program's *strengths, weaknesses, opportunities, and threats* in light of current needs and projected future changes was conducted. This analysis was used to develop goals and objectives that will guide Local Motion's work, strategies that will assist Local Motion in achieving its goals, and performance measures that will be used to monitor the program's progress.

This Strategic Plan Section includes business operation goals and objectives that are organized into short, mid, and long-term recommendations. The Marketing Plan Section, along with the Program Performance Evaluation and Reporting Section, complement the goals and objectives included in this Section. These three Sections taken together represent the core of the Strategic Long-Range TDM Plan for Local Motion.

4.1 STRENGTHS, WEAKNESSES, OPPORTUNITIES, AND THREATS (SWOT) ANALYSIS

A SWOT analysis provides an organized framework for evaluating any organization or program, such as Local Motion, and the environment in which it operates. This analysis highlights *Strengths* as areas in which Local Motion already excels, while recognizing *Weaknesses* as areas in which Local Motion could work to improve its programming or service delivery. *Opportunities* are events or trends that Local Motion could use to its strategic advantage, while *Threats* are factors or events that could limit the success of the program. Figure 4.1 illustrates the SWOT framework and its four key components.

Figure 4.1 SWOT Framework

A summary of outstanding strengths, weaknesses, opportunities and threats that face Local Motion are described below.

Strengths

- The City has been at the forefront for establishing its vision as a walkable, pedestrian and non-solely automobile oriented destination, which contributes to the attractiveness and political feasibility for enhancing its TDM program and services. There is a considerable receptiveness in the City for promoting alternative travel options.
- Support for this multimodal vision is already codified in several City policies and planning documents, which lay the groundwork and guiding principles for the future. These plans include: the 2008 Comprehensive Transportation Master Plan, the 2010-2015 City of Alexandria Strategic Plan, the 2008 Pedestrian and Bicycle Mobility Plan, and the 2030 Eco-City Environmental Action Plan.
- The establishment by the City Council of the Transportation Commission provides an even stronger framework for alignment of projects and activities with the Transportation Master Plan. The Commission's lead is to advocate and promote the development of balanced transportation systems in the City and to ensure that the plan goals are implemented.
- The City has proudly developed an Eco-Cities designation which fits well for leveraging TDM strategies, since both efforts share identical goals to improve

air quality and decrease local emissions[15]. Through the Eco-Cities initiative, residents of Alexandria are invited to complete an "Eco-City Audit" to learn about, and to undertake, a series of transportation and air quality actions; specifically, to use alternative modes such as walking and public transportation, and to avoid automobile trips altogether through telework arrangements.

- The Transportation Management Program (TMP)— including its governing ordinance and related Development Special Use Permit (DSUP) requirements— comprise the City's strongest and most comprehensive tool to mitigate negative transportation impacts of new development and to manage transportation demand and appropriate land use and transportation planning.
- The Local Motion program gets substantial leverage from regional efforts conducted by MWCOG's Commuter Connections program, including: marketing, advertising, and educational campaigns aimed at SOV commuters; administration of the rideshare database, rideshare matching, and the Guaranteed Ride Home program.
- In terms of mode split, Alexandria already has one of the highest bicycle mode shares in the region (after Washington DC) and is continuing to build its bicycling network. Between the 1994 and 2007/2008 Household Travel Surveys conducted by MWCOG, the City's bike commuting share rose from 0.7 percent to 2.7 percent (in comparison, the share growth in DC was 2.2 to 3.3 percent and 1.1 to 1.4 percent in Arlington County over these two survey periods). In the past year or so, a lot of new bike racks have been installed throughout the community; once installed, they become a highly subscribed amenity.
- Alexandria also has a high walk commuting share in the region, rising from 3.8 percent to 4.8 percent, per the 1994 and 2007/2008 Household travel Survey (in comparison, DC's share declined from 13.3 to 11.9 percent and Arlington County's share grew from 2.7 to 5.7 percent over the same survey periods).
- Local Motion has a strong presence at local events such as Bike to Work Day, Earth Day, and the Patent and Trademark Office (PTO) and Pentagon Transportation fairs. Staff are diligent at promoting transportation options and providing information to prospective residents and employees.

[15]The Eco-Cities collaborative strategic planning process had begun in Spring 2007 through a partnership between the City of Alexandria and Virginia Tech's Department of Urban Affairs and Planning (UAP). This process included the development of an Eco-City Charter (June 2008) and an Environmental Action Plan.

- Local Motion has a high level of customer service and local knowledge to assist in trip planning.
- Employer outreach, ridesharing and vanpooling are some of the most cost-effective measures for reducing transportation emissions (in comparison to heavy rail, or even telework) – they require no capital funding, although their cost-effectiveness is commensurate with effective implementation of those strategies.
- The program benefits from shared overhead resources, as well as complementary functions within the Division of Transportation Planning (parking management, transit services, bicycle and pedestrian planning, etc).
- As a large employer in Alexandria, the City itself encourages its employees to try alternative modes, primarily through educational efforts and provision of a $75 monthly transit benefit.
- The program already coordinates well with WABA, MWCOG, DRPT, and the local Chamber of Commerce.
- The website has recently received a "refresh" and contains a lot of useful information for commuters; Local Motion continues to add useful content to the site and enhances its capabilities to reach out to the broad population.

Weaknesses

- Awareness of Local Motion is rather low. The program is seen as primarily providing transit info. Additional marketing is needed to raise the program's profile.
- Citizens already have internet resources they use for trip-planning (e.g., WMATA website for Metro schedule, VDOT traffic cam site and Google/Mapquest for driving directions and info). The Local Motion website will only be used if it is an easy to use, comprehensive site with real-time information for all transportation services (Needs to be iPhone compatible or downloadable as an "app" to be attractive to tech-savvy Apple users.)
- Local Motion tends to participate in mostly Old Town events.
- Most people who work in Alexandria cannot afford to live in the City, so many residents travel out of the City for work every day while local employees have to commute in.
- Need more direct bus routes, greater transit coverage, and service for reverse commute and non-work trips. However, there is concern about how many more buses can fit on the roads. Preference for rail transit which is more expensive and generates additional neighborhood opposition.
- Lack of transit options for non-work trips, especially in West End. Most West End residents choose to live there for easy access to I-395.

- TMPs are not effectively tracked or administered, and the funding to put TDM programs in place often remains unspent by the program recipients.
- Local Motion lacks a "toolbox" of programs and services with associated performance measures to market to the City and residents.
- Stakeholders, employers, and public are not familiar with the concept of TDM. There is a need to sell Local Motion as a City program that helps decrease congestion, promote mobility, and increase transportation/transit options.
- Need to do a better job of measuring what is offered and the impact it makes. In particular, need to measure and increase the impact of employer outreach efforts and get major area employers on board.

Opportunities

- The recent changes in the TMP program open the possibility of using program funds more effectively, particularly the ability to leverage unused fund and to use funding to support a Citywide TDM program..
- Address needs of aging population, residents "aging in place".
- Increase brand awareness, especially in Western Alexandria, by conducting additional outreach through the Civic Associations (e.g. Cameron Station, Seminary Hill, Seminary Valley)
- Give an annual presentation on Local Motion at a regular meeting of each Civic Association in the City.
- Work to establish a link to Local Motion for as many condo association websites as possible.
- Create "welcome packets" to increase program awareness among new residents and combat the issue of maintaining visibility amidst high resident turnover rates.
- Increase awareness of Local Motion and public support for TDM by developing press releases illustrating TDM/TMP successes (e.g. buildings opening with showers, bike facilities for employees).
- Get more involved in transportation planning for special events, possibly by coordinating with staff at DASH.
- Could coordinate more with select stakeholder groups such as Walk/Bike Alexandria, Streetcar Coalition, Safe Routes to School, etc.
- Conduct more follow-up and pursue more leads to engage employers and others.
- Outreach to Arlington for peer guidance on some programs (take advantage of opportunities to use Arlington as a model as opposed to seeing them as a competitor).

Threats

- Focus of City efforts is on Old Town and Del Ray, while most growth is happening on the West End. Planning and TDM efforts for Landmark and Beauregard Corridor are only being pursued after development has already begun.
- Cut through traffic (regional traffic using local streets) is a major concern
- Makes residents resistant to increasing connectivity
- Residents are not keen on designing Alexandria roads to handle Fairfax traffic
- Have to retrofit existing transit services and neighborhoods to encourage transit use and walking/bicycling
- Potomac Yards Metro (Del Ray residents are resistant to connection to increase access to future station)
- Eisenhower was supposed to be an industrial area, but now it has a lot of office and residential units which need greater connectivity
- Warehouse and industrial areas will be replaced with high density residential. The transportation network, especially transit/bike/pedestrian, needs to be adapted to deal with increased use and a new type of traffic (residential vs. industrial)
- Future growth in "high end shift workers" expected in Alexandria. These residents will have different TDM needs than current major employee groups.
- Metrorail service is viewed as unreliable and off-hour service is inconvenient.
- Residents are not aware of what is planned for their neighborhoods (what development is coming, how it will be changing) and, as a result, cannot envision future transportation needs appropriately.
- Need to provide adequate parking for tourists, but need to make sure it's pay parking and employers are providing free access to it for commuters.
- Employers are a critical stakeholder with the money and influence to make a huge impact on transportation in the City, but they don't all see themselves as part of the City.
- Need to engage the business community through the Chamber of Commerce.
- High residential turnover rate makes it hard to build awareness of the program
- Top issues in the region are congestion, telecommuting (or lack thereof), SOV usage, air quality, and transportation concerns for low-income communities

- Alexandria is one of the few areas in the Washington region that also has significant industrial traffic. There are large asphalt, waste energy, and ethanol facilities in the City. Need to influence personal trips, while still accommodating industrial traffic and promoting economic growth

4.2 MISSION AND VISION STATEMENT

The vision of the City of Alexandria, as expressed in the 2004 Strategic Plan and affirmed in the 2010 Strategic Plan is:

"Alexandria is a Vibrant, Diverse, Historic, and Beautiful City with Unique Neighborhoods and Multiple Urban Villages Where We Take Pride in Our Great Community."

The City of Alexandria's Transportation Vision, as expressed in the 2008 Comprehensive Transportation Master Plan is:

"The City of Alexandria envisions a transportation system that encourages the use of alternative modes of transportation, reducing dependence on the private automobile. This system will lead to the establishment of transit-oriented, pedestrian friendly village centers, focused on neighborhood preservation and increased community cohesion, forming a more urban, vibrant and sustainable Alexandria. The City will promote a balance between travel efficiency and quality of life, providing Alexandrians with transportation choice, continued economic growth and a healthy environment."

As a program of the City of Alexandria's Department of Transportation and Environmental Services, Local Motion shares these visions. Local Motion contributes to the realization of both visions through its direct services and collaboration with other departments and programs throughout the City.

4.3 GOALS, OBJECTIVES, AND STRATEGIES

The goals, objectives, and strategies adopted in this Plan were developed through a review of existing Alexandria planning documents as well as through outreach to Local Motion's partners, stakeholders, and the public. The goals, objectives, and strategies described below are designed to support existing plans and to assist Local Motion, the City of Alexandria, local residents and businesses, and other stakeholders achieve collective goals identified through this process.

Figure 4.2 illustrates the strategic framework and definitions used when developing goals, objectives, strategies, and performance measures for this Plan.

Figure 4.2 Local Motion Strategic Framework

Following the process described above, Local Motion has identified a series of long-term goals, objectives and strategies for its program. These are shown in Table 4.1.

Table 4.1 Local Motion Goals, Objectives, and Strategies

1. Goal: Local Motion will maintain its status as a visible, customer-focused and results-oriented City of Alexandria program which actively supports the City's vision, goals, priorities, and initiatives.

1.1. Objective: Support Strategic Goal # 3 of the 2010-2015 Alexandria Strategic Plan -- the attainment of "a multimodal transportation network that supports sustainable land use and provides internal mobility and regional connectivity for Alexandrians".

Short-Term Strategies (one to six years):

1.1.1. Support modification of the City's Transportation Management Program (TMP) through the zoning ordinance to encourage greater coordination, economies of scale, and improve the flexibility and effectiveness of the program.

1.1.2. Support the adoption of the Draft Complete Streets policy for Alexandria to provide safe, convenient, and comfortable routes for walking, bicycling, and public transportation and to encourage increased use of those modes.

1.1.3. Contribute to development of improved parking management policies to maximize the efficiency of the City's parking supply.

1.1.4. Support priority transportation projects that involve alternative modes and provide added impetus to encourage the use of improved and new services.

1.1.5. In concert with ongoing improvements to Alexandria's transportation network (e.g., addition of transit corridors along Route 1, Beauregard Street, and Duke Street), identify and continually seek new sources of funding for Local Motion programs to affect awareness, trial and behavior change.

1.2. Objective: Undertake and successfully complete specific efforts outlined in the 2008 City of Alexandria Comprehensive Transportation Master Plan.

Short-Term Strategies (one to six years):

1.2.1. In the Streets section, under Actions and Strategies, "S3. Develop new and enhance existing education programs to market and educate the public on Travel Demand Management (TDM) Strategies"

1.2.2. In the Pedestrian and Bicycle sections, under Encouragement Action Items, "P3.A. and B3.A. .. introduce a stipend— similar to its transit subsidy— for employees to bicycle or walk to work at least four times a week."

1.2.3. In the Bicycle section, successfully complete Encouragement Action Item B3.B. by coordinating with DASH to ensure that bicycle racks are added to all DASH buses (the original estimate of completion was 2009).

1.2.4. In the Bicycle section, under Encouragement Action Items, B3.C, "…organize and sponsor a month long promotional effort and ride series to encourage bicycling."

1.3. Objective: Develop efficient organizational practices to maximize the impact of TDM efforts.

Short-Term Strategies (one to six years):

1.3.1. Actively promote TDM within the City itself (e.g. increase TDM service offerings for City employees beyond transit subsidies, implement policies to encourage vanpools and carpools such as priority parking, etc).

1.3.2. Partner with Eco-City to demonstrate a single integrated program that illustrates that TDM will be viewed as an integrated component of transportation, land use, and development planning and processes within the City of Alexandria.

1.3.3. Prioritize existing budget resources on business outreach until funding resources are augmented, and devote funding toward improved evaluations of employer outreach activities to track progress over time.

1.3.4. Develop consistent procedures to track all reported data and apply a more systematic approach to analyze trends in that data in order to refine the direction of the program over time.

1.3.5. For any new program or activity undertaken, clearly define goals and performance metrics and set up evaluation schedule to assess progress.

1.3.6. Document an inventory of activities and service offerings that have been instituted in the past, as well as their outcomes, to mitigate for the effects of future staff turnover and loss of institutional knowledge of program activities.

1.3.7. Experiment with simpler approaches for collecting and using TMP survey data (i.e. less time consuming and user-friendly), such as Survey monkey or other inexpensive software that can automatically summarize survey results in usable report format.

1.3.8. Leverage assistance from Northern Virginia's Telework Coordinator (staff members who works on behalf of DRPT) who can provide additional staff and technical support to encourage local Alexandria businesses to sign onto Telework!VA.

1.3.9. Expand partnership with neighboring TDM programs (e.g. Arlington County, Prince William County, etc) to share best practices and maintain dialogue and coordination on transportation projects and TDM activities that will effect City of Alexandria residents and businesses.

1.3.10. Establish and leverage the resources of the Eco-City initiative to work toward common goals (e.g., establishing future year emissions targets from transportation), to share marketing resources to promote both programs (i.e. in contrast to separate promotional efforts and activities), and to present a unified front to businesses to encourage their participation.

1.3.11. Develop annual work program for Local Motion staff to show each member's contribution toward defined annual goals (e.g., including percentage of time split across various activities); cross-reference with Eco-Cities annual work program (if developed separately) so that all available staff resources toward common goals are shared efficiently.

1.3.12. Report accomplishments to the City Council on annual basis, particularly with easy-to-understand metrics of the program's value to the community (e.g. trips avoided, commuter costs savings, etc).

1.3.13. Clarify and document the governance structure of the Old Town Transit Shop and analyze sales and funding data to make recommendations for future operations.

1.3.14. Improve marketing of Old Town Shop by creating a simple one-page brochure and distributing it to local hotels, King Street WMATA metro station, etc).

1.3.15. Bring additional technologies into the shop to enhance the customer experience (e.g. online trip planning, integration of WMATA and DASH data, etc).

1.3.16. Ensure that Local Motion does not miss out on opportunities to educate and make the local community aware of its unique role and contributions to the City's vision in marketing materials (e.g., "Vision 2015/ Planning Alexandria's Future" document).

Medium-Term Strategies (seven to 15 years):

1.3.17. Potentially combine Local Motion and Eco-City into a single program and support leadership efforts of local businesses across transportation and environmental goals.

1.3.18. Use available data on demographic trends, and well as community input, to explore whether the TDM program can, or should, serve non-commuter markets, particularly in the area of mobility to population groups who either do not have access to personal vehicles or choose not to drive.

1.4. Objective: Maintain and expand strategic partnerships to increase the visibility of TDM and diversity funding sources for long-term program sustainability.

Short-Term Strategies (one to six years):

1.4.1. Explore opportunities to garner greater funding resources for the program through modifications to the TMP policy.

1.4.2. Create expanded partnerships with local businesses, the local Chamber of Commerce, the Economic Development Partnership, ACVA and other groups.

1.4.3. Continue to partner with Commuter Connections to promote regional TDM services in the Washington Metropolitan Area, as well as with neighboring TDM agencies such as Arlington County.

Medium-Term Strategies (seven to 15 years):

1.4.4. Coordinate with other City departments to expand multimodal projects throughout the City, and to attain funding for those projects.

1.4.5. Continue to explore additional funding sources to "grow the program".

2. Goal : Local Motion will provide leadership, education, and encouragement for the City of Alexandria to become a model employer and leader in providing TDM services to its 2,000+ employees. [Mid- to Long-term Goal]

2.1. Objective: Educate City leadership on the benefits of telework and other TDM services (highlight TDM as a very low cost and effective approach—if implemented successfully—in contrast to more expensive infrastructure transportation improvements in meeting the City's overarching vision to expand transportation options to residents and improved quality of life in the City).

2.2. Promote the development of a formal telework policy as a benefit for City employees.

2.3. Objective: Offer additional incentives beyond transit passes; namely, incentives for walking and bicycling to work, as well as "living near your work".

2.4. Objectives: Remove disincentives for SOV use among City employees through improved parking management (e.g. inexpensive and close-by parking, lack of vanpool and carpool priority spots, etc).

4.4 CURRENT AND FUTURE FINANCIAL RESOURCES

Two Federal grant programs account for the bulk share of funding for TDM and TDM-supportive efforts in the City: the Congestion Mitigation and Air Quality Improvement Program (CMAQ) and the Regional Surface Transportation Program (RSTP). Due to its non-attainment status with Clean Air Act

regulations, the Washington Metropolitan Region receives an allocation of CMAQ funds whose purpose is to fund transportation projects or programs that will contribute to attainment or maintenance of the national ambient air quality standards (NAAQS) for ozone, carbon monoxide (CO), and particulate matter (PM). To be eligible for CMAQ funds, a project must be included in the MPO's current transportation plan and TIP (or the current STIP in areas without an MPO).

RSTP funds have fewer restrictions than CMAQ funds and are used to make regional transportation improvements. Both sets of funds are used to advance transportation projects and are allocated annually to VDOT and given to the Northern Virginia Transportation Authority (NVTA) for distribution among Northern Virginia jurisdictions.

The process for bringing candidate Alexandria projects before the NVTA for consideration includes the following steps:

- Staff develops and forwards a preliminary list of priority projects to the City's Transportation Commission for its review and consideration.
- Transportation Commission reviews candidate projects and prioritizes them for the following fiscal year funding based on a series of criteria, which includes:
  - Livability
  - Connectivity
  - Land Use
  - Multimodal Choices
  - Improving Aging Infrastructure
  - Use of Technology
  - SOV Reduction
  - Safety Improvement
  - Potential for Obtaining City Funding for the Project
  - Impact on Operating and Maintenance Costs
  - Urgency of the Project
- Transportation Commission completes its review, holds a public hearing to vet the priorities with the Alexandria community, and makes recommendations to the City Council.
- City Council adopts the set of programs to be submitted to NVTA.
- NVTA's Jurisdiction and Agency Coordinating Committee (JACC) develops a draft program for the RSPT and CMAQ funds and forwards to the Chairman and Members of the NVTA.

- NVTA Board approves CMAQ/ RSTP program and sends it to the Virginia Commonwealth Transportation Board (CTB).[16]
- CTB passes the CMAQ/RSTP program as part of the statewide Six-Year Program (SYIP).

The Northern Virginia region funding allocations typically total about $24 million for CMAQ and $36 million for RSTP funds. These funds have been allocated since FY 1993 for CMAQ and FY 1994 for RSTP.

Table 4.2 Historical CMAQ and RSTP Funding for City of Alexandria

Year	Funding Amount	Change from Prior FY
FY 2007	3,850,000	n/a
FY 2008	3,520,000	-8.6%
FY 2009	3,080,000	-12.5%
FY 2010	2,490,000	-19.2%
FY 2011	2,500,000	0.4%
FY 2012*	3,000,000	20.0%
TOTAL	**18,440,000**	

Source: September 7, 2010 Memorandum from the City Manager to the Mayor and Members of the City Council regarding "Consideration of FY 2012 Congestion Mitigation and Air Quality Improvement Program (CMAQ) and Regional Surface Transportation Program (RSTP) Project Funding Requests."

* Note: FY 2012 regional funding amounts are based on projected funding available for FY 2012, per the FY 2011-216 Six-Year Program which is subject to change based on final Federal allocations. A new six-year authorization to replace SAFETEA-LU has not yet occurred, and it is unclear how a new authorization bill will affect the CMAQ and RSTP programs.

In FY 2012, the City's Transportation Commission recommended, and the City Council authorized the City Manager to apply for, an RSTP/CMAQ grant funding request of $3.93 million for nine priority projects. The request comprises $3.14 in Federal funds with a 20 percent match from VDOT ($786,000) with no local match requirement from the City.

Table 4.2 shows the requested projects in order of priority, in addition to their funding status. The project of most direct relevance to Local Motion was ranked third on the priority list of nine projects. The remaining projects could be readily categorized as TDM-supportive efforts because they would provide the infrastructure to bolster the attractiveness and ease of using alternative modes.

[16] The CTB determines priorities and funding for improvements to: a) interstate and primary highway systems, public transportation, freight and passenger rail, road and rail safety projects, bicycle and pedestrian facilities, and other transportation-related enhancements.

Table 4.3 FY 2012 RSTP/ CMAQ Funding Request

Project	Project Description	FY 2012 Funding request	Recommended by NVTA?	Prior Grant Funding
1. Preliminary Engineering of exclusive Transitway Improvements	Project satisfies key recommendation of the City's Master Plan to study and implement exclusive transitways in three travel corridors in the City. Anticipated benefits include improved speed of transit vehicles and increased attractiveness of transit with users.	$240,000	Yes	$1,900,000 (4 Years)
2.. DASH Bus Acquisition	Project allows for replacement of two of seven buses after their useful life. Anticipated benefits include addressing high demand on existing routes and being able to serve new markets.	$1,300,000	Yes	$1,800,000 (1 Year)
3. Transportation Demand Management Analysis and Initiatives/ Transit Store	Project allows Local Motion to continue its activities to promote alternative modes and to continue operations of the Old Town Transit Shop. Anticipated benefits include reductions in the number of single person occupied vehicles (SOVs) during peak travel times.	$400,000	Yes	$1,200,000 (5 years)
4. Bike racks on DASH Buses	Project allows for the purchase, installation, and training related to bike racks and the "bike-on-bus" program. Benefits include cross-jurisdictional mobility, more multimodal trips, expanded ridership, and improved bicycle access.	$180,000	Yes	$100,000
5. Bicycle Parking at Major Transit Stops	Project funds pilot installations of modular, enclosed, unattended	$380,000	Yes	$0

	bicycle parking "stations" at two or three heavily used Metro stops. Benefits include low-cost, high-capacity solution to encourage short bicycle trips to complement public transit usage.			
6. Holmes Run Pedestrian/ Bicycle Tunnel Construction, Phase II	Project funds construction of improvements to tunnel, currently in disrepair. Benefits include improvement in safety for bicycle and pedestrian users.	$500,000	Yes	$510,000 (2 Years)
Unfunded Requests				
7. Bicycle Sharing Initiative	Project funds feasibility study and potential pilot of appropriate bike sharing technology and up to 25 locations for bike sharing stations. Benefits include fulfilling a Transportation Master Plan goal to implement a bicycle sharing program to encourage use of this mode.	$180,000	No	$0
8. Eisenhower Platform Extension	Project funds a second station entrance north of Eisenhower Avenue. Benefits include minimizing the number of conflicts between pedestrians using the station and motor vehicles.	$500,000	No	$3.6 million FTA and DRPT funds; no RSPT or CMAQ
9. Braddock Road Metro Multimodal Connections	Project funds preliminary engineering to improve multimodal access and mobility options to the station. Benefits include exploration of a potential future pedestrian-bike connection and potential walking route to the northern gateway.	$250,000	No	$0

Source: September 7, 2010 Memorandum from the City Manager to the Mayor and Members of the City Council regarding "Consideration of FY 2012 Congestion Mitigation and Air Quality Improvement

> Program (CMAQ) and Regional Surface Transportation Program (RSTP) Project Funding Requests."

Since 1985, an annual TDM grant awarded by DRPT has consistently made up more than half of Local Motion's operating budget. These grants are supplemented by a required 20 percent local match, which must be approved through a resolution of the Alexandria City Council each year. The amount of funding Local Motion has received through the State TDM grant has remained relatively stable over the years, with occasional increases to account for inflation and program growth, and is viewed as a reliable continued source of funding for future years.

5.0 Marketing Plan

The City of Alexandria is an attractive, livable, and vibrant community that offers a high quality of life to its residents. This is made possible, in part, by the City's multimodal transportation system that provides unprecedented access and mobility for residents, businesses, and other travelers. In order to maintain the current level of access and mobility in the face of increasing population and vehicles miles traveled (VMT), the City of Alexandria will have to continue to shift its modal split toward greater use of non-SOV travel options. Continued investment in the City of Alexandria's rideshare infrastructure components— including a number of priority transportation projects that will help support this multi-modal vision (e.g. three transit corridors, bus service enhancements, adoption of a Complete Streets Policy, etc)— combined with a marketing communications program to encourage and support behavioral change are aligned with the goals of the City's Comprehensive Transportation Master Plan and its 2010-2015 Strategic Plan. The City will look to Local Motion to continue to press the message of alternative travel through a variety of marketing, communications, and outreach efforts, which form the basis of this section of its Long-Range TDM Plan.

Some of the most successful TDM marketing communications programs in the country follow a classic "TDM Marketing Model." This model, as depicted in Table 5.1, addresses the key stages of the behavioral change process. The process starts with first becoming aware and more familiar with ridesharing alternatives (transit, carpool, vanpool, etc.) and support services. This leads to consideration and trial of alternative choices, and ultimately ends with conversion to a long-term, sustained behavioral change.

Table 5.1 The TDM Marketing Model

Level	Stage in Behavioral Change Process
1. Awareness	Build awareness of choices and related benefits
2. Familiarity	Increase appreciation and understanding of travel choices and support services
3. Consideration/ Trial	Try one or more options/ have a favorable experience
4. Desired Behavior	Adopt the behavior in everyday living

Fortunately for Local Motion, the regional TDM infrastructure led by Metropolitan Washington Council of Governments (MWCOG) Commuter Connections has taken, and will continue to take, responsibility for activities associated with the first two levels of this marketing model—building awareness and familiarity of non-SOV transportation choices and related rideshare support services. Year after year, Commuter Connections has run a well-funded and well-conceived, high-quality communications campaign in the Metropolitan Washington region media market. This communication program effectively covers Local Motion's service area and does so at no direct cost to the City of Alexandria. It also affords Local Motion the opportunity to focus its staff and financial resources on the third and fourth levels of the TDM marketing model (as seen in Table 5.1).

5.1 MARKETING GOALS

These two critical third and fourth steps, in effect, are the overarching goals for Local Motion's marketing program.

Goal 1: Generate consideration and stimulating initial trial of alternatives to SOV travel

Goal 2: Convert trial to a long-term behavioral change

5.2 MARKETING OBJECTIVES

In support of the above broad goals, marketing objectives for the 2011-2017 period include the following:

Objective 1: Formally establish key local strategic marketing and resource sharing partnerships for Local Motion's employer outreach efforts, including TPM Coordinators at office/retail sites, the Alexandria Chamber of Commerce, the Alexandria Economic Development Partnership (AEDP), and the Eco-City Alexandria initiative.

Objective 2: Align Local Motion's marketing brand to have a greater focus on employers. This may involve related activities such as website enhancements (e.g. featuring the program on the "Business" tab of the City's website), highlighting successful case studies, and creating a Commuter Challenge e-newsletter.

Objective 3: Demonstrate measurable progress with employer outreach efforts by setting benchmarks, such as increasing the number of businesses and residential apartments/larger housing communities that are formally part of Local Motion's employer outreach program by 100 percent within the next six years.

Objective 4: Increase the number of Level 3 (Gold) and Level 4 (Platinum) employer participants in this program by 50 percent. The 2010 baselines for Level 3 and Level 4 are 76 and 23 employers, respectively. Accomplishing this objective in six years – by the end of 2017 - would bring the total number of Level 3 and Level 4 participating employers to 148.

Objective 5: Implement an impact performance evaluation and reporting system as outlined in Section 6.0, *Program Performance Evaluation and Reporting*. Establish and report a baseline measure of vehicle miles traveled (VMT) reduction and air quality impact that can be attributable to the Local Motion marketing program.

Objective 6: Prepare a comprehensive assessment and related action plan for the Old Town Transit Shop.

Objective 7: Achieve the widely publicized TDM objective for BRAC – a 40% non-SOV mode share.

Objective 8: Coordinate with DRPT to dramatically increase the number of companies that sign up for Telework!VA incentives - add 10 new participants per year to bring the total to 80 by the end of 2017. Between FY 2002 and FY 2011, Local Motion has been involved in a total of 20 accounts. The objective of increasing Telwork!VA accounts from 20 to 80 is based on input from DRPT and their expectation that DRPT and Local Motion will work together with DRPT's Telework!VA's sales representatives in calling on City of Alexandria businesses.

Objective 9: Identify opportunities to increase Local Motion's funding to provide more direct resources for program marketing (Local Motion's FY2011 operating budget of $285,300) while leveraging other no-cost or low-cost regional TDM resources.

5.3 MARKETING RECOMMENDATIONS

The following details the seven core marketing recommendations for the City of Alexandria's Local Motion TDM program:

Recommendation 1: Establish a City-wide Multi-Modal Split Goal

Related Marketing Objectives

» Objective 5 - Implement an impact performance evaluation and reporting system as outlined in Section 6.0 *Plan and Program Evaluation*. Establish and report a baseline measure of vehicle miles traveled (VMT) reduction and air quality impact that can be attributable to the Local Motion marketing program.

Rationale

What gets measured gets accomplished. Currently, the City of Alexandria does not have a specific target for TDM. While Section 6.0 of this document details a program evaluation and performance framework, setting measurable goals also

provides a quantitative, metric based approach to evaluating the marketing program. While some small area plans have mode split goals (e.g. the Eisenhower Sub Area Plan goal of 40 percent) and Transportation Management Programs(TMPs) have peak-period/work-trip goals (not goals for all trips), the City of Alexandria does not have an over-arching goal for TDM.

Without specific measurable targets, progress toward a goal cannot be adequately accessed and communicated. The TDM program risks continually being marginalized and underfunded at the same constant level, or worse yet, even eliminated during severe budget shortfalls where there may not be enough political support to contribute the local match. Simply put, without measureable goals, it is impossible to calculate any form of return on investment or provide active refinement to the program.

Based on the 2010 Regional State of Commute Survey conducted by the MWCOG in March 2010, the estimated modal split for commute mode (work) trips for Alexandria residents[17] is 58%/42% - approximately 58% use of SOV commute and 42% use of alternative modes.

Conceptually, the modal split must shift from 60/40 towards 50/50 and even 40/60 if access and mobility are to be maintained in the face of increasing population and VMT. For instance, Local Motion can consider a City-wide goal of 55/45 by 2017 (short-term timeframe) and 40/60 by 2026 (medium-term timeframe). Perhaps the best way to determine an appropriate goal is to model what it will take (modal split) to preserve the City of Alexandria's current level of mobility and access.

Recommendation 2: Identify Strategic Partnerships and Leverage Resources and New Long-Term Funding Sources for Local Motion

Related Marketing Objectives

- Objective 1 - Formally establish key local strategic marketing and resource sharing partnerships for Local Motion's employer outreach efforts—this could include the TMP program, the Alexandria Chamber of Commerce, the Alexandria Economic Development Partnership (AEDP), and the Eco-City Alexandria Program.
- Objective 9 - Identify opportunities to increase Local Motion's funding to provide more direct resources for program marketing (Local Motion's FY2011 operating budget of $285,300) while leveraging other no-cost or low-cost regional TDM resources.

[17] The 2010 MWCOG State of Commute Survey interviewed 600 randomly-selected residents in each of 11 jurisdictions in the MWCOG region, including 600 residents of Alexandria City.

Rationale

The majority of Local Motion's financial resources are provided through an annual grant from the Department of Rail and Public Transportation (DRPT), which is supplemented by Virginia Department of Transportation (VDOT) funding for employer outreach (through a $75,000 CMAQ grant). The core DRPT rideshare administration grant through the State TEIF program requires a local 20 percent match. In FY2011, total funding for rideshare activities was $285,300, of which $228,240 was funded by the State and $57,060 was matched by the City of Alexandria. This level of funding, however, is simply inadequate given the task at hand.

To address this situation, it is recommended that Local Motion work with local stakeholders and the City of Alexandria to identify opportunities to leverage resources, as well as funding. This includes forging partnerships with the Alexandria Chamber of Commerce, the Alexandria Economic Development Partnership (AEDP), the Eco-City Alexandria initiative, and others.

Strategy Recommendations

Part 1: Funding – Currently, every TMP fund supports and finances site-specific transportation strategies that induce residents or employees to use public transportation and other TDM programs. The fund for each TMP stays in an account belonging to the TMP holder, but the City can claim this money if no approved transportation activity is conducted. Up to now, funds are rarely returned to the City for cases of non-compliance. This presents an opportunity cost of using those funds where they are better suited, or to establish a central Citywide TDM program that can leverage them more effectively.

Local Motion, as the City of Alexandria's TDM expert, can bring significant economies of scale, coordination, reporting, and overall accountability and guidance to all of the City's TMPs. To this end, it is recommended that a central or City-wide TDM marketing fund be created and aligned with the December 2010 proposed revisions to the TMP policy which call for an expanded Citywide TDM program to "include the commitment of additional resources from developers and subsequent property owners to expand the reach of the program and to provide transportation resources and TDM tools to Alexandria residents and smaller commercial uses". Revisions to the program require smaller developments to pay into a City-wide program and not administer their own TMPs. A centralized fund will create a single accountability for TDM related service delivery. This approach should encourage significant cost efficiencies in both the Local Motion service delivery and all TMP related activity.

Part 2: Strategic Partnerships – Establishing and building relationships with other organizations and agencies interested in TDM programs can result in resource sharing and joint marketing opportunities. It will take time to establish and build these relationships, but an important first step is to identify what organizations would benefit from a partnership with Local Motion and vice versa. The

Alexandria Chamber of Commerce, the Economic Development Partnership, and the Eco-City Alexandria program are important organizations to engage.

The Alexandria Chamber of Commerce represents the interests of the business community and has 850 professional business members and partners, employing more than 49,000 people region-wide. The Chamber takes an interest in transportation, quality of life, and economic issues. Convenient access to businesses within Alexandria, by alternative modes, is critical to employers, as well as residents and tourists.

The Alexandria Economic Development Partnership (AEDP) leads efforts to grow the tax base, diversify the economy and attract and retain businesses and organizations in Alexandria, Virginia. Convenient transportation options and TDM programs can incentivize businesses to relocate to Alexandria.

The Eco-City Alexandria initiative is a partnership with Virginia Tech's Department of Urban Affairs and Planning and has resulted in the Environmental Action Plan 2030. The plan provides the framework and supporting strategies to address the challenges of climate change in Alexandria. A key component of the Plan is to link TDM efforts with the City's environmental policies, strategies, and efforts.

Recommendation 3: Based on Current Funding Levels, Focus Local Motion's Entire Program on the Greatest Point of Leverage—Alexandria's Employers

Related Marketing Objectives

- Objective 2 - Align Local Motion's marketing brand to have a greater focus on employers. This may involve related activities such as website enhancements (e.g. featuring the program on the "Business" tab of the City's website), highlighting successful case studies, and creating a Commuter Challenge e-newsletter.
- Objective 3 - Demonstrate measurable progress with employer outreach efforts by setting a benchmark, such as increasing the number of businesses and residential apartments/larger housing communities that are formally part of Local Motion's employer outreach program by 100 percent within the next six years.
- Objective 4 - Increase the number of Level 3 (Gold) and Level 4 (Platinum) employer participants in this program by 50 percent. The 2010 baselines for Level 3 and Level 4 are 76 and 23 employers, respectively. Accomplishing this objective in six years – by the end of 2017 - would bring the total number of Level 3 and Level 4 participating employers to 148.

Rationale

Perhaps the single greatest challenge facing Local Motion in the short-term is the lack of sustained marketing resources.

Local Motion must resolve several challenges including: how to cover all of the marketing needs and opportunities with such limited resources, how to research and serve all residents and travelers across the City of Alexandria, how to build and support the employer outreach efforts, and how to promote and drive traffic to the Old Town Transit Shop. At best, trying to support a multitude of varied efforts often produces a disjointed program. At worst, it is ineffective on every front.

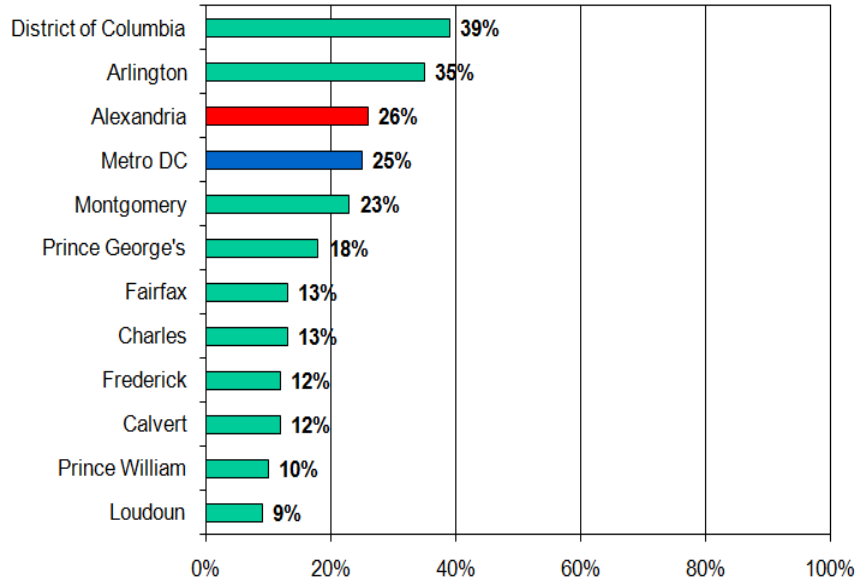
Strategy Recommendations

The most efficient and effective way for Local Motion to operate is to do so by focusing the organization's financial and staff resources on the greatest point of leverage—the local business audience. Employer support is an essential element of a regional or local TDM program. It complements and extends the TDM agency's work as employer support encourages commuters' choice of non drive-alone options by creating a work environment in which all alternative modes are welcomed. Over the last ten years, studies conducted on behalf of Virginia's TDM agencies clearly point to the significant lift in the use of drive alone alternatives when employers offer TDM and rideshare-related support programs.

The City itself is a large employer in Alexandria and can serve as a model for other employers. This would entail ramping up efforts to market alternatives to City employees— including the formation of vanpools and carpools – while providing vanpool/carpool priority parking and establishing parking policies around City Hall that do not inadvertently support SOV driving to work (e.g. relatively inexpensive parking, short-term parking availability on nearby neighborhoods, lack of carpool/vanpool priority parking spots in lots, etc). Additionally, inroads should be made to make Alexandria a telework-friendly employer with increasing numbers of employees eligible to telework via an established City policy.

According to the 2007 Virginia State of the Commute Survey, City of Alexandria employees (commuters) were second only to D.C. and Arlington County among all other Metropolitan Washington region commuters in their use of employer-provided commute services. This relative ranking is depicted in the chart below.

Figure 5.1 Use of Employer-Provided Commute Services

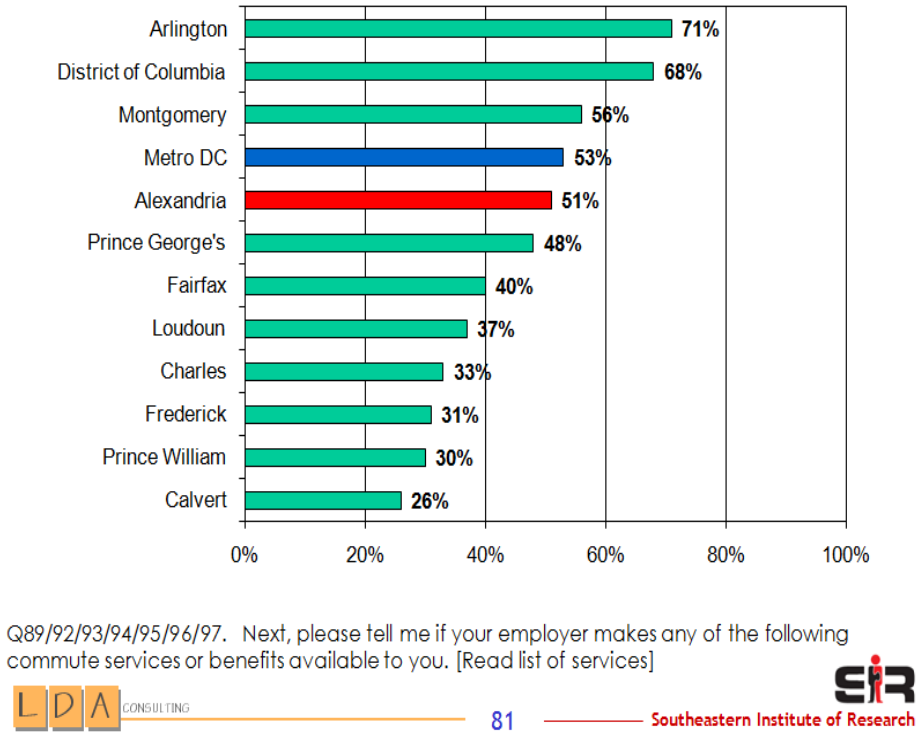


Source: 2007 State of the Commute Survey

Q89a/92a/93a/94a/95a/96b/97a. Have you used [Read list of services]

Despite this relatively high use of employer-provided services by City of Alexandria residents, the 2007 Virginia State of the Commute Survey also revealed that City of Alexandria employees do not have as high an access to employer services than other Inner Beltway jurisdictions. Just half of the City's employees have access to employer-provided services, below the average for all Metropolitan Washington area commuters.

Figure 5.2 Access to Employer-Provided Services



Source: 2007 Virginia State of the Commute Study

Recognizing this opportunity to further leverage employer involvement, three years ago, Local Motion expanded its outreach efforts through external consultant assistance. The goal was to gain employers' endorsement and invitations to work directly with commuters through worksite-based fairs and promotions. It should be noted, that this contract, when combined with the dedicated time of Local Motion's staff assigned to employer-support programs amounts to only about one full-time equivalent (FTE). There is tremendous amount of untapped opportunity in this area.

This employer-based strategy requires Local Motion to make area employers and their employees the organization's number one marketing audience. All other audiences—residents, visitors and tourists, should be considered a secondary priority. The one exception to this targeting approach is residents that can be reached cost-effectively through large residential apartment buildings and/or residential civic associations that cover a large number of residents.

The opportunity a employer-based strategy represents will be well worth the effort. According to the City of Alexandria Economic Development Partnership (AEDP), there are over 8,000 thriving businesses and organizations within the City of Alexandria. Yet, the current number of participating businesses and

organizations in Local Motion's business portfolio is 187, based on data provided by the Employer Outreach consultants.

These businesses in the City of Alexandria hall have more than 100 employees, and are classified into four standard levels of employer participation (per MWCOG) as follows:

- Level 1 – Bronze: 53 currently participating

  A Level 1 employer is only expected to receive a 0-1% trip reduction by such means as conducting a commuter survey and posting alternative commute information.

- Level 2 – Silver: 35 currently participating

  A Level 2 employer is expected to implement two or more of such strategies as establishing preferential parking for carpools and vanpools and developing telework programs. This level of participation expects trip reductions in the range of 0-3 % without telework/compressed work schedules to up to 9 % with telework/compressed work schedules.

- Level 3 – Gold: 76 participating business

  A Level 3 employer is expected to implement at least two level 2 techniques, and one of the more advanced techniques, such as implementing transit benefit program or operating a shuttle from a transit station.

- Level 4 – Platinum – 23 participating business

  A Level 4 employer is expected to implement two or more level 3 TDM programs, in addition to at least two level 2 strategies. This level of participation is expected to result in 2 to 8 % trip reduction without financial incentives such as telework and compressed work schedules, and 5 to 30% with financial incentives/disincentives such as telework/compressed work schedules.

The most desirable levels are Level 3 and Level 4. When the Employer Outreach consultants began work in April 2008, there were a total of 11 employers (with 100 employees or more) classified as Level 3 and 4. By December 2008, this number reached 32 for Level 3 and 4 employers. As of March 2010, there were 99 employers in the Level 3 and Level 4 categories. This increase was accomplished with only one FTE staff. While this steady improvement is promising given the limited resources that are being applied, Local Motion has an opportunity to improve upon the greatest point of leverage in TDM marketing—employer programs.

This is a significant missed opportunity given four key considerations. First, Local Motion benefits from a tremendous amount of marketing support from Commuter Connections' market-wide TDM services (i.e., ridematching, Guaranteed Ride Home program, etc.) and marketing (i.e., advertising, direct mail, etc.) Local Motion does not have to fund this expensive effort. Second,

Local Motion already has an array of popular TDM-related incentives it can offer to the local business community, incentives such as Telework!VA. This particular program offers grants of up to $35,000 to companies for consultant services and equipment purchases to develop or expand employees' telework programs. Again, Local Motion does not have to fund this offer. Third, businesses across the country in general, and around Northern Virginia in particular, are increasingly embracing employer-sponsored transportation services as a proven recruitment and retention strategy. For the first time since TDM was conceived, there is now a pent-up demand among business leaders for direct assistance in establishing and offering commute services and related benefits. Lastly, from a business' perspective, Local Motion offers this in-demand consulting assistance for free.

Increasing the emphasis to employer-based TDM programs necessitates prioritizing this area when it comes to evaluation of performance and return on investment. This can be efficiently accomplished through employer-based or client-based online research. This type and level of analysis also complements the overall program evaluation discussed in Section 6.0 of this document.

The action steps to accomplish this include:

- Create a short and simple online survey (5 minute length) that can capture the data needed to calculate Local Motion's impact on corporate clients and their employees in terms of behavior change - increasing use of alternative modes, lowering VMTs, and reducing inputs into air pollution.
- Recognizing that not every corporate client and their employee base will take the survey, target the survey process on employer types. Build a growing portfolio of examples of how Local Motion makes a meaningful difference.
- If resources allow, set up similar assessment surveys at B2B promotional events – i.e., Bike to Work and Corporate Challenge.

The impact of the action steps, as detailed above, will be measured on a periodic basis using survey research as detailed in Section 6.0 of this Plan. This program evaluation recognizes that currently Local Motion does not have the resources to do statistically projectable research across the entire universe of corporate clients. Therefore, the first years of strategy impact assessment of an employer focus will center around obtaining good return on investment and impact data on several "example clients." Local Motion's thoughtful stakeholders will be able to make the leap to how this impact could be realized City-wide.

Recommendation 4: Conduct a Detailed Evaluation of the Old Town Transit Shop and Formulate a Strategic Long-Range Plan

Related Marketing Objectives

» Objective 6 – Prepare a comprehensive assessment and related plan of action for the Old Town Transit Shop.

Rationale

The Old Town Transit Shop is currently operated without specific goals or a long-term vision. The brick-and-mortar store is managed the Alexandria Transit Company (ATC), but is overseen by the Division of Transportation Planning and its Local Motion program. The store has clear ties to the Local Motion program by distributing fare media that promotes use of alternative modes. A cursory review of this one location service raises questions related to maximizing benefits for the Local Motion TDM program.

Most of the phone calls into the store come from local DASH patrons seeking schedule information (i.e., when is my bus coming?). In the future, technology providing real time arrival information will be ubiquitous. There are already "apps" on the market. The base of callers who will prefer to talk to a live person will likely diminish, although a cohort of residents that need personalized assistance will not disappear altogether.

In September 2009, the store added VRE as one of their major accounts. Today, approximately $90,000 to $100,000 worth of passes are sold on a monthly basis. These sales require a lot of voucher counting (each pass is valued at $30). While the store receives commission on VRE and TLC fares (a type of upgrade to VRE that allows for transfers to Metro), is it worth the cost of operating the store? Stated another way is this service keeping people out of their cars? Or would they still use transit and commuter trains if the service wasn't available? Could the funding for two FTEs to staff the store be better utilized in the renewed focus to an enhanced employer outreach strategy – funding two outreach representatives?

Strategy Recommendations

It is recommended that the entire operation should be evaluated based on the highest and best use of Regional Surface Transportation Program (RSTP) funds to support its operations. To this end, the specific recommended step is a comprehensive audit that includes an in-store survey.

As the Old Town Transit Shop requires considerable resources to operate and is not directly tied to the business-to-business focus proposed under this Marketing Plan, it is recommended that this component of Local Motion undergo a full evaluation.

The action steps for evaluation include:

1. Review past audits and financial information of store operations;

2. Conduct site visit and interview staff;
3. Benchmark store performance relative to other commuter store operations in the region;
4. Conduct customer surveys of the store;
5. Analyze the latest City of Alexandria Travel Survey; and
6. Formulate specific recommendations.

Specific performance measures for the Old Town Transit Shop will be included as part of the store's separate evaluation. The measures should provide a direct linkage to the Local Motion TDM program overall program goals and have the ability to separate the unrelated benefits for VRE and DASH. While both are important, with limited funding Local Motion needs to fully understand the direct TDM program benefits.

Recommendation 5: Leverage Virginia's Telework!VA Program

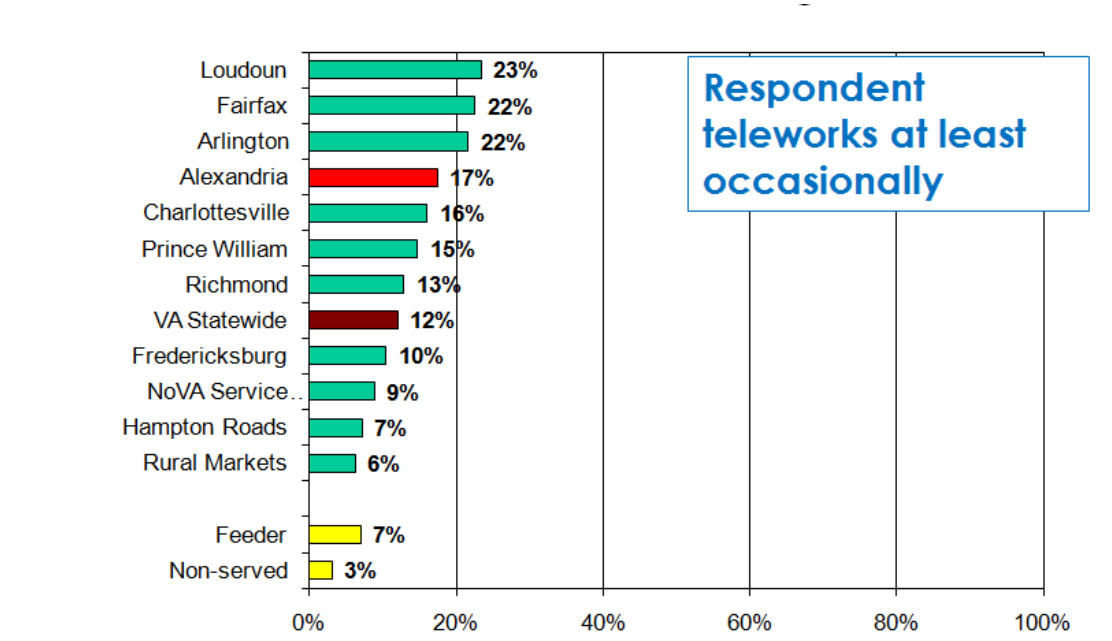
Related Marketing Objectives

» Objective 8: Dramatically increase the number of companies that sign up for Telework!VA incentives - add 10 new participants per year to bring the total to 80 by the end of 2017. Between FY 2002 and FY 2011, Local Motion has been involved in a total of 20 accounts. The objective of increasing Telwork!VA accounts from 20 to 80 is based on input from DRPT and their expectation that DRPT and Local Motion will work together with DRPT's Telework!VA's sales representatives in calling on City of Alexandria businesses.

Rationale

According to the 2007 Virginia State of the Commute Survey, as depicted in Figure 5.3, about 17 percent of the City of Alexandria's residents telecommute at least occasionally to work.

Figure 5.3 Percent of Alexandria Residents Who Telecommute Occasionally

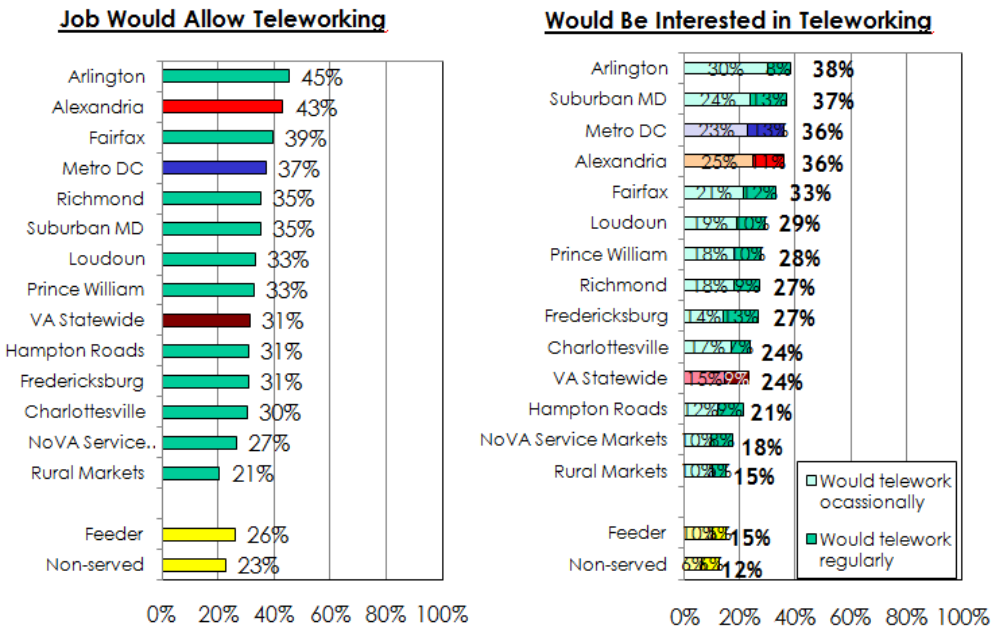


Q13. Telecommuters are defined as "wage and salary employees who at least occasionally work at home or at a telework or satellite center during an entire work day instead of traveling to their regular workplace." Based on this definition, are you a telecommuter?

Source: 2007 Virginia State of the Commute Survey

The the 2007 Virginia State of the Commute Survey also revealed that the City of Alexandria has one of the highest percentages of commuters who say they "could and would" telecommute when compared to other juristidictions in the Metropolitian Washington region. This is depicted in Figure 5.4.

Figure 5.4 Alexandria Commuters Who Say They "Could and Would" Telecommute

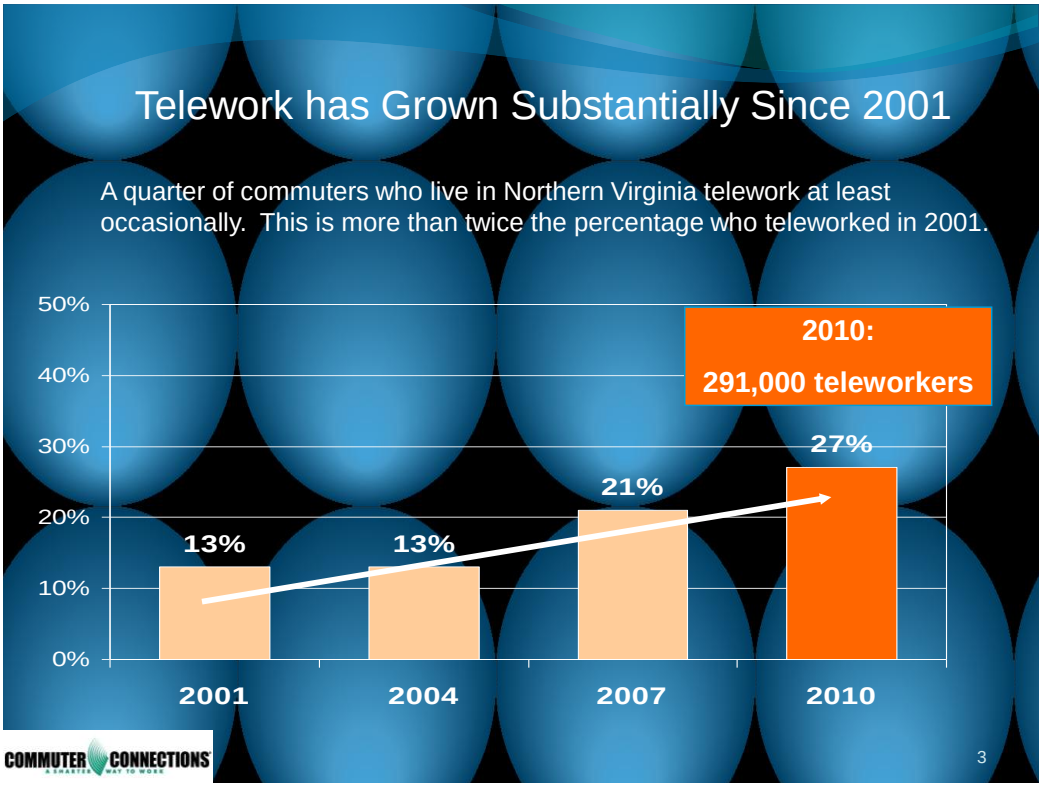


VASOC Q14e. Would your job responsibilities allow you to work at a location other than your main work place at least occasionally?
VASOC Q14f. Would you be interested in telecommuting on an occasional or regular basis?

Source: 2007 Virginia State of the Commute Survey

While the 2010 State of the Commute data are not available for the City of Alexandria at this time, the 2010 data for the region reveals that 27 percent of the Northern Virginia market now telework at least occasionally, up from 21 percent in 2007 and 13 percent in 2004. This very positive trend suggests that the number of people who telework at least occasionally in Alexandria and number of who "could and would" telecommute in the future likely have risen since 2007.

Figure 5.5 Percent of Northern Virginia Occasional Telecommuters



Source: 2010 State of the Commute Survey

Strategy Recommendation

Local Motion currently advances telework through the Commonwealth's comprehensive Telework!VA program. This program funds long-term programs by employers which can assist them in setting up a program for up to $35,000/business through capital and operating subsidies, funding that does not tax Local Motion's budget.

Moreover, Telework!VA staff does all the work in selling and servicing new Telework!VA employer partners. Thus, the Telework!VA program represents a significant point of leverage for Local Motion's marketing efforts. At no expense to Local Motion, DRPT's Telework!VA's sales representatives assist Local Motion in calling on City of Alexandria businesses. They assess the impact of accounts that they establish and serve; and, if requested, share related performance statistics with their TDM partners. Thus, local Motion's primary responsibility is simply to provide new account prospects or sales leads.

Between FY 2002 and FY 2011, a total of 20 employers from the City of Alexandria have signed up to participate in Telework!VA. This track record can be significantly improved. Local Motion should formulate a closer partnership

with Telework!VA and work to actively include and promote Telework!VA as yet another incentive it can offer through its employed-based programs.

Given Telework!VA strategic point of leverage, Local Motion's Long-range TDM Plan calls for dramatically increasing the number of new Telwork!VA accounts from companies and non-profit organizations located in the City of Alexandria.

The action steps to accomplish this include:

1. Hold 2011 strategy session with Telework!VA. Finalize goals and detail optimal targets - review list of existing Local Motion corporate clients with Telework!VA staff and create a brief action plan.
2. Introduce Telework!VA to the local Chamber of Commerce and Society of Human Resource Management (SHRM) partners.
3. Introduce Telework!VA to local IT firms as potential surrogate sales force.
4. Introduce existing Local Motion corporate clients to Telework!VA staff.

Every year, Local Motion and Telework!VA will hold a program assessment meeting. At that time, Telework!VA will provide the following evaluation assessment:

- Number of new business presentations
- Number of new accounts
- Number of program participants
- VMT reduced (to the extent information is available)

This will provide the ability to track the longitudinal impact of the program and allow to make solid business decisions around this action.

Recommendation 5: Support BRAC's TMP and TDM Efforts

Related Marketing Objectives

» Objective 8: Achieve the widely publicized TDM objectives for BRAC – a 40% non-SOV mode share.

Rationale

Achieve the widely publicized TDM objective for BRAC, which will bring 6,400 employees into the region by September 2011 (Beauregard and I-395). The City of Alexandria has a "hard" target of 40 percent of trips at the site attributable to the use non-SOV travel. Meeting or even coming close to this goal has the potential to put TDM on the map with Local Motion's stakeholders.

Strategy Recommendation

Although the City, including Local Motion, had only a limited ability to weigh in on the BRAC-133 TMP when it was under development and is still in negotiations to strengthen that TMP, future coordination with the Army-

designated BRAC-133 Coordinator, VDOT, DASH, and other stakeholders will be imperative in minimizing congestion to neighborhoods around the site and on I-395.

Recommendation 5: Establish and Track Performance Indicators. Package Local Motion's Outcomes and Community Impacts: VMT and Emission Reduction Results

Related Marketing Objectives

» Objective 5 - Implement an impact performance evaluation and reporting system as outlined in Section 6.0 *Plan and Program Evaluation*. Establish and report a baseline measure of vehicle miles traveled (VMT) reduction and air quality impact that can be attributable to the Local Motion marketing program.

Rationale

The final strategic recommendation for Local Motion's marketing program ends where the first recommendation started – measure and report the organization's performance and impact based on a stated goals and objectives. While the organizational performance and tracking are detailed in Section 6.0 of this document, it is important to align the program marketing plan with the overall program evaluation process.

To date, Local Motion has reported performance based on outputs – or activities (e.g., number of event appearances, number of participants in the carshare program, etc). While this type of data is better than no metrics at all, it simply speaks to Local Motion's activities, not to the organization's performance and ultimate impact on the City of Alexandria as a community.

Strategy Recommendation

Consistent with Section 6.0 of this document, the future evaluation criteria should build on this baseline activity-related data by measuring performance outcomes that can be attributable to Local Motion's marketing activities and services such as:

Shifts to non-SOV modes motivated by use of Local Motion's marketing activities and services;

- SOV trips eliminated—cars taken off road;
- VMT reductions; and the
- Environmental benefits measured in the reduction vehicle emissions

These outcome or impact measures will guide future decision-making regarding program improvements and setting priorities to ensure resources are allocated to services that will produce the highest level of benefits to the City of Alexandria. In addition, the program will generate the needed information to report to stakeholders the impact Local Motion currently has on the community and the potential impact it could make with additional resources.

The action steps, overall performance evaluation process, measures, and data are detailed in Section 6.0 of this document.

5.4 PHASED-IN APPROACH FOR GREATER FOCUS ON EMPLOYER-BASED OUTREACH EFFORTS

As the Local Motion marketing plan includes a central focus on employed-based strategies, the shift should be carefully orchestrated. To effectively and efficiently execute this shift, Local Motion should follow a phased-in approach that includes the following action steps:

Phase 1: Give Local Motion a Business Brand Image Make Over

To maximize participation by City of Alexandria businesses, TDM must become recognized and celebrated as a "Best Business Practice," a hallmark of the leading companies in the area. As a first step, Local Motion should add a tagline that reinforces the business/employer focus. The business community must come to recognize what Local Motion is all about—free employee commute-oriented business consulting services that deliver benefits. An example of such a tagline follows below:

Local Motion

Helping Alexandria's Workforce

Find A Smart Way To Work

This example has the added benefit of tying into and localizing the Commuter Connections' B2B campaign's message and tagline – "A Smarter Way To Work."

Phase 2: Formulate and Distribute Key Messages Behind Local Motion

Employer case studies and realized business benefits should be added to Local Motion's web site. A majority of Local Motion's event appearances and promotions should be focused on the employer-based strategy, such as the "Bike to Work Day" and "Challenge Program." Last year's regional Bike to Work Day event resulted in nearly 7,000 commuters bicycling to work, many for the first time. Maintaining the Bike to Work Day promotions will give Local Motion an inexpensive way to build its visibility in the business community and reinforce the organization's employer focus.

In addition to the Bike to Work Day, Local Motion should continue to roll out the Commuter Challenge, the friendly competition-oriented promotion that engages the business community in advancing ridesharing use among employees. Both of

these promotions are excellent examples of the TDM Marketing Model in action - generating trial and long-term behavioral change.

Phase 3: Build Strategic Partnerships

Once the key message behind Local Motion is effectively packaged, Local Motion should work with the local Chamber of Commerce, Alexandria Economic Development Partnership (AEDP), and Society of Human Resource Management (SHRM) to recognize the leading local companies that are using Local Motion's TDM programs to support their employee recruitment and retention efforts. Other ideas include: elevating the importance and attention given to the "Local Best" awards, promoting events co-sponsored by the Chamber, AEDP and SHRM, showcasing the winners and profiling each CEO in Chamber, AEDP and SHRM mailers and publications.

In addition to building strategic partnership with these three organizations, Local Motion should build a closer relationship with the Telework!VA program and NuRide to build up Local Motion's available employer incentives. The Telework!VA program is being implemented more aggressively by other TDM agencies across Virginia. It offers Local Motion a way to offer meaningful incentives without having to pay for them. NuRide is the nation's largest employer-based rewards program for work commuters who take greener trips. A greener trip is when you don't drive solo and instead choose to walk, bike, telecommute, carpool, vanpool, take a subway, train, bus, ferry or even work a compressed week. NuRide is free to join and free to use and is supported by governments, businesses and sponsors.

As corporate greenhouse gas (GHG) footprint awareness and related actions to lower corporate GHG emissions footprints continue to grow in importance, Local Motion should form a strategic alliance with the Eco-City Alexandria initiative. Recently, the Eco-City Alexandria team has consulted with Alexandria residents and business owners to determine what it will take to make Alexandria an Eco-City. This audit led to a checklist of actions that residents can perform. It should now be expanded to businesses as more and more companies want to be recognized as being "green". A partnership between Local Motion and Alexandria Eco-City will provide a needed and respectable solution—an Eco-City Alexandria business audit for local and green business certification. This would complement the Alexandria Eco-City Challenge, an audit that is predominantly focused on residents.

The *Alexandria Eco-City Business Challenge* could include employer-oriented non-SOV commuting as part of a business-oriented check list and certification process. The program could also include DRPT's new GHG calculator that will be available in 2011. And, no matter where companies score on the audit, the program could offer Local Motion's real bottom-line benefits to encourage post-audit action—free consulting, Telework!VA and transit-related benefits. If it is structured correctly, this initiative could end up bringing business clients to

Local Motion, rather than Local Motion spending its scarce resources on prospect identification and recruitment.

5.5 IMPACT OF STRATEGIC RECOMMENDATIONS ON CURRENT PROGRAM ACTIVITIES

The aforementioned strategic recommendations and related specific action steps could have a significant impact on how Local Motion is currently focused, staffed, and evaluated. The following section provides a review of the potential impact on each of the Local Motion's current programs.

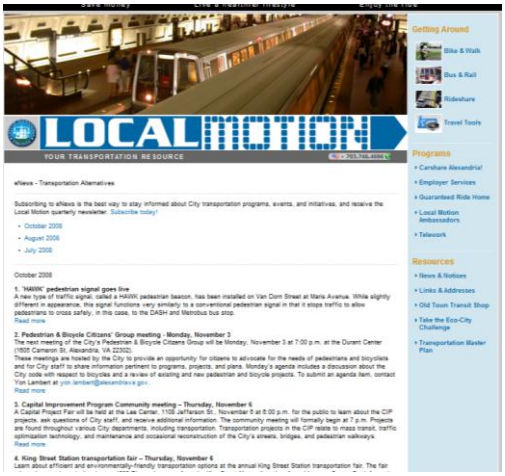
Employer Outreach: The City of Alexandria has been a full participant in a regional effort to convince more employers to offer different types of programs which encourage their employees to use transit or such modes of travel as carpooling and vanpooling. This effort has been completely funded by a CMAQ grant from VDOT. The City has external consultant assistance to conduct its employer outreach program. The Outreach Consultants maintain a database of all employers in the City they contact and of the level of participation by employers in transit/TDM programs.

Recommended Strategy Shift Impact on Local Motion's Employer Program: This is the single biggest way to increase the performance of and outcomes associated with Local Motion's overall program. An employer focus will leverage the awareness and familiarity-building efforts are already being handled by COG. Secondly, it will leverage the preexistence of incentives such as Telework!VA, the new MWCOG Pool Rewards program for carpoolers, transit benefits for employers, Guaranteed Ride Home service, etc. that do not tax Local Motion's budget. Enhanced employer efforts take full advantage of the growing demand among employers for assistance in offering TDM programs.

Commuter Challenge Employer Promotion: This Local Motion program targets large employers (100 employees or more) to implement worksite based TDM strategies for their employees in the City. Through awarding points for participation and being recognized for their accomplishments, employers participating in the "challenge" encourage some of their employees to leave their private automobiles at home.

Recommended Strategy Shift Impact on Commuter Challenge Promotion: This employer promotion should become the center piece of Local Motion's employer outreach effort. It should be expanded and co-branded with the Chamber of Commerce and Society of Human Resource Management (SHRM), even if Local Motion has to fund the entire promotion. Program expansion also means extended the promotion across the year through a series of quarterly promotions

targeting the largest industry sectors to stimulate even a greater sense of healthy competition.



eNews – Transportation Alternatives: The City of Alexandria's eNews provides interested parties a free information service on more than 100 topics, including transportation. The messages, ranging from news releases and department newsletters to public meeting dockets and payment deadline reminders, are sent directly to a registrants e-mail account, PDA, pager, cell phone, or BlackBerry. Alerts from other national and regional organizations, such as Amber Alerts, airport delays, and Metrorail service disruptions can be received as well. There is no cost to sign up for Alexandria eNews, although a wireless provider may charge to receive e-mail or text messages on mobile devices. Local Motion has used this e-new system to offer helpful information regarding traveling in or from Alexandria on a very frequent basis.

Recommended Strategy Shift Impact on eNews: Local Motion should continue to utilize this efficient communication tool as a no cost way to keep stakeholders informed and to reinforce the relative importance and contribution of Local Motion to the City of Alexandria's quality of life and economic prosperity. However, the service may need some adjustments since it appears that residents are having problems using it (i.e. they either get blasted by too many alerts or do not receive pertinent ones)

If possible, Local Motion should seek ways to broaden the current transportation topics to include more employer-based TDM messaging in the information that is offered to the eNews editors, building on the current topic selection as listed below:

- Transportation and Environmental Services
- All T&ES General Information
- Environmental News
- Motorcoach Task Force
- Recycling and Solid Waste Updates
- Stormwater Management and Funding
- Traffic and Parking Board
- Transportation Alternatives

- Transportation and Land Use Planning
- Transportation Commission

Local Motion's Transportation Printed Newsletter: Until recently, the Local Motion program produced and distributed a hard copy newsletter to all residents and businesses in the City of Alexandria. During the past quarter, this newsletter focused on the transportation needs of businesses in these trying economic times. The circulation for this mailing was over 7,000 businesses and residents in the City of Alexandria.

Recommended Strategy Shift Impact on Local Motion's Transportation Printed Newsletter: Local Motion's decision to stop printing this newsletter was sensible given the organization's limited budget resources and the considerable cost of producing and mailing a printed newsletter with no real means of assessing return on investment (ROI). As previously mentioned, Local Motion's shift to a greater focus on employer programming should include the creation of a TDM newsletter tied to the Commuter Challenge quarterly promotion. This newsletter would profile local companies - their level of activity and benefits realized. In addition, Local Motion should explore with participating businesses the idea of and practical use of an employee/ residential e-newsletter that they can co-brand.

Commuter Connection Employer Newsletter: Commuter Connections produces and electronically disseminates an excellent newsletter on employer-based transportation programs. Local Motion has access to this resource as a member of the Commuter Connection network.


COMMUTER CONNECTIONS
A SMARTER WAY TO WORK
WHAT'S INSIDE
AREA EMPLOYERS RECOGNIZED FOR OUTSTANDING EMPLOYEE COMMUTE BENEFIT PROGRAMS
Marketing Award: Social & Scientific Systems, Inc., Silver Spring, Maryland
2010 EMPLOYER RECOGNITION AWARDS
Bike to Work Day Employer Challenge

Recommended Strategy Shift Impact on Commuter Connections e-Newsletter: Continue to utilize the Commuter Connections newsletter tying into Local Motion's employer program. The newsletter profiles businesses and business leaders all across the region who are actively engaged in employer-based transportation programs. Understanding this region wide perspective is an important part of signing up organizations, keeping organizations engaged and, ultimately moving from TDM engagement Level 2 to Level 4.

Providing Support at High Profile Events: Local Motion stages exhibits at various employer, community and special events that provide a variety of literature indicating various travel options for people who might consider using them rather than single-occupant motor vehicles.

Recommended Strategy Shift Impact on Staging Local Motion's Booth at High Profile Events: Until greater resources are obtained, prioritize employer-based events over general public events. Local Motion should use this labor-intensive tactic to

support Local Motion's business partners (Chamber of Commerce, SHRM, and economic development partnership events). Assuming that each community fair takes about 4 hours of staff resource time, and 42 such fairs are currently conducted annually, this equates to 168. Participation at employer-related fairs have the additional advantage of being more context-based and relevant to the audience who commutes to work on a daily basis.

Local Motion Web Site: Local Motion also maintains a Web site that provides additional information regarding transit, ridesharing, bicycling, and walking as alternative transportation resources. This recently updated information resource center presents an excellent image for Local Motion.

Recommended Strategy Shift Impact on Web site: The Local Motion Website should be enhanced to be more relevant and meaningful to employer audiences – the decision makers at companies and organizations that will use Local Motion services. This includes case studies profiling high-profile firms in the City of Alexandria that are advancing TDM programs. These changes would not require significant resources, just thoughtful content and the addition of a few new pages using the Web site's existing organizational framework.

Local Motion Ambassadors: In order to recruit volunteers to assist the TDM program in promoting alternative modes of transportation, Local Motion promotes both a Bicycle Ambassador and a Transit Ambassador program. Through the use of CMAQ Ridesharing Enhancements grant, Local Motion partners with the Washington Area Bicyclist Association to recruit 10 middle school bicycle ambassadors who have been trained by WABA and attend such events as local farmers' markets, the Alexandria Red Cross Waterfront Festival, and the National Park Service Trail Days. They received incentives based upon the number of hours they worked. Local Motion's Transit Ambassador Program is designed to recruit residents and commuters to assist with outreach, communications and other efforts that promote the use of public transit. One person has volunteered for outreach events, distributing event announcements, administering surveys, and writing content for newsletters.

Recommended Strategy Shift Impact on Ambassadors' Program: Stop these two programs, since the incentives given were seen as quite extensive for return on investment.

Carshare Alexandria!: The Carshare Alexandria! Program, currently funded by Local Motion, provides residents a reimbursement for their first year of membership in a carshare program, currently Zipcar. The City provides the initial application fee and the first year's annual fee.

Recommended Strategy Shift Impact on Carshare Alexandria: Given the limited resources today, this kind of high visual impact program must be viewed through a return on investment lens. What is the net trip reduction to the City of Alexandria? If worthwhile, the ideal approach is to find a local sponsor to cover the cost initial application fee and the first year's annual fee. An alternative is to package this application fee and the first year's annual fee underwriting as yet

another benefit Local Motion can offer employers through its B2B marketing program.

Awareness-building, Ridematching and Guaranteed Ride Home Programs: The City of Alexandria is a member of the Commuter Connections network, a regional network of jurisdictions, planning organizations, and transportation agencies, administered by the Metropolitan Washington Area Council of Governments (MWCOG). This network affiliation provides awareness building marketing, carpool/vanpool ridematching, and Guaranteed Ride Home programs.

Recommended Strategy Shift Impact on Awareness-building, Ridematching and Guaranteed Ride Home Programs: Local Motion's affiliation with Commuter Connections provides all of these services –awareness building marketing, carpool/vanpool ridematching, and Guaranteed Ride Home programs – a virtually no cost to the City of Alexandria. The presence of these marketing elements affords Local Motion the opportunity to focus on the second half of the TDM Marketing Model and the B2B audience. Thus, the strategy shift to more B2B does not impact awareness-building, ridematching and Guaranteed Ride Home programs.

Related to this, however, is the importance of understanding, packaging, and sharing with Local Motion's stakeholders precisely what Commuter Connections is doing to support the top two steps in the TDM Marketing Model in general, and how much this is specifically helping the City of Alexandria. The easiest way to do this is to review Commuter Connections' annual campaign (messaging and media plan which is posted on the Commuter Connection's Web site) and to review the latest State of the Commute data related to the City of Alexandria's residents' and employees' level of awareness of transportation options and related support services.

Telework: Local Motion advances telework through the Commonwealth's comprehensive Telework!VA program. This program funds long-term programs by employers which can assist them in setting up a program for up to $35,000/business through capital and operating subsidies. To qualify for Telework!VA, an employer must have a minimum of 30 employees.

Recommended Strategy Shift Impact on Telework: Local Motion should continue to actively include and promote Telework!VA as yet another incentive it can offer through its B2B program. Moreover, this particular incentive is fully funded outside of Local Motion's budget. The impact on Local Motion's program should be felt in greater amount of attention and time spent with Telework!Va in co-marketing the program in the City of Alexandria.

City Transit Benefit: The City provides a transit benefit to its employees to a maximum value of $75 per month. The City's TDM program administers this

program for the City. The increasing cost and inconvenience of commuting has brought many City employees into the City's transit benefit program. The cost of this transit benefit was estimated to be $141,480 for FY2009.

Recommended Strategy Shift Impact on City Transit Benefit: Local Motion should continue to actively include and promote City Transit Benefits to City employees as yet another way to support B2B program. However, the City should also re-examine its parking policy surrounding City Hall. Providing relatively inexpensive meter parking (whereby employees feed the meter every two hours and use spots on residential streets or in front of retail establishments), inexpensive employee parking in nearby lots, and lack of vanpool/carpool priority parking spots undermine successful adoption of alternative modes by City employees.

Air Quality Action Days: (Per Local Motion's Web site) "Air Quality Action Days" is the title for a workplace-based public outreach program, sponsored by Clean Air Partners, aimed at changing individual behavior to reduce ozone production. The Clean Air Partners Partnership is composed of more than 250 companies, government agencies, educational institutions, and individuals.

Participants are notified by 4 p.m. the day before a Code Red Day, an unhealthy air day, so that employers may make an announcement to your employees to encourage them to use an alternative form of transportation the following day, including using buses on Code Red Days. The notification is either e-mailed or faxed.

Employers are asked to inform employees and customers about individual actions they should take to reduce the release of volatile organic compounds (VOCs) and nitrous oxide (NOx), especially during the hottest parts of the day. Clean Air Partners members are also encouraged to consider modifying their company operations (such as painting, mowing, etc.) when Air Quality Action Days are in effect.

Recommended Strategy Shift Impact on Air Quality Action Days: Local Motion should continue to be actively involved in this promotion as yet another way to stimulate consideration and trial of transportation choices beyond the traditional SOV commute.

5.6 OVERALL SUMMARY

Local Motion's greatest challenge is where to find money to ramp up the City of Alexandria's TDM. The convergence of three major aspects of Local Motion's Marketing Plan may provide an answer.

First and foremost, Local Motion marketing program should adopt specific and measurable performance goals related to community impact - benefits directly attributable to Local Motion (reduced VMTs and help with congestion, air quality, etc.) and have a way to measure and report performance against these marketing objectives. Second, Local Motion must deliver measurable results from the marketing program. Focusing on employer outreach and programs gives the organization the best opportunity to make a significant impact given its current level of funding. Third, the refinements to the City of Alexandria's TMP Ordinance may create opportunities to generate a new source of sustained funding for City-wide TDM programming initiatives that leverage all of the existing and future TMP programs.

Recent findings from Local Motion's 2010 Travel Survey (conducted as part of this Long-Range TDM Plan and attached as Appendix A) point to these forces already coming together. More than half of Local Motion users said they started using or increased use of an alternative mode: bicycling (31%), transit (18%), and walking (18%). Other respondents said they sought more travel service information from their employer (16%), from a transit operator (11%) or other commute organization (11%), or that they asked a friend, family member, or co-worker for information (10%).

A small share of respondents who made changes were directly influenced by Local Motion's service – 15 percent of the respondents who made a change after using a Local Motion service said they would not have been likely to take this action if they had not received the service. Other service users said they were somewhat likely or very likely to have taken the action even if they had not received the service.

Lastly, the survey found that there is a great deal of support for investing in alternative modes in Alexandria. Nine in 10 respondents said it was important for the City of Alexandria to invest in alternative mode support programs – programs that support carpool, public transit, bicycling, and walking. And, these feelings were intense. Seventy-one percent said it was "very important" and another 19 percent said it was "important." As expected, respondents who rode transit or bicycled or walked to work felt it was even more important to invest in alternative mode support programs than did commuters who drove alone; 98 percent of bicyclists/walkers and 95 percent of transit riders rated investment importance a top rating of "4" or" 5". But perhaps the most important finding is that 81 percent of drive alone commuters thought it was important to make these TDM investments, too. The vast majority of residents support investment in TDM programs.

6.0 Program Performance Evaluation and Reporting

This section of Local Motion's TDM Plan provides a seven step approach to create an evaluation and performance reporting process for the program. The process is designed to support and guide future program decision-making and to benchmark and track overall program performance. This section includes a detailed description of potential performance indicators; identifies performance targets that can be used to track longitudinal program performance; and highlights data collection needs that support the overall performance evaluation process. The section also identifies specific data elements and collection methods that will support the overall program evaluation process.

Local Motion's evaluation and reporting approach is designed serve five broad objectives:

1. To document Local Motion's impact on travel behavior;
2. To document customer participation in, and satisfaction with, Local Motion's services[18];
3. To identify ways to improve Local Motion's effectiveness in delivering services;
4. To identify ways to enhance Local Motion's customer service experiences and ratings; and
5. To inform stakeholders of Local Motion's impact on the community[19].

The intent of the evaluation approach is to support and guide future program decision-making to direct resources to services that will produce the greatest benefits to the City of Alexandria, reinforce existing customers' participation, attract new customers, and enable Local Motion to respond to market demand with desirable program enhancements.

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[18] "Customers" include residents, employers, employees, and visitors (i.e., anyone who takes advantage of Local Motion's services).

[19] "Stakeholders" include any persons who are interested in the outcome of Local Motion's programs or service offerings, including local decision-makers and program funders.

To this end, the approach:

- Defines performance indicators that are relevant to the expectations set for Local Motion;
- Establishes a methodology that will enable Local Motion to compare the performance of its various services in a consistent manner;
- Identifies tools that Local Motion can use to collect performance-related data;
- Defines options to report progress to stakeholders; and
- Recommends a phased, multi-year research implementation plan.

This approach is based on three key considerations. First, the approach should encompass the full range of TDM activities, both those currently undertaken by Local Motion and activities envisioned to be undertaken over the term of this Plan. Second, given Local Motion's limited financial resources, evaluation and reporting activities are recommended to limit out-of-pocket costs, reserving the majority of Local Motion's funds for program outreach and services. Third, evaluation data would be reviewed at least annually, although some data collection activities would occur at more frequent or less frequent intervals, as appropriate.

6.1 PERFORMANCE INDICATORS

Incorporating travel choice into one's daily trip decision-making thought process is not easy. Alexandria has an enviable range of transportation options, but changing an auto-dominated mindset requires a continuum of educational activities supported by positive travel experiences before the reliance on options other than driving alone become second-nature.

As shown previously in Table 5.1 in Section 5.0, the TDM Marketing Model outlines a four-step transformation process, consisting of the following levels:

- Awareness
- Familiarity
- Consideration/ Trial
- Desired Behavior

This model has been refined into a seven-step approach for TDM program evaluation. The steps in the TDM approach are defined below.

Step 1 - Awareness of modes/TDM services and related benefits;

Step 2 - Attitudes toward modes, willingness to try new mode;

Step 3 - Participation in services;

Step 4 - Satisfaction with services and repeated use;

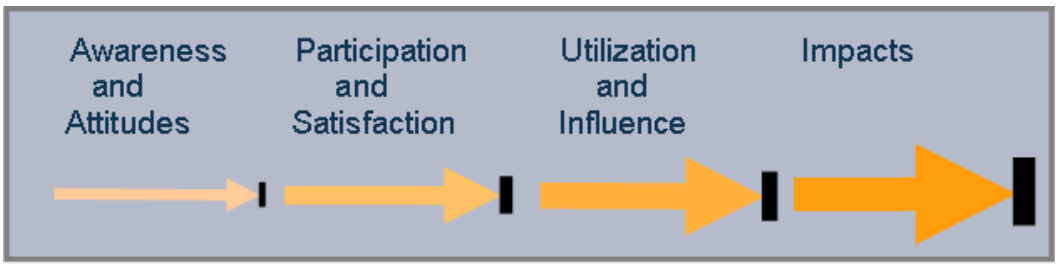
Step 5 - Utilization of modes, travel changes;

Step 6 - Influences on decisions to change; and

Step 7 - Impacts resulting from travel changes.

These steps correspond to a progressive "travel behavior change continuum" that culminates in measuring concrete travel benefits, as shown in Figure 6.1. This process forms the basic foundation for Local Motion to engage in a logical program evaluation and goal tracking process.

Figure 6.1 TDM Program Evaluation Process (Steps 1 through 7)



The TDM evaluation process Steps 1 through 4 (Awareness, Attitudes, Participation, and Satisfaction) prepare travelers for modifying travel behavior change. Steps 5 and 6 of the process (Utilization and Influence) relate to trial behavior change and understanding the factors that influence or motivate the change.

Travel behavior change and the actions leading up to the change are both important steps and significant objectives of the Local Motion program. Equally important is quantifying the impact and benefits of behavioral change and using that information to define and track the overall success of the TDM program. The evaluation approach includes performance indicators that translate behavior change into external travel benefits. These indicators are listed in Step 7 (Impacts). They capture the benefits resulting from behavior changes.

The impacts of TDM programs are typically captured by transportation and environmental indicators, but can include other personal or social impacts as well, such as enhanced quality of life, personal travel savings, economic vitality, and other goals. The evaluation approach is designed to utilize a set of performance indicators associated with each of these steps in order to measure performance.

Table 6.1 presents sample indicators organized by these steps, which Local Motion could incorporate into the program evaluation process. Note that some of the sample performance indicators refer to "travelers," rather than "commuters." This term was used deliberately to represent the many traveling

population segments: residents, employees/ commuters, children, tourists/visitors, and others who travel to, from, and within the City. At present, Local Motion's primary focus is on employer outreach and support, as well as increased community outreach, with a focus on peak-period commute trips. In the long-term, Local Motion could expand the services it provides to residents to encourage use of alternative modes for non-commute trips.

Table 6.1 TDM Program Evaluation Process – Sample Performance Indicators by Process Step

Process Step	Performance Indicators
Step 1 – Awareness of Modes/ TDM services and related benefits	
	• Percentage of travelers who are aware of transportation options available in the City of Alexandria
	• Percentage of travelers who are aware of Local Motion and the services offered
	• Percentage of Alexandria-based employers that are aware of Local Motion services
Step 2 – Attitudes toward modes/ willingness to try new mode	
	• Travelers' favorability ratings toward various transportation options in the City
	• Percentage of travelers who would consider using alternative modes
	• Percentage of residents who rate Alexandria as "easy to get around in without a car"
	• Percentage of employers that believe transportation options and mobility in the City benefit business operations (recruitment, retention, productivity, customer access)
Step 3 – Participation in TDM program services	
	• Number of service inquiries (web, phone, other) to Local Motion
	• Number of travelers who use Local Motion services (e.g., matchlist, carshare, etc)
	• Number of Old Town Transit Shop customers (e.g., monthly average)
	• Number of employer clients participating in Local Motion programs
	• Number of employers that offer TDM services to employees (MWCOG Employer Participation Levels 1 - 4)
	• Percentage of Alexandria-based workers with TDM services at their worksites
	• Percentage of commercial/ residential properties that offer TDM services to tenants

Table 6.2 continues on next page…

| Process Step | Performance Indicators |

Step 4 – Satisfaction with services and repeated use

- Percentage of customers who rate Local Motion services favorably overall
- Percentage of customers who rate various attributes of Local Motion services favorably (response time, usefulness, knowledge of staff, etc)
- Percentage of "repeat user" customers of Local Motion / Old Town Transit Shop
- Percentage of customers who would recommend Local Motion services

Step 5 – Utilization of modes/ travel changes

- Percentage of commuters who use public transit for commuting
- Percentage share of non-work trips made by walking or bicycling
- Percentage of travelers who tried an alternative mode in the past year
- Percentage of travelers who made a shift to alternative modes after receiving Local Motion services
- Percentage of travelers who maintain mode shifts for a year or more

Step 6 – Influence on decisions to make travel changes

- Percentage of Local Motion service users who say that the services assisted or encouraged them to make travel changes
- Percentage of service users who would have been unlikely to have made the change if the service had not been available

Step 7 – Impacts from travel changes

- *Mode split* – Percentage of trips made by each travel mode
- *Vehicle trip generation rates* – vehicle trips arriving at a location per 100 person arrivals
- *Parking utilization* – percentage of available parking spaces used
- *Vehicle trips reduced* – Number of "cars taken off the road" as a result of Local Motion service or percentage fewer vehicles traveling during peak periods (compared to if all travel was drive alone)
- *VMT reduced* – Vehicle miles traveled eliminated by Local Motion services
- *Pounds of emissions eliminated* – Reductions in ozone pollutants and greenhouse gases
- *Energy savings* – Gallons of gasoline saved from reduced vehicle use

Step 7 impact indicators primarily focus on mobility/accessibility (vehicle trips, VMT), air quality/environmental sustainability (emissions), and energy (fuel consumption). These are common TDM measures and are typically measured at an overall program level, rather than at the level of individual services.

Additionally, it can be difficult to separate the impacts of one program from another when a single customer uses multiple services. For these reasons, the evaluation approach assumes impact performance indicators would be measured primarily for Alexandria's TDM services as a whole. Awareness and participation indicators could be measured by individual service, by customer group, by client sites versus non-client sites, or other sub-groups as well. Sub-group assessments could be useful to examine performance of individual services, for purposes of resource allocation or future program or service planning.

Examining performance indicators at the service level also could be important to assess service use and customer satisfaction. Most of the performance indicators are designed to identify what changes were made. This includes the number of travelers (i.e., several population segments, including residents, employees/ commuters, children, tourists/visitors, and others who travel to, from, and within the City) who request information from Local Motion and make certain travel changes based on that information. Knowing why the changes were made is equally important to fully understand service use and customer satisfaction. For instance, it would be useful for Local Motion to know which message motivated a resident to consider using a bus; which media sources disseminated that message; what factors motivated someone to seek Local Motion assistance; which services did that person try and why, as well as which services did he/she not try and why not; and for what reasons did this traveler finally make the mode change.

6.2 BASELINES AND PERFORMANCE TARGETS

The list of indicators defines specific measures for each step in the overall evaluation process. Establishing performance targets provides the basis of longitudinal program evaluation that creates a quantifiable, goal-based evaluation of the TDM program and its associated investments. To establish these measures and associated targets, the City of Alexandria and Local Motion need to define and set specific future performance targets.

As a starting point, three types of indicators and associated targets would be particularly beneficial in establishing performance targets that include travel change, program awareness, and employer participation. When considering the final set of performance categories and targets, Local Motion should ensure that data is being collected and organized to support the process for both the baseline and target calculations. Gauging continuous program performance is a good way to articulate program achievements and overall benefits of the TDM related activities, but requires a commitment to maintaining consistent data collection efforts. The three basic performance tracking areas are detailed as follows:

Impact/Travel Change Target

The Alexandria Eco-City 2030 Environmental Action Plan (EAP) defines three targets related to transportation objectives:

- By 2020, "Reduce the number of daily Vehicle Miles Traveled (VMTs) on a per capita basis by 5% every five years"
- By 2020, "Increase the number of commuters who use public transportation by 25 using 2000 Census data as the baseline."
- By 2030, "Increase the number of non-single occupant vehicle (SOV) commuting trips to 50%"

TDM actions certainly are expected to contribute to accomplishment of these targets, but the City does not have a specific target for the level of travel change needed or desired from TDM. Some small area plans have mode split goals (e.g. the Eisenhower Sub Area Plan goal of 40 percent) and TMPs have peak-period/work-trip goals (not goals for all trips). However, Local Motion has not set an overarching community-wide goal for mode split, vehicle trips reduced, or any other measure of behavior change. Creating and publicizing specific TDM targets for mode split, VMT reductions, greenhouse gas reductions, and other impact indicators will define the level of travel change expected from TDM activities and galvanize both City staff and local employers and organizations that are engaged in TDM activities to contribute to achieving the targets. The targets will have greater visibility if they are reviewed and adopted by the City Council, although they can as easily be developed and utilized internally to track performance.

Program Awareness and Use Target

A second element is a target for program awareness and use. The 2010 State of the Commute survey found that only about 13 percent of commuters who either lived or worked in Alexandria had heard of Local Motion and only nine percent of these commuters had used a Local Motion service. Awareness of the other eight local jurisdiction programs ranged from a low of 10 percent to a high of 53 percent, and use of the program ranged from two percent to 28 percent. Thus, the Alexandria program percentages were on the lower end of Washington Metropolitan Region TDM programs. The relatively modest awareness of Local Motion presents a substantial opportunity for the City and Local Motion to publicize local TDM services to a wider audience.

Employer Participation Target

A third element is the level of participation of Alexandria-based employers in TDM programs. As of the fall of 2010, a total of 184 employers (those with greater than 100 employees) had signed up with Local Motion for worksite TDM program assistance, with about half offering services at Levels 3 or 4. This

presents another opportunity to expand the number and program depth of employers, who can serve as "retailers" of TDM programs to employees, supported by Local Motion's "wholesale" assistance.

6.3 PERFORMANCE DATA NEEDS AND DATA COLLECTION OPTIONS

Performance evaluations require collection and analysis of data related to performance indicators. Local Motion currently collects some data on service delivery activities and service participation, but only minimal data to assess traveler awareness and attitudes, customer satisfaction, and behavior change. Some awareness and attitudinal data are available for Alexandria through regional travel and transit surveys, such as the State of the Commute survey, conducted by the Metropolitan Washington Council of Governments (MWCOG), and surveys conducted by the Washington Metropolitan Area Transit Authority (WMATA), the Department of Rail and Public Transportation (DRPT), and other state and regional organizations.

This section is organized by the steps included in Figure 6.1 and provides a summary of data that would be useful or necessary for Alexandria TDM program performance assessments. The proposed options include both existing tools and new surveys of targeted populations and user groups. The evaluation approach also assumes that Local Motion will review data collected by other state and regional agencies that compile travel data as part of regional or sub-area studies. Another source of travel data might be developers and property managers that are required to conduct TMP studies for new developments. Additionally, the City could coordinate with various organizations such as a Chamber of Commerce, business association, or another government agency to piggyback on future opportunities to collect new data to minimize the cost of data collection.

Note that these research efforts constitute a broad program of data collection and analysis. ***The evaluation plan assumes these data collection activities would occur over a period of 3 to 4 years***, with the highest priority customer groups and research questions targeted earlier in the period and lesser priorities administered later in the period or when resources became available, to spread the cost and staff burden over a longer time period. Data that would be collected later in the period could be estimated by review of surrogate or substitute data until actual data were collected.

Step 1 and Step 2 - Awareness and Attitude Data

Awareness and attitude performance indicators assess knowledge and perceptions. They can be assessed only through direct feedback from members of the targeted populations (residents, employees, visitors, and other populations of interest).

Business/ Employers

This Long-Range TDM Plan assumes that a sizeable share of Local Motion's available resources will be applied to employer-based TDM services in the near-term. Effective application of these resources demands that Local Motion prioritize evaluation activities to target better understanding of the needs and accomplishments of this client group. Do employers know about Local Motion's services, and do the services appear valuable to employers? Do employers perceive a connection between transportation options and services and Alexandria's desirability as a business location? Do employers perceive that transportation options and mobility can positively affect their business operations?

A brief, 5-10 minute business/employer survey could be an efficient data collection tool to benchmark the business community's perceptions of the region's transportation system and the extent to which the region is meeting business and their employees' transportation needs. The survey also could assess employers' awareness, use of, and satisfaction with employer assistance services, the types and level of TDM services that employers are providing to employees at the worksite, and employees' receptiveness to these services.

An annual online survey methodology is recommended as the most cost-effective way to conduct this study, with possible telephone follow-up to non-respondents to increase participation. Recognizing that not every corporate client would take the survey, the research should target a variety of employer types and locations. Over time, this method could build a growing portfolio of examples of how Local Motion makes a meaningful difference.

This approach recognizes that Local Motion does not presently have the resources to do statistically projectable research across the entire universe of corporate clients. An opportunity could arise for additional research resources at a later time. During the first three years of the Long-Range TDM Plan, we recommend working toward getting good information on employers' needs, return-on-investment (ROI), and employee use/impact data from a range of typical example clients. Thoughtful stakeholders will be able to project these impacts to a Citywide application.

Employees

The obvious companion to the Business/Employer data collection described above would be a survey of employees. Commuter Connections currently offers analysis assistance for employee commuting surveys conducted at worksites that participate in local Employer Outreach of employees at locations around the region. Other nearby jurisdictions, such as Montgomery County, MD and Arlington, VA, also have developed employee surveys. A similar tool could be used in Alexandria to collect data on employee travel, use of TDM services, recent travel changes, and factors influencing change. This would serve as an opportunity to understand employees' travel needs and their perceptions about

travel, information that would be valuable to future program decision-making. A slightly modified version of the survey could be tailored to survey employees of companies that are relocating to Alexandria from other jurisdictions about their travel needs and expectations.

With online access widespread in office settings, it has become much easier to administer such a survey with the assistance of employers. Local Motion could establish an online survey in which each employer receives a unique link to enable its results to be separated from those of other worksites. The employer would email the link to employees at its worksite. Employees who do not have individual internet access at work could take the survey on a common computer provided in a central location at work, access the survey website from a home computer, or complete the survey on a paper form.

A summary of the data for a particular worksite could be provided to the employer, along with guidance from Local Motion to help the employer interpret the survey results and apply them to developing or enhancing worksite commute services. Local Motion also could combine the data from multiple worksites to develop a greater understanding of employees' travel patterns, travel needs, and likely interest in TDM services.

Residents

Residents with various types of travel needs (i.e. not only the commuting population) could become a more significant customer segment in the future. As part of the Plan development process, a limited survey was conducted with about 450 residents and workers in the City. The survey, which included both employed and not-employed residents, collected information on commute characteristics, factors that are important to residents and employees in their choice of travel mode, and potential users' awareness and use of travel assistance services.

It is important to note that results of such an online survey might not be representative of the City's actual results. The distribution method for the 2010 survey sought to involve a broad sample of travelers (including residents through the Federation of Civic Associations in the City), but a significant portion of the distribution was targeted to employers that participated in programs sponsored by Local Motion. These employers likely are more engaged than the average employer in commute programs and promote alternative modes to employees at a higher rate than do employers City-wide. For this reason, the survey results likely would not be entirely representative of the City in numerous respects, such as commute mode split and awareness and use of commute services. However, they would provide a periodic qualitative check of travelers' needs and interests and identify unmet travel needs.

If surveys were collected from an adequate sample of respondents, the survey also could permit analysis of various sub-populations, such as seniors, college students, minority groups, and other population sub-groups, members of which might have very different travel needs. The evaluation team recommends that

the survey be conducted either by telephone or through a combination of telephone and Internet/mail survey methods. A telephone survey would provide statistical incidence of opinions, awareness, travel patterns, and other critical topics of interest to the TDM program.

To minimize the overall cost of the resident research, a small (400-800) telephone sample survey could be supplemented by an Internet/mail survey completed by a much larger sample of residents. The Internet/mail survey would provide more robust information about sub-group populations that might not be represented adequately in the telephone survey. It would not produce statistical results on its own, but in combination with the telephone survey, could be weighted to the full resident population.

Step 3 and Step 4 - Participation and Satisfaction Data

Program Participation

Program participation refers to the number of customers who receive services from the TDM program; for example, the numbers of employer clients and the number of commuters who use Local Motion services. A similar assessment could be made for the Old Town Transit Shop. The assumption is that participation is captured primarily through on-going program tracking. The evaluation team assumes this tracking will continue and be expanded to include use of all key TDM services, including transit subsidies, transportation/transit fairs, websites, outreach events, and new services that are implemented.

Customer Satisfaction

The next group of indicators relates to measures of customer satisfaction. At the most simplistic level, satisfaction can be measured in customers' ratings on services overall and on specific attributes of service, but the best assessment of overall customer satisfaction includes both direct and indirect measures. Direct measures include the classic questions that probe satisfaction such as *"how satisfied are you, on a 1-7 scale, with xyz service."* Indirect measures of customer satisfaction further explore "relationship strength." Indirect customer satisfaction is assessed through questions such as *"intent to use xyz service again"* and *"how much one recommends xyz service to others."*

But the real power of a customer-centric orientation lies in identifying and measuring the service attributes that are most important to customers. For example, these attributes of service quality include "responding quickly," "providing useful services," "offering customized assistance," etc. The identification of the link between overall satisfaction and key attribute drivers provides the roadmap for achieving meaningful improvements in overall customer satisfaction.

The evaluation approach recommends establishing a common language for assessing customer satisfaction across all TDM services. For example, one possible approach is to develop an index from attitudinal survey scores across

several attributes—overall satisfaction rating; a rating on the extent to which the TDM service provider makes service use a great experience; likelihood to recommend to a friend or colleague; and likelihood to use the services again. This could be presented in a "satisfaction rating score card" showing both the results on the index and results on various service attributes.

The data for both the development of the customer service index or other measurement tool, and for future checks of satisfaction, must come from feedback from current customers. These feedback tools would collect the following primary data that assessed use of and satisfaction with the services:

- Sources of information/referral to TDM services
- Overall satisfaction with existing services
- Satisfaction with individual features of existing services
- Likelihood to use service again
- Likelihood to recommend the service to others
- Desired improvements to existing services and desired new services

The specific tools and methodologies for customer feedback efforts would vary by the type of service being evaluated and the characteristics of the customer audience. But the evaluation approach recommends ongoing input/feedback mechanisms using methods that reach either a random sample of customers or, if that is not practical to administer, the largest possible segment of non-random customers. Sample tools could include customer feedback cards, intercept surveys, internet pop-up surveys, and internet follow-up surveys, in which service users are asked if they would complete an online survey and are given or sent a link to a survey website.

Feedback cards / questionnaires would be tailored to the specific services being assessed, but identical or substantially similar questions should be used whenever possible in all the feedback surveys to collect data on current and past travel, frequency of service use, information/referral sources, levels of satisfaction, and service influence. Using consistent wording and rating scales will enable cross-service comparisons and facilitate estimates of double-counting of impacts, when more than one service is used.

Step 5 and Step 6 - Travel Behavior Change and Influence Data

Behavior Change

In the context of TDM performance, travel behavior change refers to changes travelers make in how, when, or where they travel as a result of TDM information or services they received. The TDM program's services are focused primarily on travel to work, but also could motivate travelers to use non-single occupant vehicle modes to travel for school, shopping, personal errands, recreation, entertainment, or other purposes.

The primary behavior change indicators, trial and continued placement rates, refer to the percentage of a targeted population who made a travel change after receiving a TDM service. The third indicator, alternative mode placements, equals the total number of targeted population who made a change to an alternative mode.

The appropriate method to assess these indicators is to survey a sample of the targeted population to ask about their travel patterns for whatever time period and trip purpose are relevant. To minimize data collection, survey respondents would be asked to report current patterns, then to recall "retrospectively" travel patterns from a previous time. This approach assesses change by comparing the current to the past situation for each respondent and identifying who reported changes.

One population that might be of particular interest for assessing behavior change is the tenants of TMP buildings. Developers of these buildings are required as a condition of the development approval process to implement travel services or facilities to reduce vehicle trips to the site. Surveys of building tenants (residents or employees) are already a condition of the Development Special Use Permits (DSUPs) that govern the TMP properties. The surveys can estimate the share of tenants who use non-SOV travel modes to access the building and to make mid-day trips around the site. If the building is a commercial building, the survey would be similar to the employee survey described above, but would include additional questions related to facilities or services included in and around the building. If the building is a residential building, the survey could also include elements from the resident survey.

Influence on Change

Measuring what behavior change occurred is important to an impact calculation, but it is also necessary to probe for why travelers made changes or what factors, in addition to the TDM service, influenced the change. Because many factors influence travel behavior and change motivation is often an important consideration, retrospective surveys are frequently used for TDM evaluations. They can be combined with before surveys and/or direct observation (e.g., counting vehicles entering a worksite parking lot) to provide a check of the past behavior reported retrospectively. But questions must be specifically addressed to travelers who make travel changes to determine if the TDM service played a role in motivating or encouraging the change and how important the service was relative to other factors or other services that also were influential.

Step 7 - Impacts from Travel Change Data

Utilization of Transportation System

The list of performance indicators includes several indicators traditionally used in TDM evaluations to translate travel behavior change into transportation and air quality benefits (see performance indicator step 7). The first three of these

indicators, mode split, vehicle trip generation rates, and parking utilization rate, represent benefits related to utilization of transportation networks and facilities. Mode split is most commonly assessed through a survey of a targeted population. For example, it is possible to assess worksite mode split by asking a sample of employees how they traveled to work last week or they travel in a typical week. Mode split over a larger geographic area might be estimated by asking similar questions in a telephone survey of a random sample of residents.

In TDM evaluations, vehicle trip generation rate generally is assumed to be a site-specific or area-specific measure. It is possible to assess vehicle trip generation rates by counting vehicles arriving at a site and comparing that figure to the number of people arriving (if the total number of arrivals is known). However, this method can undercount vehicle access if travelers park off-site. An alternative would be to conduct a survey of people arriving at the site, asking how they traveled to the location and asking about use of both on-site and off-site parking. Parking utilization could be either site-specific or area-wide. It would likely be measured by counts of vehicles parked at a particular time of day and compared to the total number of parking spaces available.

Trip and VMT Reduction

The next two impact indicators, number of vehicle trips and VMT reduced, are absolute measures of reduced single-occupant travel—e.g., "cars off the road" and vehicle miles eliminated. They are typically measured by surveying a sample of travelers who might be influenced by the TDM service and asking about their current travel and their travel before they used the TDM service. These survey data are used to derive multiplier factors that represent the average numbers of trips and VMT reduced per user. These factors are multiplied by the number of all new alternative mode users, both those surveyed and those not surveyed, to estimate total vehicle trips and VMT reduced by all users.

Emission Reduction and Energy Savings

Similar multiplier factors are used to estimate emissions reduced and energy savings. These factors, which typically are regional in scope, are related to the emission and fuel economy characteristics of the region's vehicle fleet. The factors are applied to VMT reductions to calculate emissions reduced and energy savings resulting from the travel changes. These calculations are briefly described below.

6.4 METHODS FOR CALCULATING PROGRAM IMPACTS

Previous sections of this evaluation approach defined performance indicators and data collection tools to collect performance data. This section defines basic measures and provides simple examples to estimate the measures for calculating travel and environmental impacts from Local Motion services. Table 6.2 provides a summary of the measures that are typically used to estimate program

impacts. These measures can also be used as key inputs to tracking program performance. Based on the availability of data, these measures can also be used to estimate the impact of specific services. Each service will have a unique set of factors, depending on the characteristics of the users and the service, but the basic calculation method would be the same. A brief description of each of each step is presented below.

The methods outlined closely follow the method used for the Commuter Connections analysis of impacts from Transportation Emission Reduction Measures (TERMs) for the Washington Metropolitan region. Comparisons to Metropolitan Washington COG (MWCOG) impact data would be appropriate, and consistent with the regional evaluation process.

Table 6.2 TDM Program Impact Measures

Measure	Description
a. Placement Rate	Provides an estimate of program size and growth measured as the percentage of commuters placed and participating in Local Motion program
b. New Alternative Mode Placements	Based on the placement rate, this measure provides an estimate of the participation subset by transportation mode or TDM service
c. Vehicle Trip Reduction	Provides an estimate of vehicle trips reduced by Local Motion program participation
d. Vehicle Miles of Travel (VMT) Reduced	Uses information from the Vehicle Trip Reduction estimate to calculate VMT reduced based on the Local Motion program
e. Emission Reduction	Applies criteria pollutant emission rates to estimate the vehicle emission reduction associated with the Local Motion program
f. Energy Savings	Employs a per mile fuel consumption rate to estimate energy savings based on the Local Motion program

A TDM service is designed to influence or encourage a targeted set of travelers to shift to non-drive alone modes. These travelers represent the *population base* or *population of interest* for that service. Depending on the service, this could be, for example, all commuters, students, employers, Old Town Transit Shop customers, or another targeted group. The base population for the service is used as an input to several of the impact evaluation methods.

a. Placement Rate

Placement rate refers to the percentage of commuters in the population base who are "placed" in an alternative mode after receiving assistance from the service. Placement rates are calculated from survey data of a sample of the population base and can vary from one service to another, depending on the objectives of the service.

To collect the data to calculate placement rate, commuters are asked several questions:

- How do you travel now—what modes do you use and how often do you use them?
- Did you make any changes in your travel since you received "X" service?
- How did you travel before you received this service?
- Did the service encourage or assist you to make this change?

Respondents who made a travel change that was influenced by the service are considered "placements." Two rates are calculated and are distinguished by the length of time the commuter uses the alternative mode after shifting. The *Continued* rate represents commuters who made a shift to a new alternative mode and continued using the new mode. The *Temporary* rate represents commuters who tried a new alternative mode but shifted back to original mode within the evaluation period. Delineation between temporary and continued change is important because temporary changes do not produce the ongoing travel and air quality impacts of the continued changes.

b. New Alternative Mode Placements

This is a simple calculation using the survey data derived in the Placement Calculation and the estimate of the "base population" to estimate the number of new commuter placements in alternative modes. This is the actual number of commuters who are expected to have started or increased use of alternative modes as a result of the service. It is calculated as:

Total Population base (from Step 1) x Placement rate (from Step 2)

c. Vehicle Trip Reduction

Using the same survey data used to calculate placement rate, the vehicle trip reduction (VTR) factor is calculated. This is equal to the average daily vehicle trips reduced per placement, taking into account four types of changes:

- Shift from drive alone to an alternative mode
- Shift from one alternative mode to another alternative
- Increased use of an existing alternative mode
- Increase in the number of riders in an existing carpool or vanpool

The VTR factor combines the trip reduction results of all placements to develop an average reduction per placement. The maximum VTR factor for a commute-oriented service is 2.0 vehicle trips reduced per day (one trip to work and a second trip for the return trip). This high trip reduction would occur if all participants shifted from driving alone, shifted to a mode with no use of a personal vehicle (e.g., new mode is transit, bike, walk, or telework), and used the new modes full-time. Other scenarios, such as part-time use of an alternative mode, some carpool/vanpool as new modes, and/or some shifts from one alternative to another, will produce a VTR factor that is less than 2.0; VTR factors for commute service TDM programs are typically in the range of 0.5 to 1.5.

The number of daily vehicle trips reduced for the service is estimated by multiplying the number of commuter placements by the VTR factor:

Total Placements x VTR factor

d. Vehicle Miles of Travel (VMT) Reduced

The total daily VMT reduced is calculated by multiplying the number of daily vehicle trips reduced produced in the previous calculation by the average commute distance for commuters who made a travel change. The average distance for the population is calculated from the same survey data used to calculate the placement rate and VTR factor.

Total vehicle trips reduced x one-way travel distance

e. Emission Reduction

A basic purpose for implementing TDM is to reduce vehicle emissions, thus single occupant vehicle (SOV) access to alternative modes must be considered. Emission reduction is calculated by multiplying vehicle trips reduced and VMT reduced by emission factors. Commuters who drive-alone to meet a carpool, vanpool, bus, or train create a "cold start". These access trips and the VMT they drive to reach the meeting point must be subtracted from the trip and VMT reductions used to estimate the air quality impacts. It is these "adjusted" vehicle trips reduced and VMT reduced, rather than the initial totals, that are used to calculate emissions reduced.

Daily emissions reduced are estimated by multiplying regional emission factors (one for each of the criteria pollutants) that are available from MWCOG) to the number of VMT reduced to determine the pollutants reduced as result of the program. The emissions factors account for emissions created from a "cold start," when a vehicle is first started, a "hot soak," that occur when the vehicle is later turned off, and the emissions generated per mile of travel by a warmed-up vehicle.

Adjusted VMT reduced x emission factor

f. Energy Savings

The energy saving benefit is an additional tangible benefit from commuter assistance programs. Energy savings is reported as gallons of gasoline saved and is estimated by multiplying the VMT reduced by an average fuel consumption factor for the regional mix of light duty vehicles. The average annual fuel consumption factor should be available through MWCOG.

VMT reduced x average fuel consumption factor

6.5 ASSESSMENT ISSUES

Several assessment issues are commonly encountered in TDM evaluations. The evaluation approach highlights them below as important to keep in mind when using the evaluation method or adapting it to future services.

Realistic assessment of change – The evaluations should assess change by comparing actual current and prior travel modes and frequency of mode use. Use of an alternative mode does not always mean a vehicle trip was eliminated. Vehicle trips are reduced only in three cases: 1) if the commuter shifts from driving alone to an alternative mode, 2) if the commuter increased the frequency of use of an alternative mode, or 3) if the commuter shifted to a higher-occupancy mode (e.g., from carpool to vanpool). The calculation approach defined in this methodology applies a VTR factor that averages the trip reduction results of new alternative mode placements, taking into account the three types of change listed above.

Independent and referred impacts – A difficult issue for TDM evaluations can be documentation of behavior change from services that seek to motivate change directly, with no intermediate use of other services. Common services of this type include marketing/advertising and self-administered information services, such as "take-one" displays. The service might motivate "referred" impacts, for example, if the information prompts a commuter to request a ridematch, but could also generate "independent" impacts, if the service alone motivates a travel change. For these services, which do not require a registration or sign-up, there is no comprehensive list of users who can be contacted in a follow-up survey.

"Referred" influences are best measured by tracking changes in the volume of requests for or participation in TDM services to which the target service might refer (e.g., referral to ridematching), and the sources of referral to the related services. A comparison of the volumes of requests/participation received during times that the information service is in place and when it is not in place can provide an estimate of the change related to the information service.

"Independent" influences can only be assessed through a general survey of the target population (e.g., all commuters) that asks about awareness of the information service, mode change after being exposed to the service, and the

reasons for the changes. This last step—what motivated the change—is a particularly important element of the evaluation. For this purpose, a survey must probe for what prompted the shift. If the shift can be reasonably attributed to the information, the impacts can be credited to the service.

Credit only changes that can be attributed to TDM services – Questions of behavior change motivation are among the most difficult commuter survey questions, because many factors can influence travel choice. Just as it is important to base assessments of change on actual current and past travel behavior, it is equally important to count only the changes that were assisted or influenced by the TDM service being evaluated. Why a change occurred cannot be observed; it is necessary to ask travelers directly about possible influences. For example, a travel survey might ask questions to define the role that the TDM services played in the mode change decision:

- What factors influenced your travel change?
- Did you receive any commute assistance services that helped or encouraged you to make this change?
- How important were these services relative to other influences on your decision?
- How likely would you have been to make this change if you had not received this commute service?

Avoid double-counting benefits from use of multiple programs – Often, TDM programs are designed to work together as an attractive package of services. For this reason, there can be substantial overlap among the programs, with a single traveler using multiple services. In these cases, the traveler would be counted as a participant in each program but should be counted only once in the impact calculation. Thus, an evaluation approach that bases calculations on participation must define likely service overlaps and discount participation to avoid double-counting impacts. The impacts of one traveler's changes can either be credited to a single program or divided between multiple programs, with the extent of program overlap being defined through questions on program user surveys regarding use of other local/regional programs.

Account for repeated use of a service – A participation-based impact method must also consider that a traveler could use a service more than once during an evaluation period. For example, it's likely that many Old Town Transit Shop customers are repeat users, buying a transit pass each month or checking repeatedly for schedule information for various trips. Or a commuter could receive more than one ridematch in a year, if an existing carpool is disbanding. It's fairly easy to track the number of "unique users" if they are known by name or other identifier. But for most cases, the impact calculation method will need to discount participation counts to translate them into a measure of "unique users" during the evaluation period. These factors are best derived from

questions on user surveys that ask the number of uses during a defined time period and divide the participation count by the average number of uses.

Role of external influences – Finally, a common problem in TDM research is the following: Is an observed change the result of a TDM service or due to another factor, such as a change in the price of gasoline? The evaluation should recognize and attempt to address the possible impacts of factors external to the services being evaluated. Travel decisions can be influenced by congestion, convenience of various travel options, economic factors, fuel prices, and other factors. Use of control groups as a comparison can help to identify relative influences of TDM strategies under various conditions. Data collected through City-wide or regional travel surveys also could be used to identify exogenous factors that could have influenced travel changes and by identifying some "indirect" impacts of other factors and influences. In short, user surveys must carefully query travelers who shift to alternative modes to define the relative importance of TDM services in influencing their mode choices.

6.6 REPORTING PROGRAM PROGRESS TO STAKEHOLDERS

The final element addressed by this evaluation approach is program reporting. The key to any successful evaluation effort is for useful and relevant information to be generated and reported in a timely manner to guide future decision-making. Local Motion already prepares periodic operational summaries to Commuter Connections and to the Department of Rail and Public Transportation (DRPT), but this evaluation approach recommends the development of additional reporting tools to document four key performance components:

- Participation / use of TDM services
- Customers' satisfaction with services used
- Behavioral change resulting from outreach or service use
- Impacts of behavior change on community-level goals

Existing and Potential Audiences

Local Motion serves numerous internal and external/public audiences that already have an interest or vested stake in the results of its programs, or could be a potential program audience in the future. Internally, Local Motion coordinates with City staff engaged in various transportation, community, and land use planning functions. The program, like other municipal programs funded by the City, is expected to produce clear benefits that can be demonstrated to its local decision-makers. Externally, Local Motion is often required to report performance data to funders and other regional and state organizations such as the Virginia Department of Transportation (VDOT) and the Virginia Department of Rail and Public Transportation, as well as Commuter Connections. Likewise, Local Motion may want to share information with other TDM program staff of

neighboring jurisdictions when coordinating on cross-jurisdictional matters. The program could also provide performance information to customer groups, including residents, workers, and visitors who travel to or within the City and Alexandria-based employers, business leaders, and retail businesses.

All of these groups could be potential audiences for Local Motion performance information, although the specific information that would resonate with them could be different. A first step would be to define specific audiences that might be receptive to receiving new or additional information and determine what information would be of value to them. Existing and new audiences and their primary data interest could include the following:

- State and local government funders and policy makers - How is grant money being spent? Are goals being met? Is Local Motion producing a high return on investment? Are Local Motion services contributing to City-wide objectives for transportation, climate change, and sustainability?
  - Report data on effectiveness and cost effectiveness of funded services, policy and funding implications of new services, traveler needs, customer satisfaction
- Elected officials – "How are constituents benefiting from TDM services?", "Is the program an effective use of limited public dollars in a very constrained economic climate?", "What benefits are achieved by the program and what are the measures by which the program is deemed successful?", and "what are future funding needs?"
  - Report data on local transportation benefits, travel trends, traveler needs, effectiveness and cost effectiveness of services, funding needs
- TDM program staff/related City staff (e.g., Office of Environmental Quality, Planning and Zoning, etc) – Which services are most successful? What new services do customers need and want? How are TDM services affecting transportation operations?
  - Report data on program operations, environmental impacts, customer satisfaction and needed improvements, traveler needs and interest in proposed new programs, transportation system operation, impact of TDM on local transportation network
- Employers – How does my organization benefit from offering TDM services?
  - Report data on company, "bottom line" benefits of implementing worksite TDM strategies
- Public at large/media – How do TDM services benefit the traveling public?
  - Report data on travel trends, societal impacts of TDM actions (e.g., reduced carbon footprint)

Reporting Tools

Local Motion could consider a range of communication tools targeted to various audiences to enhance its ability to present information at different levels of detail and access. "Success" will mean different things to different audiences, depending on their needs and expectations. Local Motion should document results that will be relevant to specific audiences and present them in formats that will resonate with those groups. Therefore, the most effective presentation format for conveying information to one group likely will be different from that created for another audience. Funders, planners, and technically-oriented staff likely will want a higher level of activity, operating, and technical details, while residents and businesses may be more responsive to more "media-friendly" highlights of success. These varied information needs and tolerances for details will suggest that one reporting size will not fit all.

A sample of possible formats might include:

- Performance dashboard summarizing results against a selected set of performance indicators and targets (general audience, elected officials, funders)
- Annual program "report card" documenting service delivery highlights, research activities, and impact performance (media-friendly format for varied audiences)
- Service snapshots documenting participation and performance for individual services (primarily internal administrative use)
- Periodic research "briefs" summarizing highlights of performance research
- Media applications (e.g., videos) and social network postings (Facebook, Twitter)
- Compendium of presentation materials packaged for outreach to various audiences with results that would be relevant to those audiences (employers, community associations, elected officials, funders, etc.). This could be provided in a "research" section of the Local Motion website to provide broad access to the materials.

These tools are suggested as options to convey performance results to a variety of audiences. By announcing its activities and performance, Local Motion will raise the visibility of TDM in the City, develop new opportunities educate key audiences, and generate support for ongoing and future resources. Further, dissemination of performance results will advance Local Motion's brand and the role that TDM plays in the City of Alexandria's transportation system.

Local Motion's performance evaluation and reporting will help guide future decision-making regarding program improvements and setting priorities to ensure resources are allocated to services that will produce the highest level of benefits to the City of Alexandria. In addition, it will generate the needed

information to report to stakeholders the impact Local Motion currently has on the community and the potential impact it could make with additional resources.

6.7 PHASED EVALUATION IMPLEMENTATION PLAN

Evaluation is an essential part of a well-managed and successful TDM program. Without evaluation results, program staff cannot reliably justify one program investment over another or communicate the travel benefits derived by the program . However, administration of a comprehensive evaluation approach for a multi-element TDM program, such as Local Motion, is not cost-free and requires a dedicated commitment of resources to implement. The establishment of the evaluation framework, data collection and analysis, impact calculation, and reporting all have budget and staff implications.

For budgetary planning purposes, the evaluation approach described has been organized around a two-tier implementation schedule that is assumed to extend over a three to five-year period, with data collection phased in as Local Motion can allocate resources to data collection and performance assessment conducted as data become available. The three-year time schedule assumes greater annual investment. The five-year schedule assumes a lesser annual resource outlay.

Tier 1 evaluation activities include collection of key baseline information on basic travel needs, satisfaction, and behavior change for key customer and potential customer groups. Tier 1 studies also will provide data needed to begin performance reporting and represent that basic data collection to support the evaluation process described in the Section. Of the Tier 1 activities included in Table 6.2 the (1) Business/ Employer Survey; (2) the Employee Survey, (3) the Service Follow-up Survey; and (4) the Impact Calculation process define the core set of activities to initiate a program evaluation and tracking process. They provide critical employer and employee information; include a follow-up on data once services are used; and provide a process to estimate the impact of the program.

Tier 2 evaluation activities will deepen Local Motion's understanding of customers and potential customers by collecting additional data on groups that might be under-represented in the initial Tier 1. Tier 2 also will expand reporting activities to broader audience groups but are not considered critical to conducting a very basic program evaluation and performance target tracking.

A brief summary of the key Tier 1 and Tier 2 activities is shown in Tables 6.3 and 6.4, respectively. The activities are grouped into four broad categories:

- Ongoing service participation tracking
- City-wide benchmark surveys
- Customer feedback studies
- Analysis and reporting

Both tables that provide rough cost ranges that might be expected to undertake each of the evaluation activities. Alexandria TDM staff could select individual items to match the funding available for evaluation in a particular year while ensuring that the core data collection efforts remain a funded annual element of the TDM program activity.

Table 6.3 Tier 1 Evaluation Activities

Tier 1 Evaluation Activities	Cost Range*
Ongoing Service Tracking	
Tracking participation in and use of all Local Motion services	No new cost
Business/Employer Survey – Internet/mail survey of a sample of employers City-wide to collect data on transportation perceptions, transportation needs, and service awareness. Local Motion employer clients asked questions on service use/satisfaction.	$40,000 - $50,000
Employee Survey – Initial survey of employees at "willing" worksites of Local Motion client sites and TMP buildings (those who have no survey requirement or have been non-compliant with survey requirements related to their Special Use Permit). Collect data on employees' travel patterns, travel changes, and awareness, perceptions, and use of TDM services. Survey would not necessarily be random sample, thus might not be representative of all employees. It would provide some starting information on employees' needs.	$25,000 - $40,000
Relocating Employer Survey – Surveys of employees that work for employers that are relocating to Alexandria to collect data on employees' travel patterns, needs, and interests. Focus particularly on employers relocating due to BRAC.	$10,000 - $15,000
Customer Feedback Data Collection	
Old Town Transit Shop Feedback Card – Postcard survey of Transit Shop customers to collect data on satisfaction with Shop services.	$8,000 - $ 10,000
Service User Follow-up Survey – Internet survey of traveler who used a Local Motion / Alexandria TDM service and for whom Local Motion has contact information. The survey would ask about current mode use, recent changes in travel and previous travel patterns, use of and satisfaction with services, and other travel services used (e.g., employer-sponsored, regional TDM).	$40,000 - $50,000
Analysis and Reporting	
MWCOG State of the Commute Survey – Review of surveys of commute travel and some travel awareness and service use data (2001, 2004, 2007, 2010).	$10,000
Impact Calculation – Synthesis of new and existing data and calculation of program impacts	$8,000 - $10,000
Activity and Impact Reporting – Development of annual program activity and impact "report card"	$10,000 - $12,000

Source: LDA Consulting, Inc.

* Cost ranges based on professional judgment and/or costs incurred for recent survey and analysis work of similar nature.

Table 6.4 Tier 2 Evaluation Activities

Tier 1 Evaluation Activities	Cost Range*
Ongoing Service Tracking	
Tracking participation in and use of all Local Motion services	No new cost
Benchmark Surveys	
Resident Survey Follow-up – Follow-up to 2010 resident survey for more thorough analysis of residents' awareness, perceptions, travel patterns, travel changes, and use of TDM services. To ensure statistical validity, recommend conducting a random-sample telephone survey of at least 600 residents, with possible online survey to expand the sample for some resident sub-groups (e.g., transit riders, employed residents, etc)	$60,000 - $75,000
Employee Survey Follow-up – Follow-up of Tier 1 survey of employees at additional, randomly-selected worksites, focus on underrepresented employer types, sizes, and locations.	$30,000 - $40,000
MWCOG 2013 State of the Commute Survey – Purchase additional 200 sample for City residents for the 2013 survey, above the anticipated 600 completed interviews. Analyze data.	$18,000 - $25,000
Customer Feedback Data Collection	
Old Town Transit Shop Feedback Card – Postcard survey of Transit Shop customers to collect data on satisfaction with Shop services.	$5,000
Old Town Transit Shop Intercept Surveys – Intercept survey of Transit Shop customers to collect data on mode use, previous behavior, satisfaction with services, frequency of Transit Shop use, how customers heard about the store, trip purposes for services obtained, and satisfaction with the services received.	$35,000 - $45,000
Local Motion Website Survey – Pop-up survey of Local Motion website visitors to identify use of and satisfaction with website.	$12,000 - $15,000
Analysis and Reporting	
MWCOG 2007-2008 Household Travel Survey – Extensive survey of travel patterns of regional households conducted by MWCOG. Alexandria staff could request data for travel patterns of trips to, from, and within the City. The dataset will be particularly useful for examining non-work trip patterns.	$6,000 - $8,000
Impact Calculation – Synthesis of new and existing data and calculation of program impacts	$8,000 - $10,000
Activity and Impact Reporting – Annual program "report card;" development of other reporting tools	$20,000 - $25,000

Source: LDA Consulting, Inc.

* Cost ranges based on professional judgment and/or costs incurred for recent survey and analysis work of similar nature.

A. Appendix – 2010 Alexandria Travel Survey