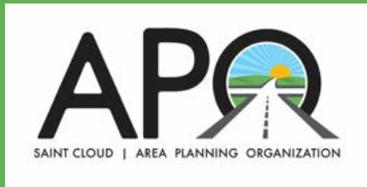


# Saint Cloud Area Planning Organization Transportation Performance Monitoring Report



2020



# DISCLAIMER AND TITLE VI ASSURANCE

## DISCLAIMER

The preparation of this document was funded in part by the United States Department of Transportation with funding administered through the Minnesota Department of Transportation, the Federal Highway Administration, and the Federal Transit Administration. Additional funding was provided locally by the member jurisdictions of the Saint Cloud Area Planning Organization: Benton County, Sherburne County, Stearns County, City of Sartell, City of Sauk Rapids, City of Saint Cloud, City of Saint Joseph, City of Waite Park, LeSauk Township, and Saint Cloud Metropolitan Transit Commission. The United States Government and the State of Minnesota assume no liability for the contents or use thereof.

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The contents of this document reflect the views of the authors, who are responsible for the facts and the accuracy of the data presented herein. The contents do not necessarily reflect the policies of the State and Federal departments of transportation.

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## CIWAANKA VI EE XAQIJJINTA

Ururka Qorsheynta Deegaanka ee Cloud Cloud (APO) wuxuu halkan ku siinayaa ogeysiis dadweyne in ay tahay sharciga APO in ay si buuxda u hoggaansanto Cinwaanka VI ee Xuquuqda Madaniga ee 1964 iyo Sharciga Soo-celinta Xuquuqda Madaniga ee 1987, Amarka Fulinta 12898 ee ku saabsan Cadaaladda Deegaanka, Iyo qaynuunada iyo qawaaniinta la xiriira barnaamijyada iyo nashaadaadka. Cinwaanka VI wuxuu xaqiijinayaa in qofna, sabab asal, midab, ama asal qaran ah, laga reebi doonin kaqeybgalka, loo diidi doonin faa'iidooyinka, ama haddii kale lagula takoorin barnaamij kasta ama waxqabad ee APO ay ku hesho kaalmada maaliyadeed ee Federaalka . Qof kasta oo aaminsan inuu ka xanaaqay fal sharci darro ah oo takoor ay ku sameysay APO wuxuu xaq u leeyahay inuu dacwad rasmi ah u gudbiyo APO, MnDOT ama US DOT. Cabasho kasta oo kale waa inay ahaataa mid qoraal ah lagana xaraystaa maareeyaha u hoggaansamida cinwaankeeda ee 'APO' VI VI waa boqol iyo siddeetan (180) maalmood gudahood taarikhda dhacday markii la sheegay in ay dhacday midabtakoor. Macluumaad dheeri ah, ama si aad u hesho Foomka Cabashada Kala-Takoorida Cinwaan ee 'VI kalasooc Foom', fadlan ka eeg bogga internetka ee 'Cloud Cloud APO' ([www.stcloudapo.org](http://www.stcloudapo.org)) ama waxaad ka arki kartaa nuqul xafiiskayaga 1040 County Road 4, Saint Cloud, MN 56303.

## TITLE VI ASSURANCE AND TITLE II ASSURANCE

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## TITLE II ASSURANCE

### CIWAANKA II EE XAQIIJINTA

Hay'adda Qorsheynta ee Saint Cloud Area Organisation (APO) waxay siisaa ogeysiis dadweyne inay tahay siyaasada APO inay si buuxda ugu hoggaansanto Sharciga Naafada Mareykanka ee 1990 (ADA) iyo Sharciga Baxnaaninta 1973 (Sharciga Baxnaaninta) iyo qawaaniinta iyo qawaaniinta la xiriira Dhammaan barnaamijyada iyo nashaadaadka. Qodobka II ee Sharciga Naafada Mareykanka (ADA) wuxuu u baahan yahay dhammaan hay'adaha gobolka iyo kuwa maxalliga ah inay qaadaan tillaabooyinka ku habboon si loo hubiyo in xiriirka lala yeesho codsabayaasha, ka qeybgalayaasha, iyo xubnaha bulshada naafada ah ay u la mid yihiin sida xiriirka lala yeesho kuwa kale. Qof kasta oo aaminsan inuu ka xanaaqay fal sharci darro ah oo takooris ah oo ay sameysay APO wuxuu xaq u leeyahay inuu dacwad rasmi ah u gudbiyo APO, MnDOT, ama US DOT. Cabasho kasta oo noocan oo kale ahi waa inay ahaataa mid qoraal ah oo ay kujirto macluumaad ku saabsan takoorida la soo sheegay sida magaca, cinwaanka, taleefan lambarka cabashada, iyo goobta, taariikhda, iyo faahfaahinta dhibaataada. Hab kale oo lagu xareeyo cabashada, sida wareysiyada shaqsiyeed ama cajalad duuban cabashada, ayaa loo heli doonaa sidii wax looga badali karo macquul ahaan dadka naafada ah markii la codsado. Ashtakooyinka waa in ay soo gudbiyaan cabashada iyo / ama wakiilkiisa / wakiilkiisa sida ugu dhakhsaha badan 3 SAINT CLOUD AREA PLANNING ORGANIZATION TRANSPORTATION PERFORMANCE MONITORING REPORT 2019 ee suurtoogalka ah laakiin aan ka dambayn lixdan (60) maalmood taariikhi ah ka dib dhacdada la xiriirta midab kala sooca waana in lagu fayl gareeyaa Agaasimaha Fulinta APO. Macluumaad dheeri ah, ama si aad u hesho Foomka Cabashada Kala-Takoorida, fadlan eeg bogga internetka ee 'Cloud Cloud APO' ([www.stcloudapo.org](http://www.stcloudapo.org)) ama waxaad ka arki kartaa nuqul xafiiskayaga 1040 County Road 4, Saint Cloud, MN 56303.

### GARANTÍA DEL TÍTULO II

La Organización de Planificación del Área de Saint Cloud (APO en inglés) da un aviso público con la presente de que es política de la APO el cumplir plenamente con la Ley sobre los Estadounidenses con Discapacidad de 1990 (ADA en inglés) y con la Ley de Rehabilitación de 1973 (Ley de Rehabilitación) y con los estatutos y reglamentos en todos los programas y actividades. El Título II de la Ley sobre los Estadounidenses con Discapacidad de 1990 (ADA en inglés) requiere que todas las agencias de gobierno estatales y locales tomen las medidas adecuadas para asegurar que la comunicación con los aplicantes, participantes y miembros del público con discapacidades sea tan efectiva como la comunicación con otros. Cualquier persona que cree que ha sido perjudicada por una práctica discriminatoria ilegal por la APO tiene el derecho de presentar un reclamo formal con la APO MnDOT o U.S. DOT. Cualquiera de estos reclamos debe ser por escrito y debe contener información sobre la presunta discriminación tales como el nombre, la dirección, el número de teléfono del denunciante, y la ubicación, la fecha y la descripción del problema. Los medios alternativos de presentar un reclamo, tales como una entrevista personal o una grabación de audio del reclamo, estarán disponibles como una modificación razonable para las personas con discapacidades a petición. Los reclamos deben ser presentados por el denunciante y/o su persona designada tan pronto como sea posible pero no más tarde de sesenta (60) días naturales después de la presunta ocurrencia discriminatoria y deben ser presentados ante el Director Ejecutivo de la APO. Para obtener más información, o para obtener un Formulario de Reclamo por Discriminación, por favor, dirígete al Sitio web de la APO de Saint Cloud ([www.stcloudapo.org](http://www.stcloudapo.org)) o puedes ver una copia en nuestra oficina e 1040 County Road 4, Saint Cloud, MN 56303.

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## Common Acronyms

**ADT:** Average Daily Traffic.

**APO:** Saint Cloud Area Planning Organization.

**AQI:** Air Quality Index.

**ATAC:** Active Transportation Advisory Committee.

**CNG:** Compressed Natural Gas.

**DOT:** Department of Transportation.

**CR:** County Road.

**CSAH:** County State-Aid Highway.

**D3:** Minnesota Department of Transportation District 3.

**DAR:** Dial-a-Ride.

**DEED:** Minnesota Department of Employment and Economic Development.

**DIV:** Digital Inspection Vehicle.

**EDR:** Economic Development Region.

**FAST Act:** Fixing America's Surface Transportation Act.

**FHWA:** Federal Highway Administration.

**FR:** Fixed Route.

**FTA:** Federal Transit Administration.

**GPS:** Global Positioning System.

**HPMS:** Highway Performance Monitoring System.

**HSIP:** Highway Safety Improvement Program.

**IRI:** International Roughness Index.

**MAP-21:** Moving Ahead for Progress in the 21st Century Act.

**MN:** Minnesota.

**MnDOT:** Minnesota Department of Transportation.

**MPCA:** Minnesota Pollution Control Agency.

**MPO:** Metropolitan Planning Organization.

**MTC:** Saint Cloud Metropolitan Transit Commission (Saint Cloud Metro Bus).

**MTP:** Metropolitan Transportation Plan.

**NCB:** Northstar Commuter Bus.

**NHS:** National Highway System.

**NHTSA:** National Highway Traffic Safety Administration.

**NPMRDS:** National Performance Management Research Data Set.

**NTD:** National Transit Database.

**PBP:** Performance-Based Planning.

**SEP:** Stakeholder Engagement Plan.

**SGR:** State of Good Repair.

**SOV:** Single-Occupancy Vehicle.

**STC:** Saint Cloud Regional Airport.

**STIP:** Statewide Transportation Improvement Program.

**TAC:** Saint Cloud APO's Technical Advisory Committee.

**TERM:** Transit Economic Requirements Model.

**TH:** Trunk Highway.

**TIP:** Transportation Improvement Program.

**TPMR:** Transportation Performance Management Report.

**Tri-CAP:** Tri-County Action Program.

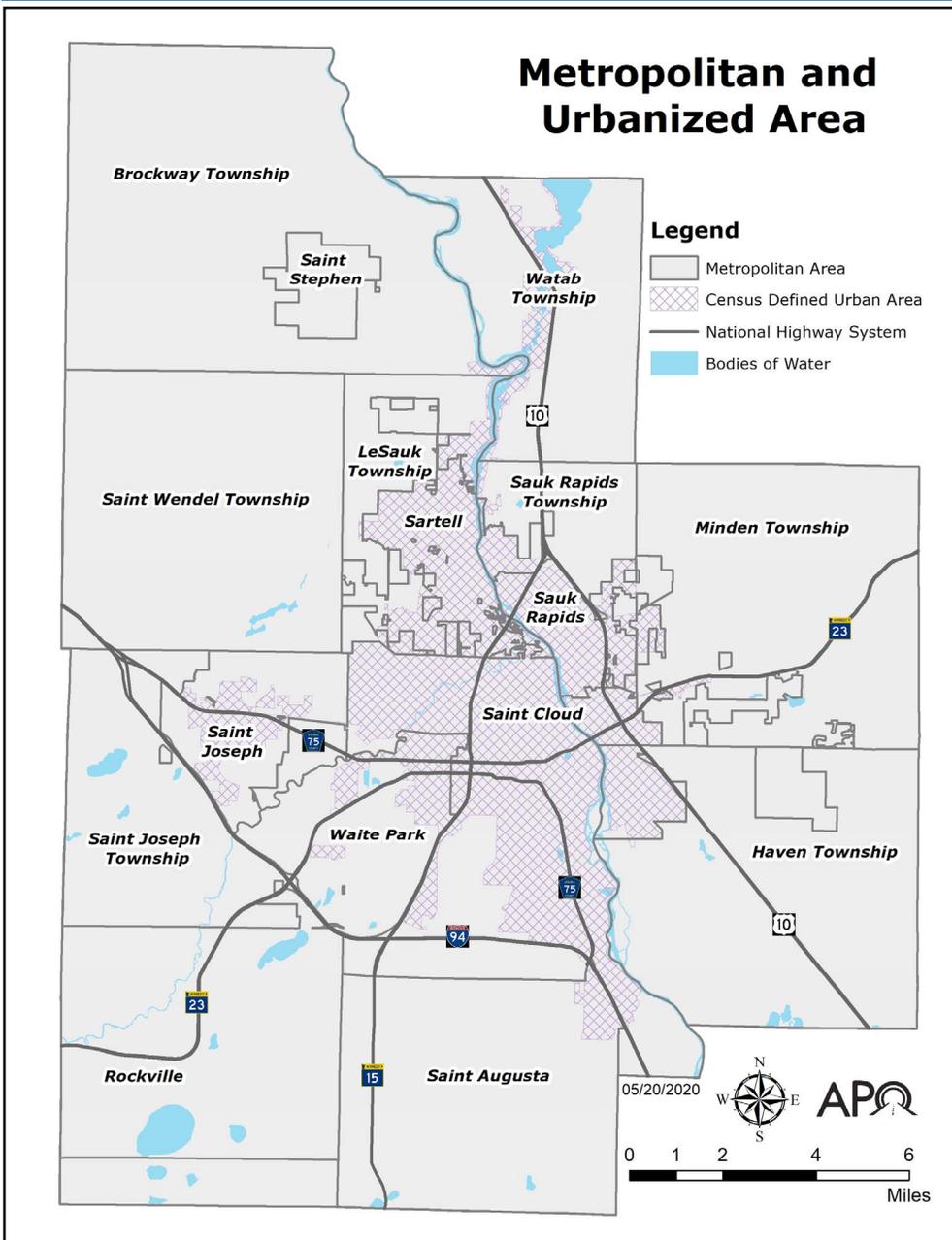
**TSM:** Transportation System Management.

**TTTR:** Truck Travel Time Reliability.

**VMT:** Vehicle Miles Traveled.

# Introduction

## APO Planning Area



The Saint Cloud Area Planning Organization (APO) is an independent, regional body responsible for transportation planning for the Saint Cloud metropolitan area. The APO serves as the region's Metropolitan Planning Organization (MPO) - an organizational body created under the Federal Aid Highway Acts of 1962 and 1973 designed in part to coordinate transportation planning efforts for urban areas with a population of at least 50,000. MPOs, like the APO, assist local officials in collaboratively deciding how federal transportation funds will be allocated within the planning area.

The APO Urbanized Area is designated by the U.S. Census Bureau every census year. Criteria for defining this area includes population density and density of development. The APO approves a 20-year planning boundary that not only includes the Census-defined Urbanized Area, but also considers expected urbanized growth within that time period.

The APO is comprised of member jurisdictions: Stearns County, Benton County, Sherburne County, City of Saint Cloud, City of Sartell, City of Sauk Rapids, City of Waite Park, City of Saint Joseph, LeSauk Township, and Saint Cloud Metropolitan Transit Commission (MTC). The cities of Rockville, Saint Stephen, and Saint Augusta, along with Brockway Township, Haven Township, Minden Township, Sauk Rapids Township, Saint Wendel Township, Saint Joseph Township, and Watab Township are located within the designated APO planning boundary but are not formal member agencies. Instead they are represented through their respective counties. The APO works cooperatively with Minnesota Department of Transportation (MnDOT) in planning related activities in the region.

<b>1966</b> Year the APO was incorporated.	<b>137,093</b> Estimated population in the Saint Cloud APO planning area in 2019.
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# Introduction

## Performance Measures

### The APO and Performance Measures

This Transportation Performance Monitoring Report (TPMR) includes a set of performance measures that will track the region's progress toward achievement of transportation goals as defined in the APO's [Metropolitan Transportation Plan \(MTP\)](https://bit.ly/35Ct7FH). Performance measures are designed to serve as a benchmark to evaluate and quantify progress. This performance-based approach is meant to improve accountability of Federal transportation investments, assess risks related to different performance levels, and increase transparency. This progress report serves as an annual snapshot of the region to help the APO and its planning partners better understand current and anticipated performance of the transportation system and how well it is moving towards achieving the goals stated in the APO's MTP.

The APO approved its 2045 MTP in October 2019. During that process, staff incorporated federally mandated performance measures into the MTP including but not limited to, those found within this report. In addition, APO staff have been working to develop a variety of other performance measures to assist in future planning and project implementation. The intent is to use the identified performance measures to further align current and future projects with the overall goals and objectives of the MTP.

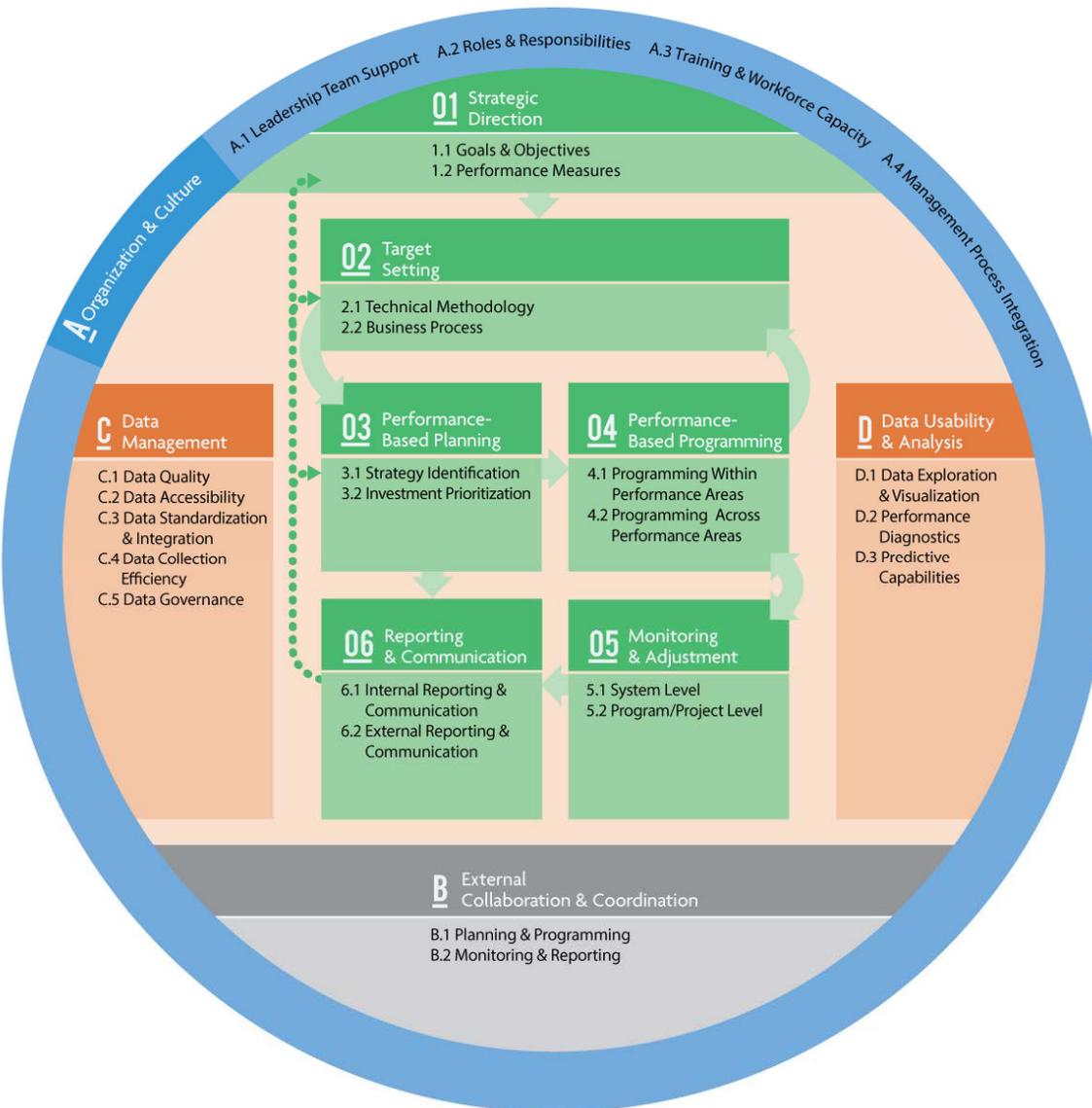
Based on the [Transportation Performance Management \(TPM\)](https://bit.ly/3MIOV2P) assessment tool, the APO is currently working towards a maturity level two, the developing phase. Work is underway to strengthen transportation performance management in the APO. A transportation performance management framework is being defined to provide alignment across the organization and across different planning and programming functions. Modifications to data collection and management processes and analysis tools are being planned in order to better support the performance framework. Organizational roles are being defined and a strategy for training and workforce development in support of transportation performance management is being developed.



*Photo of roadway pavement in poor condition. Photo courtesy of Saint Cloud APO.*

# Introduction

## Performance Measures



Graphic courtesy of [tpmtools.org](http://tpmtools.org)

### Strategic Direction

- The APO is developing a collaborative process to set goals and objectives with linkages between agency functions and broader societal concerns still being clarified.

### Target Setting

- The APO is collaboratively developing a methodology to understand baselines and set targets within agreed-upon performance areas.

### Performance-Based Planning

- The APO is defining a data-driven process for understanding current and future performance to identify and develop strategies.

### Performance-Based Programming

- The APO is developing a performance-based programming methodology and process that will: enable project selection to reflect agency goals; determine priorities in planning documents; and identify funding constraints, risk factors, and relative needs across performance areas.

### Monitoring and Adjustment

- The APO is developing a plan for system and program/project monitoring tied to its strategic direction. This will include: a definition of output, outcome measures, frequency of data collection, external influencing factors and users.

### Reporting and Communication

- The APO is defining requirements for internal reports to ensure consistency, alignment with strategic direction, and provision of actionable information.

# Introduction

## Performance Measures

### What are Performance Measures?

Performance measures are indicators of progress toward attaining a goal, objective, or target (a desired level of future performance).

### What is Transportation Performance Management?

Transportation Performance Management (TPM) is a strategic approach that uses system information such as performance measures to assist decision-makers in order to achieve performance goals.

### What is Performance-Based Planning?

Performance-Based Planning (PBP) is the use of agency goals, objectives, and performance trends to drive the development of strategies and priorities in long-range planning documents like the MTP. The resulting documents, such as the Transportation Improvement Program (TIP), have become the blueprint for how an agency intends to achieve its desired performance outcomes.

### How does the APO use performance measures?

Because the APO's transportation system improvement needs exceed available funding, resources are invested in the most strategic, effective, and efficient way possible. Performance measures provide useful "feedback" and are integrated into the APO's planning practice on three levels as indicated in the adjacent graphic.



#### Strategic Level

Performance measures help to establish and inform goals, objectives, and strategies as well as monitoring the APO's mission attainment. Performance measures also communicate progress toward achieving goals in transportation plans and programs such as the MTP and TIP.

#### Decision Making Level

Performance measures are used to inform the allocation of funds among programs such as highway preservation, system expansion, public transportation, multimodal trails, etc. These programs are defined in the TIP. Decision makers also consider various trends impacting transportation system performance.

#### Project Delivery Level

After projects are selected, performance measures help to monitor the efficiency and effectiveness of projects and services. Performance measures also support organizational and operational improvements.

# Introduction

## Performance Measures

### Why does the APO use Performance Measures?

- ◆ To assess how well the APO's multimodal transportation system is functioning—including feedback from and collaboration with key stakeholder organizations.
- ◆ To provide information to support and inform decision-making.
- ◆ To assess how effectively and efficiently transportation programs, projects, and services are being delivered.
- ◆ To demonstrate transparency and accountability to the APO's citizens and to foster collaboration between the transportation systems of APO member jurisdictions.

### Why set targets?

Federal regulations require the APO to either 1) Support MnDOT's performance targets for each performance measure, or 2) Set its own regional target(s). The APO has decided to set its own targets for each of the performance measures.

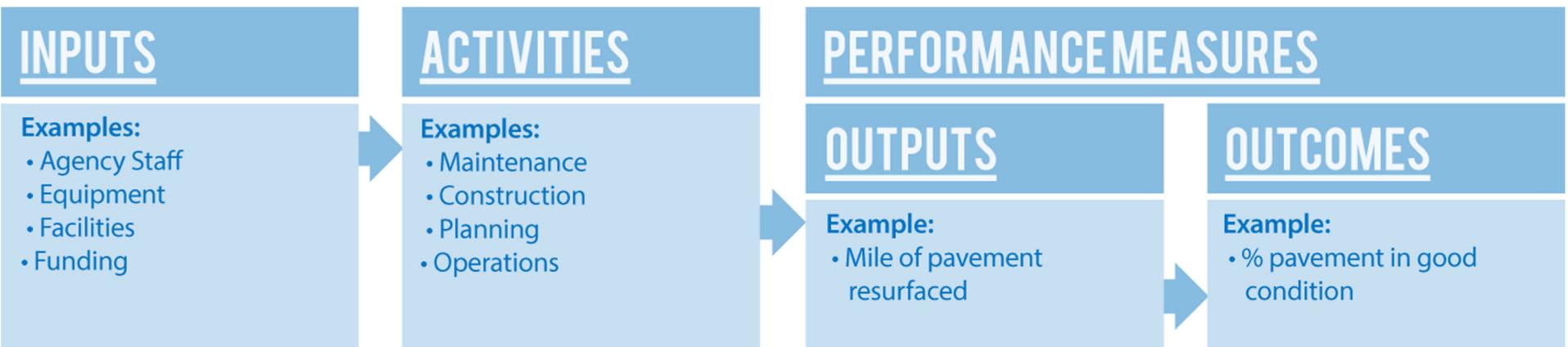
Overall, the targets established by MnDOT have been determined to be of limited value to the APO, especially when compared with the APO's existing conditions and priorities. By adopting its own targets, the APO can focus on localized issues and target funding that will work toward achieving the goals established in the MTP.

### Who sets the targets?

APO staff, along with planning partners, the APO's Technical Advisory Committee (TAC), the APO's Policy Board, and MTC have collaborated to establish these targets.

### What are the desired characteristics of performance measures?

- ◆ *Measurable data*—Data is quantifiable and able to be tracked year after year.
- ◆ *Forecastable*—Enables data-driven target setting based on future conditions.
- ◆ *Clear to the public and policymakers*—Allows performance storytelling to citizens and policymakers.
- ◆ *Agency has influence over results*—Measure agency activities rather than impact of external factors.



# Introduction

## Performance Measures

### Federal Performance Measures.

The Moving Ahead for Progress in the 21st Century Act (MAP-21), signed into law in 2012, included several provisions that collectively are transforming the Federal surface transportation program to be focused on the achievement of performance outcomes.

The Fixing America's Surface Transportation (FAST) Act, signed in 2015, built on the MAP-21 changes and provided long-term funding certainty for surface transportation infrastructure planning and investment.

The graphic below contains the list of federally required performance measures:

The first federally required performance period began Jan. 1, 2018, and ends on Dec. 31, 2021. Exceptions to this time frame include roadway safety, transit management, and state of good repair which have an annual calendar year reporting period.

Targets established should be reasonable and based on the analysis of trends and projections of future efforts. These efforts include projects identified in the TIP, MTP, and general maintenance of existing infrastructure completed by the counties, municipalities, and townships in the APO planning area. Targets established in accordance with Federal Highway Administrations (FHWA's) performance measure rules should be considered as interim condition/performance levels that lead toward the accomplishment of longer-term performance expectations in transportation plans developed by state departments of transportation (DOTs) and MPOs.

Roadway Safety	Roadway Accessibility, Mobility, and Connectivity	Roadway Management and Preservation	Roadway Metropolitan Vitality and Economic Development
<ul style="list-style-type: none"><li>◆ Number of fatalities.</li><li>◆ Rate of fatalities per 100 million vehicle miles travelled (VMT).</li><li>◆ Number of serious injuries.</li><li>◆ Rate of serious injuries per 100 million VMT.</li><li>◆ Number of non-motorized fatalities and serious injuries.</li></ul>	<ul style="list-style-type: none"><li>◆ Annual percent of person -miles traveled on the Interstate and non-Interstate National Highway System that are reliable.</li><li>◆ State of Good Repair for equipment, facilities, and rolling stock.</li><li>◆ Transit Economic Requirements Model (TERM) scale for transit.</li></ul>	<ul style="list-style-type: none"><li>◆ Interstate system pavement conditions.</li><li>◆ Non-Interstate NHS pavement conditions.</li><li>◆ Bridge conditions.</li><li>◆ Transit Mechanical Failures.</li></ul>	<ul style="list-style-type: none"><li>◆ Truck Travel Time Reliability Index.</li></ul>

# Goal 1: Maintain and Enhance Transportation Safety

Develop and maintain a transportation system that is safe for all users.



Photos courtesy of APO

# Goal 1: Maintain and Enhance Transportation Safety

## Saint Cloud APO Transportation Results Analysis

Unprecedented. The year 2020 started off rather typical, but its finish was anything but. When the COVID-19 global pandemic set in during March 2020, a myriad of changes to day-to-day life ensued. From school closures and working from home to travel bans and business shut downs, the COVID-19 global pandemic not only impacted public health, but greatly affected travel patterns both on a national scale and within the Saint Cloud MPA.

Due in part to government shutdowns and stay-at-home orders which began in March, vehicle miles traveled (VMT) within the MPA experienced a 20% year-over-year decrease in comparison to 2019.

While a reduction in the number of miles people traveled did lead to fewer crashes (2016-2020 crash rate five year rolling average), the severity of those crashes has been a mixed bag.

When crashes occur, vehicles and property get damaged and people get injured. Frequently, the number of crashes differs from the number of injuries. The highest level of injury suffered by a person involved in a crash is what defines the crash severity.

Crashes are broken down into three main categories: fatal crashes, injury crashes, and property damage only crashes. Injury crashes are further broken down into serious, minor, or possible injury crashes.

Fatal crashes within the MPA did experience a slight dip – 2.1% (2016-2020 fatality rate five year rolling average). However, during this same time frame, suspected serious injury (SSI) crashes rose by 8.9%.

A closer look at both fatal and SSI crashes within the MPA reveal that nearly one-third of fatalities and one-fifth of SSI crashes involve an active transportation user (someone walking and/or biking). While these types of crashes represent a rather small percentage of overall crashes within the MPA – only 2.2% -- these vulnerable road users account for a significant share of both fatal and serious injuries.

Intersections, particularly along arterial corridors (MN 23, US 10, MN 15, I-94, CSAH 75) tend to be where some of the most severe crashes occur within the MPA. Right angle crashes tend to be the most common type of crash associated with a fatal or SSI.

It remains to be seen the extent to which 2020 will change overall VMT and the associated safety of the MPA's transportation network in the long run. But it is one thing APO staff will continue to observe and analyze in future iterations of this report.

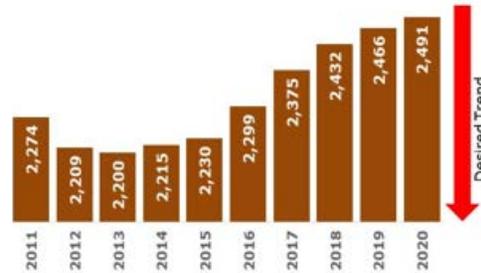
# Goal 1: Maintain and Enhance Transportation Safety

## Saint Cloud APO Transportation Results Scorecard

Measure	Multi-Year Trend	Analysis
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### Number of Crashes Five Year

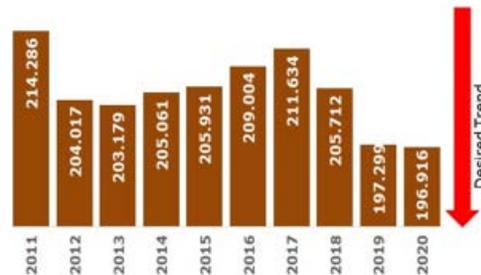
**Rolling Average:** Number of crashes for five consecutive years (i.e., 2016-2020), dividing by five, and rounding to the nearest whole number.



The five year rolling average for number of crashes in 2020 was 2,491. This is a 1% increase from the 2019 five year rolling average of 2,466 and a 13.2% increase from the 10-year low of 2,200 in 2013. The APO desires the total number of crashes to decrease.

### Rate of Crashes Five Year Rolling

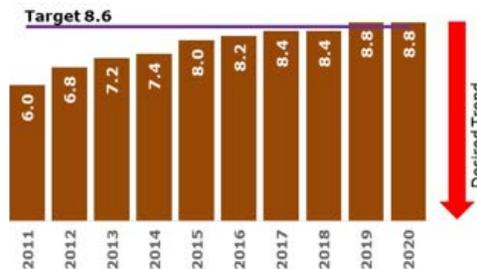
**Average:** Number of crashes per 100 million vehicle miles traveled (VMT) for five consecutive years (i.e., 2016-2020), dividing by five, and rounding to the thousandth decimal place.



The five year rolling average for total crash rate in 2020 was at 196.916. This is an 8.1% decrease from the 10-year high of 214.286 in 2011. This follows the more recent trend of decreasing rates over time. The APO desires the total crash rate to decrease.

### Number of Fatalities Five Year

**Rolling Average:** Number of fatalities for each of the most recent five consecutive years (i.e., 2016-2020), dividing by five, and rounding to the tenth decimal place.



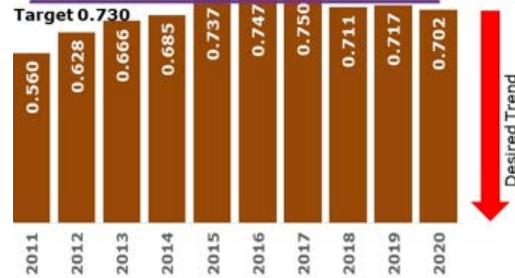
The five year rolling average for fatalities in 2020 was 8.8. This is an increase of 2.8 fatalities per year from the 10-year low of 6.0 in 2011 and is tied with 2019 as a 10-year high. The APO had set a 2020 target of less than 8.6 fatalities.

# Goal 1: Maintain and Enhance Transportation Safety

## Saint Cloud APO Transportation Results Scorecard

Measure	Multi-Year Trend	Analysis
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**Rate of Fatalities Five Year Rolling Average:** Calculation of the number of fatalities per 100 million VMT (100M VMT) for each of the most recent five consecutive years (i.e., 2016-2020), adding the results, dividing by five, and rounding to the thousandth decimal place.



The 2020 five year rolling average for fatality rate was 0.702. This is a 2.1% decrease from the 2019 five year rolling average and an increase of 0.142 from the 10 year low of 0.560 in 2011. The APO set a 2020 fatality rate target of less than 0.730.

**Number of Suspected Serious Injuries Five Year Rolling Average:** Addition of the number of suspected serious injuries for each of the most recent five consecutive years (i.e., 2016-2020), dividing by five, and rounding to the tenth decimal place.



The five year rolling average for suspected serious injuries in 2020 was 26.2. This is a 9.2% increase from the five year rolling average of 24.0 in 2019. The 2020 five year rolling average still remains below the 10 year high of 29 reported in 2011. The APO had set a 2020 target of less than 23.0 serious injuries.

**Rate of Suspected Serious Injuries Five Year Rolling Average:** Calculation of the number of suspected serious injuries per 100 million VMT for each of the most recent five consecutive years (i.e., 2016-2020), adding the results, dividing by five, and rounding to the thousandth decimal place.



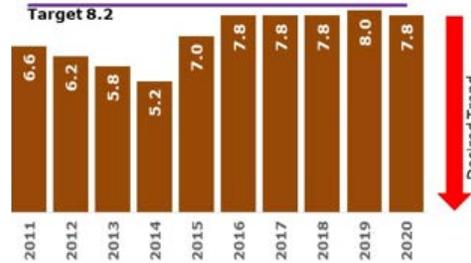
The five year rolling average for the suspected serious injury rate in 2020 was 2.113. While this is an increase from the 2019 five year rolling average, the 2020 numbers remain below the 10 year high of 2.763 reported in 2011. While the rate of fatalities has fallen slightly, the rate of suspected serious injuries has increased. The APO had set a serious injury rate 2020 target less than 1.946.

# Goal 1: Maintain and Enhance Transportation Safety

## Saint Cloud APO Transportation Results Scorecard

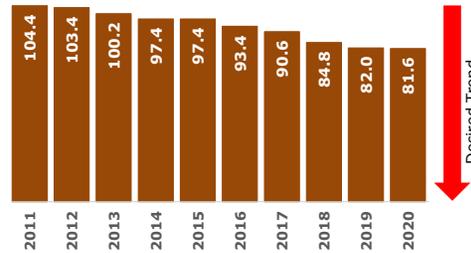
Measure	Multi-Year Trend	Analysis
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**Number of Non-Motorized Fatalities and Suspected Serious Injuries Five Year Rolling Average:** Addition of the number of non-motorized fatalities and suspected serious injuries for each of the most recent five consecutive years (i.e., 2016-2020), dividing by five, and rounding to the tenth decimal place.



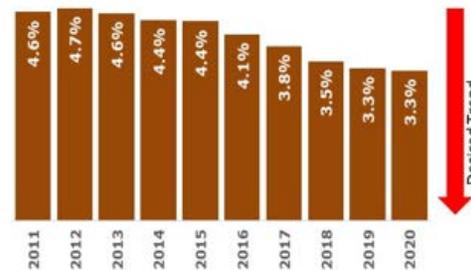
The five year rolling average for non-motorized fatalities and suspected serious injuries in 2020 was 7.8. This is a 2.5% decrease from the 10-year high recorded in 2019. The APO had set a 2020 target of less than 8.2 fatalities and suspected serious injuries.

**Number of Chemical Impairment Crashes Five Year Rolling Average:** Addition of the number of crashes wherein the driver had been drinking or taking drugs for each of the most recent five consecutive years (i.e., 2016-2020), dividing by five, and rounding to the tenth decimal place.



The five year average for number of chemical impairment crashes in 2020 was at 81.6. This is a 21.8% decrease from the five year rolling average reported in 2011 of 104.4 (the 10 year high). The APO desires the number of chemical impairment crashes to decrease.

**Percent of Chemical Impairment Crashes Five Year Rolling Average:** Addition of the number of chemical impairment crashes divided by the total number of crashes for each of the most recent five consecutive years (i.e., 2016-2020), dividing by five, and rounding to the tenth decimal place, expressed as a percent.



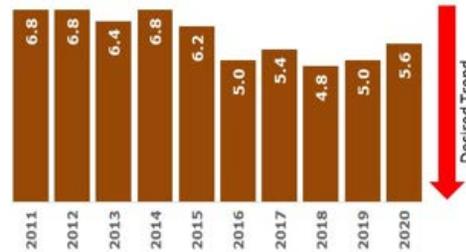
The percent of chemical impairment crashes for the five year period ending in 2020 was 3.3%. This is a 1.4 percentage point decrease from the 10 year high of 4.7% in 2012. The APO desires the percent of chemical impairment crashes to decrease.

# Goal 1: Maintain and Enhance Transportation Safety

## Saint Cloud APO Transportation Results Scorecard

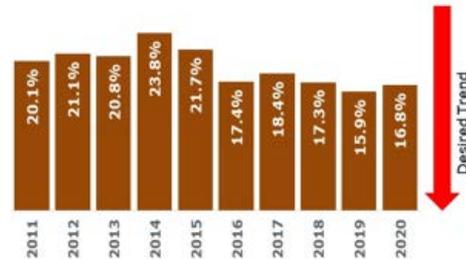
Measure	Multi-Year Trend	Analysis
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**Number of Fatal and Suspected Serious Injury Chemical Impairment Crashes Five Year Rolling Average:** Addition of the number of fatal and suspected serious injury crashes wherein the driver had been drinking or taking drugs for each of the most recent five consecutive years (i.e., 2016-2020), dividing by five, and rounding to the tenth decimal place.



The five year average for number of fatal and suspected serious injury chemical impairment crashes in 2020 was 5.6. This is a decrease of 1.2 from the five year rolling average of 6.8 reported in 2011, 2012, and 2014. But, there is a slight increase from the previous 4 averages. The APO desires fatal and suspected serious injury chemical impairment crashes to decrease.

**Percent of Fatal and Suspected Serious Injury Chemical Impairment Crashes Five Year Rolling Average:** Addition of the number of fatal and suspected serious injury chemical impairment crashes divided by the total number of fatal and suspected serious injury crashes for each of the most recent five consecutive years (i.e., 2016-2020), dividing by five, and rounding to the tenth decimal place, expressed as a percent.



The percent of fatal and suspected serious injury chemical impairment crashes for the five year period ending in 2020 was 16.8%. While the number of impairment crashes has slowly been declining in recent years, the level of severity has remained constant. Thus the percent of fatal and suspected serious injury crashes remains virtually unchanged. The APO desires the percent of fatal and suspected serious injury chemical impairment crashes to decrease.

**Distracted Driving Crashes Five Year Rolling Average:** Addition of the number of crashes of all types involving distracted driving for each of the most recent five consecutive years (i.e., 2016-2020), dividing by five, and rounding to the tenth decimal place.



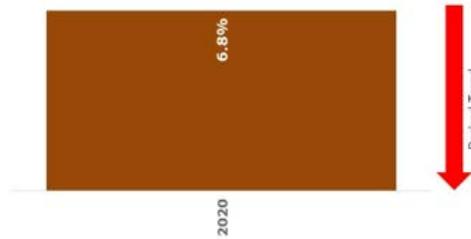
The five year average for the number of distracted driving crashes in 2020 was 172.4. The way in which distracted driving was reported changed between 2015 and 2016. Data from prior years is no longer comparable to data from after the change. The APO desires the number of distracted driving crashes to decrease.

# Goal 1: Maintain and Enhance Transportation Safety

## Saint Cloud APO Transportation Results Scorecard

Measure	Multi-Year Trend	Analysis
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**Percent of Distracted Driving Crashes Five Year Rolling Average:** Addition of the number of crashes of all types involving distracted driving divided by the total number of crashes for each of the most recent five consecutive years (i.e., 2016-2020), and rounding to the tenth decimal place, expressed as a percent.



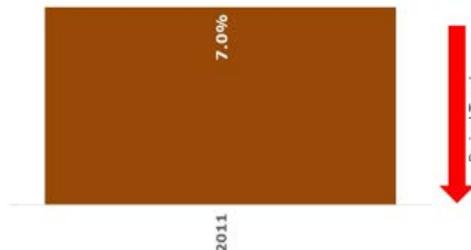
The percent of distracted driving crashes for the five year period ending in 2020 was 6.8%. The APO desires the percent of distracted driving crashes to decrease.

**Number of Fatal and Suspected Serious Injury Distracted Driving Crashes Five Year Rolling Average:** Addition of the number of fatal and suspected serious injury crashes of all types involving distracted driving for each of the most recent five consecutive years (i.e., 2016-2020), and rounding to the tenth decimal place.



The number of fatal and suspected serious injury distracted driving crashes for the five year period ending in 2020 was 2.2. The APO desires the number of fatal and suspected serious injury distracted driving crashes to decrease.

**Percent of Fatal and Suspected Serious Injury Distracted Driving Crashes Five Year Rolling Average:** Addition of the number of fatal and suspected serious injury distracted driving crashes divided by the total number of fatal and suspected serious injury crashes for each of the most recent five consecutive years (i.e., 2016-2020), and rounding to the tenth decimal place, expressed as a percent.



The percent of fatal and suspected serious injury distracted driving crashes for the five year period ending in 2020 was 7%. The APO desires the percent of fatal and suspected serious injury distracted driving crashes to decrease.

# Goal 1: Maintain and Enhance Transportation Safety

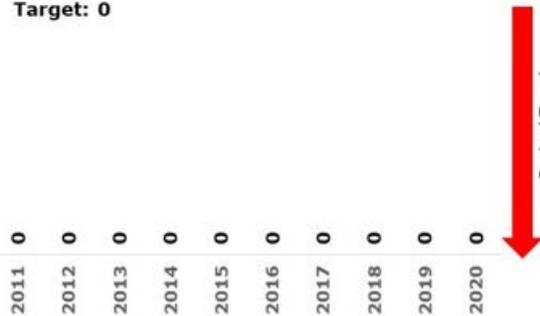
## Saint Cloud APO Transportation Results Scorecard

Transit Measure	Multi-Year Trend	Analysis
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### Number of Fixed Route (FR)

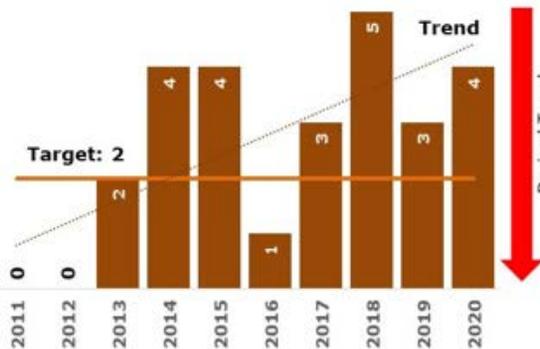
**Fatalities:** Total number of reportable FR fatalities.

Target: 0



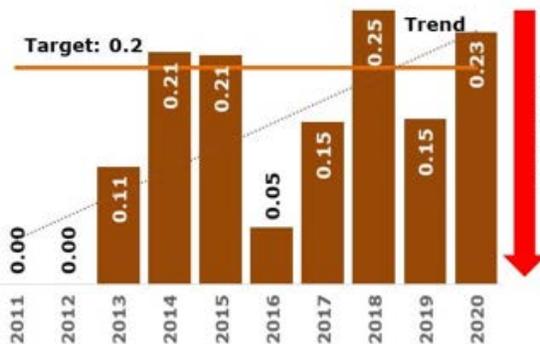
No reportable fixed route fatalities have occurred over the past 10 years. The APO desires this trend to continue.

**Number of FR Injuries:** Total number of reportable FR injuries.



Four reportable FR injuries occurred in 2020, one more than 2019. The APO desires the number of FR injuries to decrease.

**Rate of Injuries (FR):** Number of injuries divided by total vehicle revenue miles expressed per 65,000 vehicle revenue miles.



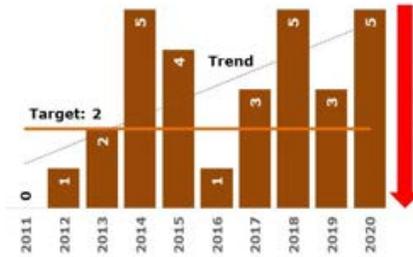
The rate of reportable FR injuries per 65,000 vehicle revenue miles was 0.23 in 2020. This is an increase of 0.08 from 0.15 in 2019. The APO desires the rate of FR injuries to decrease.

# Goal 1: Maintain and Enhance Transportation Safety

## Saint Cloud APO Transportation Results Scorecard

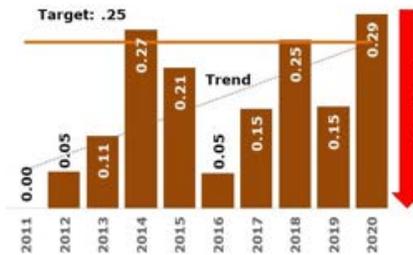
Transit Measure	Multi-Year Trend	Analysis
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**Number of FR Safety Events:** Total number of reportable FR safety events.



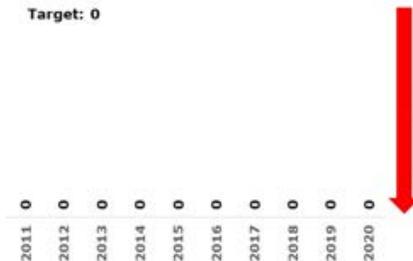
Five safety events were reported in 2020. This is two more safety events than what was reported in 2019. The APO desires the number of FR safety events to decrease.

**Safety Event Rate (FR):** Number of fixed route safety events divided by total vehicle revenue miles expressed per 65,000 vehicle revenue miles.



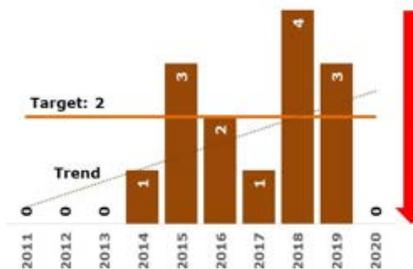
The 2020 FR reportable safety event rate per 65,000 vehicle revenue miles was 0.29. This is an increase of 0.14 from the 0.15 in 2019. The APO desires the rate of FR safety events to decrease.

**Number of Dial-a-Ride (DAR) Fatalities:** Total number of reportable DAR fatalities.



No reportable DAR fatalities have occurred over the past 10 years. The APO desires this trend to continue.

**Number of DAR Injuries:** Total number of reportable DAR injuries.



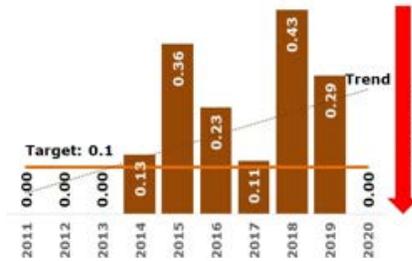
There were no reportable DAR injuries in 2020. The APO desires the number of DAR injuries to remain at zero.

# Goal 1: Maintain and Enhance Transportation Safety

## Saint Cloud APO Transportation Results Scorecard

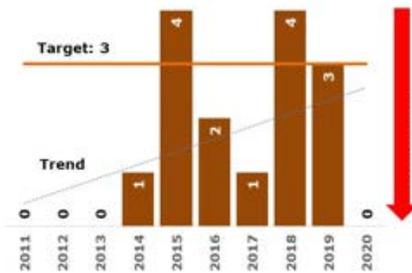
Transit Measure	Multi-Year Trend	Analysis
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**Rate of Injury (DAR):** Number of injuries divided by total vehicle revenue miles expressed per 65,000 vehicle revenue miles.



The rate of reportable DAR injuries per 65,000 vehicle revenue miles decreased from 0.29 in 2019 to zero in 2020. The APO desires the rate of DAR injuries to remain at zero.

**Number of DAR Safety Events:** Total number of reportable DAR safety events.



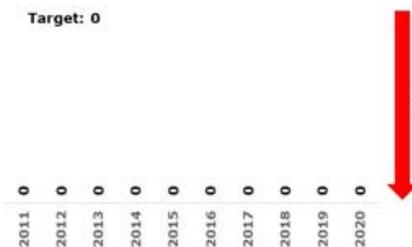
No DAR safety events were reported in 2020, down from the three that were reported in 2019. The APO desires the number of DAR safety events to remain at zero.

**Safety Event Rate (DAR):** Number of safety events divided by total vehicle revenue miles expressed per 65,000 vehicle revenue miles.



The rate of reportable DAR safety events per 65,000 vehicle revenue miles decreased from 0.29 in 2019 to zero in 2020. The APO desires the rate of DAR safety events to remain at zero.

**Number of Northstar Commuter Bus (NCB) Fatalities:** Total number of reportable NCB fatalities.



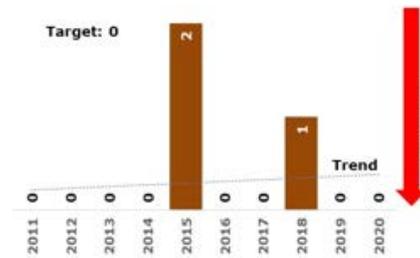
No fatalities have been reported since the NCB service began in 2011. The APO desires the number of NCB fatalities to stay at zero.

# Goal 1: Maintain and Enhance Transportation Safety

## Saint Cloud APO Transportation Results Scorecard

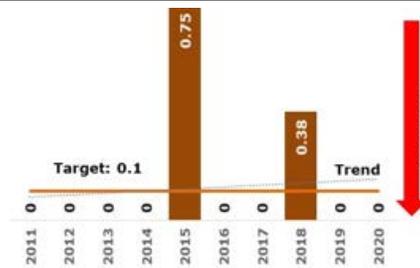
Transit Measure	Multi-Year Trend	Analysis
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**Number of NCB Injuries:** Total number of reportable NCB injuries.



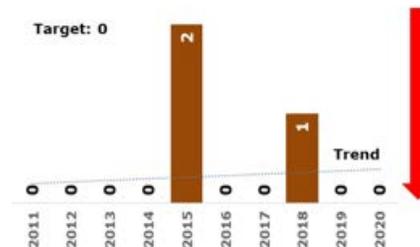
No NCB injuries were reported in 2020. This is down from the two injuries reported in 2015 and one reported in 2018. The APO desires the number of NCB injuries to stay at zero.

**Rate of Injuries (NCB):** Number of injuries divided by total vehicle revenue miles expressed per 65,000 vehicle revenue miles.



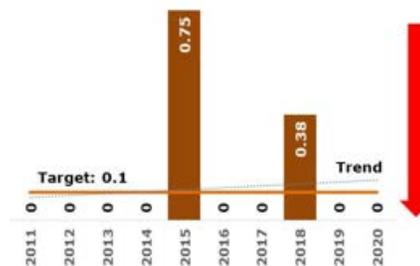
The rate of reportable NCB injuries per 65,000 vehicle revenue miles was at 0.00 in 2020. This is down from the reported injury rates of 0.75 in 2015 and 0.38 in 2018. The APO desires the rate of NCB injury rate to remain at zero.

**Number of NCB Safety Events:** Total number of reportable NCB safety events.



There were no reportable safety events in 2020. This was down from the two safety event reported in 2015 and one in 2018. The APO desires the number of NCB safety events to remain at zero.

**Safety Event Rate (NCB):** Number of safety events divided by total vehicle revenue miles expressed per 65,000 vehicle revenue miles.

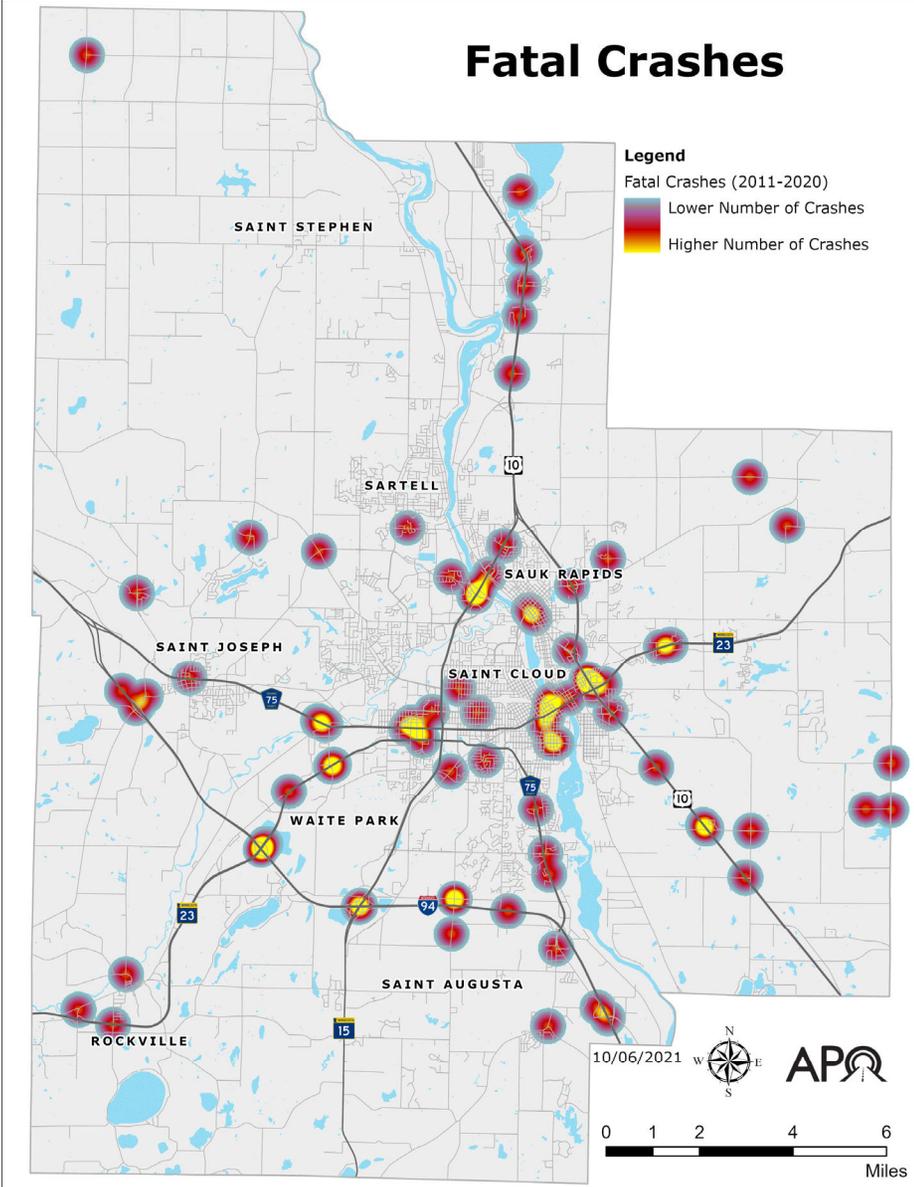


The rate of reportable NCB safety events per 65,000 vehicle revenue miles was at 0.00 in 2020. This was down from the safety event rate of 0.75 in 2015 and 0.38 in 2018. The APO desires the NCB safety events to remain at zero.

# Goal 1: Maintain and Enhance Transportation Safety

## Fatalities

Number of fatalities for the most recent 10 consecutive years.



## Fatal Crashes

Displayed in Figure 1.1 are traffic fatalities and their locations within the APO planning area from 2011 to 2020. The majority of these crashes occurred on the National Highway System (NHS), which typically has a higher annual average daily traffic (AADT) count.

- ◇ Nearly 29% of fatal crashes involve an active transportation user.
- ◇ The percent of fatal crashes in which an active transportation user was involved increased from 25% in 2011-15 to 32.6% in 2016-20.
- ◇ Single vehicle crashes account for nearly 22% of fatal crashes.
- ◇ Right angle crashes are most common, accounting for 26.5% of all fatal crashes, and half of all fatal crashes occur at an intersection.
- ◇ Crashes in which someone is under the influence account for 5.1% of crash fatalities.
- ◇ Nearly 70% of fatal crashes included at least one male driver, even though males make up about 49.7% of the areas population.
- ◇ Forty-one percent of crashes that occur when it is dark out result in a fatality.

## Seriousness of Crash

<b>Fatal crash</b>	Any crash in which a death has occurred as a result of the crash.
<b>Suspected Serious Injury</b>	Includes injuries serious enough to prevent normal activity for at least one day, such as massive blood
<b>Suspected Minor Injury</b>	Injuries that are evident at the scene, but not serious enough to prevent normal activity, such as
<b>Possible injury</b>	Non-visible injuries but there are complaints of pain or momentary unconsciousness, such as headaches, etc.
<b>Property Damage</b>	No injuries as a result of the crash.

Figure 1.1-Fatal Crashes

Data Source: MnDOT.

# Goal 1: Maintain and Enhance Transportation Safety

## Suspected Serious Injuries

Number of suspected serious injuries for the most recent 10 consecutive years.

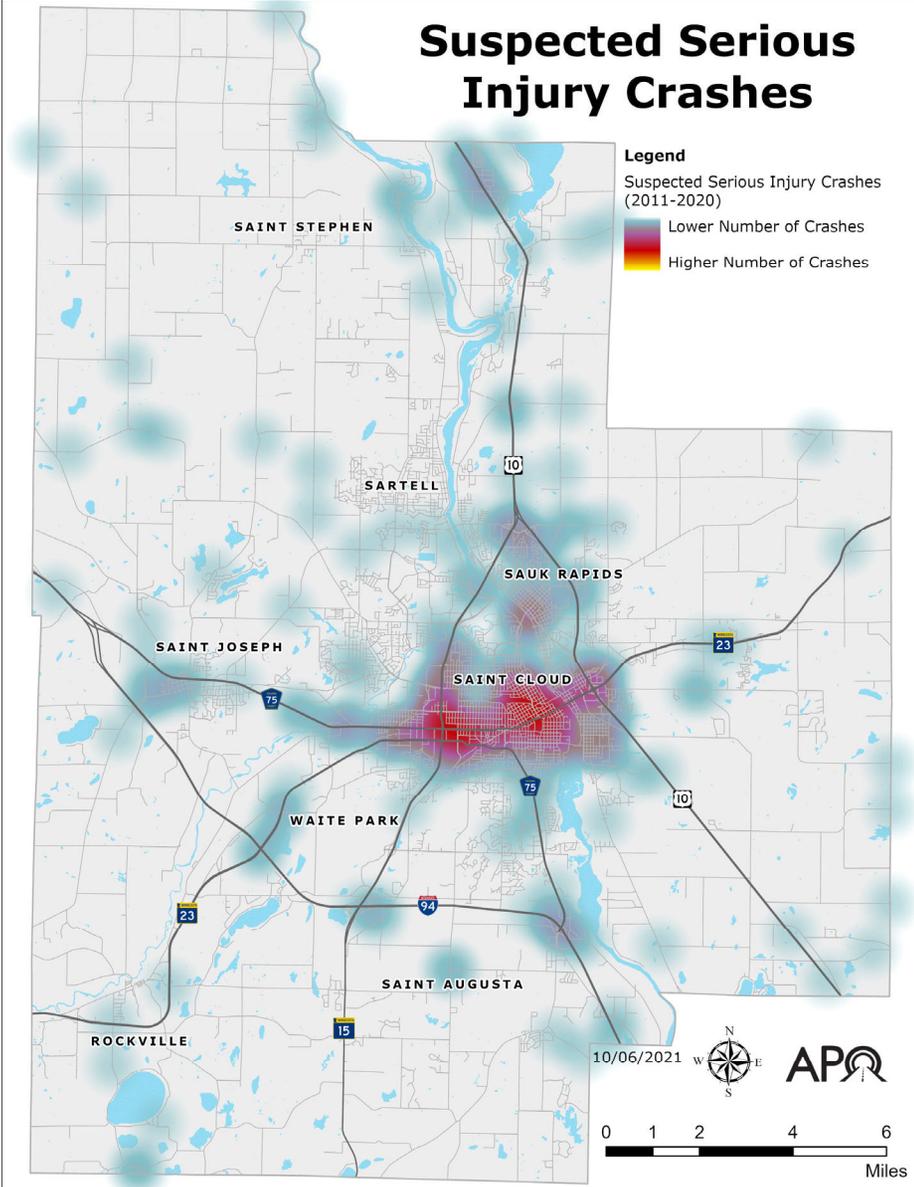


Figure 1.2-Suspected Serious Injury Crashes

Data Source: MnDOT.

## Suspected Serious Injury Crashes

Figure 1.2 illustrates suspected serious injury crashes and their locations within the APO planning area from 2011 to 2020.

- ◇ Active transportation users are involved in 21% of suspected serious injury crashes.
- ◇ Single-vehicle crashes account for 28.6% of suspected serious injury crashes.
- ◇ Right-Angle crashes make up 21% of suspected serious injury crashes.
- ◇ Intersections account for 48.3% of suspected serious injury crashes.
- ◇ Crashes in which a driver was under the influence account for 12.4% of suspected serious injury crashes.
- ◇ Nearly 66% of suspected serious injury crashes involve at least one male driver, even though males make up about 49.7% of the areas population.
- ◇ Approximately 34.1% of suspected serious injury crashes occur when it is dark outside.

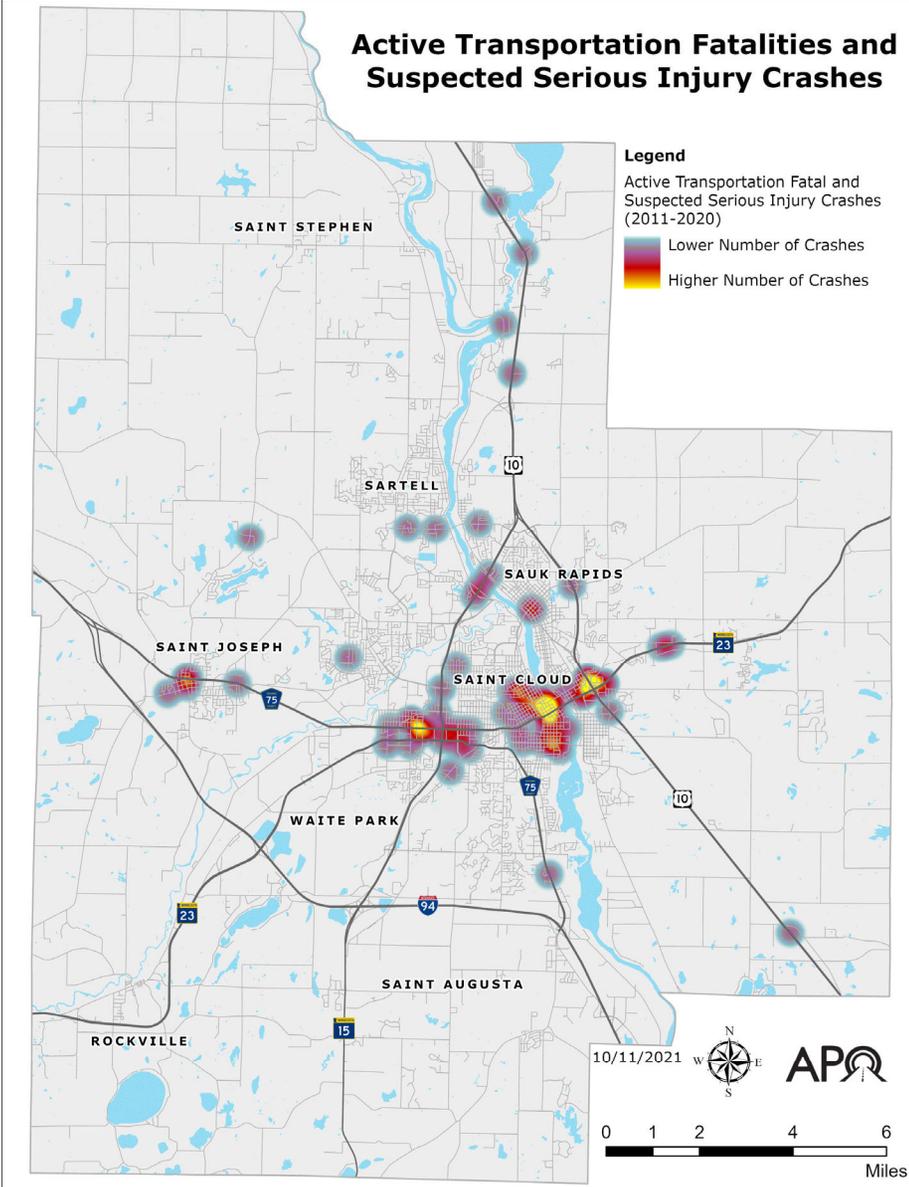
The average cost per crash was developed in 2021 by U.S. Department of Transportation on a per crash basis for use in calculating benefit/cost comparisons. The costs include economic cost factors and a measure of the value of lost quality of life that society is willing to pay to prevent deaths and injuries associated with motor vehicle crashes. For more information about the cost analysis visit the [Benefit-Cost Analysis Guidance for Discretionary Grant Programs guide](https://bit.ly/3MFq53N) (<https://bit.ly/3MFq53N>).

Average Cost Per Crash	(2019 Dollars)
Fatal	\$10,900,000
Suspected Serious Injury	\$521,300
Suspected Minor Injury	\$142,000
Possible Injury	\$72,500
Property Damage	\$3,700

# Goal 1: Maintain and Enhance Transportation Safety

## Non-Motorized Fatalities and Suspected Serious Injuries

The number of active transportation fatalities and non-motorized suspected serious injuries for each of the most recent 10 consecutive years.



## Active Transportation Fatalities and Suspected Serious Injury Crashes

Figure 1.3 illustrates active transportation fatalities and suspected serious injury crashes and their locations within the APO planning area from 2011 to 2020. Active transportation involves any non-motorized user, such as a person or walks or cycles.

- ◇ Approximately 60% of drivers were males in active transportation fatality and suspected serious injury crashes.
- ◇ Also, approximately 60% of active transportation users involved in fatal and suspected serious injury crashes were males.
- ◇ Four-way intersections make up 47.1% of these crashes locations, while 37.1% do not occur at an intersection.
- ◇ Chemical impairment is responsible for 10.6% of active transportation fatality and suspected serious injury crashes.
- ◇ A majority, 58.5%, of these crashes occur when it is dark outside.
- ◇ Clear weather conditions accounted for 74.3% of these crashes.

### Safe Speeds Save Lives

**Risk to pedestrians increases as driver speed increases.**

- ◇ "13% of pedestrians will die or suffer a severe injury hit by a vehicle a 20 mph."
- ◇ "40% of pedestrians will die or suffer a severe injury hit by a vehicle a 30 mph."
- ◇ "73% of pedestrians will die or suffer a severe injury hit by a vehicle a 40 mph."

Figure 1.3– Active Transportation Fatalities and Suspected Serious Injuries  
Data Source: MnDOT.

Data Source: National Highway Traffic Safety Administration (NHTSA)—  
National Pedestrian Safety Month 2021 Resource Guide.

# Goal 1: Maintain and Enhance Transportation Safety

## Chemical Impairment Crashes

The number of crashes wherein the driver had been drinking or taking drugs.

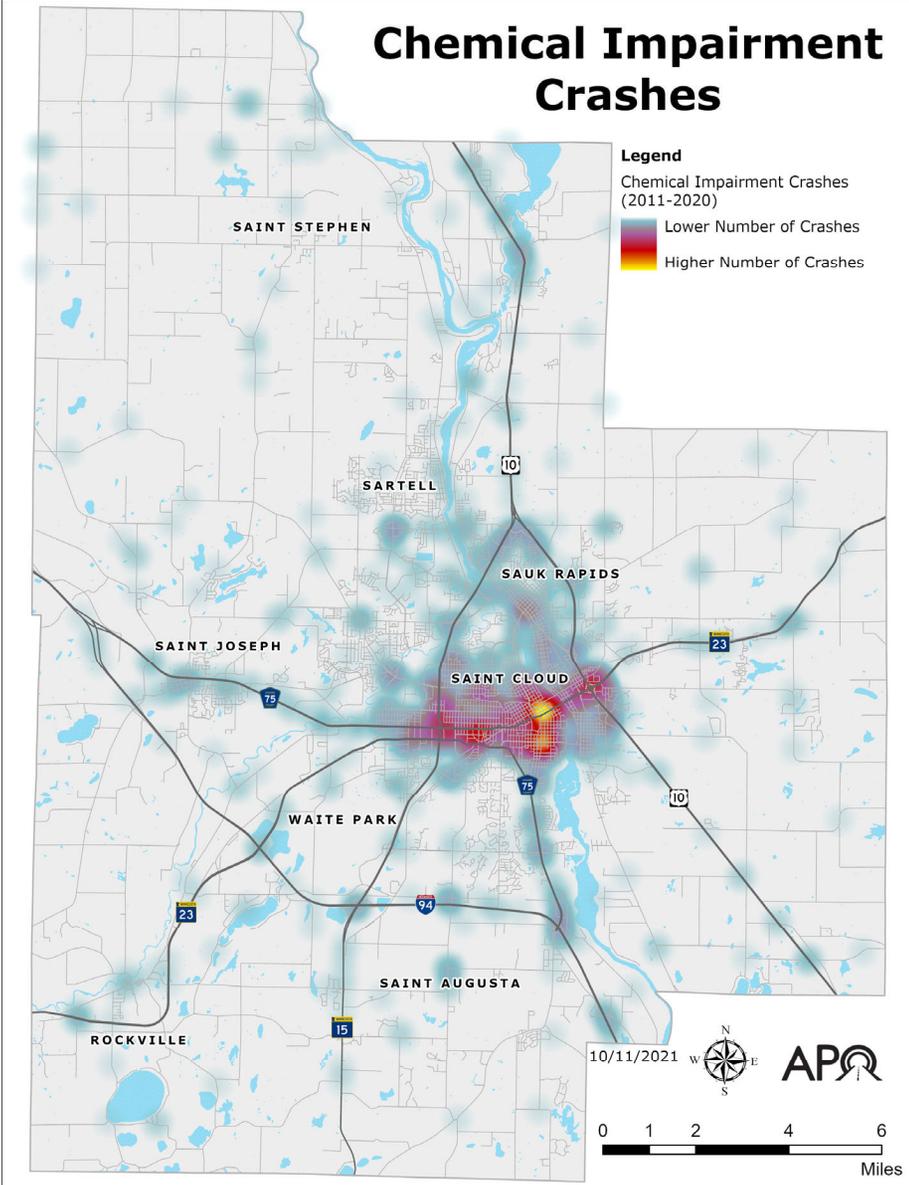


Figure 1.4-Chemical Impairment Crashes

Data Source: MnDOT.

## Chemical Impairment Crashes

Figure 1.4 displays the locations where chemical impairment crashes occurred in the APO planning area from 2011 to 2020.

- ◇ *Property damage only crashes account for 58.9% of chemical impairment crashes.*
- ◇ *Crashes involving a single vehicle account for 48.7% of chemical impairment crashes.*
- ◇ *Rear end crashes account for 16.9% of chemical impairment crashes.*
- ◇ *Males between the ages of 21 and 34 account for 49.2% of chemical impairment crashes, while only making up about 8% of the areas population.*
- ◇ *Approximately 61.4% of chemical impairment crashes occur when it is dark outside.*

## Why Driving After Drinking is Dangerous

**“Driving impaired by any substance—alcohol or other drugs, whether legal or illegal—is against the law in all 50 states and the District of Columbia. Even in states where marijuana laws have changed, it is still illegal to drive under the influence of the drug.**

**“Approximately one-third of all traffic crash fatalities in the United States involve drunk drivers (with BACs of .08 g/dL or higher). In 2019, there were 10,142 people killed in these preventable crashes. In fact, on average over the 10-year period from 2010-2019, more than 10,000 people died every year in drunk-driving crashes.”**

Data Source: NHTSA.

# Goal 1: Maintain and Enhance Transportation Safety

## Distracted Crashes

Number of crashes involving distracted drivers.

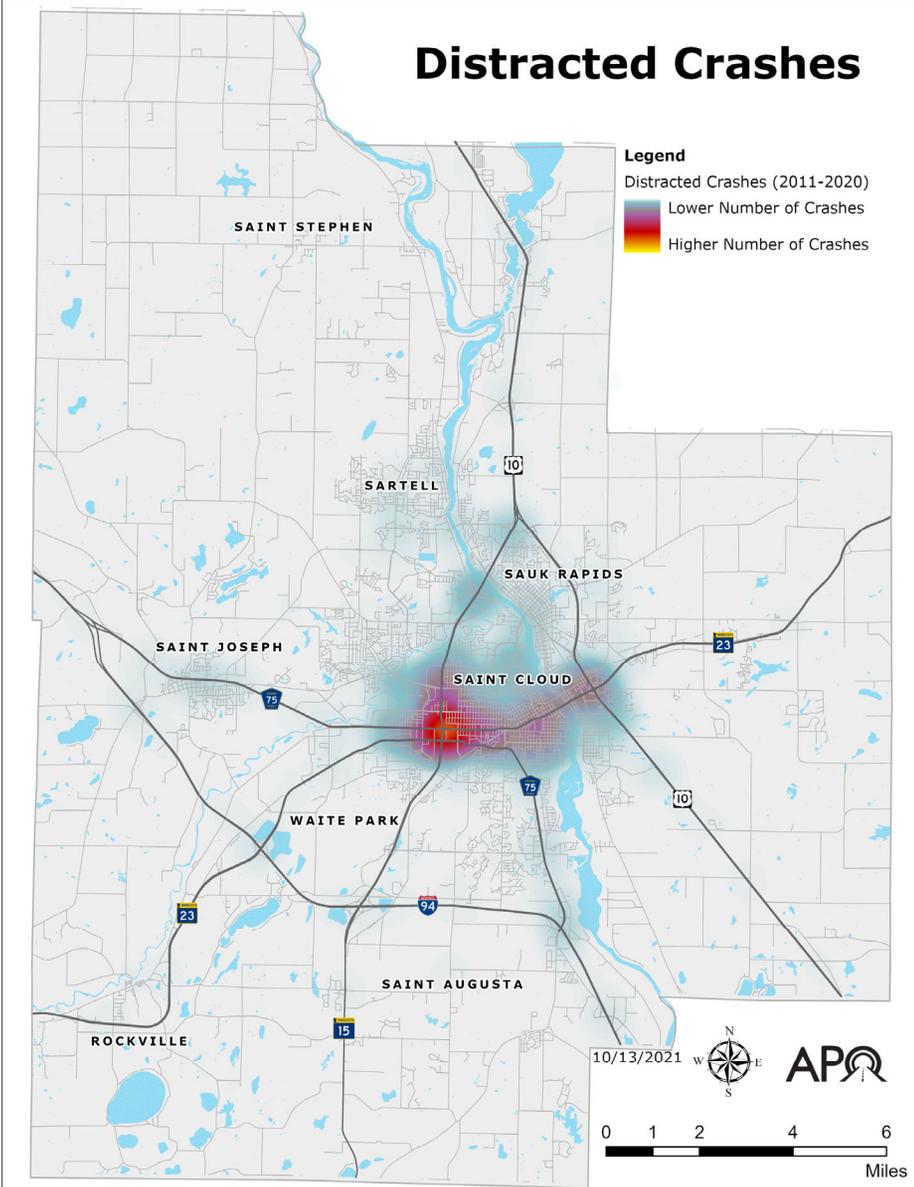


Figure 1.5-Distracted Crashes

Data Source: MnDOT.

## Distracted Crashes

Figure 1.5 displays the locations where distracted crashes occurred in the APO planning area from 2011 to 2020.

- ◇ *Property damage only crashes account for 66.9% of distracted crashes.*
- ◇ *Rear ended crashes resulted in 72.5% of distracted crashes.*
- ◇ *Intersections account for 59.2% of distracted crashes locations.*
- ◇ *Approximately 79.6% of distracted crashes occur during daylight hours.*
- ◇ *Drivers of ages 21-29 are involved in nearly 25% of distracted crashes.*

## What Is Distracted Driving?

**“Distracted or inattentive driving is when a driver engages in any activity that might distract them from the primary task of driving — and increases their risk of crashing.”**

**“It is illegal for drivers of all ages to compose, read, or send electronic messages or access the Internet on a wireless device when the vehicle is in motion or part of traffic. This includes being stopped in traffic or at a light.”**

**“You cannot drive safely unless the task of driving has your full attention. Any non-driving activity you engage in is a potential distraction and increases your risk of crashing.”**

Data Source: NHTSA.

## Goal 2: Increase System Accessibility, Mobility, and Connectivity

Increase the accessibility and mobility options for people and freight across and between all modes for all users



Photo courtesy of Saint Cloud APO and Metro Bus.

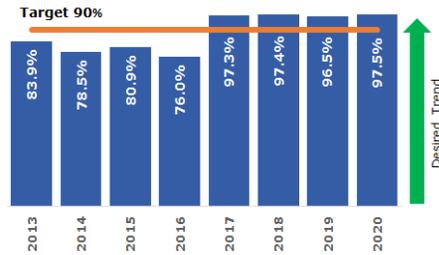
# Goal 2: Increase System Accessibility, Mobility, and Connectivity

## Saint Cloud APO Transportation Results Scorecard

Measure	Multi-Year Trend	Analysis
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**Non-Interstate NHS Reliability:**

Annual percent of person-miles traveled that are reliable.



The non-Interstate NHS has continued to operate reliably over the last four years. The APO has set a 2021 target of at least 90% reliability.

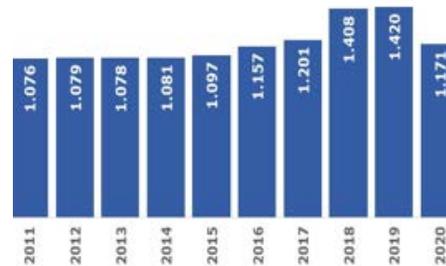
**Interstate Reliability:** Annual percent of person-miles traveled that are reliable.



I-94 continues to operate extremely well with no reliability issues in the last 10 years. The APO has set a 2021 target of at least 100% reliability.

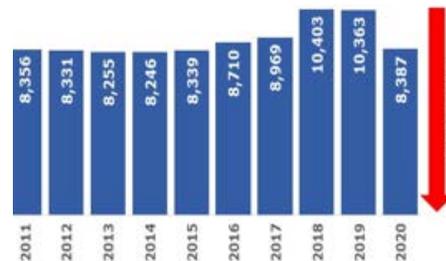
**Vehicle Miles Traveled (VMT):**

Number of miles traveled by motor vehicle expressed in billions.



VMT has decreased 17.5% from 1.420 billion miles in 2019 to 1.171 billion miles in 2020. This decrease is likely due to the many shutdowns due to the COVID-19 pandemic. The APO does not have a set target.

**VMT Per Capita:** Number of miles traveled by motor vehicle divided by population.



VMT per capita decreased 19.1% from 10,363 in 2019 to 8,387 in 2020. This decrease is likely due to the reduction in VMT associated with the COVID-19 shutdowns. The APO does not have a set target but desires VMT per capita to decrease.

# Goal 2: Increase System Accessibility, Mobility, and Connectivity

## Saint Cloud APO Transportation Results Scorecard

Transit Measure	Multi-Year Trend	Analysis																						
<p><b>Number of Annual Fixed Route (FR) Transit Riders:</b> Annual number of transit riders by FR (in millions).</p>	<table border="1"> <tr><th>Year</th><td>2011</td><td>2012</td><td>2013</td><td>2014</td><td>2015</td><td>2016</td><td>2017</td><td>2018</td><td>2019</td><td>2020</td></tr> <tr><th>Value</th><td>2.26</td><td>2.20</td><td>2.20</td><td>2.15</td><td>2.04</td><td>1.94</td><td>1.75</td><td>1.62</td><td>1.48</td><td>0.96</td></tr> </table>	Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Value	2.26	2.20	2.20	2.15	2.04	1.94	1.75	1.62	1.48	0.96	<p>Due in part to the COVID-19 pandemic, the number of annual FR transit riders has decreased by 35.1% from the 2019 number of 1.48 million to 0.96 million in 2020. Since 2011, FR ridership has fallen nearly 58%. The APO desires the number of fixed route transit riders to increase.</p>
Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020														
Value	2.26	2.20	2.20	2.15	2.04	1.94	1.75	1.62	1.48	0.96														
<p><b>Passengers Per Revenue Mile (FR):</b> The number of passengers divided by the number of miles traveled by FR.</p>	<table border="1"> <tr><th>Year</th><td>2011</td><td>2012</td><td>2013</td><td>2014</td><td>2015</td><td>2016</td><td>2017</td><td>2018</td><td>2019</td><td>2020</td></tr> <tr><th>Value</th><td>1.92</td><td>1.85</td><td>1.84</td><td>1.77</td><td>1.66</td><td>1.57</td><td>1.35</td><td>1.26</td><td>1.16</td><td>0.86</td></tr> </table>	Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Value	1.92	1.85	1.84	1.77	1.66	1.57	1.35	1.26	1.16	0.86	<p>FR passengers per revenue mile has decreased by 0.3 from 1.16 in 2019 to 0.86 in 2020. The number of revenue miles has also been decreasing over the years. The APO desires FR passengers per revenue mile to increase.</p>
Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020														
Value	1.92	1.85	1.84	1.77	1.66	1.57	1.35	1.26	1.16	0.86														
<p><b>Passengers Per Revenue Hour (FR):</b> The number of passengers divided by the number of hours traveled by FR.</p>	<table border="1"> <tr><th>Year</th><td>2011</td><td>2012</td><td>2013</td><td>2014</td><td>2015</td><td>2016</td><td>2017</td><td>2018</td><td>2019</td><td>2020</td></tr> <tr><th>Value</th><td>26.95</td><td>25.96</td><td>25.92</td><td>24.93</td><td>23.47</td><td>22.04</td><td>18.0</td><td>16.9</td><td>15.2</td><td>11.4</td></tr> </table>	Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Value	26.95	25.96	25.92	24.93	23.47	22.04	18.0	16.9	15.2	11.4	<p>FR passengers per revenue hour has decreased by 3.8 from 15.2 in 2019 to 11.4 in 2020. The number of revenue hours dropped significantly. The APO desires FR passengers per revenue hour to increase.</p>
Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020														
Value	26.95	25.96	25.92	24.93	23.47	22.04	18.0	16.9	15.2	11.4														
<p><b>Number of Annual Dial-a-Ride (DAR) Transit Riders:</b> Annual number of transit riders by DAR.</p>	<table border="1"> <tr><th>Year</th><td>2011</td><td>2012</td><td>2013</td><td>2014</td><td>2015</td><td>2016</td><td>2017</td><td>2018</td><td>2019</td><td>2020</td></tr> <tr><th>Value</th><td>134,746</td><td>130,880</td><td>122,263</td><td>128,087</td><td>133,303</td><td>139,414</td><td>136,422</td><td>139,399</td><td>152,239</td><td>98,687</td></tr> </table>	Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Value	134,746	130,880	122,263	128,087	133,303	139,414	136,422	139,399	152,239	98,687	<p>Due in part to the COVID-19 pandemic, the number of annual DAR transit riders has decreased by 35.2% from 152,239 in 2019 to 98,687 in 2020. The APO desires the number of DAR transit riders to increase.</p>
Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020														
Value	134,746	130,880	122,263	128,087	133,303	139,414	136,422	139,399	152,239	98,687														
<p><b>Passengers Per Revenue Mile (DAR):</b> The number of passengers divided by the number of miles traveled by DAR.</p>	<table border="1"> <tr><th>Year</th><td>2011</td><td>2012</td><td>2013</td><td>2014</td><td>2015</td><td>2016</td><td>2017</td><td>2018</td><td>2019</td><td>2020</td></tr> <tr><th>Value</th><td>0.26</td><td>0.26</td><td>0.25</td><td>0.25</td><td>0.25</td><td>0.24</td><td>0.24</td><td>0.23</td><td>0.23</td><td>0.22</td></tr> </table>	Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Value	0.26	0.26	0.25	0.25	0.25	0.24	0.24	0.23	0.23	0.22	<p>DAR passengers per revenue mile has decreased by 0.01 from 0.23 in 2019 to 0.22 in 2020. The number of revenue miles has been decreasing over the years. The APO desires DAR passengers per revenue mile to increase.</p>
Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020														
Value	0.26	0.26	0.25	0.25	0.25	0.24	0.24	0.23	0.23	0.22														

# Goal 2: Increase System Accessibility, Mobility, and Connectivity

## Saint Cloud APO Transportation Results Scorecard

Transit Measure	Multi-Year Trend	Analysis																						
<p><b>Passengers Per Revenue Hour (DAR):</b> The number of passengers divided by the number of hours traveled by DAR.</p>	<table border="1"> <tr><th>Year</th><td>2011</td><td>2012</td><td>2013</td><td>2014</td><td>2015</td><td>2016</td><td>2017</td><td>2018</td><td>2019</td><td>2020</td></tr> <tr><th>Value</th><td>3.29</td><td>3.31</td><td>3.15</td><td>3.13</td><td>3.07</td><td>3.15</td><td>3.04</td><td>2.96</td><td>3.01</td><td>2.75</td></tr> </table>	Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Value	3.29	3.31	3.15	3.13	3.07	3.15	3.04	2.96	3.01	2.75	<p>DAR passengers per revenue hour decreased by 0.26 from 3.01 in 2019 to 2.75 in 2020. Revenue hours had been increasing, however in 2020 they decrease significantly. The APO desires DAR passengers per revenue hour to increase.</p>
Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020														
Value	3.29	3.31	3.15	3.13	3.07	3.15	3.04	2.96	3.01	2.75														
<p><b>Number of Annual Northstar Commuter Bus (NCB) Transit Riders:</b> Annual number of transit riders on NCB.</p>	<table border="1"> <tr><th>Year</th><td>2011</td><td>2012</td><td>2013</td><td>2014</td><td>2015</td><td>2016</td><td>2017</td><td>2018</td><td>2019</td><td>2020</td></tr> <tr><th>Value</th><td>41,370</td><td>50,313</td><td>53,152</td><td>59,225</td><td>57,642</td><td>51,569</td><td>50,505</td><td>47,570</td><td>47,147</td><td>24,280</td></tr> </table>	Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Value	41,370	50,313	53,152	59,225	57,642	51,569	50,505	47,570	47,147	24,280	<p>Annual NCB transit riders has decreased by 49% from 47,147 in 2019 to 24,280 in 2020. Due to COVID-19 and a decline in ridership, Northstar rail use greatly decreased and due to that the bus use greatly decreased as well in 2020. The APO desires the NCB transit ridership to increase.</p>
Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020														
Value	41,370	50,313	53,152	59,225	57,642	51,569	50,505	47,570	47,147	24,280														
<p><b>Passengers Per Revenue Mile (NCB):</b> The number of passengers divided by the number of miles traveled by NCB.</p>	<table border="1"> <tr><th>Year</th><td>2011</td><td>2012</td><td>2013</td><td>2014</td><td>2015</td><td>2016</td><td>2017</td><td>2018</td><td>2019</td><td>2020</td></tr> <tr><th>Value</th><td>0.30</td><td>0.36</td><td>0.38</td><td>0.39</td><td>0.33</td><td>0.29</td><td>0.29</td><td>0.28</td><td>0.27</td><td>0.22</td></tr> </table>	Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Value	0.30	0.36	0.38	0.39	0.33	0.29	0.29	0.28	0.27	0.22	<p>Passengers per revenue mile have decreased by 0.05 from 0.27 in 2019 to 0.22 passengers per revenue mile in 2020. Revenue miles for NCB fell due to COVID-19. The APO desires NCB passengers per revenue mile to increase.</p>
Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020														
Value	0.30	0.36	0.38	0.39	0.33	0.29	0.29	0.28	0.27	0.22														
<p><b>Passengers Per Revenue Hour (NCB):</b> The number of passengers divided by the number of hours traveled by NCB.</p>	<table border="1"> <tr><th>Year</th><td>2011</td><td>2012</td><td>2013</td><td>2014</td><td>2015</td><td>2016</td><td>2017</td><td>2018</td><td>2019</td><td>2020</td></tr> <tr><th>Value</th><td>8.93</td><td>10.68</td><td>11.31</td><td>11.59</td><td>9.82</td><td>8.74</td><td>8.57</td><td>8.16</td><td>8.01</td><td>6.32</td></tr> </table>	Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Value	8.93	10.68	11.31	11.59	9.82	8.74	8.57	8.16	8.01	6.32	<p>Passengers per revenue hour have decreased by 1.69 from 8.01 in 2019 to 6.32 passenger per revenue hour in 2020. Revenue hours fell due to COVID-19. The APO desires NCB passengers per revenue hour to increase.</p>
Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020														
Value	8.93	10.68	11.31	11.59	9.82	8.74	8.57	8.16	8.01	6.32														
<p><b>Percent of Single Occupancy Vehicle (SOV) Travel:</b> Percent of travel alone in a motorized vehicle.</p>	<table border="1"> <tr><th>Year</th><td>2015</td><td>2016</td><td>2017</td><td>2018</td><td>2019</td></tr> <tr><th>Value</th><td>79.4%</td><td>79.8%</td><td>80.0%</td><td>81.0%</td><td>81.1%</td></tr> </table>	Year	2015	2016	2017	2018	2019	Value	79.4%	79.8%	80.0%	81.0%	81.1%	<p>Updated information for 2020 was not available at the time of publication.</p>										
Year	2015	2016	2017	2018	2019																			
Value	79.4%	79.8%	80.0%	81.0%	81.1%																			

## Goal 2: Increase System Accessibility, Mobility, and Connectivity

### Level of Travel Time Reliability

Annual percent of person-miles traveled on the Interstate and non-Interstate National Highway System (NHS) that are reliable.

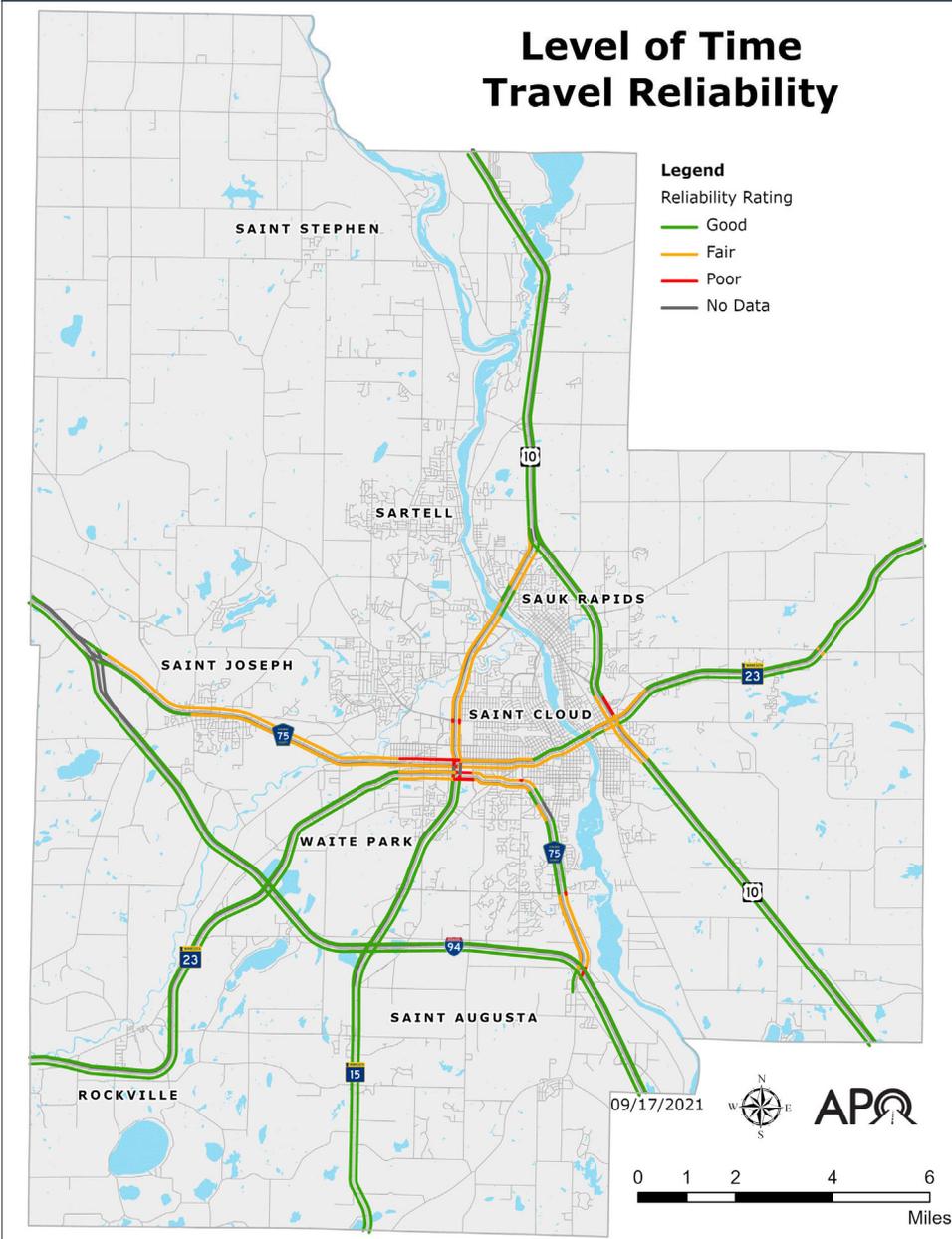


Figure 2.1-Time Travel Reliability

Data Source: NPMRDS.

### Level of Time Travel Reliability

Time travel reliability ratings consider the average amount of time it would take for a vehicle to travel at the 50th percentile speed or average on a stretch of roadway. For example, if a one mile stretch of roadway with a 60 mph average speed has a time travel reliability rating of 1.5 it would take the average vehicle 1 minute 30 seconds to travel that roadway when normally it would take 1 minute. A time travel reliability rating above 1.5 is deemed unreliable by Federal Highway Administration (FHWA) standards.

The areas within the APO planning boundaries which experience unreliable travel time above 1.5 include, but are not limited to: the westbound lane of Division Street from MN 15 to 10th Avenue N in Waite Park; both lanes of Second Street S from MN 15 to 33rd Avenue S; and northbound US 10 from the MN 23 exit north to the Benton Drive South exit.

- ⇒ **Level of Travel Time Reliability (LOTR) is defined as the ratio of the 80th percentile travel time of a reporting segment to a “normal” travel time (50th percentile), using data from FHWA’s National Performance Management Research Data Set (NPMRDS).**
- ⇒ **INRIX was selected by FHWA to collect Global Positioning System (GPS) probe data from a wide array of commercial vehicle fleets, connected cars, and mobile apps to produce the NPMRDS travel time data.**
- ⇒ **Data is collected in 15-minute segments for the following time periods:**
  - ◇ **6 - 10 a.m. weekdays**
  - ◇ **10 a.m. - 4 p.m. weekdays**
  - ◇ **4 - 8 p.m. weekdays**
  - ◇ **6 a.m. - 8 p.m. weekends**

## Goal 2: Increase System Accessibility, Mobility, and Connectivity

### Vehicle Miles Traveled

Vehicle Miles Traveled (VMT) is a measure of all miles driving within an area within a specific period.



Interstate 94 in Saint Cloud. Photo courtesy of the APO.

### What influences VMT?

VMT can be influenced by a multitude of factors including population growth, the health of the economy, fuel and parking costs, accessibility of public transit and other transportation alternatives, weather, mix of land uses, and more.

### What Do Changes in VMT Mean?

VMT reflects the extent of motor vehicle operation on roadways. Increase in VMT typically correlates to a region's growth in population and economic development. However, increases in VMT also contribute to traffic congestion and air pollution. Since regional population is growing and the APO cannot feasibly reduce absolute VMT, it is important to target VMT by population (per capita VMT). Reductions in VMT per capita will improve air quality and congestion on the transportation system.

Municipality	Annual Vehicle Miles Traveled (2019)	Annual Vehicle Miles Traveled (2020)	Percent Change (2019-2020)
Saint Cloud	563,919,202	464,902,416	-17.6%
Sartell	82,326,235	68,010,746	-17.4%
Sauk Rapids	62,989,692	52,901,252	-16.0%
Waite Park	84,173,029	71,689,036	-14.8%
Saint Joseph	40,742,029	34,185,400	-16.1%
Saint Augusta	63,461,391	54,096,601	-14.8%
Rockville	60,929,312	54,306,336	-10.9%
Saint Stephen	3,831,863	3,541,016	-7.6%
<b>Total</b>	<b>962,372,752</b>	<b>803,632,803</b>	<b>-16.5%</b>

Data Source: MnDOT.

### VMT Travel by Municipality

Vehicle miles traveled in 2020 was heavily impacted by the COVID-19 pandemic. Many businesses such as restaurants, bars and other entertainment related establishments were required to close and non-essential workers were required to work from their place of residence under Minnesota's Peace Time Emergency Order. In the APO region VMT in the municipalities dropped 16.5% from the previous year.

#### Strategies to Lower VMT:

- ◆ Complete Streets.
- ◆ Encourage and promote biking and walking.
- ◆ Expand public transportation.
- ◆ High-occupancy vehicle lanes.
- ◆ Promote connectivity.
- ◆ Ride-sharing programs.
- ◆ Safe Routes to School.
- ◆ Traffic calming.

## Goal 2: Increase System Accessibility, Mobility, and Connectivity

### Means of Transportation to Work

Percent of single-occupancy vehicle (SOV) travel.

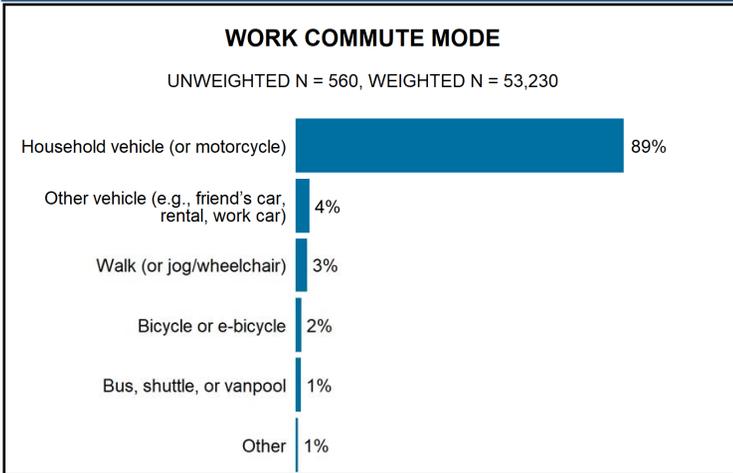


Figure 2.3-Means of Transportation to Work

Data Source: St. Cloud APO

### Means of Transportation to Work

Depicted in Figure 2.3, of workers 15 years and older 89% (64,460) used a household car, truck, van, or motorcycle as their means of transportation to work.

The next most common forms of work commuting transportation include: using another vehicle such as a friend's car or a work car (4%), walking (3%), and biking (2%). Buses, taxis and other means are all at or below 1%.

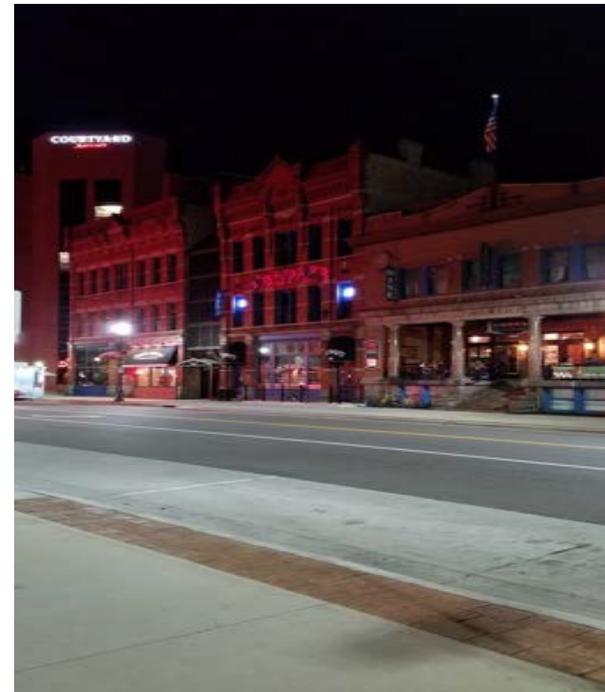
Compared with 2015-2019 ACS Five Year Estimates, means of transportation to work by all modes have remained fairly constant with public transportation decreasing slightly and bicycling increasing slightly.

### Region's Top 10 Employers and the Number of Employees

- ◆ Saint Cloud Hospital/CentraCare - **7,541**
- ◆ Saint Cloud VA Health Care System - **1,850**
- ◆ State of Minnesota\* - **1,838**
- ◆ Saint Cloud Area School District 742 - **1,800**
- ◆ Stearns County - **954**
- ◆ Fulfillment Distribution Center - **900**
- ◆ College Saint Benedict/Saint John's University - **868**
- ◆ Coborn's, Inc - **755**
- ◆ New Flyer of America - **730**
- ◆ Bernick's - **680**

\*Includes Saint Cloud State University, Saint Cloud Technical and Community College, Saint Cloud Correctional Facility, and MnDOT.

Data Source: Saint Cloud Area Chamber of Commerce.



## Goal 2: Increase System Accessibility, Mobility, and Connectivity

### Saint Cloud Metropolitan Transit Commission (MTC)

The Saint Cloud Metropolitan Transit Commission (MTC) was created by the Minnesota Legislature in 1969 to operate as a transit commission. The MTC – more commonly known as Saint Cloud Metro Bus or simply “Metro Bus” – is responsible for the daily management, operation, and maintenance of Fixed Route (FR), Dial-a-Ride (DAR), and Northstar Commuter Bus (NCB) systems. The transit commission provides service for the communities of Saint Cloud, Sartell, Sauk Rapids, and Waite Park.

The Metro Bus FR service operates seven days a week and includes 17 regular public routes as well as three routes servicing Saint Cloud State University (SCSU). However, the service with the SCSU routes was suspended at least since July 2020 due to contract negotiation issues. The system includes four transit hubs: the Downtown Saint Cloud Transit Center, Crossroads Center mall, the Miller Learning Resources Center at SCSU and Epic Shopping Center in Sartell. COVID-19 influenced the service of Metro Bus as seen through a regular route being dropped and several routes being changed from half-hour to hour service.



### Metro Bus by the numbers:

- ⇒ *People who ride the bus daily 5 or more days a week make up 77% of riders.*
- ⇒ *About 31% of riders have been riding for 6+ years.*
- ⇒ *While 44% of riders have been riding for under 2 years.*
- ⇒ *Work is the most common trip purpose for riders with 46% of trips being for work.*
- ⇒ *Although school is a close second with 39% of trips being for school purposes.*
- ⇒ *There are 850+ signed bus stops throughout the four-city transit*
- ⇒ *Of people who use the bus, 84% do not have a car available to them.*
- ⇒ *Most riders (48%) are aged 18-29.*

## Goal 2: Increase System Accessibility, Mobility, and Connectivity

### Fixed Route Buses



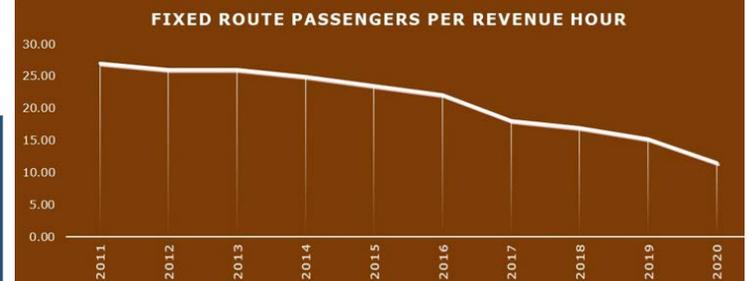
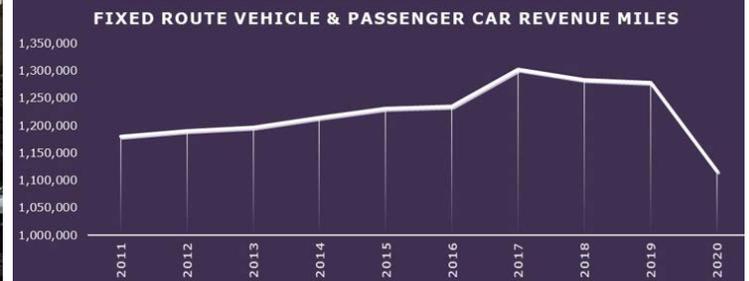
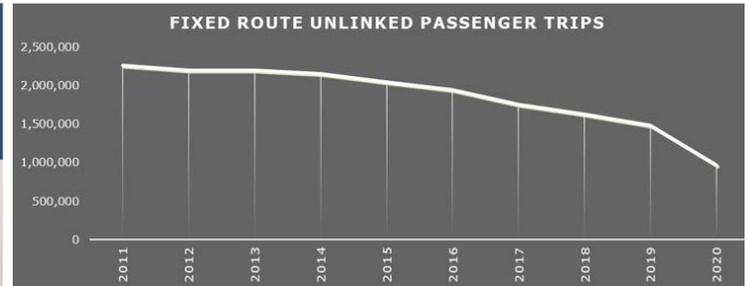
Photo courtesy of Saint Cloud MTC.

### Fixed Route Buses

Fixed route passengers per revenue mile decreased by 0.76 from a peak of 1.92 in 2011 to a low of 1.16 in 2020. In addition, passengers per revenue hour also experienced a decline — down 1.06 between 2011 and 2020. While revenue hours had been increasing over time, there was a sharp decline due in part to COVID-19 shutdowns. Revenue miles has been on a steady decline.

FR has experienced a steady decline of passenger trips since its peak ridership numbers in 2011. This could be due to many factors such as gas prices or the growth of on-demand shared transportation sources such as Uber and Lyft that have entered the market. This decline is also due to COVID-19 shutdowns and the overall decrease in travel with some people now working from home and some concerned about their health on public transportation.

<b>43</b>	<b>\$8.25</b>	<b>6.7</b>
Fixed route buses	Operating expense per vehicle revenue mile for fixed route buses	Average age of fixed route buses



Data Source: National Transit Database (NTD).

## Goal 2: Increase System Accessibility, Mobility, and Connectivity

### Dial-a-Ride Buses



Photo courtesy of Saint Cloud MTC.

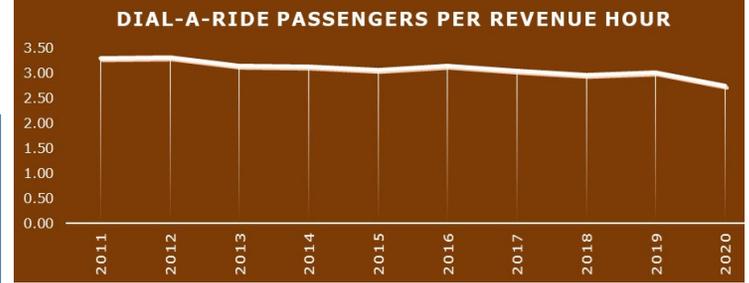
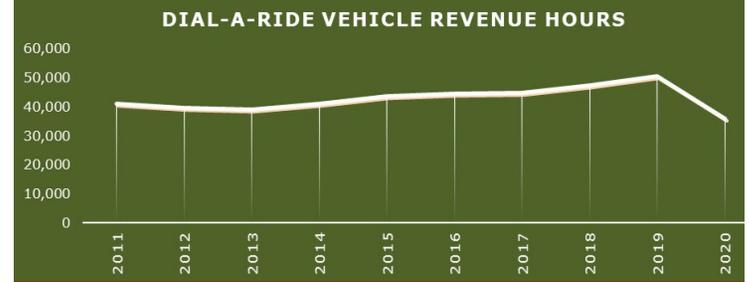
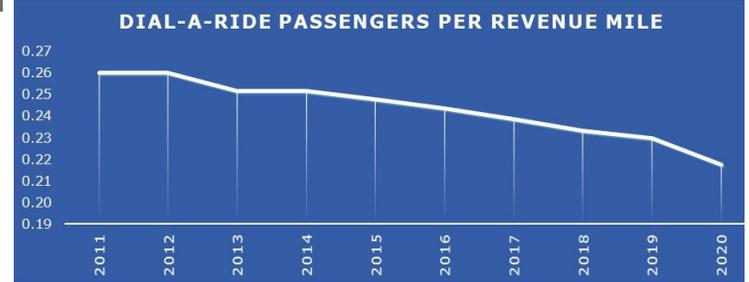
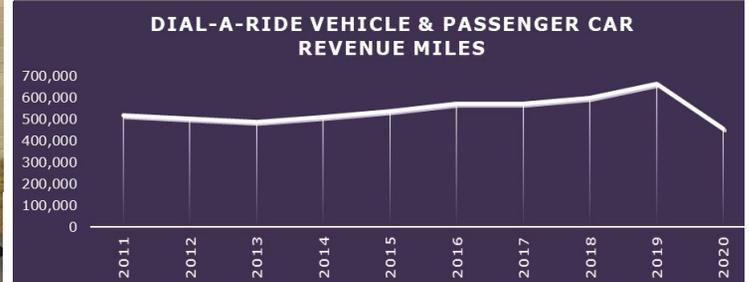
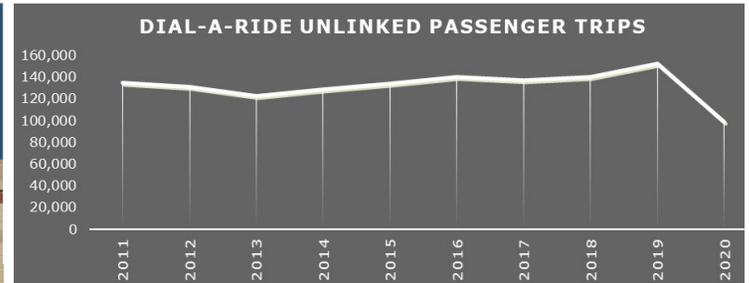
### Dial-a-Ride Buses

Metro Bus Dial-a-Ride (DAR) is a shared ride service for individuals with disabilities who are unable to ride fixed route buses and require door-to-door, driver-assisted service.

Similar to FR service, DAR passengers per revenue mile (PPRM) and passengers per revenue hour (PPRH) have decreased between 2011 and 2020 — down 0.04 PPRM and 0.54 PPRH. From 2011-2019 both DAR revenue miles and vehicle revenue hours had increased, however due in part to COVID-19 shutdowns, these have both decreased to below 2011 levels in 2020. Despite these similar trends between DAR and FR, DAR ridership had been increasing until 2020 when there was a significant decline of 53,552 trips.

COVID-19 had differing magnitudes of effect for FR and DAR. Compared to FR, DAR experienced a similar level of decline relative to their normal ridership numbers. However, the change in PPRM seen by DAR is relatively negligible (.01) compared to the larger change noticed in FR (.3). FR PPRH has fallen to below half of 2011 levels while DAR has stayed close to previous levels despite the pandemic.

<b>32</b>	<b>\$9.75</b>	<b>\$123.25</b>
DAR buses	Operating expenses per passenger mile for DAR buses	Operating expenses per vehicle revenue hour for DAR buses



Data Source: NTD.

## Goal 2: Increase System Accessibility, Mobility, and Connectivity

### Northstar Commuter Buses



Photos courtesy of Saint Cloud MTC and MnDOT.

### Northstar Commuter Bus

The Northstar Link provides bus service from the Downtown Transit Center in Saint Cloud, SCSU's Miller Center, and the east Saint Cloud park and ride direct to the Northstar Commuter Rail line station in Big Lake. From there, commuters can ride the rail from Big Lake to downtown Minneapolis. As part of the state's first commuter rail line, the Northstar Link and the Northstar Commuter Rail offer a fast, reliable, and safe alternative to workday commuters. Northstar Commuter Rail and Northstar Link are a service of the counties of Anoka, Hennepin, Sherburne, and Stearns in cooperation with the Metropolitan Council which operates Metro Transit. The bus service is operated by Saint Cloud MTC.

Northstar Commuter Bus (NCB) passengers per revenue mile decreased 0.08 from its peak in 2011 to 2020. Revenue miles also dropped by 61,230 to 112,717 from the average over the prior five years of 173,947. Passengers per revenue hour decreased by 2.4 from 2016 to 2020, while revenue hours also decreased by 34.9% from 5,900 in 2016 to 3,842 in 2020. Overall, NCB has experienced a 59.0% (34,945) decrease in passenger trips since its peak in 2014.

These decreases are due in part to the COVID-19 pandemic. Fewer rail trips were needed leading to less demand for rail. This in turn caused fewer buses to be needed because fewer people were using the rail transport, so as less buses were needed the number of revenue miles and revenue hours also decreased. The drops caused by the pandemic worse for NCB than FR in both passenger numbers and PPRH. Although, the degree of change for PPRM was somewhat worse for FR than NCB.

**5**

Northstar Commuter Buses

**\$188.52**

Operating expense per vehicle revenues hour

**10,368**

Northstar Commuter Rail boarding's at Big Lake Station

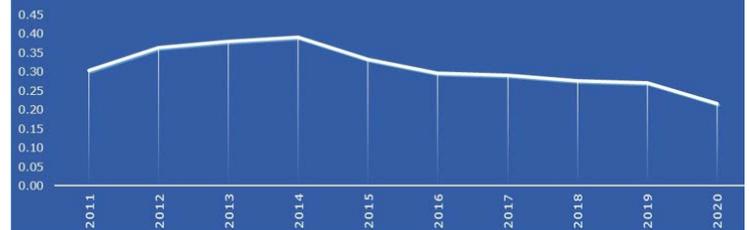
NORTHSTAR COMMUTER BUS UNLINKED PASSENGER TRIPS



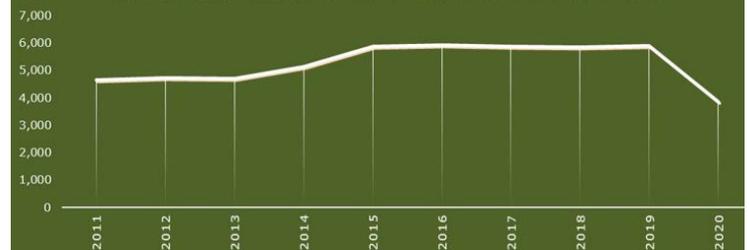
NORTHSTAR COMMUTER BUS VEHICLE & PASSENGER CAR REVENUE MILES



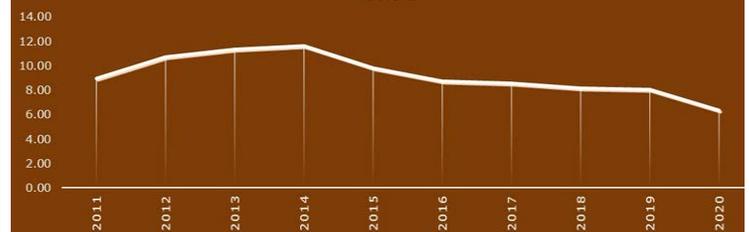
NORTHSTAR COMMUTER BUS PASSENGERS PER REVENUE MILE



NORTHSTAR COMMUTER BUS VEHICLE REVENUE HOURS



NORTHSTAR COMMUTER BUS PASSENGERS PER REVENUE HOUR



Data Source: NTD.

## Goal 3: Efficiently Manage Operations and Cost-Effectively Preserve the System

Develop a transportation system that is cost-feasible, maintains a state of good repair, and satisfies public transportation priorities.



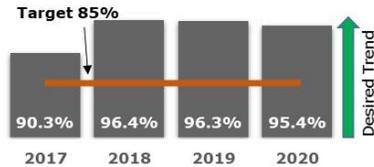
Photos courtesy of MnDOT and APO

# Goal 3: Efficiently Manage Operations and Cost-Effectively Preserve the System

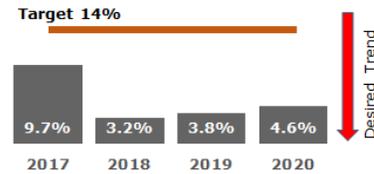
## Saint Cloud APO Transportation Results Scorecard

Measure	Multi-Year Data	Analysis
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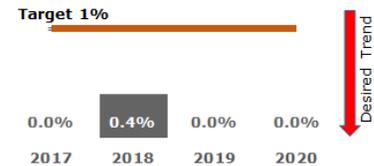
**Interstate Pavement Condition:** Percent of total lane miles that are rated in good, fair, and poor condition.



In 2020, 95.4% of the Interstate’s pavement was rated in good condition. This is a 0.9 percentage point decrease from 96.3% in 2019. The APO has set a 2021 Interstate pavement condition target of at least 85% in good condition.

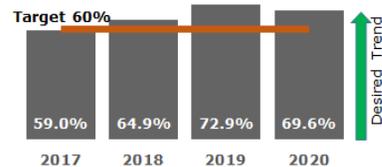


In 2020, 4.6% of the Interstate’s pavement was rated in fair condition. This is a 0.8 percentage point increase from 3.8% in 2019. The APO has set a 2021 Interstate pavement condition target of less than 14% in fair condition.

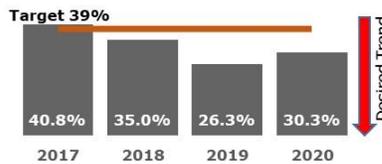


No Interstate pavement within the MPA was rated in poor condition in 2020. The APO has set a 2021 Interstate pavement condition target of less than 1% in poor condition.

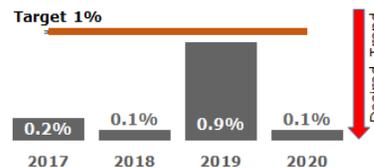
**Non-Interstate NHS Pavement Condition:** Percent of total lane miles that are rated in good, fair, and poor condition.



Non-Interstate NHS pavement in 2020 was rated at 69.6% in good condition. This is an 3.3 percentage point decrease from 72.9% in 2019. The APO has set a 2021 non-Interstate NHS pavement condition target of at least 60% in good condition.



Non-Interstate NHS pavement in 2020 was rated at 30.3% in fair condition. This is an four percentage point increase from 26.3% in 2019. The APO has set a 2021 non-Interstate NHS pavement condition target of less than 39% in fair condition.



Non-Interstate NHS pavement in 2020 was rated at 0.1% in poor condition. This is a 0.8 percentage point decrease from 0.9% in 2019. The APO has set a 2021 non-Interstate NHS pavement condition target of less than 1% in poor condition.

# Goal 3: Efficiently Manage Operations and Cost-Effectively Preserve the System

## Saint Cloud APO Transportation Results Scorecard

Measure	2021 Target	2020 Result	Multi-Year Data	Analysis
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### National Highway System (NHS)

#### Bridge Condition:

Percent of bridges by deck area classified in good, fair, and poor condition.



In 2020, 66% of NHS bridges were in good condition. This is the same as the previous year. The APO has set a 2021 NHS bridge condition target of at least 60% in good condition.

In 2020, 34% of NHS bridges were in fair condition. This is the same as the previous year. The APO has set a 2021 NHS bridge condition target of less than 39% in fair condition.

There were no NHS bridges rated in poor condition in any of the previous years. The APO has set a 2021 target of less than 1% in poor condition.

### Condition of All Bridges:

Percent of bridges, including NHS bridges by deck area classified in good, fair, and poor condition.



In 2020, 66.2% of all bridges in the MPA were rated in good condition. This remains relatively unchanged from 2019. The APO does not have a set target.

In 2020, 33.7% of all bridges in the MPA were rated in fair condition. This remains relatively unchanged from 2019. The APO does not have a set target.

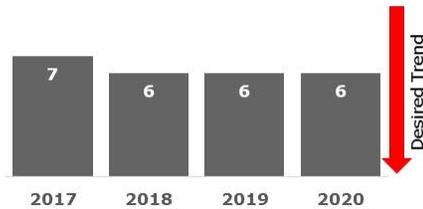
In 2020, 0.1% of all bridges in the MPA were rated in poor condition. This remains relatively unchanged from 2019. The APO does not have a set target.

# Goal 3: Efficiently Manage Operations and Cost-Effectively Preserve the System

## Saint Cloud APO Transportation Results Scorecard

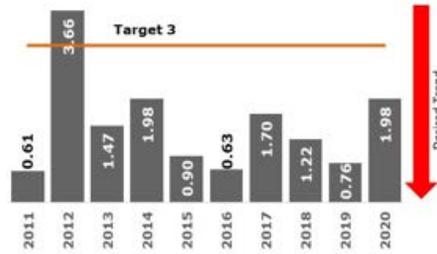
Transit Measure	Multi-Year Data	Analysis
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**Bridge Weight Restrictions:** Number and condition of bridges with a capacity rating posting.



There was a total of six bridges with weight restrictions in the APO planning area in 2020. Four of these bridges are in fair condition, and two of these bridges are in poor condition. The APO has not set target.

**Major Mechanical Failures (FR):** Mean major mechanical failures for FR per 65,000 vehicle revenue miles.



The mean number of major mechanical failures per 65,000 vehicle revenue miles for FR in 2020 was 1.98. This is an increase of 1.22 from the 0.76 recorded in 2019. The age of FR buses is 6.7 years on average. The APO desires the number of FR mechanical failures to decrease.

**Major Mechanical Failures (DAR):** Mean major mechanical failures for DAR per 65,000 vehicle revenue miles.



The mean number of major mechanical failures per 65,000 vehicle revenue miles for DAR in 2020 was 3.29, an increase of 1.92 from the 1.37 recorded in 2019. The age of DAR buses is 5.6 years on average. The APO desires the number of DAR mechanical failures to decrease.

**Major Mechanical Failures (NCB):** Mean major mechanical failures for NCB per 65,000 vehicle revenue miles.



The mean number of major mechanical failures per 65,000 vehicle revenue miles for NCB in 2020 was 1.15. This is an increase of 0.4 from the 0.75 recorded in 2019. The average age of NCB buses is 2.6 years. The APO desires the number of NCB mechanical failures to decrease.

# Goal 3: Efficiently Manage Operations and Cost-Effectively Preserve the System

## Saint Cloud APO Transportation Results Scorecard

### Transit State of Good Repair (SGR)

**Saint Cloud Metropolitan Transit Commission (MTC) State of Good Repair (SGR):** Measured by calculating the percentage of assets that have met or exceeded the useful life benchmark.

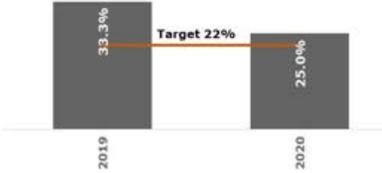
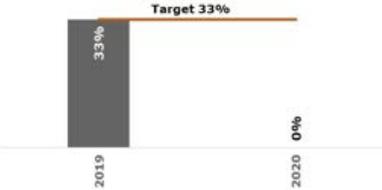
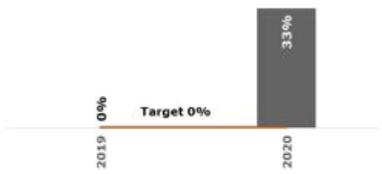
Asset	Multi-Year Data	Analysis								
<b>Fixed Route Buses</b>	<p>A bar chart showing the percentage of fixed route buses exceeding their useful life. The 2019 bar is at 10.3% and the 2020 bar is at 10.0%. A horizontal orange line represents the target at 8%.</p> <table border="1"> <tr><th>Year</th><th>Percentage</th></tr> <tr><td>2019</td><td>10.3%</td></tr> <tr><td>2020</td><td>10.0%</td></tr> <tr><td>Target</td><td>8%</td></tr> </table>	Year	Percentage	2019	10.3%	2020	10.0%	Target	8%	<p>The percent of FR buses that have exceeded their useful life in 2020 was 10%. MTC set a 2020 target of less than 8% exceeding useful life.</p>
Year	Percentage									
2019	10.3%									
2020	10.0%									
Target	8%									
<b>Dial-a-Ride Buses</b>	<p>A bar chart showing the percentage of dial-a-ride buses exceeding their useful life. The 2019 bar is at 48.6% and the 2020 bar is at 43.8%. A horizontal orange line represents the target at 8%.</p> <table border="1"> <tr><th>Year</th><th>Percentage</th></tr> <tr><td>2019</td><td>48.6%</td></tr> <tr><td>2020</td><td>43.8%</td></tr> <tr><td>Target</td><td>8%</td></tr> </table>	Year	Percentage	2019	48.6%	2020	43.8%	Target	8%	<p>The percent of DAR buses that have exceeded their useful life in 2020 was 43.8%. MTC set a 2020 target of less than 8% exceeding useful life.</p>
Year	Percentage									
2019	48.6%									
2020	43.8%									
Target	8%									
<b>Northstar Commuter Buses</b>	<p>A bar chart showing the percentage of Northstar commuter buses exceeding their useful life. Both the 2019 and 2020 bars are at 0.0%. A horizontal orange line represents the target at 8%.</p> <table border="1"> <tr><th>Year</th><th>Percentage</th></tr> <tr><td>2019</td><td>0.0%</td></tr> <tr><td>2020</td><td>0.0%</td></tr> <tr><td>Target</td><td>8%</td></tr> </table>	Year	Percentage	2019	0.0%	2020	0.0%	Target	8%	<p>None of the Northstar commuter buses are past their useful life as they recently acquired five new buses. MTC set a 2020 target of less than 8% exceeding useful life.</p>
Year	Percentage									
2019	0.0%									
2020	0.0%									
Target	8%									
<b>Service Automobiles</b>	<p>A bar chart showing the percentage of service automobiles exceeding their useful life. Both the 2019 and 2020 bars are at 100.0%. A horizontal orange line represents the target at 33%.</p> <table border="1"> <tr><th>Year</th><th>Percentage</th></tr> <tr><td>2019</td><td>100.0%</td></tr> <tr><td>2020</td><td>100.0%</td></tr> <tr><td>Target</td><td>33%</td></tr> </table>	Year	Percentage	2019	100.0%	2020	100.0%	Target	33%	<p>All of Metro Bus' service automobiles continue to exceed their useful life in 2020. MTC set a 2020 target of less than 33% exceeding useful life.</p>
Year	Percentage									
2019	100.0%									
2020	100.0%									
Target	33%									

# Goal 3: Efficiently Manage Operations and Cost-Effectively Preserve the System

## Saint Cloud APO Transportation Results Scorecard

### Transit State of Good Repair (SGR)

**Saint Cloud Metropolitan Transit Commission (MTC) State of Good Repair (SGR):** Measured by calculating the percentage of assets that have met or exceeded the useful life benchmark.

Asset	Data	Analysis								
<p><b>Trucks and Other Rubber Tire Vehicles</b></p>	 <p>A bar chart comparing 2019 and 2020 data. The 2019 bar is at 33.3% and the 2020 bar is at 25.0%. A horizontal target line is drawn at 22%.</p> <table border="1"> <thead> <tr> <th>Year</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>2019</td> <td>33.3%</td> </tr> <tr> <td>2020</td> <td>25.0%</td> </tr> <tr> <td>Target</td> <td>22%</td> </tr> </tbody> </table>	Year	Percentage	2019	33.3%	2020	25.0%	Target	22%	<p>The percent of service trucks and other rubber tire vehicles that have exceeded their useful life in 2020 was 25%. MTC set a 2020 target of less than 22% exceeding useful life.</p>
Year	Percentage									
2019	33.3%									
2020	25.0%									
Target	22%									
<p><b>Administrative/Maintenance Facilities</b></p>	 <p>A bar chart comparing 2019 and 2020 data. The 2019 bar is at 33% and the 2020 bar is at 0%. A horizontal target line is drawn at 33%.</p> <table border="1"> <thead> <tr> <th>Year</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>2019</td> <td>33%</td> </tr> <tr> <td>2020</td> <td>0%</td> </tr> <tr> <td>Target</td> <td>33%</td> </tr> </tbody> </table>	Year	Percentage	2019	33%	2020	0%	Target	33%	<p>There are 0% of administrative/maintenance facilities rated below three on the TERM scale. MTC set a 2020 target of 0% of facilities below three on the TERM scale.</p>
Year	Percentage									
2019	33%									
2020	0%									
Target	33%									
<p><b>Passenger/Parking Facilities</b></p>	 <p>A bar chart comparing 2019 and 2020 data. The 2019 bar is at 0% and the 2020 bar is at 33%. A horizontal target line is drawn at 0%.</p> <table border="1"> <thead> <tr> <th>Year</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>2019</td> <td>0%</td> </tr> <tr> <td>2020</td> <td>33%</td> </tr> <tr> <td>Target</td> <td>0%</td> </tr> </tbody> </table>	Year	Percentage	2019	0%	2020	33%	Target	0%	<p>Thirty-three percent of Metro Bus passenger/parking facilities were rated below a three on the TERM scale in 2020. MTC set a 2020 target of 0% of facilities below three on the TERM scale.</p>
Year	Percentage									
2019	0%									
2020	33%									
Target	0%									

# Goal 3: Efficiently Manage Operations and Cost-Effectively Preserve the System

## Interstate and Non-Interstate National Highway System (NHS) Pavement Conditions

Interstate and non-Interstate NHS pavement condition is based on the percent of total lane miles that are rated in good, fair, and poor condition



Photos courtesy of MnDOT.

### How is Pavement Condition Calculated?

- \* Pavement condition is calculated using the International Roughness Index (IRI). IRI is a statistic used to estimate the amount of roughness on a roadway.
- \* IRI uses three types of pavement distress as measurements:
  1. Cracking.
  2. Rutting.
  3. Faulting.

## Data Collection Method

Pavement data is collected by MnDOT using a Digital Inspection Vehicle (DIV). The vehicle is driven over every mile of NHS annually, in both directions. This vehicle is equipped with two cameras to collect images for the video log. For pavement distress and rutting measurements, a scanning laser and a 3D laser/camera system are used to produce images of the pavement surface, from which the type, severity, and amount of cracking can be determined. The vehicle is also equipped with laser height sensors that measure the longitudinal pavement profile from which pavement roughness is calculated.

Data Source: MnDOT.

### Types of Distress

### Example

**Cracking** – A visible line in the surface of the pavement due to a variety of environmental conditions and vehicle usage.



**Rutting** - A surface depression located in the wheel path of the travel lane.



**Faulting** – A difference in elevation between adjacent pavement due to environmental conditions and vehicle usage.



Data and photos courtesy of MnDOT.

### Equipment Used

### Example

MnDOT currently collects pavement condition data using a Pathway Services, Inc. Digital Inspection Vehicle (DIV).

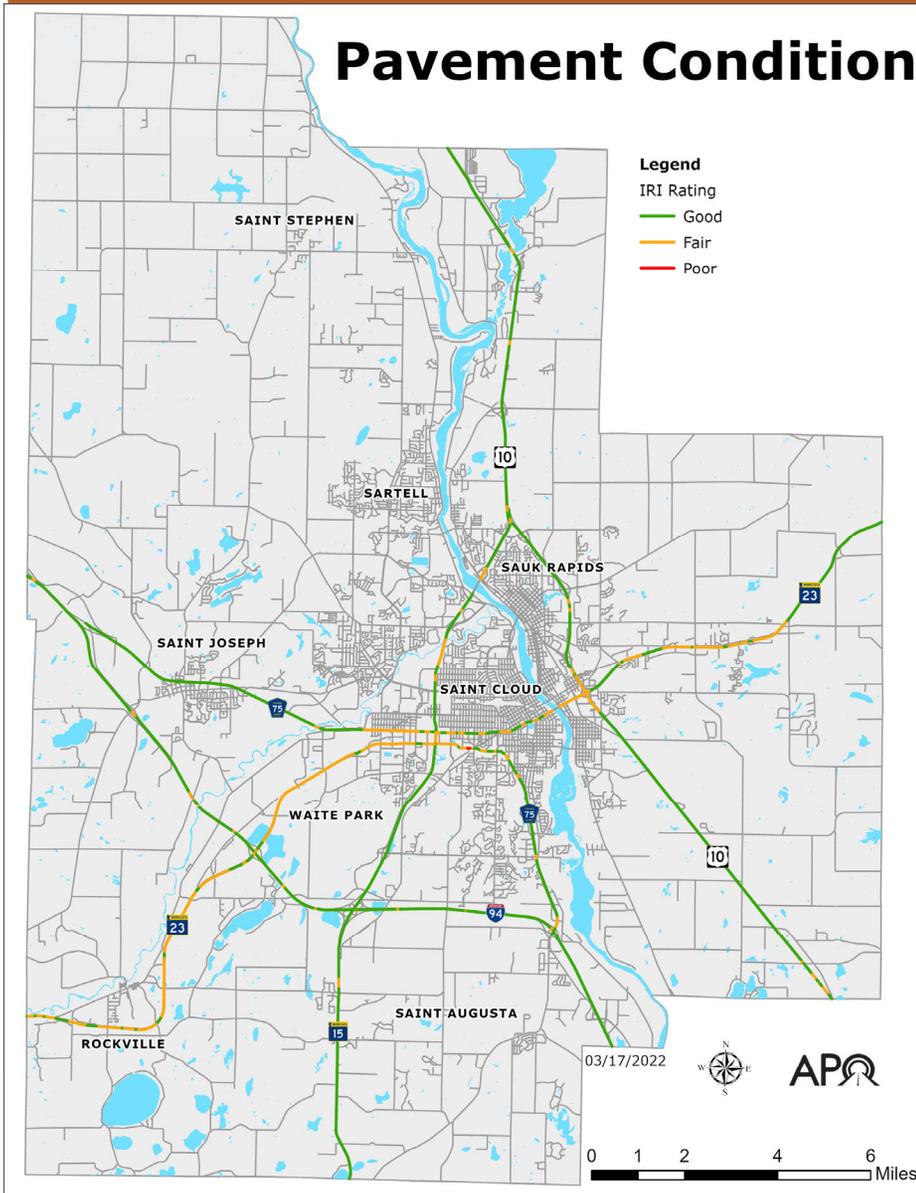


Data and photo courtesy of MnDOT.

# Goal 3: Efficiently Manage Operations and Cost-Effectively Preserve the System

## Pavement Conditions

Pavement condition is based on the percent of total lane miles that are rated in good, fair, and poor condition



### Pavement Condition

In 2020, 74.7% of Interstate and NHS pavement within the APO planning area was in good condition, 25.2% in fair condition, and 0.1% in poor condition as displayed in Figure 3.1. These percentages changed so much from 2019 because 2020 data was only collected for the above mentioned type of roads.

Pavement condition data is used to monitor the performance of the system, to aid in project selection, and to identify future pavement maintenance or rehabilitation needs. An effective pavement preservation program will address pavement while it is still in good condition and before serious damage occurs. By applying a cost-effective treatment at the right time, the pavement can be restored almost to its original condition: The right treatment to the right road at the right time.

### International Roughness Index (IRI)

IRI is a mathematical simulation used to estimate the amount of vertical movement a standard vehicle would experience if driven down the road. In the past, MnDOT has taken a rating panel of 30 to 40 people into the field and driven them over hundreds of test sections to get their perception of the smoothness of various pavement sections. Following right behind them was the digital inspection vehicle. This provides MnDOT with a direct correlation between the IRI, as measured by the van, and the perceived roughness, as felt by the rating panel.

Figure 3.1-Pavement Condition Data Source: MnDOT

# Goal 3: Efficiently Manage Operations and Cost-Effectively Preserve the System

## Bridge Condition

Percent of bridges by deck area classified in good, fair, and poor condition



Photos courtesy of MnDOT.

### How is Bridge Condition Calculated?

Bridge condition is calculated using the National Bridge Inventory (NBI) ratings for deck, superstructure, substructure, and culvert that are in good, fair, and poor condition. The percentage of bridges in good or poor condition is based on the total deck area of the bridges, not the raw number of bridges in each category.

## Routine Inspection

Regularly scheduled inspections of bridges occur every 24 months and consist of: observations and/or measurements to determine the condition of the bridge, identification of any changes from previously recorded conditions, and ensuring that the structure continues to satisfy service requirements.

Data Source: MnDOT.

Bridge Components	Example
<p><b>Deck</b> - The deck is designed to provide a smooth and safe riding surface for traffic utilizing the bridge.</p>	
<p><b>Superstructure</b> - The superstructure supports the deck or riding surface of the bridge, as well as the load applied to the deck.</p>	
<p><b>Substructure</b> - The substructure includes all the elements which support the superstructure.</p>	
<p><b>Culverts</b> - Culverts transport water flow efficiently. Any culvert 20 feet or greater is defined as a bridge according to FHWA standards.</p>	

Data and photos courtesy of MnDOT.

# Goal 3: Efficiently Manage Operations and Cost-Effectively Preserve the System

## Bridge Condition

Percent of bridges by deck area classified in good, fair, and poor condition

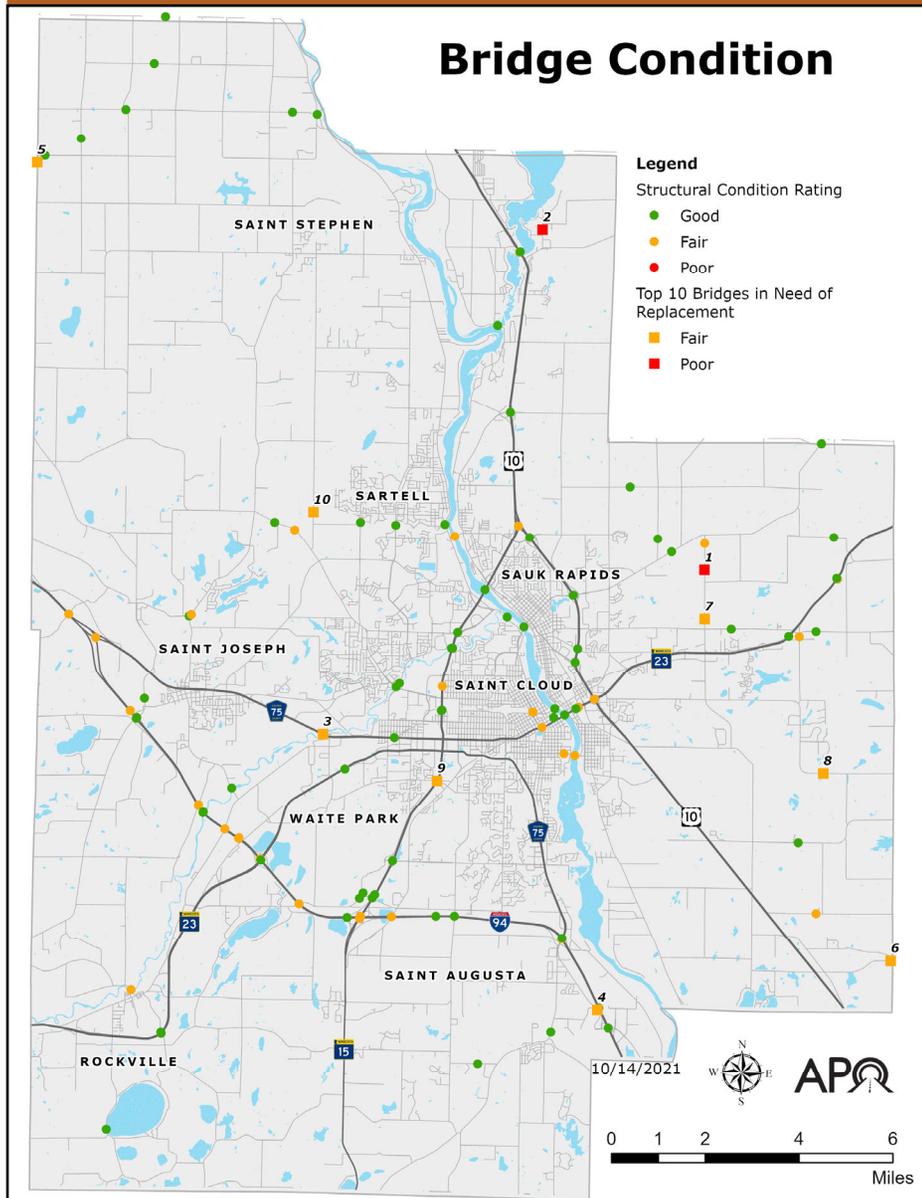


Figure 3.2-Bridge Condition

Data Source: MnDOT.

## Condition of All Bridges

Of the 112 bridges in the APO planning area, 68 are rated in good condition, 42 are in fair condition, and two were in poor condition as illustrated in Figure 3.2.

As bridges age and are in need of repair, the Local Bridge Planning Index (LPI) takes into account multiple factors and assigns a risk level score of the likelihood and consequences of a bridge being no longer in service. The LPI only assigns scores to bridges owned by local agencies to assist in replacement schedules. Below is the top 10 local bridges in the APO planning area in most need of replacement.

Rank	Location of Bridge	Owner
1	35th Avenue NE over Mayhew Creek	Benton County
2	Sucker Creek Road over Sucker Creek	Watab Township
3	CSAH 75 over Sauk River	Stearns County
4	CSAH 75 over Saint Augusta Creek	Stearns County
5	CSAH 3 over Spunk Creek	Stearns County
6	CSAH 16 over Elk River	Sherburne County
7	CR 80 over Mayhew Creek	Benton County
8	CR 62 over Elk River	Sherburne County
9	CSAH 137 (17th St S over MN 15)	State Highway
10	75th Avenue over Watab River	Le Sauk Township

# Goal 3: Efficiently Manage Operations and Cost-Effectively Preserve the System

Saint Cloud Metropolitan Transit Commission (MTC) state of good repair (SGR)

Facilities are measured on the Transit Economic Requirements Model (TERM) Scale

TERM Rating	Condition	Description
Excellent	4.8-5.0	No visible defects, near-new
Good	4.0-4.7	Some slightly defective or
Adequate	3.0-3.9	Moderately defective or deteriorated
Marginal	2.0-2.9	Defective or deteriorated components in need of replacement.
Poor	1.0-1.9	Seriously damaged components in need of immediate repair.

### Factors involved with TERM Scale rating:

- Substructure.
- Shell.
- Interiors.
- Plumbing.
- HVAC.
- Fire Protection.
- Electrical.
- Equipment.
- Fare Collection.
- Site.
- Conveyance (Elevators and Escalators).

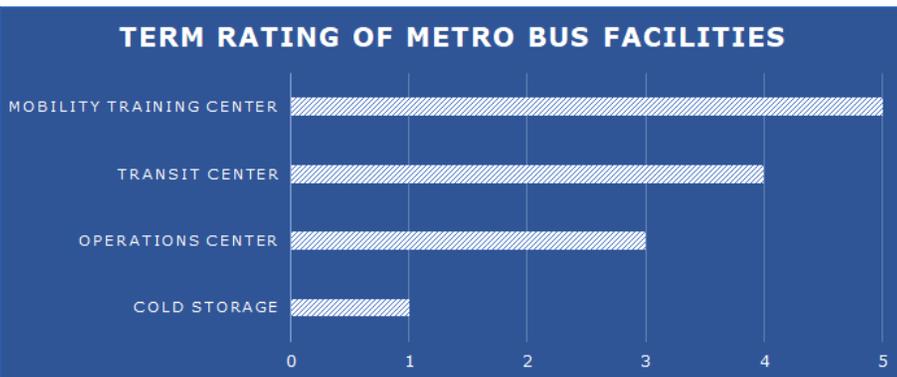


Figure 3.3

Data Source: National Transit Database.

### Transit Economic Requirements Model (TERM) Rating

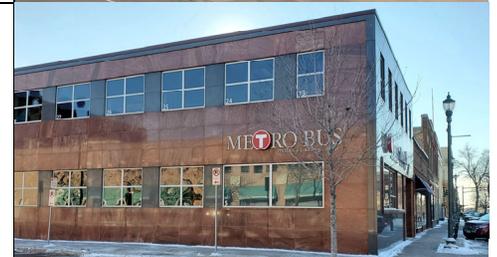
**Operations Facility:** This property houses the maintenance garage, employee break areas, paratransit call center, and administrative offices including finance, planning, procurement, information technology, marketing, operations, and human resources.



**Transit Center:** This property serves as a hub for fixed route buses and the customer service center.



**The Mobility Training Center:** This property houses outreach, travel training, and the safety departments.



**Cold Storage:** This property was purchased for future expansion and is currently used for cold storage.



Photos courtesy of Saint Cloud MTC and APO.

## Goal 4: Support Metropolitan Vitality and Economic Development

Support the economic vitality of the APO area by enabling global competitiveness, productivity, and efficiency while enhancing travel and tourism.



Photos courtesy of the APO.

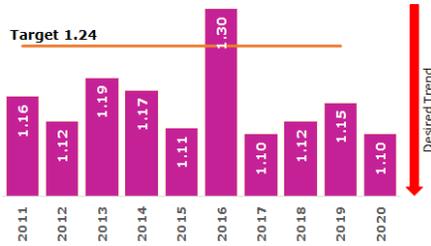
# Goal 4: Support Metropolitan Vitality and Economic Development

## Saint Cloud APO Transportation Results Scorecard

Measure	Multi-Year Trend	Analysis
---------	------------------	----------

### Truck Travel Time Reliability (TTTR):

Calculated by dividing the ratio of the 95th percentile time by the normal time (50th percentile).



Truck Travel Time Reliability (TTTR) index has decreased by 0.05 from 1.15 in 2019 to 1.10 in 2020. Overall TTTR appears to be relatively constant. The APO has set a 2021 target of less than 1.24.

### Air Passengers at Saint Cloud Regional Airport (STC): Annual number of customers served.



Air passengers at the STC have decreased 27.3% from 42,912 passengers in 2019 to 31,196 passengers in 2020 due to the COVID-19 pandemic. Otherwise the annual number of customers appears fairly constant. The APO does not have a set target.

### Tri-CAP One-Way Transit Trips: Annual number of transit trips.



Tri-CAP one-way transit trips decreased 51% from 161,572 trips in 2019 to 79,319 trips in 2020. This is a 15-year low likely due to COVID-19. However, Tri-CAP numbers had been growing along with them adding Milaca in 2019 to their service area. The APO does not have a set target.

### Amtrak Ridership: Annual passengers using the Saint Cloud Amtrak station.



Amtrak numbers decreased by 34.9% from 9,143 in 2019 to 5,953 in 2020. This decrease is due in part to the COVID shutdowns and more people working from home during those shutdowns and after. Although prior to the pandemic we were already seeing a downwards trend in ridership.

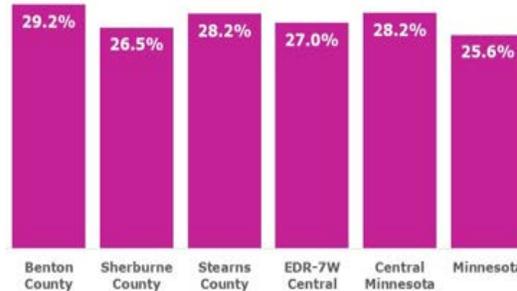
# Goal 4: Support Metropolitan Vitality and Economic Development

## Saint Cloud APO Transportation Results Scorecard

Measure	Target	2020 Result	Multi-Year Trend	Analysis
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### Percent of Monthly Household Budgets Spent on Transportation (One Working Adult, No Children):

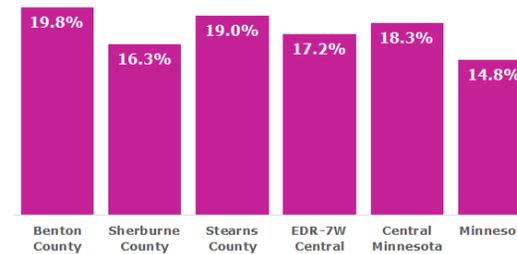
Average percent of monthly budget spent on transportation.



All are above the state's 25.6% of one adult, no children household budget spent on transportation. For these households the average salary in the counties was \$15.49, which is \$0.36 less than the state average of \$15.85 and on average these families spend \$44 more on transportation, \$748 to the states average \$704.

### Percent of Monthly Household Budgets Spent on Transportation (One Working Adult, One Child):

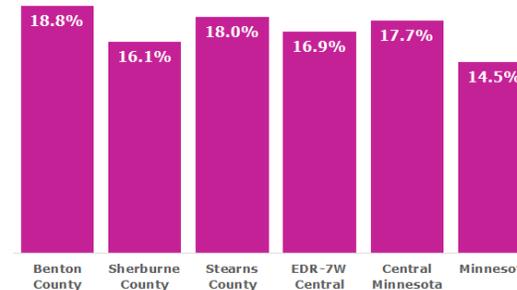
Average percent of monthly budget spent on transportation.



All are above the state's 14.8% of one adult, one child household budget spent on transportation. For these households the average salary in the counties was \$23.94, which is \$3.67 less than the state average of \$27.61, and on average these families pay \$44 more for transportation, \$753 to the states \$709.

### Percent of Monthly Household Budgets Spent on Transportation (Two Working Adults, One Child):

Average percent of monthly budget spent on transportation.



All are above the states 14.5% of two adults, one child household budget spent on transportation. The average wage for these households is \$14.39 per adult, \$1.86 less than the state average of \$16.25. The transportation cost difference between the counties and the state is \$54, with \$873 and \$819 respectively being the transportation costs.

# Goal 4: Support Metropolitan Vitality and Economic Development

## Truck Travel Time Reliability (TTTR) Index

The TTTR Index is generated by dividing the ratio of the 95th percentile time by the normal time (50th percentile).

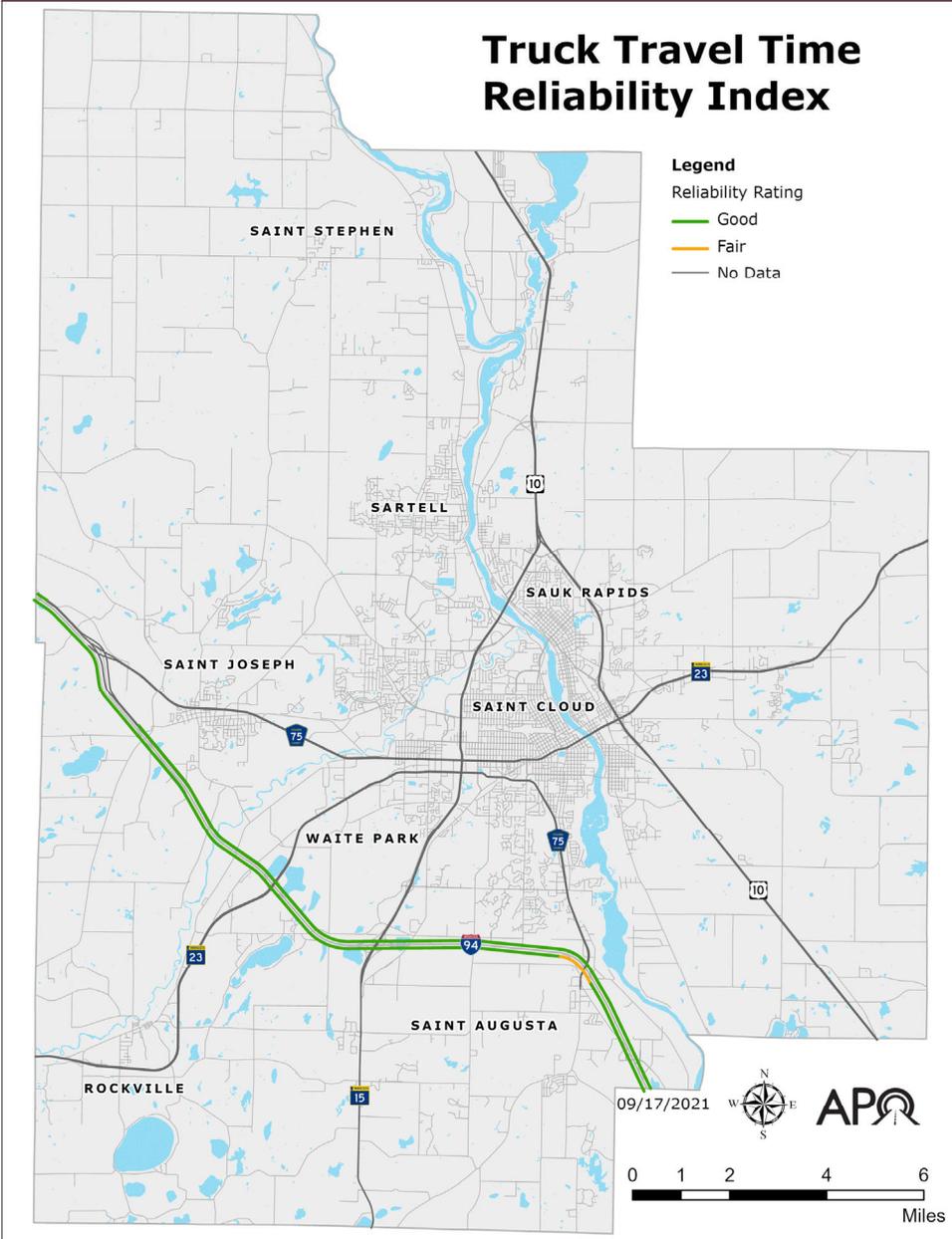


Figure 4.1-Truck Travel Time Reliability

Data Source: NPMRDS.

## Interstate Truck Travel Time Reliability

Truck travel time reliability ratings consider the average amount of time it would take for a truck to travel at an average speed (50th percentile) on a stretch of roadway. For example, if a one-mile stretch of roadway with a 60 mph average speed has a time travel reliability rating of 1.5 it would take the average vehicle 1 minute 30 seconds to travel that roadway when normally it would take 1 minute. A time travel reliability rating above 1.5 is deemed unreliable by Federal Highway Administration (FHWA) standards.

The section of Interstate 94 (I-94) that passes through the APO's MPA has a TTTR of either good or fair. Only a small stretch of I-94 around the CSAH 75 interchange has a rating below good. This means the system is operating within normal capacity as shown in Figure 4.1. Currently data consisting of truck travel time reliability is only available for the Interstate.

## How is TTTR Measured?

⇒ Reporting of freight movement is divided into five periods:

- ◇ Morning peak (6-10 a.m.) weekdays.
- ◇ Midday (10 a.m.-4 p.m.) weekdays.
- ◇ Afternoon peak (4-8 p.m.) weekdays.
- ◇ (6 a.m.-8 p.m.) weekends.
- ◇ (8 p.m.-6 a.m.) Overnights for all days.

- The TTTR ratio is generated by dividing the 95th percentile time by the normal time (50th percentile) for each segment. Then, the TTTR Index will be generated by multiplying each segment's largest ratio of the five periods by its length, then dividing the sum of all length-weighted segments by the total length of Interstate.

## Goal 4: Support Metropolitan Vitality and Economic Development

### Saint Cloud Regional Airport and Tri-County Action Program (Tri-CAP)

Annual number of customers served at the Saint Cloud Regional Airport and number of trips Tri-CAP provides annually



Photos courtesy of the APO.

#### Saint Cloud Regional Airport

The Saint Cloud Regional Airport (STC) was officially opened in 1970 at its current location 1550-45th Ave. SE in Saint Cloud. Up until Jan. 1, 2022, the City of Saint Cloud served as the airport's owner/operator. Ownership status has since switched to the Saint Cloud Regional Airport Authority -- a nine member board comprised of representatives from Benton, Sherburne, and Stearns counties; the City of Saint Cloud; and an aviation planner.

About 100 general aviation planes are based at STC. The airport owns 55 airplane hangars and contracts directly with plane owners.

Allegiant Airlines has a schedule of two destinations – Phoenix Mesa Gateway International Airport (IWA or AZA) and Punta Gorda, Florida (PGD) – which the airline flies to twice a week.

Sun Country Airlines charts two destinations - Laughlin, Nevada/Bullhead City, Arizona International Airport; and Don Laughlin's Riverside Resort Hotel and Casino in Nevada.

#### What is the Tri-County Action Program?

The Tri-County Action Program (Tri-CAP) is a non-profit organization based in Waite Park that provides a variety of services to "expand opportunities for the economic and social well-being of our residents and the development of our communities." Tri-CAP provides services under three different umbrellas: Basic Needs, Self-Sufficiency, and Building Stability. Tri-CAP also provides transportation services.

Tri-CAP Transit Connection hubs out of four locations within its service area: Little Falls, Elk River, Sauk Centre, and Waite Park. The majority of service provided by Tri-CAP for the Saint Cloud MPA is done out of the Waite Park hub. From this hub, residents living within a 15-mile radius of the Waite Park facility can receive transportation access to and from areas outside of the Saint Cloud Metro Bus service area.

Tri-CAP also provides a volunteer drivers program where drivers provide rides in their own vehicles to residents of Benton, Morrison, Mille Lacs, Sherburne, and Stearns counties. This service is externally funded and primarily used by health insurance providers to transport people to and from medical appointments.

Several of the Tri-CAP service counties will also utilize the volunteer driver service for Department of Human Services work primarily centered on foster care. That work is also funded externally. Drivers with this service are reimbursed the federal mileage rate and are provided a stipend for meals. They are initially given a \$4 startup fee as well.

**1,400**

Number of acres the airport resides on.

**\$20 Million**

Estimated annual impact on the local economy.

# Goal 4: Support Metropolitan Vitality and Economic Development

## Transportation Costs

### Percent of monthly household budgets spent on transportation.

The percent of monthly household budgets spent on transportation in each chart assumes that the adult(s) are working full time. Average yearly costs of transportation is calculated as part of the Cost of Living data gathered by the Minnesota Department of Employment and Economic Development (DEED). The data is broken down by county; the economic development region (EDR) 7W Central (Benton Sherburne, Stearns, and Wright counties); Central Minnesota (Benton, Chisago, Isanti, Kanabec, Kandiyohi, McLeod, Mille Lacs, Meeker, Pine, Renville, Sherburne, Stearns, and Wright counties); and the state.

The average wage difference for households with two working adults and two children when compared to the state is \$2.80, with those in the counties making \$19.08 on average per adult and \$21.88 on average in Minnesota. The transportation cost difference is \$58.67 on average with those who live in these counties averaging \$921.67 and in the state overall \$863 on average. While the differences highlighted prior may seem small this roughly 6%-7% higher cost of transportation is seen throughout all households. These differences in costs can occur due to many economic factors such as gasoline price differences between regions and car maintenance/repair cost discrepancies. However, access to other mobility options such as public transit (using buses/railways), which has been declining, as well as using active transportation (walking, biking, etc.) can also play a role.

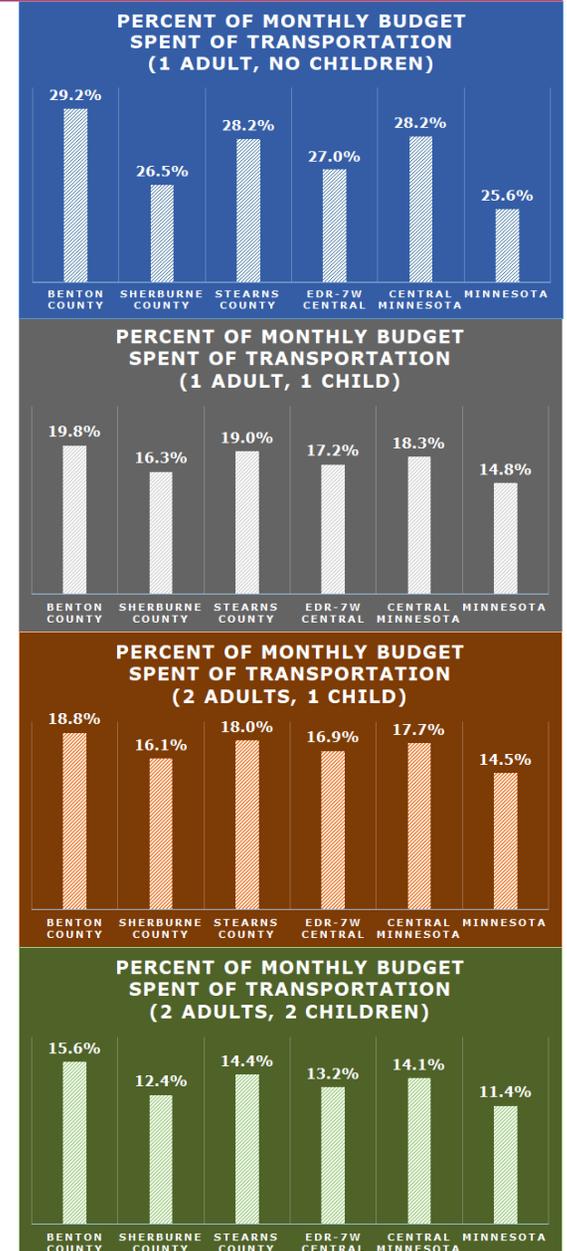
### Methodology

The cost of living study provides a yearly estimate of the basic needs cost of living in Minnesota for both individuals and families. Results are broken down by county, region, and statewide. The study examines monthly living costs in seven cost categories: food, housing, health care, transportation, child care, other necessities, and net taxes. Total costs are presented as yearly and hourly dollar amounts.

The Cost of Living represents neither a poverty-level living nor a middle-class living but rather a living that meets basic needs for health and safety.

Transportation figures are derived from the basic costs of owning and operating a car. These basic costs include those for commuting to work, conducting necessary family and personal business, and getting to and from school and place of worship. Costs for social and recreational uses are not included. Public transportation cost estimates are not used in the computations.

Data Source: Minnesota Department Employment and Economic Development.



## Goal 5: Promote Energy and Environmental Conservation

Support transportation improvements that promote energy conservation and improve public health and quality of life, while sustaining and improving the resiliency and reliability of the transportation system.



Photo courtesy of the APO.

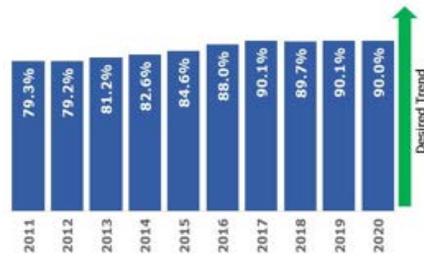
# Goal 5: Promote Energy and Environmental Conservation

## Saint Cloud APO Transportation Results Scorecard

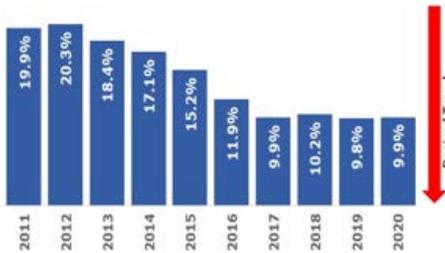
Measure	Target	2020 Result	Multi-Year Trend	Analysis
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### Air Quality Five Year Rolling Average

- Annual count of days in each Air Quality Index (AQI) category; good, moderate, unhealthy for sensitive groups, and unhealthy dividing by five, and rounding to the nearest tenth decimal place.



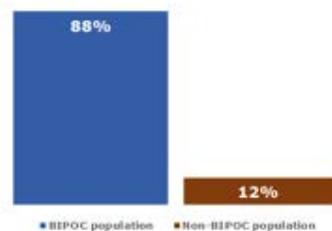
The five year rolling average percent of days with good air quality increased 10.7 percentage points since 2011, from 79.3% to 90% in 2020. Air quality will likely plateau although that could occur at a higher percentage of "Good" quality days. The APO desires the air quality of improve.



The five year rolling average percent of days with moderate air quality decreased 10 percentage points since 2011, from 19.9% to 9.9% in 2020. Again there will likely be a plateau in air quality at some point though it could be at a percent with fewer "Moderate" days. The APO desires the air quality of improve.

### Annual Percentage of Transportation Investments in Black, Indigenous, and People-of-Color (BIPOC) population Environmental Justice Census Blocks

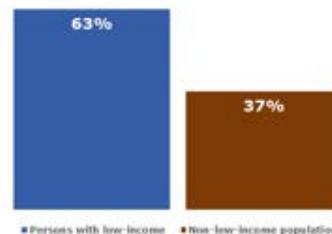
The percentage of transportation investments in high BIPOC population census blocks.



Identified in the 2020-2023 Transportation Improvement Program (TIP), 88% of programmed projects intersect with census blocks with a high BIPOC population.

### Annual Percentage of Transportation Investments in Low-income Environmental Justice Census Blocks

The percentage of transportation investments in census blocks with high concentrations of persons with low-income.



Identified in the 2020-2023 Transportation Improvement Program (TIP), 63% of programmed projects intersect with census blocks with a low-income population.

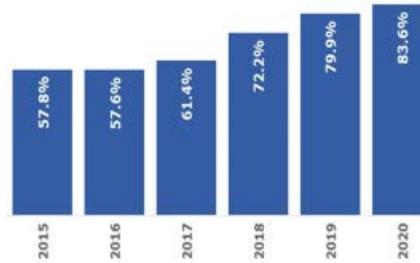
# Goal 5: Promote Energy and Environmental Conservation

## Saint Cloud APO Transportation Results Scorecard

Measure	Target	2020 Result	Multi-Year Trend	Analysis
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### Percent of Revenue Vehicles Using Compressed Natural Gas (CNG):

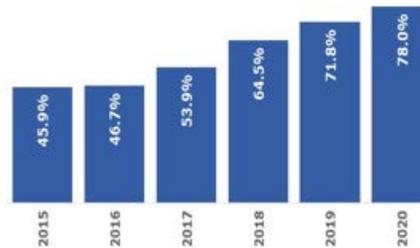
Percent of CNG used by Metro Bus revenue vehicles versus all other fuel types.



The percent of CNG has increased 25.8 percentage points since 2015. However, CNG usage has decreased from 512,000 gallons in 2019 to 411,000 gallons in 2020.

### Percent of VMT Using CNG by Revenue Vehicles:

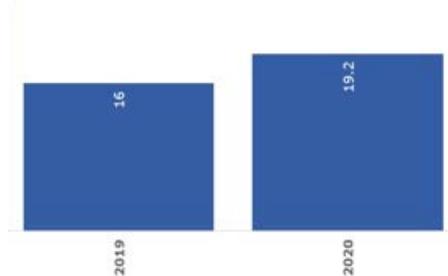
Percent of vehicle miles traveled using CNG by Metro Bus revenue vehicles versus all other fuel types.



The percent of vehicle miles traveled using CNG in 2020 has increased 32.1 percentage points since 2015.

### Number of Electric Vehicles (EVs) Versus Number of Public Charging Station Outlets:

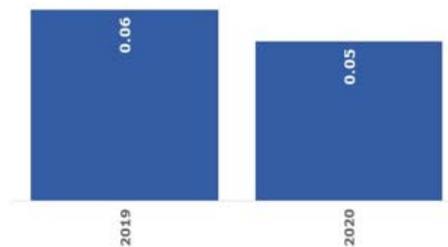
Number of registered EVs divided by the number of public charging station outlets.



The number of EVs per number of public charging station outlets increased 20% from 16 in 2019 to 19 in 2020.

### Number of Public Charging Stations Outlets Versus Number of Electric Vehicles (EVs):

Number of public charging station outlets divided by the number of registered EVs.



The number of public charging station outlets per number of EVs decreased 20% from 0.06 in 2019 to 0.05 in 2020.

## Goal 5: Promote Energy and Environmental Conservation

### Air Quality

Annual count of days in each Air Quality Index (AQI) category; good, moderate, unhealthy for sensitive groups, and unhealthy dividing by five, and rounding to the nearest tenth decimal place.



Photos courtesy of the Saint Cloud APO.

### Air Quality

<b>Good</b>	Current air quality is considered satisfactory and poses little or no health risk.
<b>Moderate</b>	Air quality is acceptable; however individuals who are very sensitive to air pollution may experience adverse health effects.
<b>Unhealthy for Sensitive Groups</b>	People with lung or heart disease, older adults, children, and people participating in activities that require heavy or extended exertion may experience adverse health effects.
<b>Unhealthy</b>	Everyone may begin to experience adverse health effects and members of sensitive groups may experience more serious health effects.

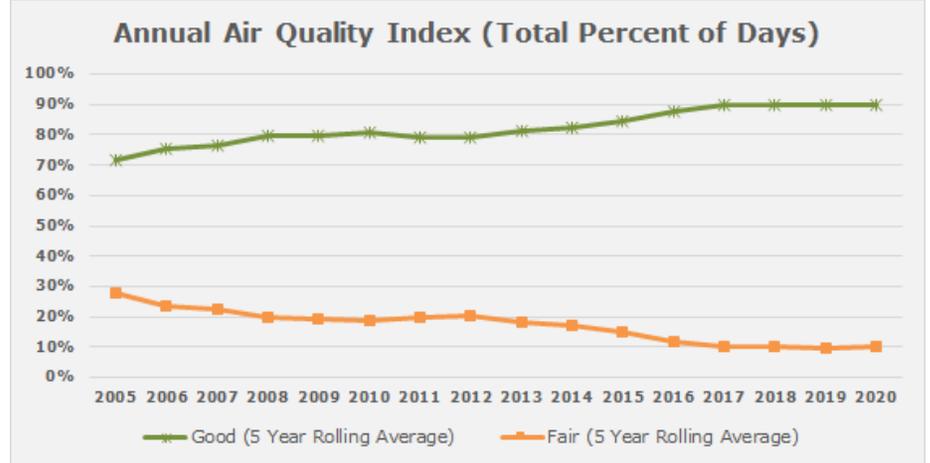


Figure 5.1-Annual Air Quality Index  
Data Source: Minnesota Pollution Control Agency (MPCA)

### Annual Air Quality Index (AQI)

The Saint Cloud area AQI five year average has seen the share of good air quality days increase 18.4 percentage points to 90% compared to 71.6% in 2005 as shown in Figure 5.1. Moderate AQI days five year average have also fallen significantly since 2005 — down to 9.9% as of 2020 compared to 27.7% in 2005. There has been 25 days with an AQI that was unhealthy for sensitive groups and three days that was unhealthy in general since 2001. Changes in technology such as fuel efficient vehicles and manufacturing innovations have helped keep air quality in good condition.



Data Source: MPCA.

## Goal 5: Promote Energy and Environmental Conservation

### Water Quality

#### Number of bodies of water that have not met water quality standards

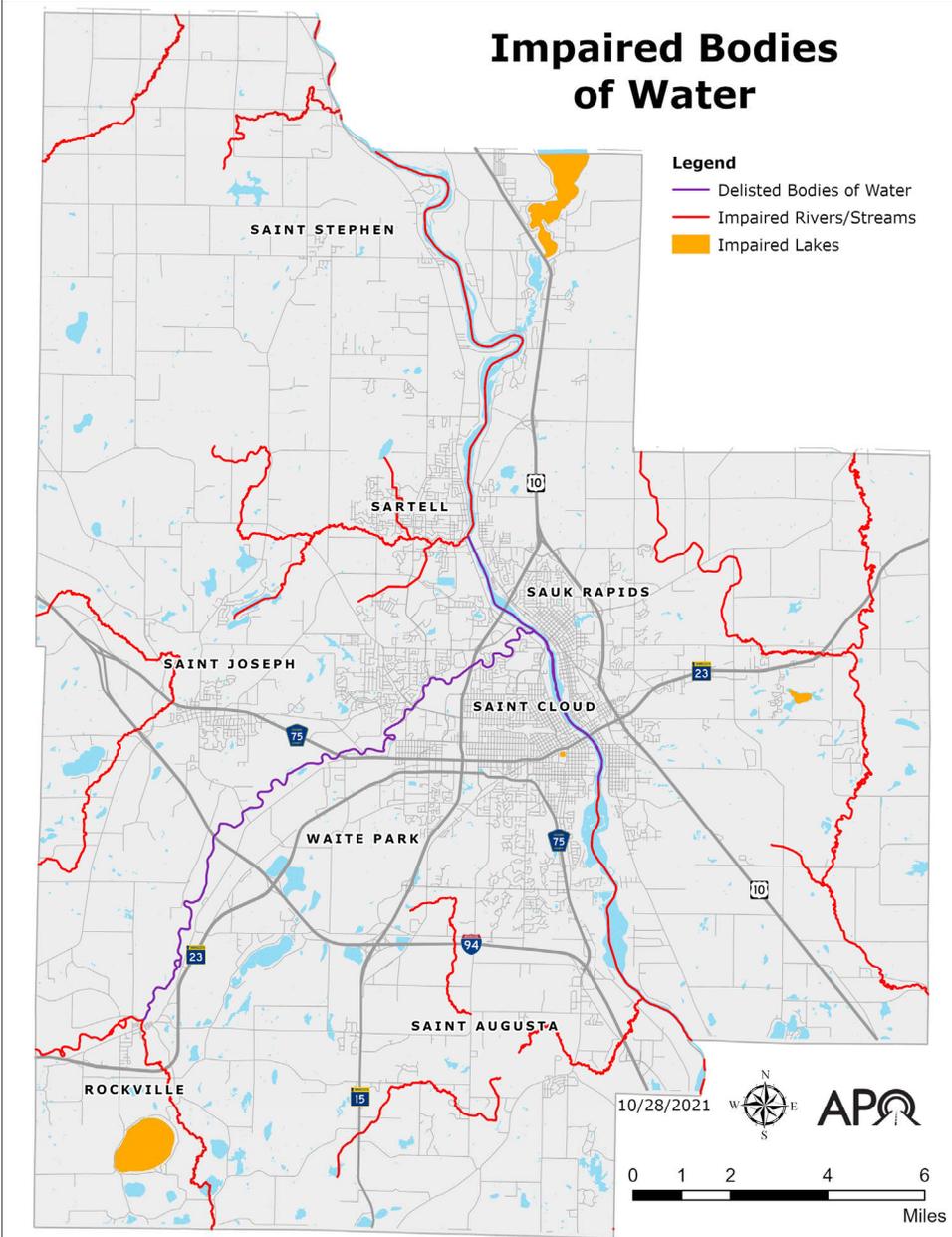


Figure 5.2-Water Quality

Data Source: MPCA.

### Water Quality

As displayed in Figure 5.2, there are a total of five lakes that are being monitored for pollution in the APO planning area: Donovan, Little Rock, Grand, Sagatagan, and Lake George.

There are 15 rivers or streams being monitored for pollution within the APO planning area: Elk River; Mill Creek; Spunk Creek; Watab River (North and South Fork); County ditch 12, 13, and 16; Mississippi River; Sauk River; Mayhew Creek; Luxemburg Creek; Johnson Creek (Meyer Creek); Plum Creek; and Robinson Hill Creek.

Part of the Mississippi River and Sauk River were previously listed as impaired but have since been delisted and meet current water quality standards.

The most common pollutants in the APO planning area are Escherichia Coli (E. Coli), mercury in fish tissue (Hg-F), and Fecal Coliform (FC).



Photo courtesy of the Saint Cloud APO.

## Goal 5: Promote Energy and Environmental Conservation

### Registered Electric Vehicles and Public Charging Stations

Percent of registered electric vehicles (EVs) divided by the number of public charging station outlets.  
 Number of public charging station outlets divided by the number of registered electric vehicles (EVs).

In 2020 there were 115 registered electric vehicles (EVs) in the Saint Cloud metro area compared to 96 in 2019. Of the 115 EVs 60 are in Saint Cloud, 28 in Sartell, 15 in Sauk Rapids, four in Saint Joseph, seven in Saint Augusta, and one is in Waite Park. Our region has a fraction of the 14,484 registered EVs across the State of Minnesota.

An increase in EVs will help our region and the State of Minnesota reduce greenhouse gas (GHG) emissions and provide an overall improvement in quality of life. MnDOT has designated I-94 as an alternative fuels corridor known as the Great Lakes Zero Emission Corridor. The goal of this type of alternative fuel corridor is to promote the electric vehicle charging infrastructure across Minnesota.

EV Registration by City	2019	2020
Saint Cloud	51	60
Sartell	21	28
Sauk Rapids	14	15
Saint Joseph	5	4
Saint Augusta	5	7
Waite Park	0	1
<b>Total</b>	<b>96</b>	<b>115</b>

Figure 5.3 - EV Registration data comes from the Minnesota Pollution Control Agency, Minnesota Department of Public Safety, and Atlas Public Policy, 2020.

### Charging Terminology

**Level 1:** Charging a vehicle at “Level 1” means plugging into a standard 120-volt supply. On average, a Level 1 supply provides 2 to 5 miles of vehicle range per hour the vehicle is connected. The best use cases for a Level 1 charger is workplaces and homes.

**Level 2:** Charging a vehicle at “Level 2” means plugging into a 240-volt supply. On average, Level 2 stations provide 10 to 20 miles of range per hour the vehicle is connected. Locations where owners will be staying for two hours or more are great use cases for Level 2 chargers.

**Direct Current Fast Charging (DCFC):** Is only really available as an option for public charging, and are often installed along transportation corridors. DC Fast Chargers can deliver 60-80 miles of charge in only 20 minutes of the vehicle being connected. Locations where owners will be staying for about 20 minutes are great use cases for DCFC.

There are currently six public EV charging station outlets in the Saint Cloud metro area: four being level 2 and two being a DCFC. Two of the four Level 2 chargers are located at Miller Nissan (2930 Second St. in Saint Cloud). The remaining two Level 2 chargers and the two DCFC chargers are located at 504 First St. N in Saint Cloud.

Data Source: MnDOT and Drive Electric Minnesota

**65%**

Percent reduction in greenhouse gas emissions EV's provide over gas powered vehicles

**95%**

Percent of charging of EVs which occur at home.

**39 Months**

Months of consecutive growth in sales for EVs.

**1.9%**

Percent of Minnesota new car sales that were EV's in 2020.