

## CHAPTER 11 : ACHIEVING THE GOALS

As previously noted, the goals for regional transportation are:

- I. Maintain and Enhance Transportation Safety;
- II. Increase System Accessibility, Mobility, and Connectivity;
- III. Efficiently Manage Operations and Cost-Effectively Preserve the System;
- IV. Support Metropolitan Vitality and Economic Development; and
- V. Promote Energy and Environmental Conservation.

It will take more than constructing or reconstructing roadways to achieve these goals. This chapter documents the non-roadway project actions, strategies, initiatives, and other efforts that will be integral to successful implementation of this plan. Many of these efforts will be undertaken by the APO, and thus will be programmed into the annual Unified Planning Work Program (UPWP). Many of the efforts will need to be implemented by entities other than the APO. For those efforts, APO staff will encourage and support the effort to the maximum extent possible.

### **1. CONDUCT A REGIONAL TRAVEL SURVEY**

A regional household travel survey reveals where, why, and how residents travel. The survey will be used to improve the regional travel demand model, but will also offer travel-behavior insights that can be used more generally in transportation planning. The last regional travel survey was completed more than 20 years ago. In the next five years, the APO will endeavor to program planning funds to complete a new regional travel survey.

### **2. DEVELOP A PLAN FOR MORE AFFORDABLE TRANSPORTATION**

During the public input phases of the development of this document, APO staff heard that mobility is becoming increasingly difficult to afford and public transit does not always meet every person's needs. Data was collected showing that real incomes have fallen for area households over the last 10 years, lending support to the public's statements. In the next five years, the APO will endeavor to program planning funds to investigate the needs and potential steps for making transportation more affordable and accessible for all residents, to improve mobility, and to support economic development by lowering the transportation barriers to work. It is possible that some data for this effort could be collected as part of the Regional Travel Survey (above). Included in this effort will be coordination with the Regional Transportation Coordinating Council.

### **3. MEASURE THE IMPACT OF RIDE-HAILING SERVICES**

Preliminary indications are that ride-hailing services such as Uber and Lyft are impacting transportation measures such as vehicle-miles-traveled, trip generation rates, transit passenger rides, and others. To date, most attempts to study the impacts have focused

on large cities such as New York<sup>1</sup> and Chicago.<sup>2</sup> But the impacts and potential impacts of ride-hailing services on mid-sized urban areas like the Saint Cloud MPA are just as important, and the findings from large cities may not translate well to mid-sized urban areas. In the next five years, the APO will endeavor to program planning funds to study the impacts of ride-hailing services within the MPA to better inform its regional transportation planning efforts going forward. Some data for this effort could be gathered via the Regional Travel Survey described above.

#### **4. UNDERSTAND THE TRANSPORTATION NEEDS OF IMMIGRANTS AND REFUGEES**

According to the U.S. Census data, about 10 percent of the urban area population is foreign-born. The transportation needs and solutions for this segment of the population may differ significantly from those of other residents. Achieving a better understanding of the transportation challenges and opportunities facing these residents will help the APO make better overall transportation investment decisions. Over the next five years, APO staff will make a concerted effort to reach out to and communicate with members of the immigrant and refugee populations, and those agencies, organizations, and businesses that work closely with them. The goal is to identify any unique challenges or transportation barriers which they face (if any), and identify solutions to help overcome them. Some data for this effort may be gathered as part of the Regional Travel Survey identified above.

#### **5. MONITOR AND UNDERSTAND THE TRANSPORTATION NEEDS OF OLDER RESIDENTS**

Like all regions in the U.S., the population of the MPA is skewing older as baby-boomers age. Just as with immigrants and refugees, the transportation needs, challenges, and opportunities for older residents may be somewhat different than for the rest of the population. Over the next five years, APO staff will attempt to develop clear understandings of the transportation needs and challenges for older residents. This may include consultant tasks or studies, and will likely include a review of literature developed at other MPOs and State DOTs regarding aging populations, and validation of those findings here in the Saint Cloud MPA.

#### **6. UNDERSTAND THE TRANSPORTATION NEEDS OF STUDENTS**

It is well established in research that students do not, in general, behave like working adults in terms of trip generation, mode choices, destinations, etc. The goal of this effort is to better understand the unique transportation needs and challenges for students in the Saint Cloud metropolitan area. Some data for this effort may be gathered as part of the Regional Travel Survey identified above.

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<sup>1</sup> <https://www.sciencedaily.com/releases/2019/07/190708131141.htm>

<sup>2</sup> <https://www.npr.org/2018/08/01/634506179/ride-hailing-services-add-to-traffic-congestion-study-says>

## **7. STUDY CRITICAL CRASH RATE INTERSECTIONS**

Critical Crash Rates are statistical calculations. The total crash rate is defined as the number of crashes per million entering vehicles. The critical rate is calculated by weighting the average crash rate for similar intersections or segments across Minnesota by the existing traffic volume. The implication is that an intersection which is experiencing very high crash rates relative to other similar intersections may have a design or maintenance issue that is contributing to those crash rates. For this plan, we measured crash rates for intersections involving two Federal-aid roadways. To be more complete, a more detailed examination could be done that also includes a follow-up investigation as to what may be causing the high crash rates and recommended mitigation actions. The APO will endeavor to program planning funds in the next five years to complete this investigation.

## **8. EXPLORE WAYS TO BETTER UNDERSTAND ACTIVE TRANSPORTATION BEHAVIOR**

From regular measurements of pavement quality to counting and analyzing traffic on roadway segments, the APO currently expends significant resources gathering and tracking transportation data for roadways. But that cannot be said for active transportation methods like bicycling, walking, and other non-motorized means. While about 88 percent of work-trips occur in a personal automobile, about 4.5 percent occur by non-motorized means. Given the regional goals of energy conservation, maintaining viable non-motorized transportation options, enhancing connectivity between modes of transportation, promoting efficient movement of people, and improving public health, APO staff feels they lack a clear understanding of active transportation activities, challenges, and opportunities. This effort, which will include both actions on the part of APO staff as well as the possibility of specific consultant actions, will endeavor to identify cost-effective methods for routinely measuring, tracking, and analyzing active transportation within the MPA. The effort will also specifically include an attempt to develop a pavement condition monitoring method for off-road multi-use paths. It will also include an analysis of crash data to identify high-crash locations and develop crash mitigation measures for those locations. The potential demand for a bike-share program may also be examined.

## **9. IDENTIFY AND PRIORITIZE GAPS IN THE ACTIVE TRANSPORTATION NETWORK**

Since the 1990's when Federal funding for active transportation infrastructure was first made available, multi-use paths have been developed in a somewhat piecemeal fashion with cities taking advantage of opportunities as they presented themselves. Now, those pieces of infrastructure are on the verge of being tied together into a comprehensive network. In the next five years, the APO will make an effort to identify and prioritize gaps in the active transportation network and develop plans to fill in those gaps.

## **10. BETTER UNDERSTAND THE INTERACTIONS BETWEEN THE NATURAL ENVIRONMENT AND TRANSPORTATION IN THE REGION**

Vehicles emit air pollution. Storm water runs off roadways, carrying road salts, oil, gasoline and other pollutants into local waterways. Roadway construction can impact habitats critical to endangered and threatened species. Conversely, transportation systems are susceptible to damage and destruction from the natural environment in the form of storms, floods, UV radiation (which ages bitumen), high temperatures (which soften pavement leading to rutting and cracking), and other impacts. Conserving the natural environment entails understanding how incremental changes to the transportation system can impact that environment, and maintaining a reliable, cost-effective transportation system entails understanding how the natural environment is impacting the transportation system. This effort will endeavor to better understand and describe how multiple project-level transportation decisions can have a cumulative impact on the natural environment, which in turn can impact the sustainability and cost-effectiveness of the transportation system. Rather than gathering generalized information, the effort will focus specifically on the characteristics of this specific geographic region. One goal within this effort is to understand the impact of lighting and the relative importance of maintaining dark skies. Again, it is anticipated that this understanding can help lead to better decision-making regarding transportation investments.

## **11. ENHANCE AND FULLY-IMPLEMENT FREIGHT PERFORMANCE MEASURES**

Some of the freight performance measures adopted by the APO require additional data gathering or analysis in order to fully implement the performance measure. For example, data used to calculate the Truck Travel Time Reliability Index is available for interstate highways (Tier 1), but not for the Minnesota Principal Freight Network (Tier 2) or the Regional Freight Network (Tier 3). This effort will entail investigating options for collecting the data necessary to apply the APO's adopted freight performance measures to all three tiers of the freight network.

## **12. BETTER DEFINE AND UNDERSTAND THE RELATIONSHIP BETWEEN TRANSPORTATION AND ECONOMIC DEVELOPMENT**

There is undeniably a relationship between the economic competitiveness of a region and the efficiency of its transportation networks. It is also undeniably difficult to parse and measure the impacts of transportation on regional economic competitiveness separately from all of the other factors that also impact economic competitiveness. Over the next five years, APO staff will attempt to gain a better understanding of the relationship between transportation and economic development in both general terms, and within the APO region. They will also seek to identify, collect, and analyze salient economic development data at the metropolitan level. This effort may include elements and tasks to be completed by consultants. It will also include building and maintaining

relationships with major freight shippers and attractors of freight shipments, as well as the continued development, refinement, and validation of a Return-on-Investment performance measure for transportation projects.

### **13. DEFINE “TRANSPORTATION SECURITY” LOCALLY**

Transportation Security as a goal was elevated in importance following the attacks on 9/11. But, as described in Chapter 4 of this document, the meaning of that phrase for a mid-sized urban area like the APO has never been clear. APO staff will work with members of the Technical Advisory Committee to develop a working definition of “Transportation Security” for the MPA, determine what role (if any) the APO should play in achieving secure transportation, and develop one or more performance measures to track the attainment of the goal.

### **14. EVALUATE POTENTIAL FOR APO PROGRAMS TO SUPPORT ATTAINMENT OF SPECIFIC GOALS**

Reducing or eliminating transportation-related fatalities is an important goal in the MPA. But how can and how should the APO support the attainment of that goal? One example might be that the APO Board could dedicate a minimum amount of funding to address safety issues within the MPA. Another might be that safety is weighted more heavily when evaluating projects that are seeking Federal funds. A number of strategies identified in Chapter 5 note that the APO will “encourage and support” the attainment of a specific goal, but what exactly does that mean? What specific steps should the APO take to support the attainment of the goal? Answering that question will require a regional discussion among the jurisdictions and APO staff to develop consensus regarding one or more specific steps that the APO will take in support of the goals.

### **15. IMPROVE CONNECTIONS BETWEEN THE APO REGION AND THE TWIN CITIES METRO**

There is an existing and growing connection between the Twin Cities metropolitan area and the Saint Cloud MPA. The workforce connection is detailed in Chapter 2, but there are also trips that flow back and forth between the two regions for leisure, recreation, cultural and educational opportunities, as well as commercial ties. Increasingly, the fate of the two regions is intertwined. Therefore, the APO will endeavor, over the next five years, to identify ways to improve efficient multimodal transportation connections between the two regions. Component of this effort will be include the Northstar rail corridor as well as I-94, U.S. 10, and multi-use path and trail connections.

### **16. EXPLORE OPPORTUNITIES TO IMPROVE THE WORST PERFORMING REGIONAL ROADWAY CORRIDORS**

With the advent of performance-based planning and programming, it has become easier to objectively identify the best and worst performing roadways. Over the next five years, the APO will focus its planning resources on addressing the worst performing regional roadways in an attempt to improve overall regional transportation efficiency and safety.

This effort will undoubtedly include an emphasis on identification and implementation of low-cost/high-impact strategies to improve traffic operations.

#### **17. CONTINUE MONITORING AND ADJUSTING TO THE DEVELOPMENT OF CAVS**

The development of Connected and Autonomous Vehicles (CAVs) will be a game-changer for transportation planners. From typical trip-generation rates, to average trip lengths, to roadway design and land-use choices, CAVs will change many of the long-standing assumptions and the planning environment in which planners have worked for decades. It will also be important to adjust to the needs of CAVs in order to keep the region economically competitive. Over the next five years, APO staff will continue monitoring the development and deployment of CAVs and adjusting their planning practices accordingly.

#### **18. ESTIMATE THE TRANSPORTATION IMPACTS OF LONG-DISTANCE COMMUTERS & UNDERSTANDING THE ECONOMICS OF THEIR CHOICE**

There are more jobs in the Saint Cloud metropolitan area than there are workers to fill those jobs. Many local businesses actively recruit workers from nearby communities, which puts more cars onto area roads, but the workers pay property taxes in other communities. Why don't they choose to live here? Is it better to provide transportation capacity for those workers, or would it be more cost effective to entice them to move into the Saint Cloud metropolitan area? What are the challenges and opportunities?

#### **19. ESTIMATE THE NET ENVIRONMENTAL IMPACTS OF TRANSPORTATION OPTIONS**

More roadway capacity may improve traffic flow and reduce air pollution, but more impermeable surfaces may negatively impact water quality. Increasing land-use densities and mixing compatible uses may shorten trip lengths and fuel use, but may also increase congestion and travel times which increases fuel use. This study would seek to better understand such trade-offs and seek insight on the options or combination of options that minimizes the overall net environmental impact of transportation assets.

#### **20. COORDINATE DEVELOPMENT OF THE URBAN AREA RING-ROAD**

The jurisdictions within the urban area have agreed on the development of an arterial roadway encircling the urban core. However, the technical and monetary challenges of developing a complete ring-road will be considerable. APO staff will continue working with the member jurisdictions to develop planning documents for each segment of the ring-road, and will support (to the extent possible) the identification of funding for the construction of each segment.