

# Saint Cloud Area Planning Organization Transportation Performance Monitoring Report



2021



# DISCLAIMER AND TITLE VI ASSURANCE

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## Ogaysiis Guud Ee Xuquuqda Xuquuqda VI

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

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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.

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También se puede presentar una queja a la Oficina de Derechos Civiles del Departamento de Transporte de Minnesota enviando un formulario de queja en línea (<https://www.dot.state.mn.us/civilrights/nondiscrimination-complaint-form.html>) llamando al 651-366-3071.

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## TITLE II ASSURANCE

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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 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.

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## Table of Contents

<b>DISCLAIMER, TITLE VI, AND TITLE II</b> .....	2-4	<b>GOAL 3: EFFICIENTLY MANAGE OPERATIONS AND COST-EFFECTIVELY PRESERVE THE SYSTEM</b> .....	39
<b>COMMON ACRONYMS</b> .....	6	Goal 3: Scorecard.....	40-44
<b>INTRODUCTION</b> .....	7	Interstate and Non-Interstate Highway System Pavement Conditions .....	45-46
APO Planning Area .....	7	Bridge Condition.....	47-48
Performance Measures.....	8-12	Saint Cloud Metropolitan Transit Commission State of Good Repair.....	49
<b>GOAL 1: MAINTAIN AND ENHANCE TRANSPORTATION SAFETY</b> .....	13	<b>GOAL 4: SUPPORT METROPOLITAN VITALITY AND ECONOMIC DEVELOPMENT</b> .....	50
Saint Cloud APO Transportation Results Analysis .....	14	Goal 4: Scorecard.....	51-52
Goal 1: Scorecard .....	15-23	Truck Travel Time Reliability Index.....	53
Fatality and Rate of Fatalities.....	24-25	Saint Cloud Regional Airport and Tri-County Action Program.....	54
Suspected Serious Injuries and Rate of Suspected Serious Injuries .....	26-27	 	
Non-Motorized Fatalities and Suspected Serious Injuries .....	28	<b>GOAL 5: PROMOTE ENERGY AND ENVIRONMENTAL CONSERVATION</b> .....	55
Chemical Impairment Crashes .....	29-30	Goal 5: Scorecard.....	56-57
Distracted Driving Crashes .....	31	Air Quality .....	58
 		Water Quality.....	59
<b>GOAL 2: INCREASE SYSTEM ACCESSIBILITY, MOBILITY, AND CONNECTIVITY</b> .....	32	Registered Electric Vehicles and Public Charging Stations .....	60
Goal 2: Scorecard .....	33-35		
Level of Travel Time Reliability.....	36		
Vehicle Miles Traveled .....	37		
Means of Transportation to Work and Top Employers .....	38		

## 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.

**CRP:** Carbon Reduction Program.

**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.

**IIJA:** Infrastructure Investment and Jobs Act.

**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:** State Transportation Improvement Program.

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

**TERM:** Transit Economic Requirements Model.

**TH:** Trunk Highway.

**TIP:** Transportation Improvement Program.

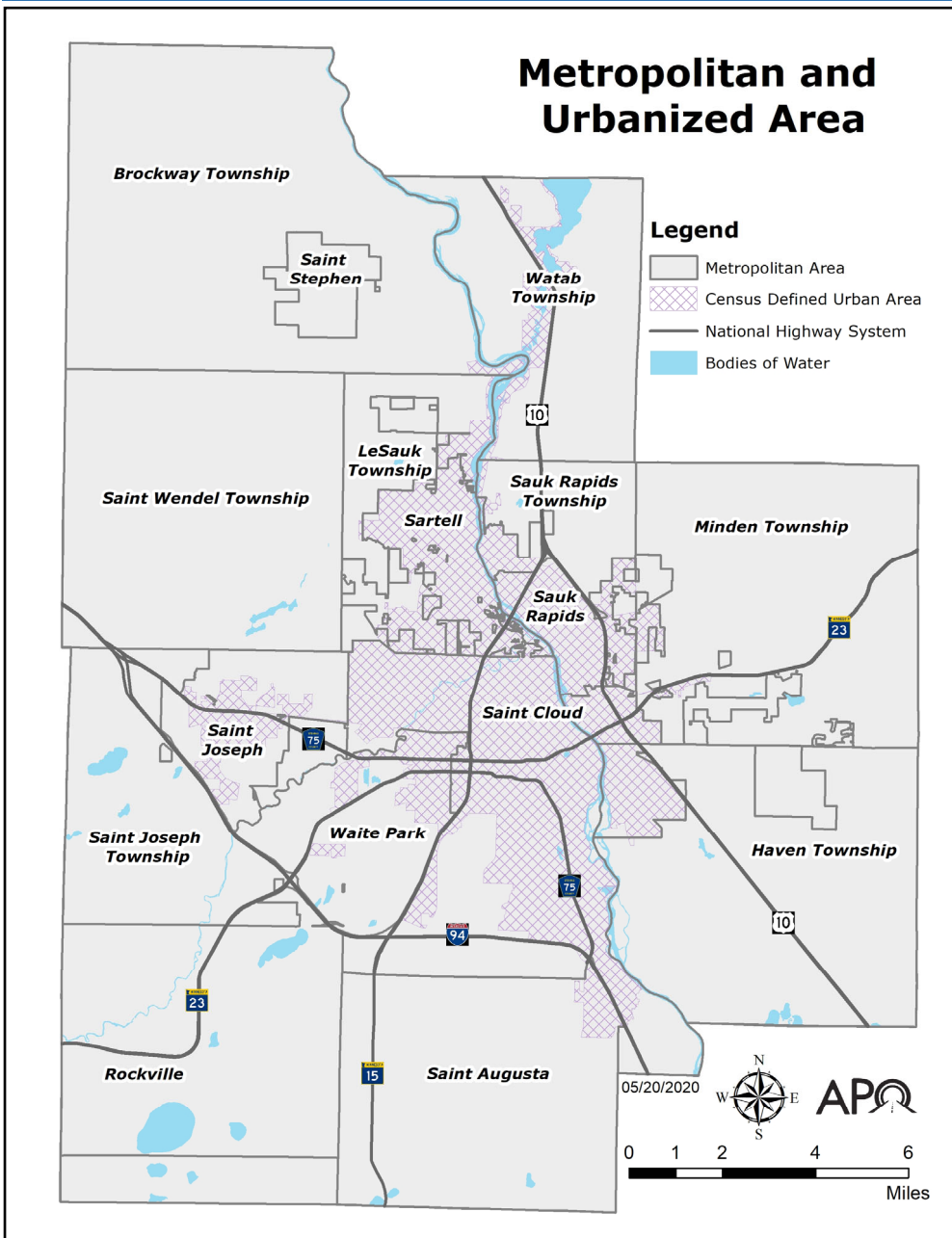
**TPMR:** Transportation Performance Management Report.

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

**TSM:** Transportation System Management.

# 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 and/or agencies: 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>138,552</b> Estimated population in the Saint Cloud APO planning area in 2021.
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# Introduction

## Performance Measures

### The APO and Performance Measures

The 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.

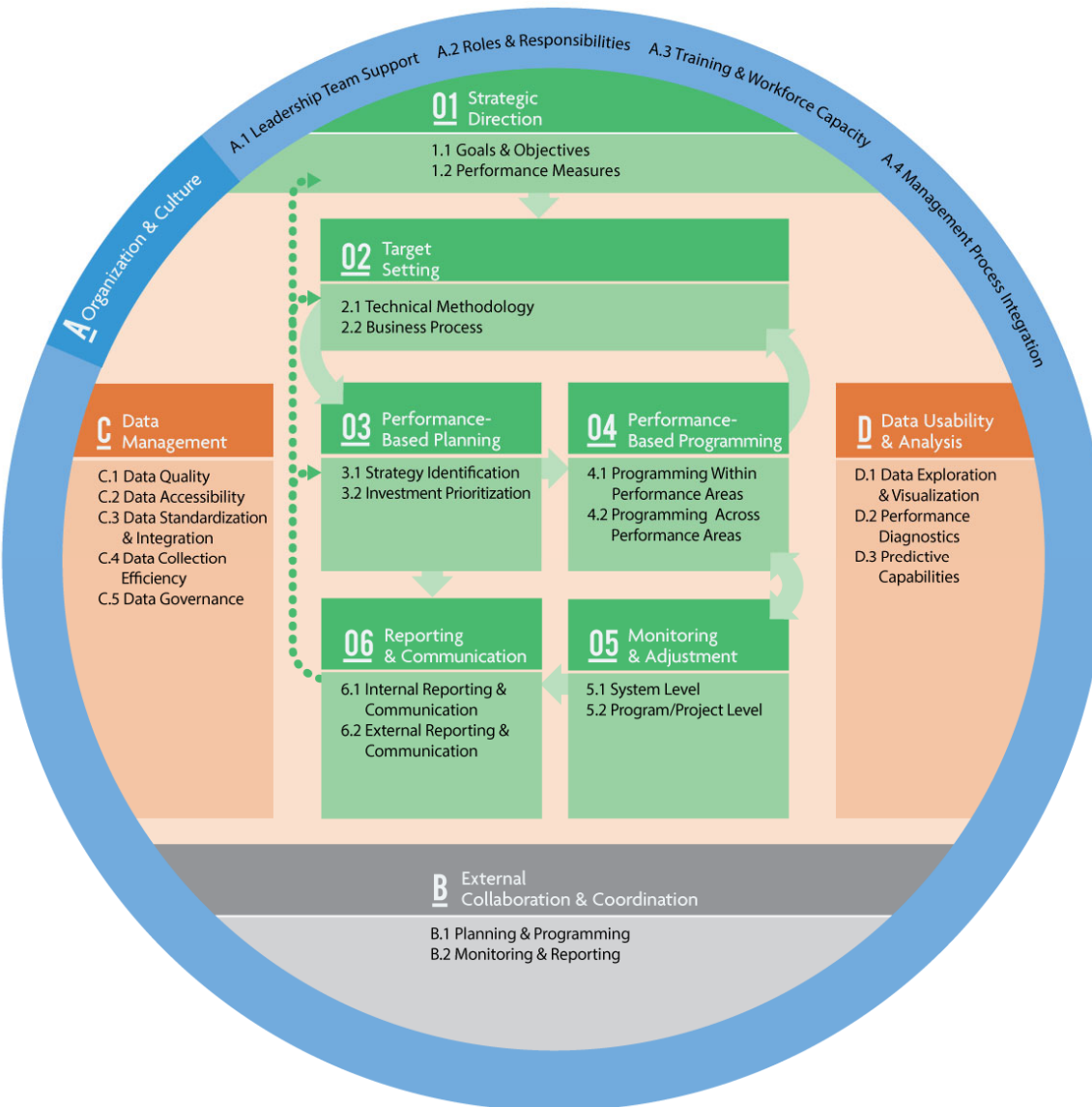


*Photo of roadway pavement in poor condition. Photo courtesy of Saint Cloud APO.*



# 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.

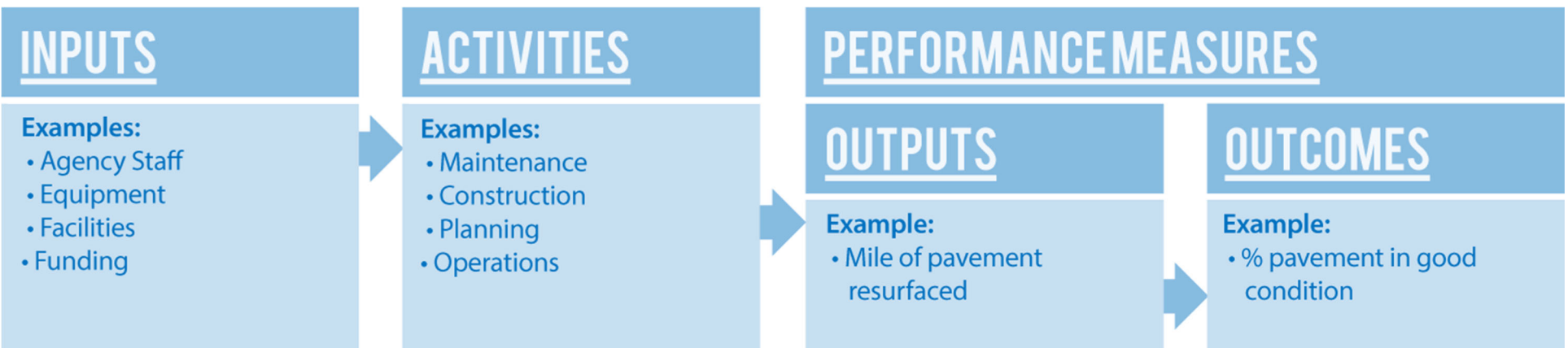
### Who sets the targets?

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.

The establishment of these performance targets has also involved a continuing cooperative effort between all parties listed previously and MnDOT and Federal planning partners.

### 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 Infrastructure Investment and Jobs Act (IIJA) was signed into law by President Biden in November 2021 as the transportation bill to replace the Fast Act. This five-year legislation is currently the largest long-term investment in the nation's infrastructure and economy, providing \$550 billion between 2022 and 2026 in new Federal investment in infrastructure.

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

The first federally required performance period began Jan. 1, 2018, and ended 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 Administration's (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.

It is anticipated that additional performance measures will be added as a result of the IIJA.

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 traveled (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 (NHS) 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

Following the unprecedented year which was 2020, 2021 seems to be showing a return to normalcy. After much of the lockdown and closures due to the COVID-19 global pandemic have lifted, travel patterns have been returning to levels seen in prior years.

VMT within the Saint Cloud MPA—while not quite at 2018/2019 levels—is slowly making its way to pre-COVID levels. In 2021, the region reported 1.33 billion VMT, up 13.2% from 2020's VMT levels.

With this increase in travel, the number of crashes occurring is also increasing. However, the rate of crashes per 100 million VMT and the number of fatal crashes are decreasing.

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.

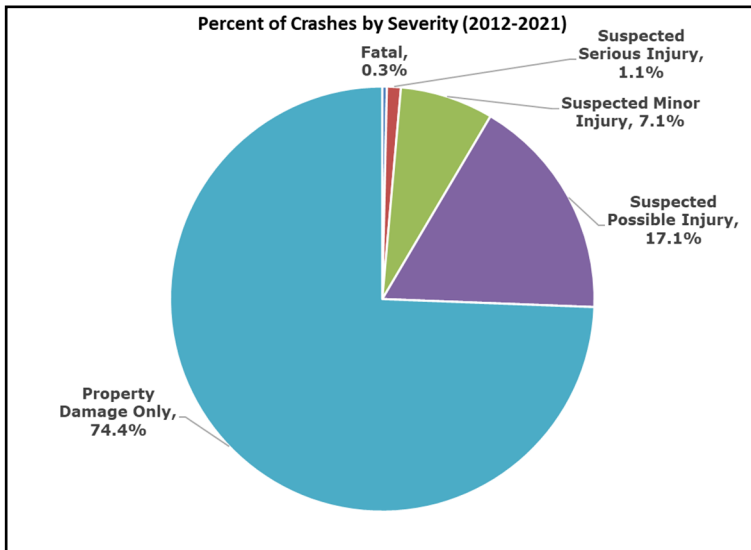


Figure 1.1-Percent of Crashes by Severity (2012-2021)  
Data Source: MnDOT.

The number of fatal crashes five year rolling average is going down once again, dropping by 4.8% from 2020 to 2021 or about half a crash a year. Also, during this same time frame, the number of suspected serious injury (SSI) crashes five year rolling average saw a decrease of 2.9% from 2020 to 2021 or about one crash a year.

Taking a closer look at both fatal and SSI crashes within the Saint Cloud MPA, it was found that just over a quarter of fatal crashes and one-fifth of SSI crashes involved an active transportation user (someone walking and/or biking). Moreover, while these types of crashes make up a small percent of overall crashes within the MPA, 1.4%, these vulnerable road users account for a significant share of both fatal and serious injuries.

Intersections, particularly along the NHS (I-94, MN 15, MN 23, US 10, and CSAH 75), tend to be where some of the most severe crashes occur within the MPA.

Instances where a single vehicle runs off the road is the most common occurrence for fatal and SSI crashes, however that is followed closely by right angle crashes.

Although 2020 was such a different year and some effects may not yet be realized, 2021 has shown a resurgence toward more normal travel behavior.

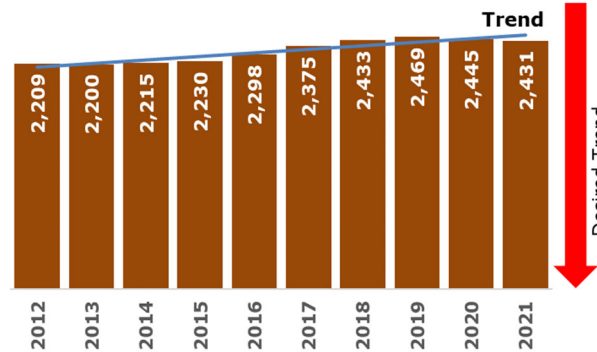
# Goal 1: Maintain and Enhance Transportation Safety

## Saint Cloud APO Transportation Results Scorecard

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

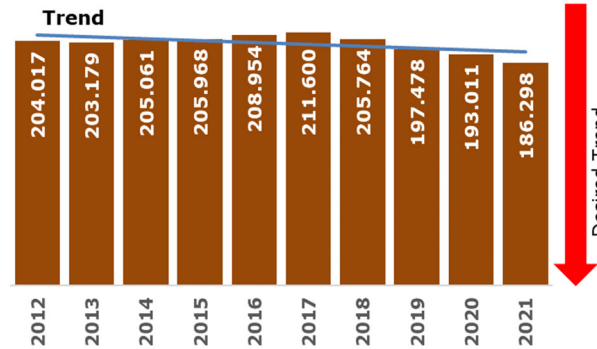
**Rolling Average:** Number of crashes for five consecutive years (i.e., 2017-2021), dividing by five, and rounding to the nearest whole number.



The five year rolling average for number of crashes in 2021 was 2,431. This is a 0.6% decrease from the 2020 five year rolling average of 2,445. However, we do see a slight year-over-year trend of increasing crash counts. The APO desires the total number of crashes to decrease.

### Rate of Crashes Five Year Rolling

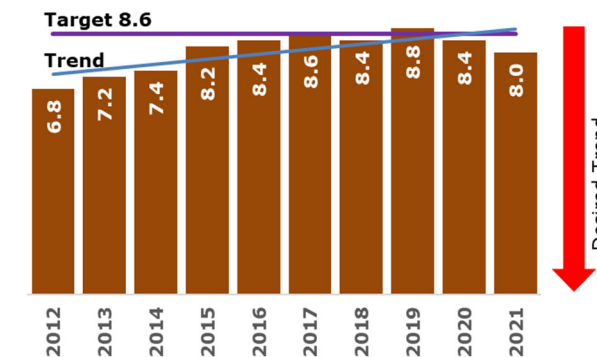
**Average:** Number of crashes per 100 million VMT for five consecutive years (i.e., 2017-2021), dividing by five, and rounding to the thousandth decimal place.



The five year rolling average for total crash rate in 2021 was at 186.298. This is an 3.5% decrease from the 2020 rate of 193.011. This follows the 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., 2017-2021), dividing by five, and rounding to the tenth decimal place.



The five year rolling average for fatalities in 2021 was 8.0. This is an decrease of 0.4 fatalities per year from 2020. Recently, the number of fatalities has been trending slightly downward. The APO had set a 2021 target of less than 8.6 fatalities.

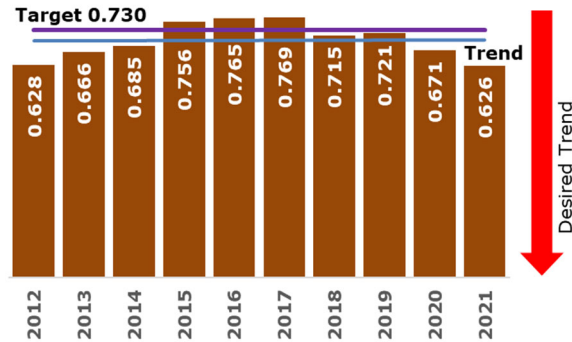
More information on fatal crashes starting on page 24.

# Goal 1: Maintain and Enhance Transportation Safety

## Saint Cloud APO Transportation Results Scorecard

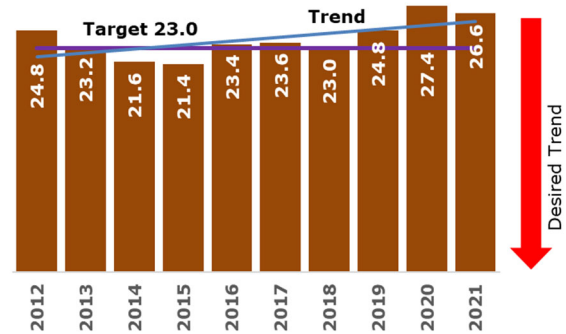
Measure	Multi-Year Trend	Analysis
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**Rate of Fatalities Five Year Rolling Average:** Calculation of the number of fatalities per 100 million VMT (100M VMT) for each of the most recent five consecutive years (i.e., 2017-2021), adding the results, dividing by five, and rounding to the thousandth decimal place.



The 2021 five year rolling average for fatality rate was 0.626. This is a decrease of 0.045 from 0.671 seen in 2020. It is also the lowest fatality rate in the last 10 years. The APO set a 2021 fatality rate target of less than 0.730.

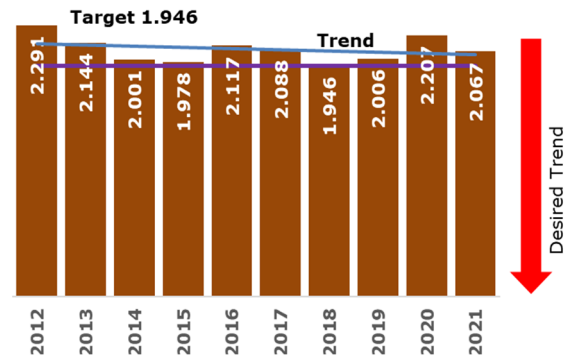
**Number of Suspected Serious Injuries Five Year Rolling Average:** Addition of the number of suspected serious injuries for each of the most recent five consecutive years (i.e., 2017-2021), dividing by five, and rounding to the tenth decimal place.



The five year rolling average for suspected serious injuries in 2021 was 26.6. While this is 0.8 less suspected serious injury crashes than 27.4 seen in 2020, it is the second highest count in the last 10 years. As of recent, this number has been trending upward. The APO had set a 2021 target of less than 23.0 serious injuries.

More information on SSI crashes starting on page 26.

**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., 2017-2021), 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 2021 was 2.067. This is a decrease of 0.14 from 2.207 in 2020. Recently this number has remained somewhat constant. The APO had set a serious injury rate 2021 target less than 1.946.

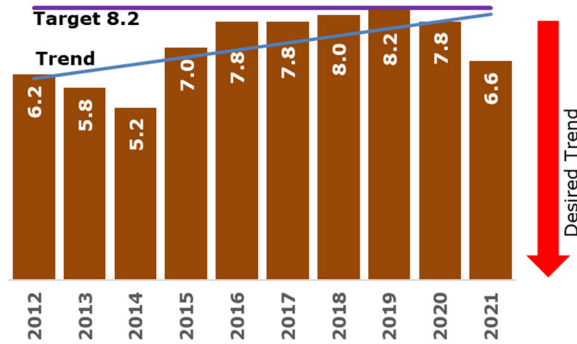


# Goal 1: Maintain and Enhance Transportation Safety

## 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., 2017-2021), dividing by five, and rounding to the tenth decimal place.

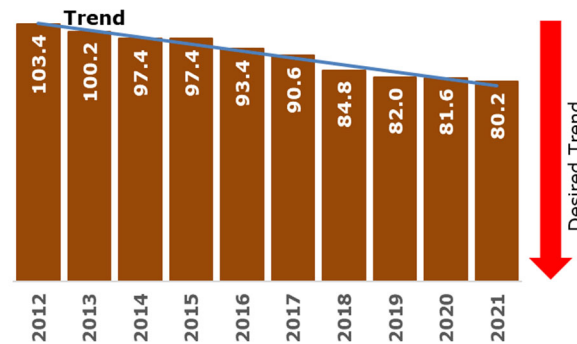


The five year rolling average for non-motorized fatalities and suspected serious injuries in 2021 was 6.6. This is a decrease of 1.2 from the 7.8 recorded in 2020. The APO had set a 2021 target of less than 8.2 fatalities and suspected serious injuries.

Of note, 2021 was the first year since 2014 with no reported non-motorized fatalities.

More information on active transportation crashes on page 28.

**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., 2017-2021), dividing by five, and rounding to the tenth decimal place.



The five year average for the number of chemical impairment crashes in 2021 was 80.2. This is a decrease of 1.4 from the previous year at 81.6. The number of chemical impairment crashes is continuing to decline, although in recent years the rate of decline has slowed. Fewer crashes occurring are related to chemical impairment. The APO desires the number of chemical impairment crashes to decrease.

More information on chemical impairment crashes starting on page 29.

**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., 2017-2021), 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 2021 was 3.3%. This is a 0.1 percentage point decrease from the previous year. The percent of all crashes as a result of chemical impairment has fallen over time even with the overall crash levels maintaining. The APO desires the percent of chemical impairment crashes to decrease.

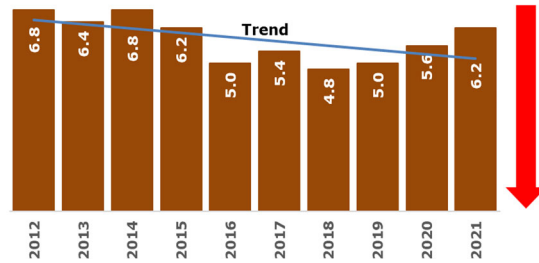
# Goal 1: Maintain and Enhance Transportation Safety

## 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:**

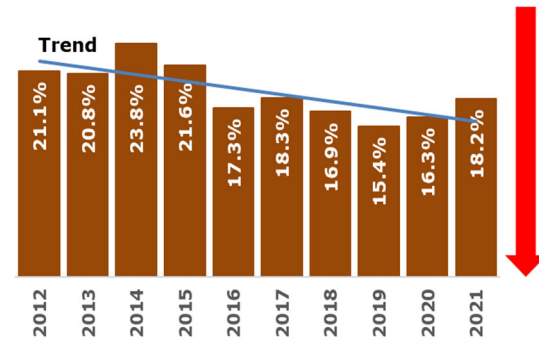
Addition of the number of fatal and suspected serious injury crashes wherein the driver had been drinking or taking drugs for each of the most recent five consecutive years (i.e., 2017-2021), dividing by five, and rounding to the tenth decimal



The five year average for number of fatal and suspected serious injury chemical impairment crashes in 2021 was 6.2. This is a increase of 0.6 from the 5.6 chemical impairment crashes reported in 2020. Chemical impairment crashes involving fatalities or SSIs have been trending upward in recent years. 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:**

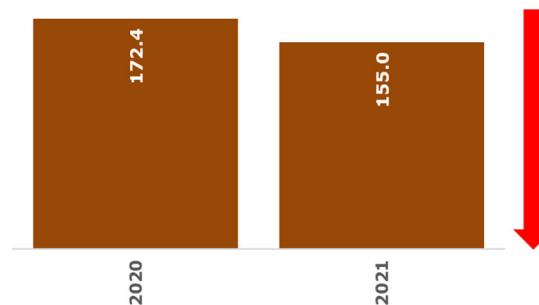
Addition of the number of fatal and suspected serious injury chemical impairment crashes divided by the total number of fatal and suspected serious injury crashes for each of the most recent five consecutive years (i.e., 2017-2021), dividing by five, and rounding to the tenth decimal place, expressed as a percent.



The percent of fatal and suspected serious injury chemical impairment crashes for the five year period ending in 2021 was 18.2%. The percent of total fatal and suspected serious injury crashes due to chemical impairment is down from the past but has remained somewhat stable as of recent. Due to these crashes having someone chemically impaired involved, they remain a sizeable percent of the most severe crashes. 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., 2017-2021), dividing by five, and rounding to the tenth decimal place.



The five year average for the number of distracted driving crashes in 2021 was 155.0. This is a decrease of 17.4 crashes from the previous year. Between 2015 and 2016 the way in which distracted driving is reported changed. This led to prior years data not being comparable. The APO desires the number of distracted driving crashes to decrease.

See page 31 for more information on distracted driving crashes.

# Goal 1: Maintain and Enhance Transportation Safety

## Saint Cloud APO Transportation Results Scorecard

Measure	Multi-Year Trend	Analysis						
<p><b>Percent of Distracted Driving Crashes Five Year Rolling Average:</b> 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., 2017-2021), and rounding to the tenth decimal place, expressed as a percent.</p>	<table border="1"> <thead> <tr> <th>Year</th> <th>Percent</th> </tr> </thead> <tbody> <tr> <td>2020</td> <td>7.1%</td> </tr> <tr> <td>2021</td> <td>6.4%</td> </tr> </tbody> </table>	Year	Percent	2020	7.1%	2021	6.4%	<p>The percent of distracted driving crashes for the five year period ending in 2021 was 6.4%, a decrease of 0.7 percentage points from the prior year. However, according to MnDOT’s Traffic Engineering Department, it is likely that distracted driving makes up a larger proportion of all crashes than reported as the number of crashes involving distracted driving is likely underreported. The APO desires the percent of distracted driving crashes to decrease.</p>
Year	Percent							
2020	7.1%							
2021	6.4%							
<p><b>Number of Fatal and Suspected Serious Injury Distracted Driving Crashes Five Year Rolling Average:</b> 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., 2017-2021), and rounding to the tenth decimal place.</p>	<table border="1"> <thead> <tr> <th>Year</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>2020</td> <td>2.2</td> </tr> <tr> <td>2021</td> <td>2.0</td> </tr> </tbody> </table>	Year	Number	2020	2.2	2021	2.0	<p>The number of fatal and suspected serious injury distracted driving crashes for the five year period ending in 2021 was 2.0. This is a decrease of 0.2 crashes from the previous year. The APO desires the number of fatal and suspected serious injury distracted driving crashes to decrease.</p>
Year	Number							
2020	2.2							
2021	2.0							
<p><b>Percent of Fatal and Suspected Serious Injury Distracted Driving Crashes Five Year Rolling Average:</b> 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., 2017-2021), and rounding to the tenth decimal place, expressed as a percent.</p>	<table border="1"> <thead> <tr> <th>Year</th> <th>Percent</th> </tr> </thead> <tbody> <tr> <td>2020</td> <td>6.4%</td> </tr> <tr> <td>2021</td> <td>6.0%</td> </tr> </tbody> </table>	Year	Percent	2020	6.4%	2021	6.0%	<p>The percent of fatal and suspected serious injury distracted driving crashes for the five year period ending in 2021 was 6.0%. This is a decrease of 0.4 percentage points from the previous year. The APO desires the percent of fatal and suspected serious injury distracted driving crashes to decrease.</p>
Year	Percent							
2020	6.4%							
2021	6.0%							

# Goal 1: Maintain and Enhance Transportation Safety

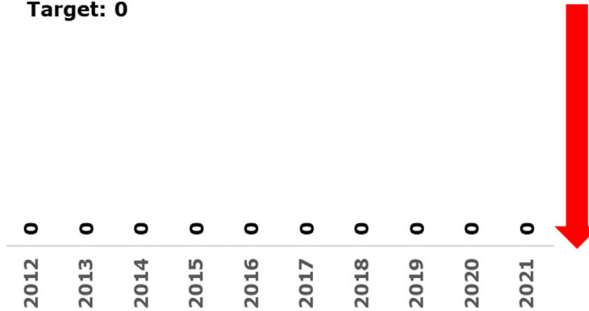
## Saint Cloud APO Transportation Results Scorecard

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

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

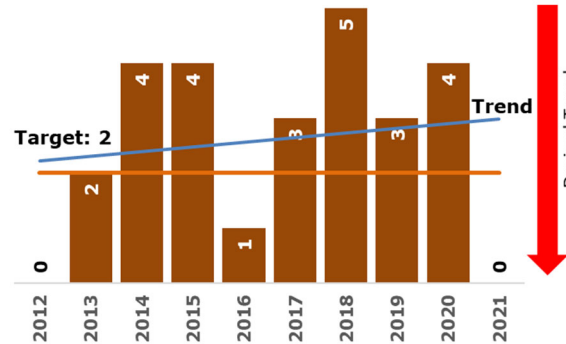
Target: 0



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.

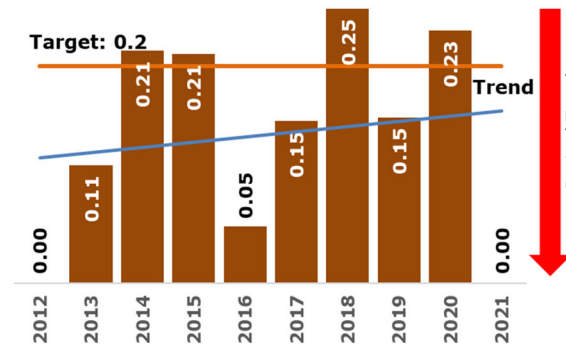
Target: 2



Zero reportable FR injuries occurred in 2021, four less than 2020. 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.

Target: 0.2



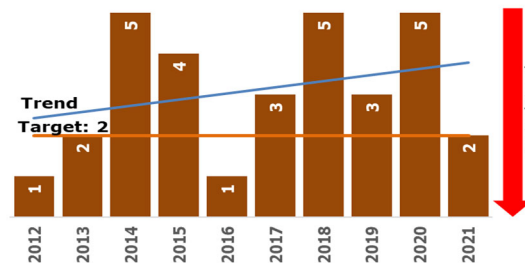
The rate of reportable FR injuries per 65,000 vehicle revenue miles was 0.00 in 2021. This is a decrease of 0.23 from the previous year. The APO desires the rate of FR injuries to decrease.

# Goal 1: Maintain and Enhance Transportation Safety

## Saint Cloud APO Transportation Results Scorecard

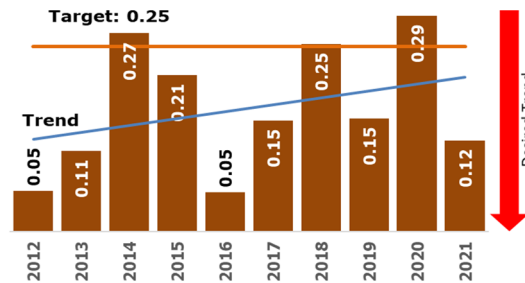
Transit Measure	Multi-Year Trend	Analysis
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**Number of FR Safety Events:** Total number of reportable FR safety events.



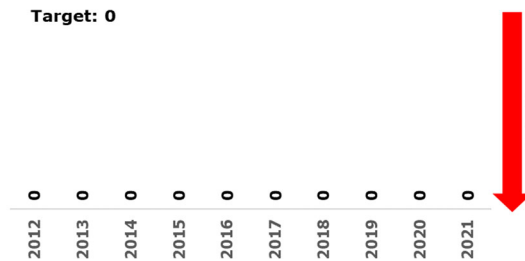
Two safety events were reported in 2021. This is three less safety events than what was reported in 2020 and the lowest since 2017. The APO desires the number of FR safety events to decrease.

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



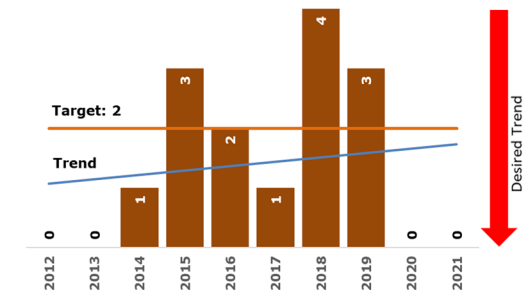
The 2021 FR reportable safety event rate per 65,000 vehicle revenue miles was 0.12. This is an decrease of 0.17 from the 0.29 in 2020. This is the lowest rate since 2017. The APO desires the rate of FR safety events to decrease.

**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.



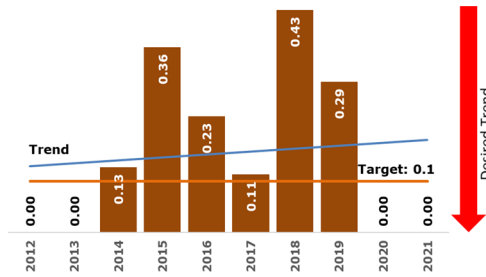
There were no reportable DAR injuries in 2021. The APO desires the number of DAR injuries to remain at zero.

# Goal 1: Maintain and Enhance Transportation Safety

## Saint Cloud APO Transportation Results Scorecard

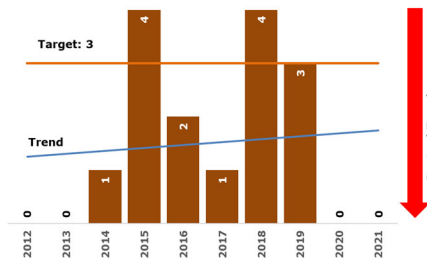
Transit Measure	Multi-Year Trend	Analysis
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**Rate of Injury (DAR):** Number of injuries divided by total vehicle revenue miles expressed per 65,000 vehicle revenue miles.



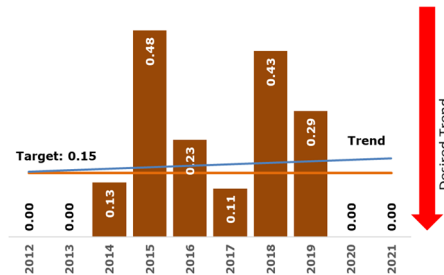
The rate of reportable DAR injuries per 65,000 vehicle revenue miles stayed at zero in 2021. The APO desires the rate of DAR injuries to remain at zero.

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



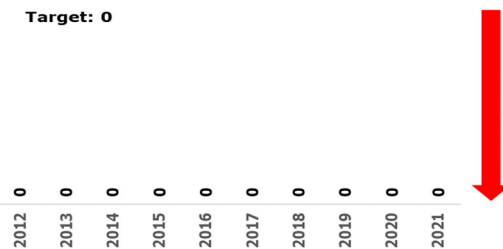
No DAR safety events were reported in 2021. The APO desires the number of DAR safety events to remain at zero.

**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 stayed at zero for 2021. 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.



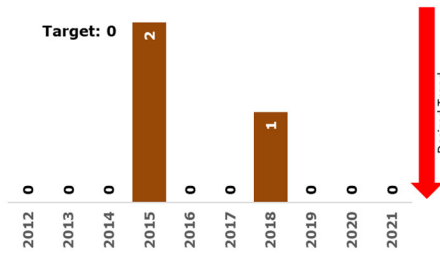
No fatalities have been reported in the past 10 years. The APO desires the number of NCB fatalities to stay at zero.

# Goal 1: Maintain and Enhance Transportation Safety

## Saint Cloud APO Transportation Results Scorecard

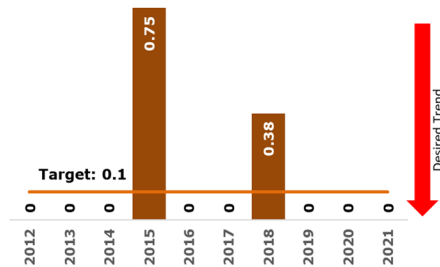
Transit Measure	Multi-Year Trend	Analysis
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**Number of NCB Injuries:** Total number of reportable NCB injuries.



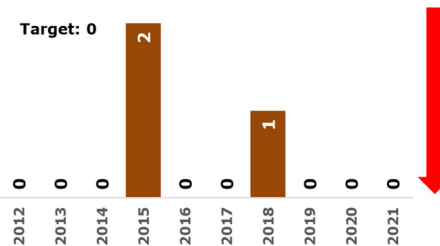
No NCB injuries were reported in 2021. The APO desires the number of NCB injuries to stay at zero.

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



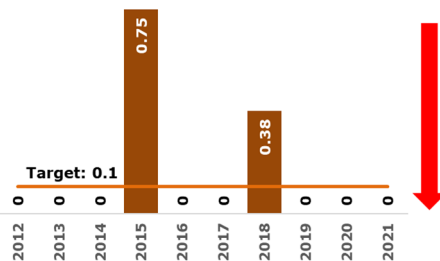
The rate of reportable NCB injuries per 65,000 vehicle revenue miles was at zero in 2021. The APO desires the rate of NCB injury rate to remain at zero.

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



There were no reportable safety events in 2021. 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 zero in 2021. 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.

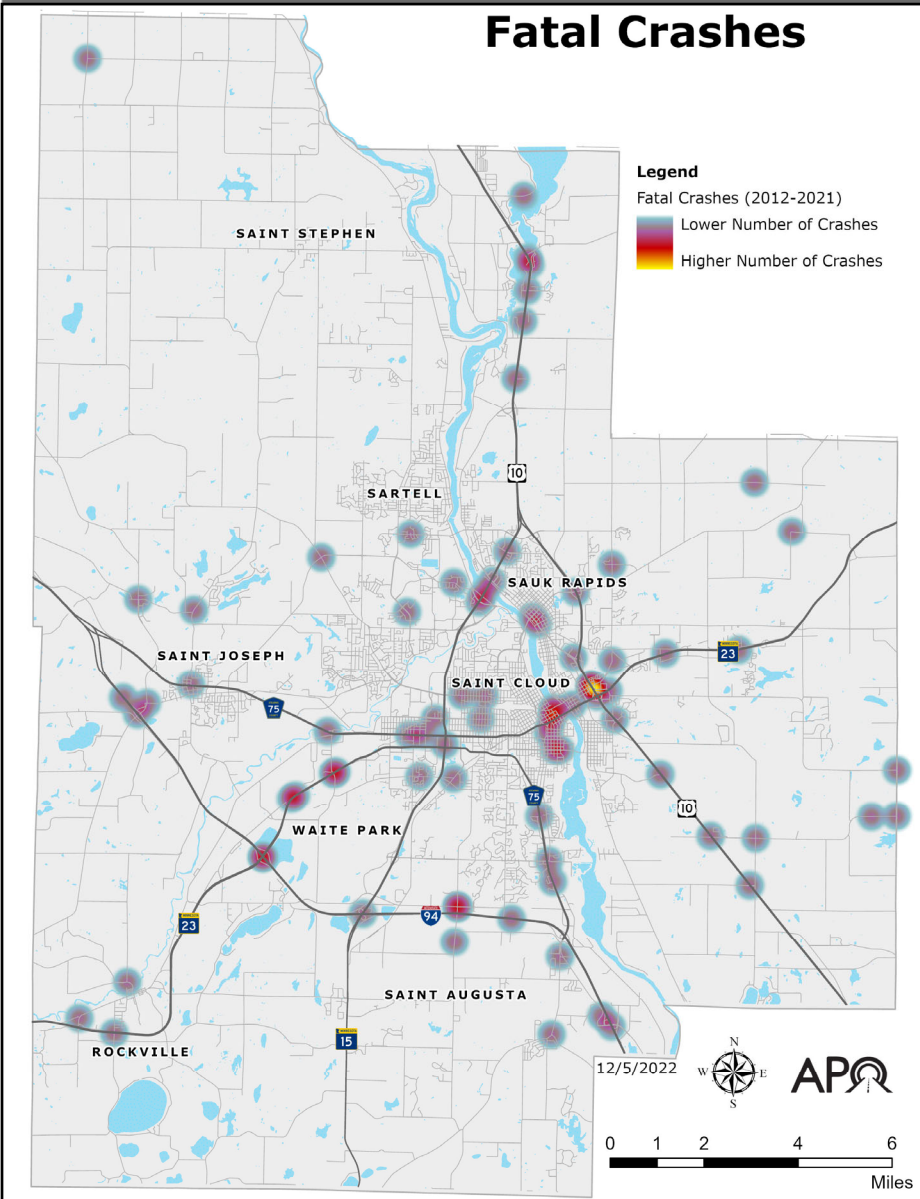


Figure 1.2-Fatal Crashes

Data Source: MnDOT.

## Fatal Crashes

Displayed in Figure 1.2 are traffic fatalities and their locations within the APO planning area from 2012 to 2021. The majority of these crashes occurred on or near the National Highway System (NHS), which typically has a higher annual average daily traffic (AADT) count.

The graph on the right shows the percent of fatal crashes occurring in each month between 2012 and 2021. August and November both had much larger numbers of fatal crashes than other months. Most of the others appear somewhat similar.

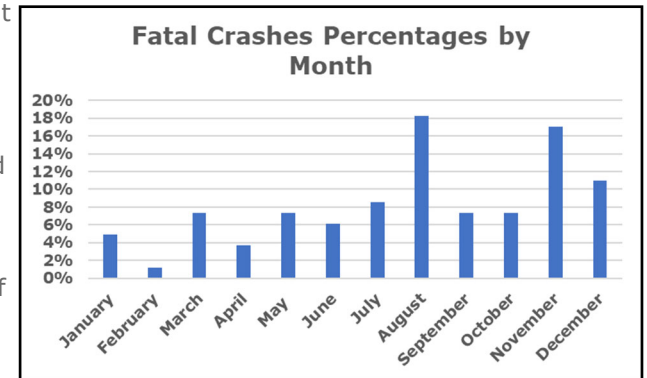


Figure 1.3-Fatal Crashes Percentages by Month Data Source: MnDOT.

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 loss, broken bones, etc.
<b>Suspected Minor Injury</b>	Injuries that are evident at the scene, but not serious enough to prevent normal activity, such as cuts, bruises, limping, etc.
<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.



# Goal 1: Maintain and Enhance Transportation Safety

## Saint Cloud APO Transportation Results Analysis

### Fatal Crashes that occurred in 2012-2021

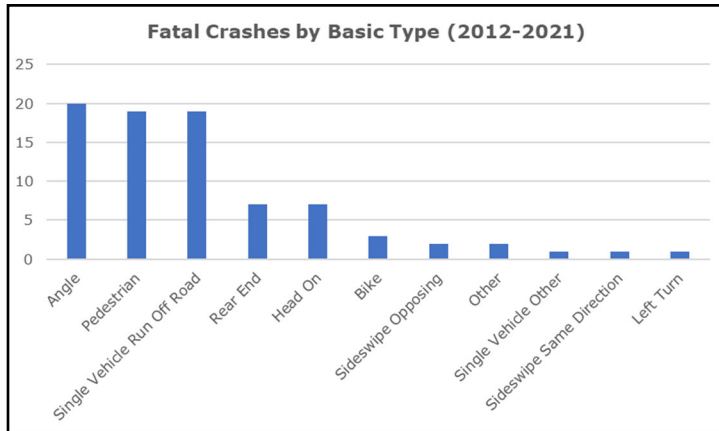


Figure 1.4-Fatal Crashes by Basic Type (2012-2021)  
Data Source: MnDOT.

Of crashes involving a fatality, the three most commonly involved basic types were an Active Transportation User (Pedestrians and Cyclists, 23% and 4% respectively), 27%, Right Angle Crash, 24%, and Single Vehicle Run Off Road, 23%. These types of crashes account for just under 75% of all fatal crashes. Fatal crashes made up 0.3% of all crashes from 2012-2021.

However, Pedestrians and Cyclist involved crashes only made up 1% each of all crashes, while Right Angle Crashes made up nearly 20% and Single Vehicle Run Off Road only 17%.

These fatal crashes occurred at nearly the same rate at an intersection or not at an intersection (46% and 45% respectively). Only 2% of them occurred at roundabouts. While more of the roadway consists of the prior two locations, roundabouts are shown to decrease the severity of crashes that occur. According to MnDOT, "Roundabouts show an [86 percent decrease in fatal crashes](#), an 83 percent decrease in life-altering injury crashes, and a 42 percent overall decrease in the injury crash rate at intersections."

Physical condition can play a role, however many times it is hard to ascertain the prior condition of the deceased. Although, of those involved in fatal crashes where physical condition is known, about 90% appeared normal while 6% were under the influence of alcohol. Other factors included individuals who were asleep/fatigued, 2%, and those under emotional distress, 1%.

Of the 145 people involved in fatal crashes that occurred in the last 10 years, 41% had no clear contributing action and 8% were unknown. Of the remaining 74 people involved, 19% resulted as a failure to yield right-of-way and 14% were a result of drivers speeding.

The percent of males, 70%, involved in fatal crashes is over double that of females, 30%. Nearly 40% of the people involved in fatal crashes were over the age of 50 while making up about 38% of the areas population. While only around 10% of the areas population is between 15 and 19, they made up only 3% of those involved in fatal crashes. The graph on the right compares the percent of the population 15 and older to the percent of individuals involved in fatal crashes within the same age brackets.

Highway 23 appears to have more fatal crashes along the corridor than other parts of the NHS.

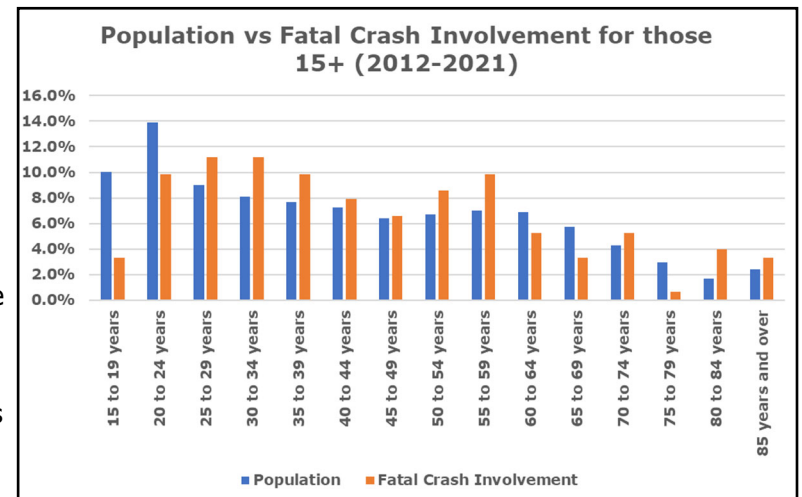
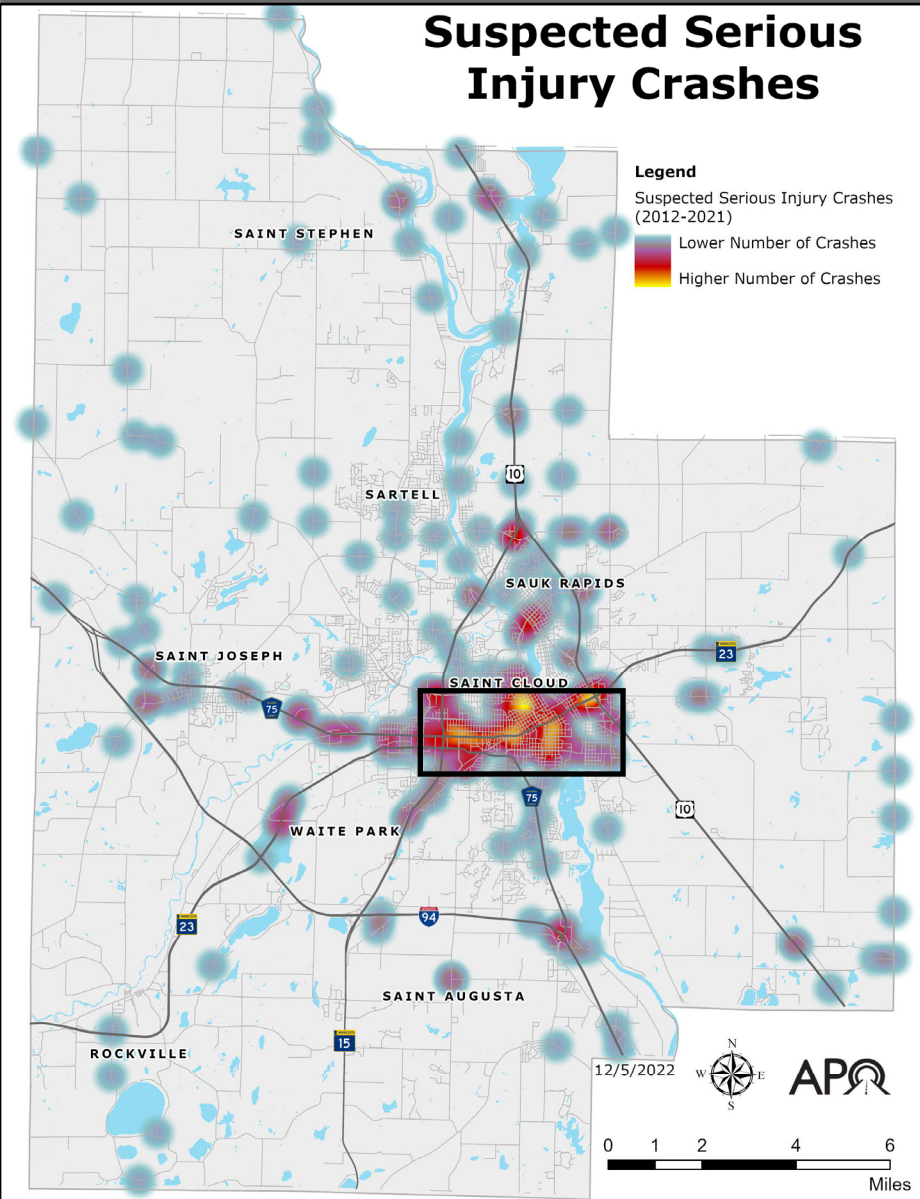


Figure 1.5-Population vs Fatal Crash Involvement for those 15+ (2012-2021) Data Source: MnDOT. 25

# Goal 1: Maintain and Enhance Transportation Safety

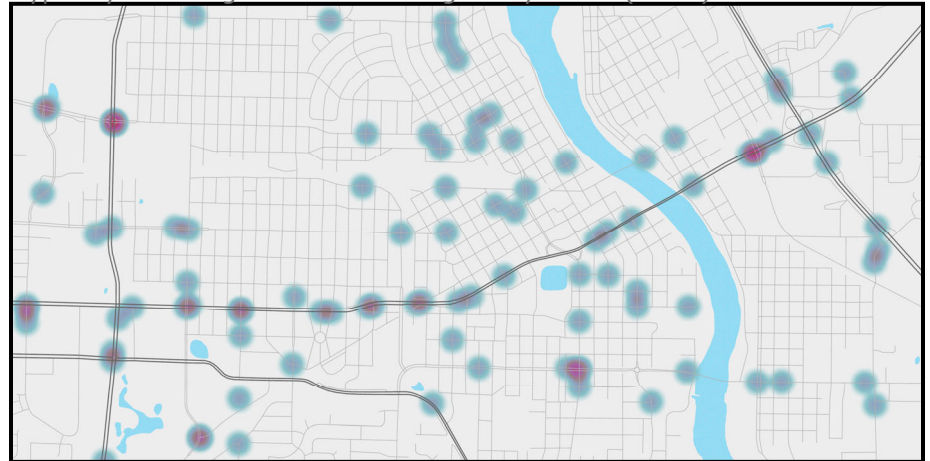
## Suspected Serious Injuries

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



## Suspected Serious Injury Crashes

Figure 1.6 illustrates suspected serious injury crashes and their locations within the APO planning area from 2012 to 2021. The majority of these crashes occurred on or near the National Highway System (NHS), which typically has a higher annual average daily traffic (AADT) count.



The average cost per crash was updated in 2023 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/3GjFPit). (<https://bit.ly/3GjFPit>).

Average Cost Per Crash	(2021 Dollars)
Fatal	\$11,800,000
Suspected Serious Injury	\$564,300
Suspected Minor Injury	\$153,700
Possible Injury	\$78,500
Property Damage	\$4,000

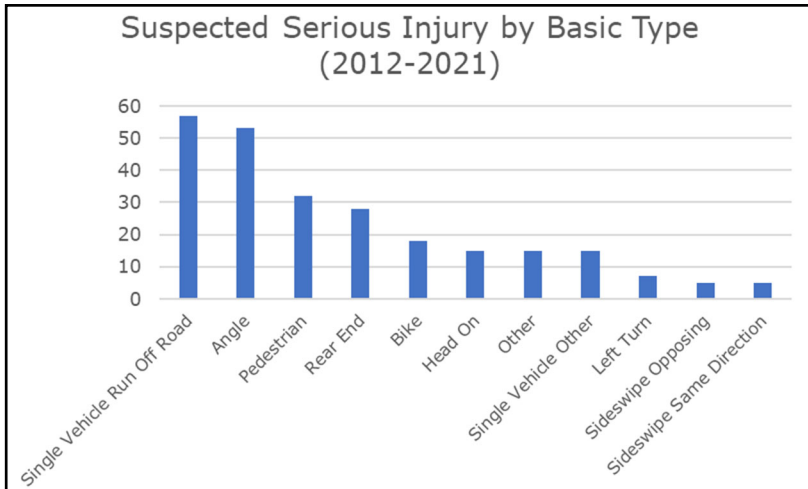
Figure 1.6-Suspected Serious Injury Crashes

Data Source: MnDOT.

# Goal 1: Maintain and Enhance Transportation Safety

## Saint Cloud APO Transportation Results Analysis

### Suspected Serious Injury Crashes that occurred in 2012-2021



Of crashes which resulted in a suspected serious injury (SSI), the 3 most common basic types were Single Vehicle Run Off Road, 23%, Right Angle Crashes, 21%, and Active Transportation Users (Pedestrian/Cyclist, 13%/7%), 20%. SSI crashes made up 1% of all crashes.

The most common basic types in SSI crashes are also found in fatal crashes. This is because these types of crashes typically result in a high severity result for at least one party involved.

Again, while Pedestrians and Cyclists are each involved in 1% of all crashes they make up a staggeringly high percent of the more severe crashes.

Similar to fatal crashes, SSI crashes are pretty evenly split between occurring at an intersection (48%) or not at an intersection (47%). Approximately 1% of SSI crashes occur at roundabouts. While more roadway is made up of the prior two locations, studies show roundabouts tend to reduce crash severity.

Figure 1.7-SSI Crashes by Basic Type (2012-2021) Data Source: MnDOT.

Physical condition is often easier to determine in SSI crashes than in ones involving a fatality. Nearly 80% of people involved, driver or any mode of transportation, were not on drugs or alcohol. However, the percent of people taking drugs, 0.6%, and those who had been drinking alcohol, 11%, is alarmingly high.

Similar to fatal crashes, the percent of individuals that are males involved in SSI crashes is just around double that of females — 67% and 33% respectively.

About 43% of SSI crashes involved no clear contributing action. Of those with a contributing action, the most common contributing factor was a failure to yield right of way (28%). The next most common types of SSI crash contributing factors were "other contributing action" (11%); operation of a motor vehicle in a careless/negligent/erratic way (11%), and speeding (8%). The percentage of SSI crashes contributed to a failure to yield right-of-way was significantly higher than for fatal crashes, however both were still much higher than the overall percentage. Otherwise, SSI crashes and fatal crashes contributing factor percents tended to be fairly similar.

The graph to the right shows the percent of SSI crashes occurring during each month. July was the worst month for SSI crashes with about 4% more crashes than the next closest months. More SSI crashes occurred more during the warmer months due to people traveling more (i.e., vacations, activities, etc.) than during the in winter months.

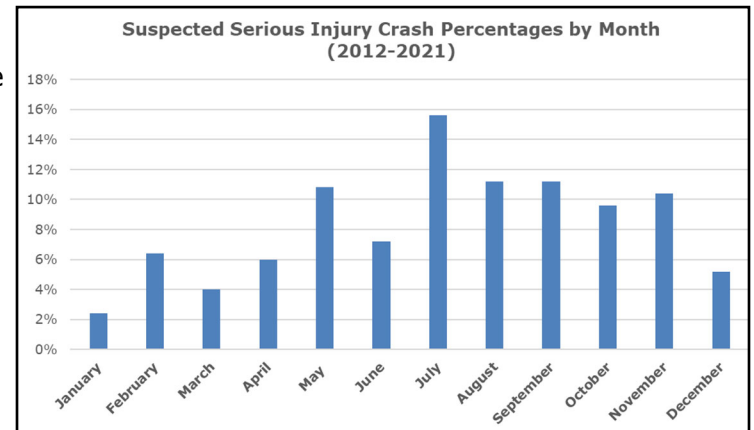
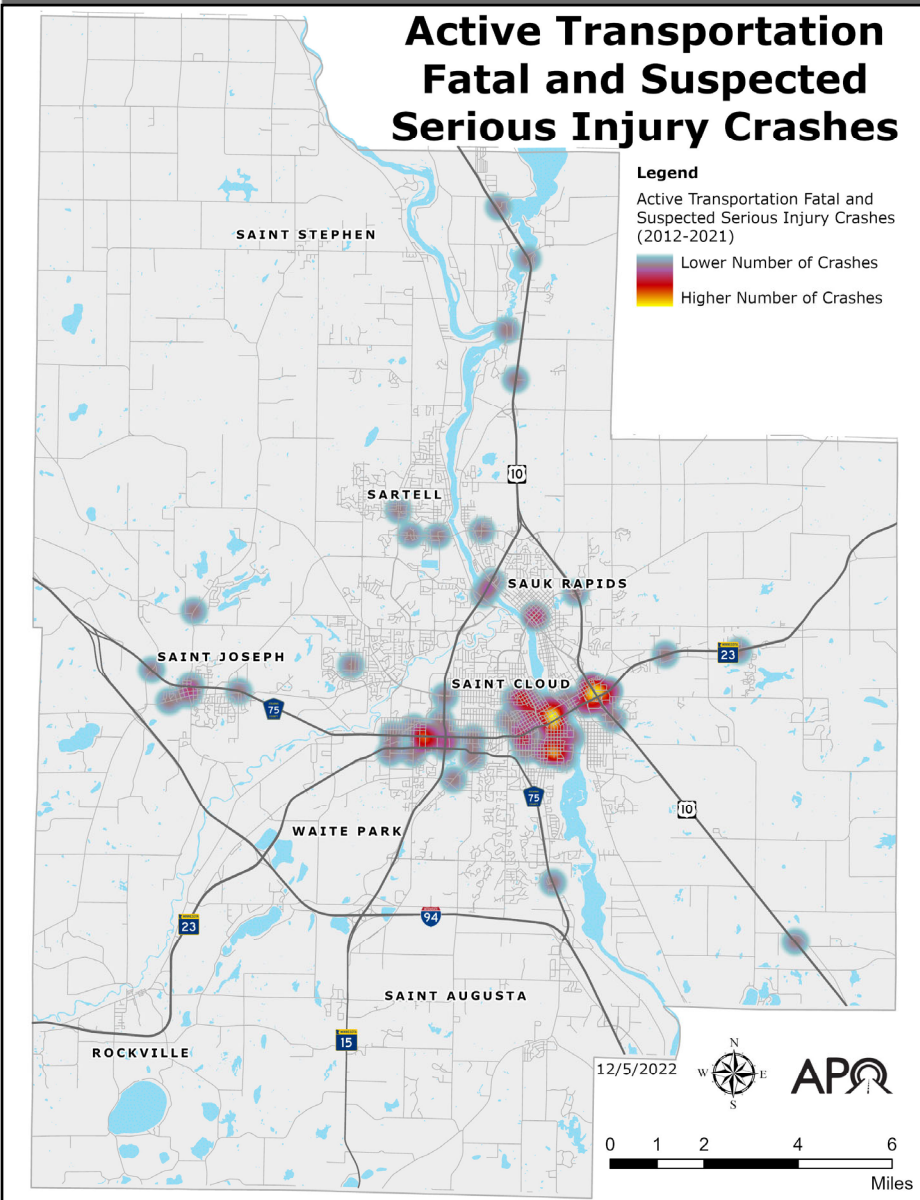


Figure 1.8-SSI Crashes Crash Percentages by Month (2012-2021) Data Source: MnDOT. 27

# 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 1.9 illustrates active transportation fatalities and suspected serious injury crashes and their locations within the APO planning area from 2012 to 2021. Active transportation involves any non-motorized user, such as a person who walks or cycles.

- ◇ Crashes involving active transportation users make up only 1% each of all crashes, however they make up a large share of the higher severity crashes.
- ◇ When a pedestrian was involved, 21% of the crashes resulted in a fatality or SSI. For cyclists, this number was 8%.
- ◇ Active transportation crashes can involve people of all ages, not just young or old.
- ◇ All three of the fatal crashes involving cyclists occurred midblock.
- ◇ Overall crashes involving cyclists tend to occur more often at intersections. For pedestrians, crashes occur similarly at intersections and not.

### 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 1.9—Active Transportation Fatalities and Suspected Serious Injuries

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.

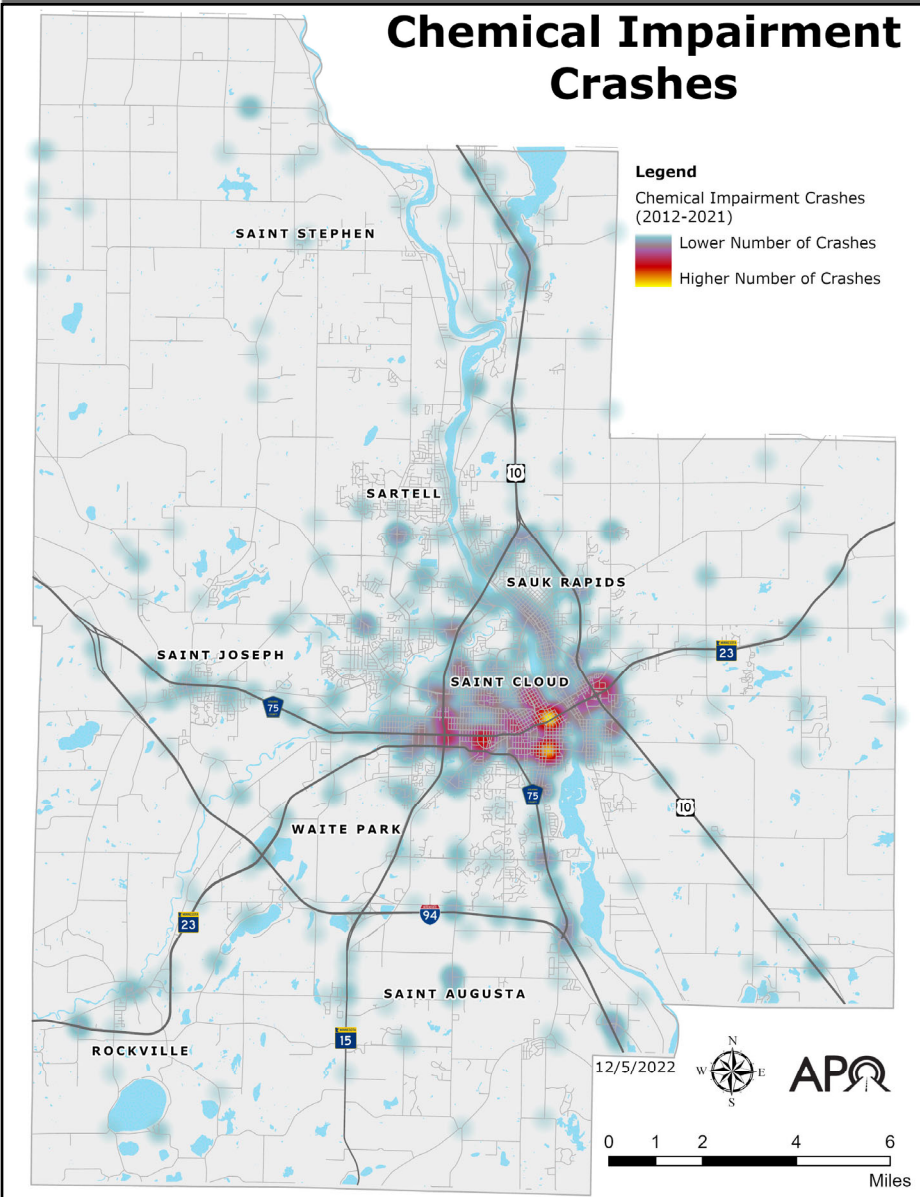


Figure 1.10-Chemical Impairment Crashes

Data Source: MnDOT.

## Chemical Impairment Crashes

Figure 1.10 displays the locations where chemical impairment crashes occurred in the APO planning area from 2012 to 2021.

BLOOD ALCOHOL CONCENTRATION (BAC) IN G/DL	TYPICAL EFFECTS	PREDICTABLE EFFECTS ON DRIVING
<b>.02</b>	Some loss of judgment; relaxation, slight body warmth, altered mood	Decline in visual functions (rapid tracking of a moving target), decline in ability to perform two tasks at the same time (divided attention)
<b>.05</b>	Exaggerated behavior, may have loss of small-muscle control (e.g., focusing your eyes), impaired judgment, usually good feeling, lowered alertness, release of inhibition	Reduced coordination, reduced ability to track moving objects, difficulty steering, reduced response to emergency driving situations
<b>.08 (the legal limit in MN)</b>	Muscle coordination becomes poor (e.g., balance, speech, vision, reaction time, and hearing), harder to detect danger; judgment, self-control, reasoning, and memory are impaired	Concentration, short-term memory loss, speed control, reduced information processing capability (e.g., signal detection, visual search), impaired perception
<b>.10</b>	Clear deterioration of reaction time and control, slurred speech, poor coordination, and slowed thinking	Reduced ability to maintain lane position and brake appropriately
<b>.15</b>	Far less muscle control than normal, vomiting may occur (unless this level is reached slowly or a person has developed a tolerance for alcohol), major loss of balance	Substantial impairment in vehicle control, attention to driving task, and in necessary visual and auditory information processing

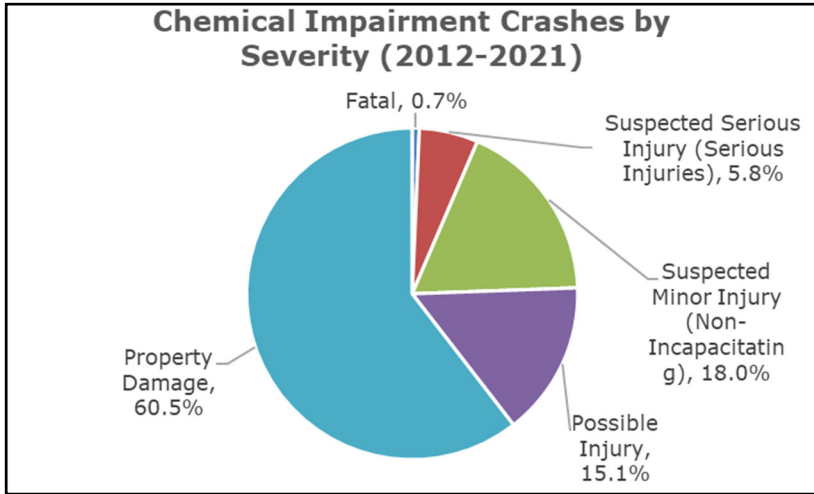
**“Every day, about 32 people in the United States die in drunk-driving crashes — that’s one person every 45 minutes. In 2020, 11,654 people died in alcohol-impaired driving traffic deaths — a 14% increase from 2019. These deaths were all preventable.”**

Data Source: NHTSA.

# Goal 1: Maintain and Enhance Transportation Safety

## Saint Cloud APO Transportation Results Analysis

### Chemical Impairment Crashes that occurred in 2012-2021



Approximately 0.4% of crashes within the APO's planning area involve a fatality and 1.1% result in a SSI. However, 6.5% of all fatal and serious injury crashes within the metro can be attributed to chemical impairment. As a result, the risk of a fatal or serious injury crash is five times greater for crashes when an individual involved is chemically impaired.

Looking at the basic types involved with chemical impairment crashes, about 46% involve a single vehicle running off the road, while 16% are rear ends, and 5% involve active transportation users. Compare this to overall crashes with only 17% involving a single vehicle running off the road, 33% rear ends, and 2% active transportation involved.

A huge percentage of chemical impairment crashes involve a single vehicle running off the road as well as over double the rate of active transportation involved crashes than crashes overall.

Chemical impairment crashes occurred much more often not at intersections and less often at intersections compared with all crashes.

Figure 1.11-Chemical Impairment Crashes by Severity (2012-2021)  
Data Source: MnDOT.

When looking at physical condition, most people involved in these crashes are not on drugs/alcohol. People in an apparently normal physical condition make up nearly 30% of those involved in chemical impairment crashes. This means nearly one-third of all people affected chemical impairment crashes were not impaired.

Of those involved in chemical impairment crashes, nearly 4% are under the age of 18, while those aged 20-34 make up nearly 42%. Of note, people aged 20-34 make up only 25% of the regions population. The split along gender lines for chemical impairment crashes is fairly equal.

While 70% of crashes involving a chemically impaired individual occurred during daylight, nearly 25% occurred when it was dark out. The remaining 5% occurred during dawn/dusk.

Chemical crashes occurred 1.5 times as often on any given weekday versus day on the weekend, even while accounting for Monday-Friday containing more days than Saturday and Sunday.

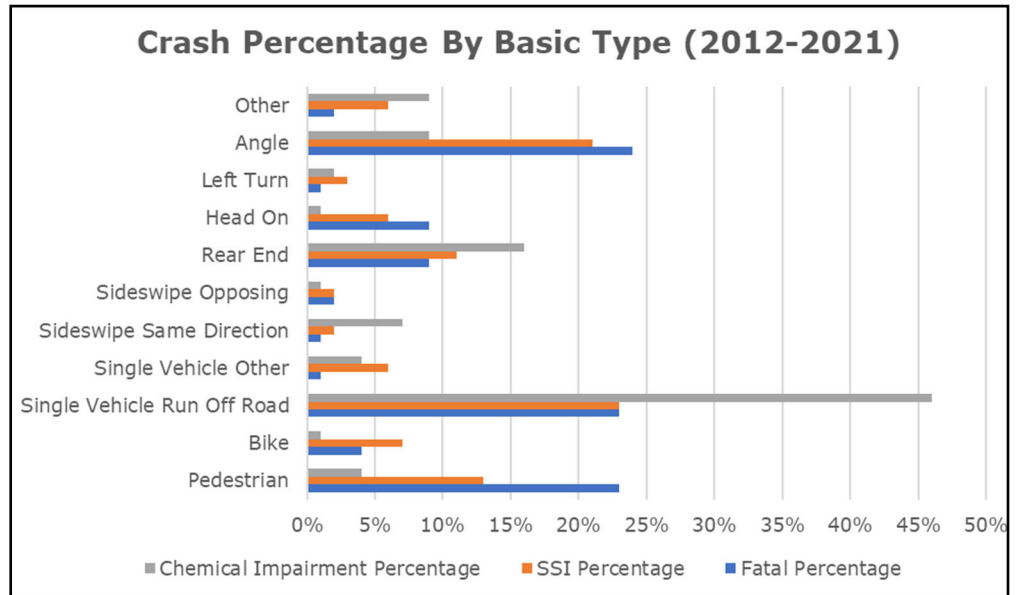


Figure 1.12-Crash Percentage by Basic Type (2012-2021) Percent

Data Source: MnDOT. 30

# Goal 1: Maintain and Enhance Transportation Safety

## Distracted Crashes

Number of crashes involving distracted drivers.

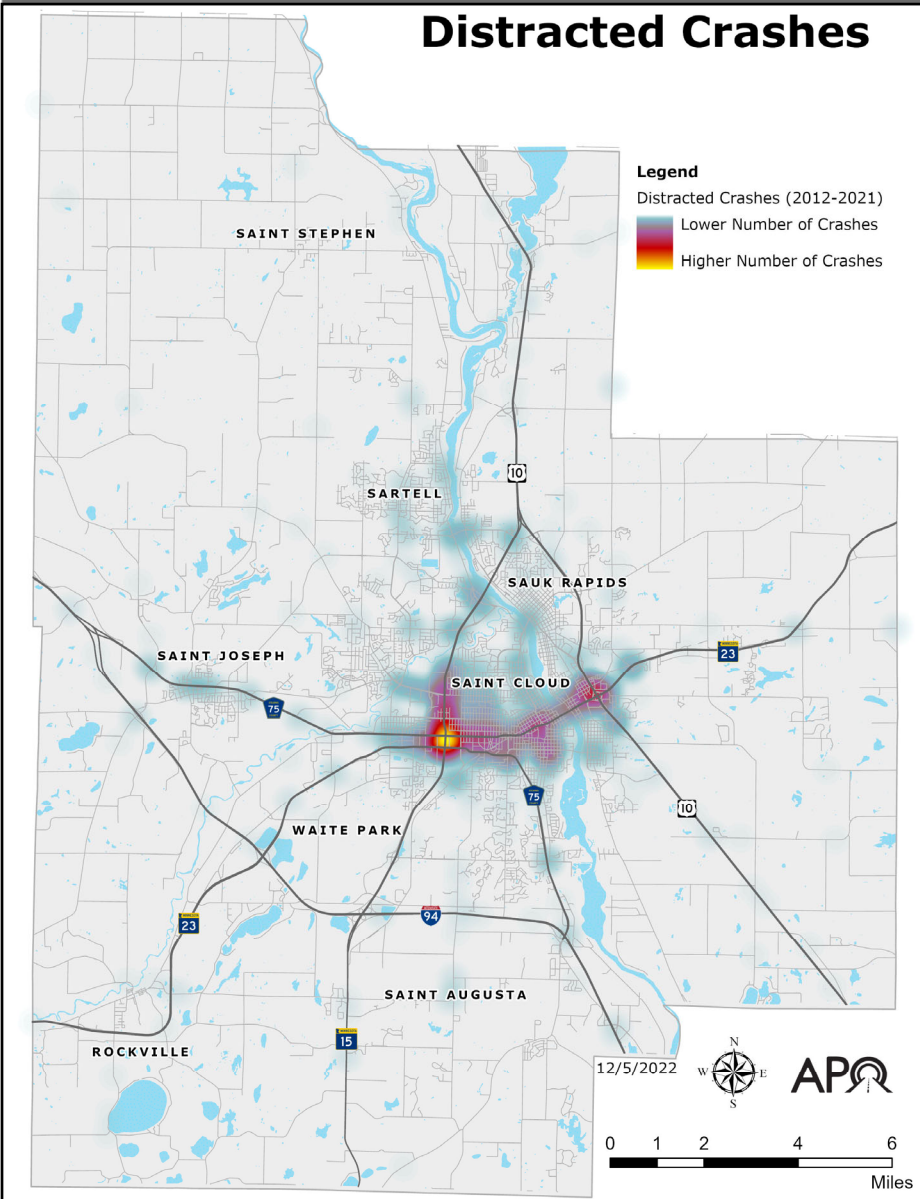


Figure 1.13-Distracted Crashes

Data Source: MnDOT.

## Distracted Crashes

Figure 1.13 displays the locations where distracted crashes occurred in the APO planning area from 2012 to 2021.

Data regarding distracted driving crashes had undergone a reporting shift between 2015 and 2016. Therefore, any data collected prior to 2016 (which reported significantly more distracted driving crashes) is not comparable. This change is attributed to instrumentation as opposed to a cultural shift. This has led to the belief among data analysts that distracted driving is underreported in crash data.

- ◇ Most distracted driving crashes result in less severe outcomes with 72% being rear end collisions.
- ◇ Most of these crashes occur at intersections (57%), while 36% occur outside of an intersection.

## 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.



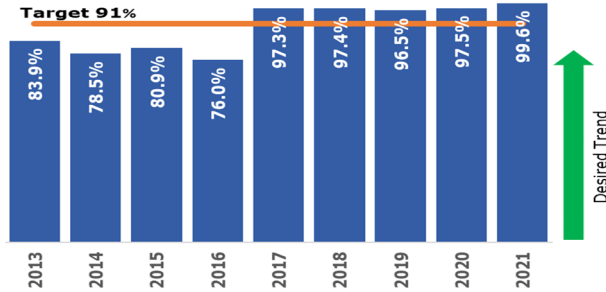
# Goal 2: Increase System Accessibility, Mobility, and Connectivity

## Saint Cloud APO Transportation Results Scorecard

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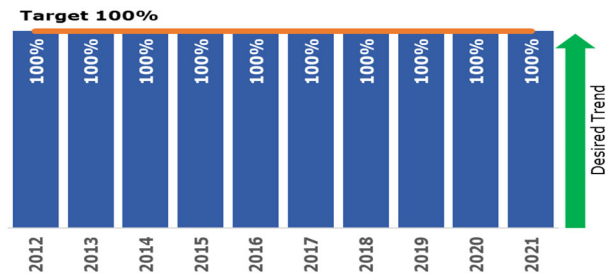
### Non-Interstate NHS Reliability:

Annual percent of person-miles traveled that are reliable.



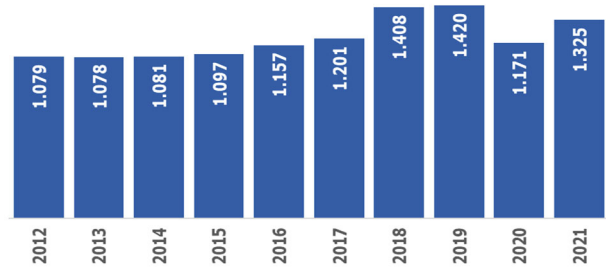
The non-Interstate NHS has continued to operate reliably over the last five years. The APO has set a 2022 target of at least 91% reliability.

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



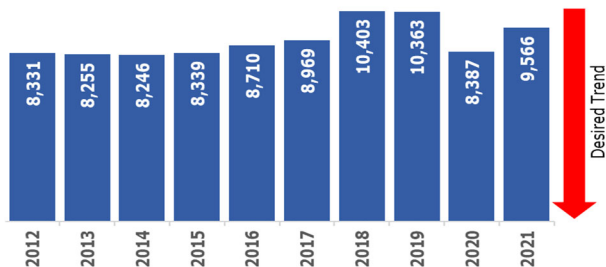
I-94 continues to operate extremely well with no reliability issues in the last 10 years. The APO has set a 2022 target of 100% reliability.

**Vehicle Miles Traveled (VMT):** Number of miles traveled by motor vehicle expressed in billions.



VMT has increased 13.2% from 1.171 billion miles in 2020 to 1.325 billion miles in 2021. The APO does not have a set target.

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



VMT per capita increased 14.1% from 8,387 in 2020 to 9,566 in 2021. 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"> <thead> <tr> <th>Year</th> <th>Value (Millions)</th> </tr> </thead> <tbody> <tr><td>2012</td><td>2.20</td></tr> <tr><td>2013</td><td>2.20</td></tr> <tr><td>2014</td><td>2.15</td></tr> <tr><td>2015</td><td>2.04</td></tr> <tr><td>2016</td><td>1.94</td></tr> <tr><td>2017</td><td>1.75</td></tr> <tr><td>2018</td><td>1.62</td></tr> <tr><td>2019</td><td>1.48</td></tr> <tr><td>2020</td><td>0.96</td></tr> <tr><td>2021</td><td>0.68</td></tr> </tbody> </table>	Year	Value (Millions)	2012	2.20	2013	2.20	2014	2.15	2015	2.04	2016	1.94	2017	1.75	2018	1.62	2019	1.48	2020	0.96	2021	0.68	<p>The number of annual FR transit riders has decreased by 25.7% from the 2020 number of 0.96 million to 0.68 million in 2021. Since 2012, FR ridership has fallen nearly 65.5%. The APO desires the number of fixed route transit riders to increase.</p>
Year	Value (Millions)																							
2012	2.20																							
2013	2.20																							
2014	2.15																							
2015	2.04																							
2016	1.94																							
2017	1.75																							
2018	1.62																							
2019	1.48																							
2020	0.96																							
2021	0.68																							
<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"> <thead> <tr> <th>Year</th> <th>Value</th> </tr> </thead> <tbody> <tr><td>2012</td><td>1.85</td></tr> <tr><td>2013</td><td>1.84</td></tr> <tr><td>2014</td><td>1.77</td></tr> <tr><td>2015</td><td>1.66</td></tr> <tr><td>2016</td><td>1.57</td></tr> <tr><td>2017</td><td>1.35</td></tr> <tr><td>2018</td><td>1.26</td></tr> <tr><td>2019</td><td>1.16</td></tr> <tr><td>2020</td><td>0.86</td></tr> <tr><td>2021</td><td>0.64</td></tr> </tbody> </table>	Year	Value	2012	1.85	2013	1.84	2014	1.77	2015	1.66	2016	1.57	2017	1.35	2018	1.26	2019	1.16	2020	0.86	2021	0.64	<p>FR passengers per revenue mile has decreased by 2.7 from 0.86 in 2020 to 0.64 in 2021. The number of revenue miles has also been decreasing over the years. The APO desires FR passengers per revenue mile to increase.</p>
Year	Value																							
2012	1.85																							
2013	1.84																							
2014	1.77																							
2015	1.66																							
2016	1.57																							
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2020	0.86																							
2021	0.64																							
<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"> <thead> <tr> <th>Year</th> <th>Value</th> </tr> </thead> <tbody> <tr><td>2012</td><td>25.96</td></tr> <tr><td>2013</td><td>25.92</td></tr> <tr><td>2014</td><td>24.93</td></tr> <tr><td>2015</td><td>23.47</td></tr> <tr><td>2016</td><td>22.04</td></tr> <tr><td>2017</td><td>17.96</td></tr> <tr><td>2018</td><td>16.90</td></tr> <tr><td>2019</td><td>15.15</td></tr> <tr><td>2020</td><td>11.41</td></tr> <tr><td>2021</td><td>8.72</td></tr> </tbody> </table>	Year	Value	2012	25.96	2013	25.92	2014	24.93	2015	23.47	2016	22.04	2017	17.96	2018	16.90	2019	15.15	2020	11.41	2021	8.72	<p>FR passengers per revenue hour has decreased by 2.7 from 11.4 in 2020 to 8.7 in 2021. The number of revenue hours has continued falling from 2020. The APO desires FR passengers per revenue hour to increase.</p>
Year	Value																							
2012	25.96																							
2013	25.92																							
2014	24.93																							
2015	23.47																							
2016	22.04																							
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2018	16.90																							
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2020	11.41																							
2021	8.72																							
<p><b>Number of Annual Dial-a-Ride (DAR) Transit Riders:</b> Annual number of transit riders by DAR.</p>	<table border="1"> <thead> <tr> <th>Year</th> <th>Value</th> </tr> </thead> <tbody> <tr><td>2012</td><td>130,880</td></tr> <tr><td>2013</td><td>122,263</td></tr> <tr><td>2014</td><td>128,087</td></tr> <tr><td>2015</td><td>133,303</td></tr> <tr><td>2016</td><td>139,414</td></tr> <tr><td>2017</td><td>136,422</td></tr> <tr><td>2018</td><td>139,399</td></tr> <tr><td>2019</td><td>152,239</td></tr> <tr><td>2020</td><td>98,687</td></tr> <tr><td>2021</td><td>101,125</td></tr> </tbody> </table>	Year	Value	2012	130,880	2013	122,263	2014	128,087	2015	133,303	2016	139,414	2017	136,422	2018	139,399	2019	152,239	2020	98,687	2021	101,125	<p>The number of annual DAR transit riders has rose by 2.47% from 98,687 in 2020 to 101,125 in 2021. The APO desires the number of DAR transit riders to increase.</p>
Year	Value																							
2012	130,880																							
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<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"> <thead> <tr> <th>Year</th> <th>Value</th> </tr> </thead> <tbody> <tr><td>2012</td><td>0.26</td></tr> <tr><td>2013</td><td>0.25</td></tr> <tr><td>2014</td><td>0.25</td></tr> <tr><td>2015</td><td>0.25</td></tr> <tr><td>2016</td><td>0.24</td></tr> <tr><td>2017</td><td>0.24</td></tr> <tr><td>2018</td><td>0.23</td></tr> <tr><td>2019</td><td>0.23</td></tr> <tr><td>2020</td><td>0.22</td></tr> <tr><td>2021</td><td>0.21</td></tr> </tbody> </table>	Year	Value	2012	0.26	2013	0.25	2014	0.25	2015	0.25	2016	0.24	2017	0.24	2018	0.23	2019	0.23	2020	0.22	2021	0.21	<p>DAR passengers per revenue mile has decreased by 0.01 from 0.22 in 2020 to 0.21 in 2021. The number of revenue miles remains lower than most previous years. The APO desires DAR passengers per revenue mile to increase.</p>
Year	Value																							
2012	0.26																							
2013	0.25																							
2014	0.25																							
2015	0.25																							
2016	0.24																							
2017	0.24																							
2018	0.23																							
2019	0.23																							
2020	0.22																							
2021	0.21																							

# 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>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><td>2021</td></tr> <tr><th>Value</th><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><td>2.72</td></tr> </table>	Year	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Value	3.31	3.15	3.13	3.07	3.15	3.04	2.96	3.01	2.75	2.72	<p>DAR passengers per revenue hour decreased by 0.03 from 2.75 in 2020 to 2.72 in 2021. Revenue hours are still low following 2020. The APO desires DAR passengers per revenue hour to increase.</p>
Year	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021														
Value	3.31	3.15	3.13	3.07	3.15	3.04	2.96	3.01	2.75	2.72														
<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>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><td>2021</td></tr> <tr><th>Value</th><td>50,313</td><td>53,152</td><td>59,225</td><td>57,642</td><td>51,569</td><td>50,305</td><td>47,570</td><td>47,147</td><td>24,280</td><td>8,330</td></tr> </table>	Year	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Value	50,313	53,152	59,225	57,642	51,569	50,305	47,570	47,147	24,280	8,330	<p>Annual NCB transit ridership has decreased by 65.7% from 24,280 in 2020 to 8,330 in 2021. Due to limited train runs, the bus use also decreased. The APO desires the NCB transit ridership to increase.</p>
Year	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021														
Value	50,313	53,152	59,225	57,642	51,569	50,305	47,570	47,147	24,280	8,330														
<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>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><td>2021</td></tr> <tr><th>Value</th><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><td>0.14</td></tr> </table>	Year	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Value	0.36	0.38	0.39	0.33	0.29	0.29	0.28	0.27	0.22	0.14	<p>Passengers per revenue mile have decreased by 0.08 from 0.22 passengers per revenue mile in 2020 to 0.14 in 2021. This follows from the decrease in Northstar rail use. The APO desires NCB passengers per revenue mile to increase.</p>
Year	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021														
Value	0.36	0.38	0.39	0.33	0.29	0.29	0.28	0.27	0.22	0.14														
<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>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><td>2021</td></tr> <tr><th>Value</th><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><td>4.06</td></tr> </table>	Year	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Value	10.68	11.31	11.59	9.82	8.74	8.57	8.16	8.01	6.32	4.06	<p>Passengers per revenue hour has decreased by 2.26 from 6.32 passenger per revenue hour in 2020 to 4.06 in 2021. This follows from the decrease in ridership. The APO desires NCB passengers per revenue hour to increase.</p>
Year	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021														
Value	10.68	11.31	11.59	9.82	8.74	8.57	8.16	8.01	6.32	4.06														
<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><td>2020</td><td>2021</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><td>80.4%</td><td>79.7%</td></tr> </table>	Year	2015	2016	2017	2018	2019	2020	2021	Value	79.4%	79.8%	80.0%	81.0%	81.1%	80.4%	79.7%	<p>The percent of travel done by workers 16 years and over has stayed near 80.0% for the last seven years. The APO desires SOV travel to decrease.</p>						
Year	2015	2016	2017	2018	2019	2020	2021																	
Value	79.4%	79.8%	80.0%	81.0%	81.1%	80.4%	79.7%																	

# 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.

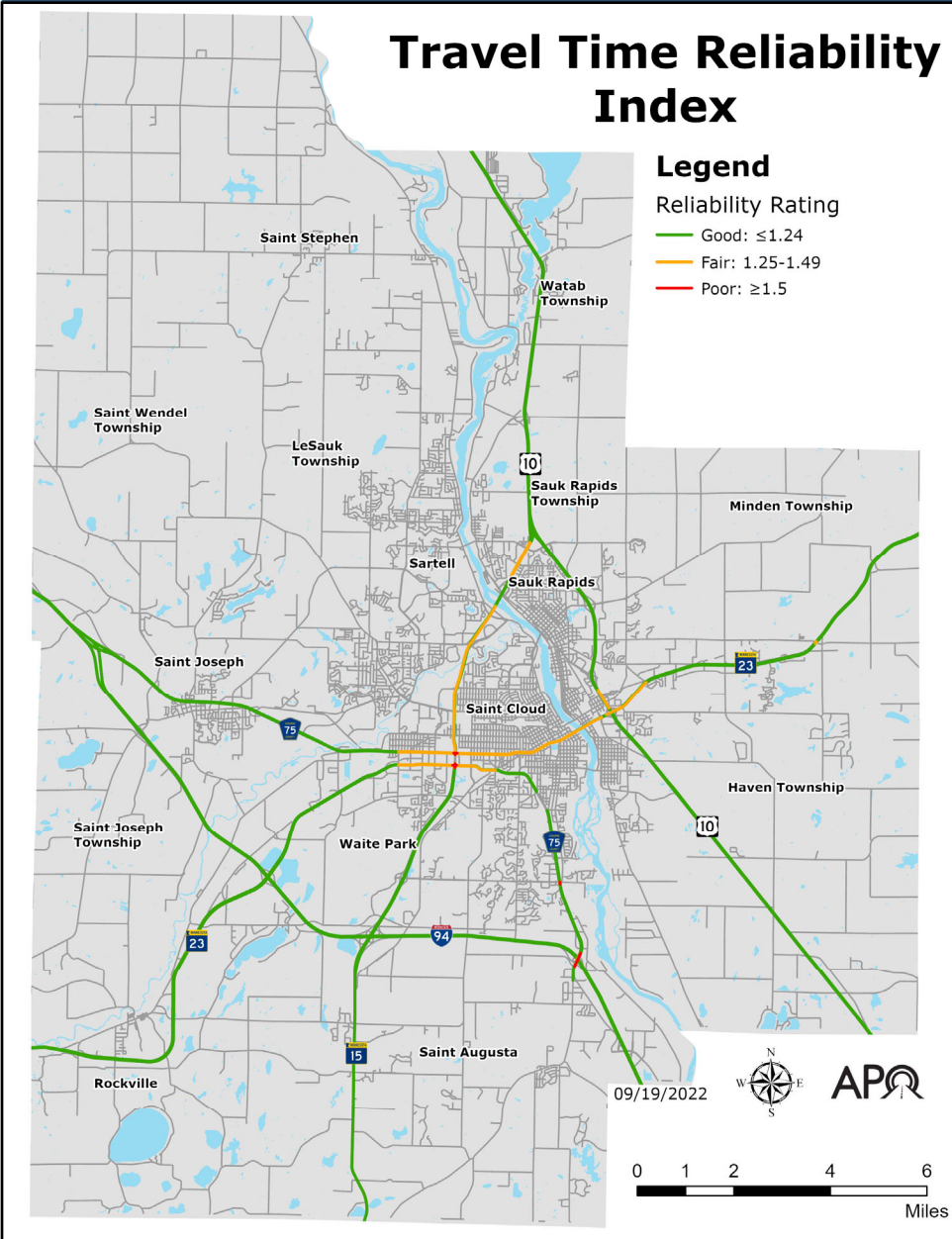


Figure 2.1-Time Travel Reliability

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 on a "bad" day 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 intersection of Division Street and Highway 15; the intersection of Second Street S and Highway 15/23; the intersection of CSAH 75 and I-94, and the intersection of 33rd Street and CSAH 75.

- ⇒ **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 (2020)	Annual Vehicle Miles Traveled (2021)	Percent Change (2020-2021)
Saint Cloud	464,902,416	519,558,014	11.8%
Sartell	68,010,746	73,981,427	8.8%
Sauk Rapids	52,901,252	57,461,515	8.6%
Waite Park	71,689,036	79,720,853	11.2%
Saint Joseph	34,185,400	37,503,797	9.7%
Saint Augusta	54,096,601	58,988,191	9.0%
Rockville	54,306,336	59,944,362	10.4%
Saint Stephen	3,541,016	3,816,362	7.8%
<b>Total</b>	<b>803,632,803</b>	<b>890,974,521</b>	<b>10.9%</b>

Data Source: MnDOT.

### VMT Travel by Municipality

Vehicle miles traveled in 2021 has shown signs of recovery from the COVID-19 pandemic during which 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 2020 as a result of the global pandemic. In the APO region, VMT in the municipalities increased 10.8% 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.

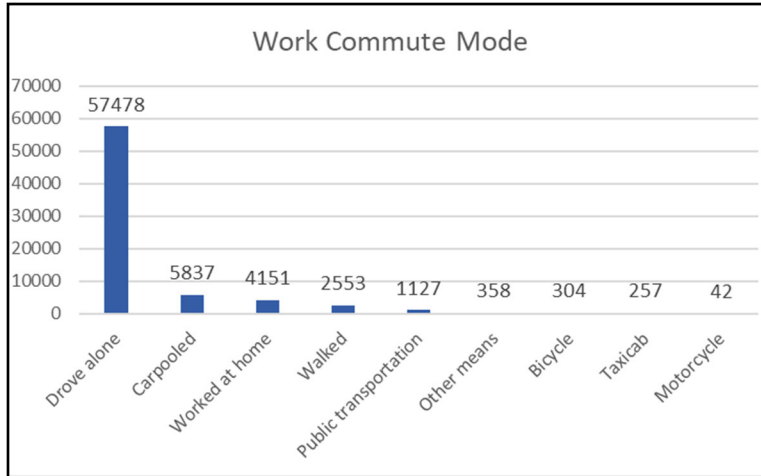


Figure 2.2-Means of Transportation to Work

Data Source: U.S. Census Bureau, 2017-2021 American Community Survey 5-Year Estimates

### Region's Top 10 Employers and the Number of Employees in 2020

- ◆ 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.

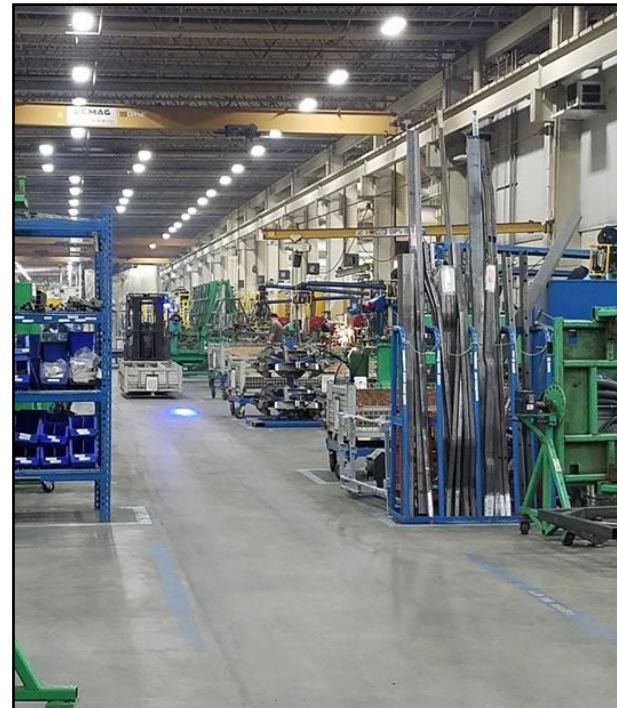
Data Source: Saint Cloud Area Chamber of Commerce. Data unavailable for 2021.

### Means of Transportation to Work

Depicted in Figure 2.2, of workers 16 years and older, 88% (63,315) used a household car, truck, or van as their means of transportation to work.

The next most common forms of work commuting transportation include: walking (4%), public transportation (2%), and some other means of transportation (<1%). Bicycles, taxicabs and motorcycles are all at or below 1%.

In 2021 the Saint Cloud APO conducted a regional household travel survey ([bit.ly/408ZI1s](https://bit.ly/408ZI1s)) in which participants shared data regarding the trips they took. When compared with the Saint Cloud APO Household Travel Survey and previous Census ACS surveys, means of transportation to work by all modes have remained fairly constant with the most notable change being work from home taking away trips primarily from solo drivers.



### 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.



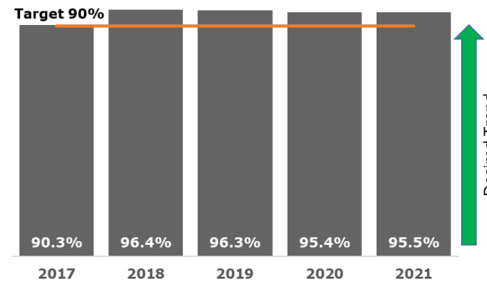
Photos courtesy of MnDOT and APO

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

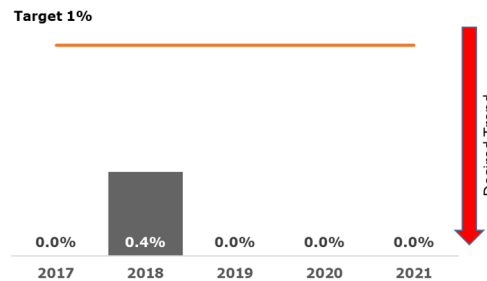
## Saint Cloud APO Transportation Results Scorecard

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.

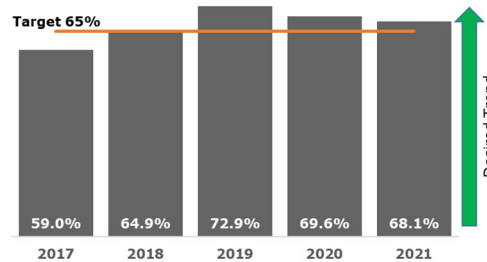


In 2021, 95.5% of the Interstate’s pavement was rated in good condition. This is a 0.1 percentage point increase from 2020. The APO has set a 2022 Interstate pavement condition target of at least 90% in good condition.

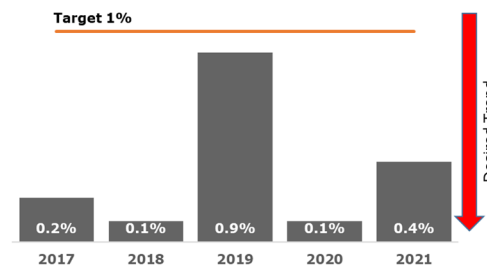


No Interstate pavement within the MPA was rated in poor condition in 2021. The APO has set a 2022 Interstate pavement condition target of less than 1% in poor condition.

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



Non-Interstate NHS pavement in 2021 was rated at 68.1% in good condition. This is an 1.5 percentage point decrease from 2020. The APO has set a 2022 non-Interstate NHS pavement condition target of at least 65% in good condition.



Non-Interstate NHS pavement in 2021 was rated at 0.4% in poor condition. This is a 0.3 percentage point increase from 2020. The APO has set a 2022 non-Interstate NHS pavement condition target of less than 1% in poor condition.

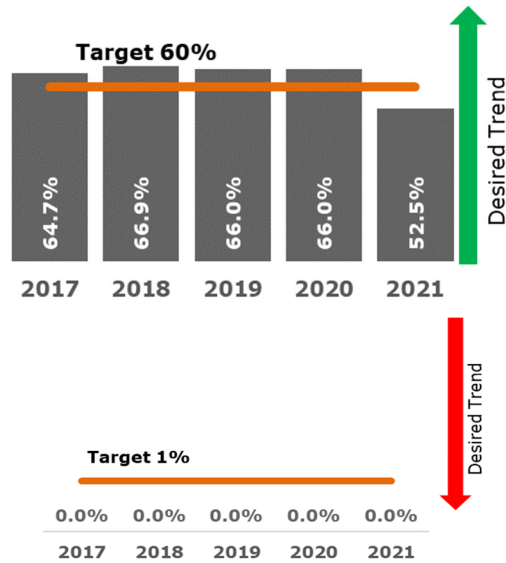


# Goal 3: Efficiently Manage Operations and Cost-Effectively Preserve the System

## Saint Cloud APO Transportation Results Scorecard

Measure	Multi-Year Data	Analysis
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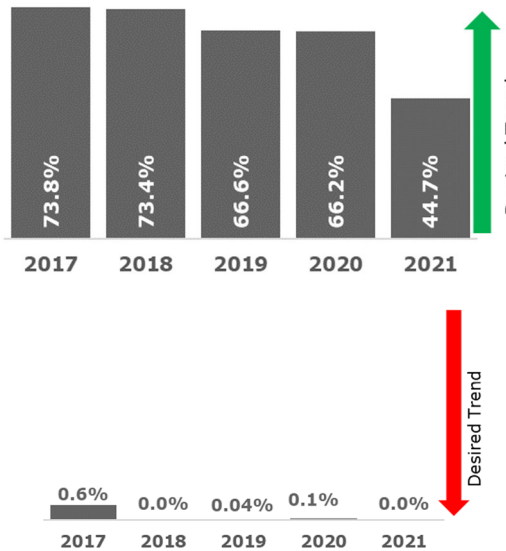
**National Highway System (NHS) Bridge Condition:** Percent of bridges by deck area classified in good, fair, and poor condition.



In 2021, 52.5% of NHS bridge deck area was in good condition. This is 13.5 percentage point drop from the previous two years. The APO has set a 2022 NHS bridge condition target of at least 60% in good condition.

No NHS bridge deck area was rated in poor condition in any of the previous years. The APO has set a 2022 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 2021, 44.7% of all bridge deck area in the MPA was rated in good condition. This is a noticeable decrease from previous years. The APO does not have a set target, but desires this to increase.

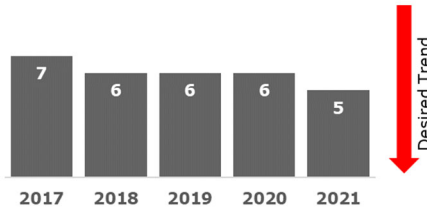
In 2021, no bridge deck area in the MPA was rated in poor condition. This has remains relatively unchanged since 2018. The APO does not have a set target.

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

## Saint Cloud APO Transportation Results Scorecard

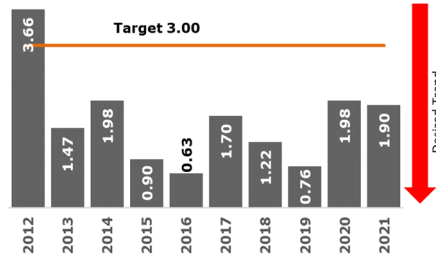
Transit Measure	Multi-Year Data	Analysis
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**Bridge Weight Restrictions:** Number and condition of bridges with a capacity rating posting.



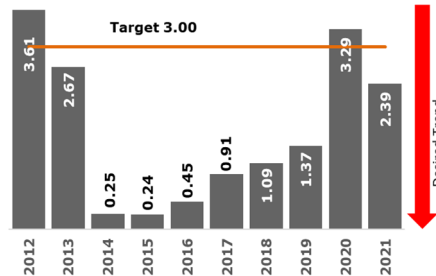
There were a total of five bridges with weight restrictions in the APO planning area in 2021. All five of these bridges are in fair condition. The APO has not set target.

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



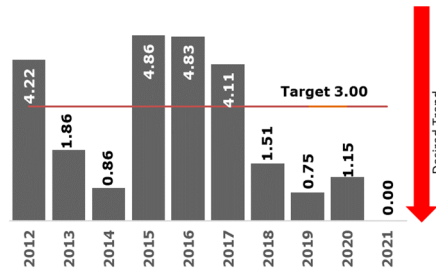
The mean number of major mechanical failures per 65,000 vehicle revenue miles for FR in 2021 was 1.90. This is an decrease of 0.08 from the previous year. The average age of FR buses is 7.5 years. The APO desires the number of FR mechanical failures to decrease.

**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 2021 was 2.39, an decrease of 0.90 from the previous year. The average age of DAR buses is 3.9 years. 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 2021 was zero. This is a decrease of 1.15 from the previous year. The average age of NCB buses is 3.6 years. The APO desires the number of NCB mechanical failures to decrease.

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

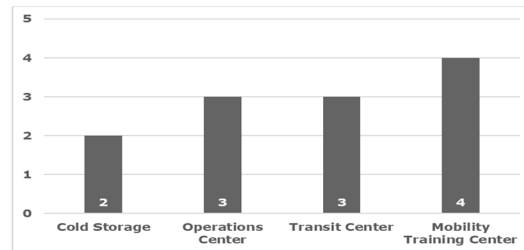
## Saint Cloud APO Transportation Results Scorecard

### 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.

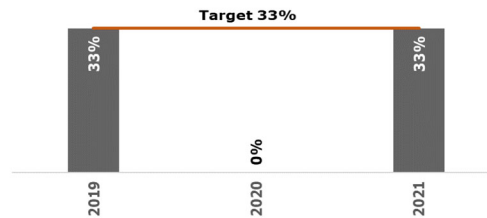
Asset	Data	Analysis
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#### TERM Scale for Facilities



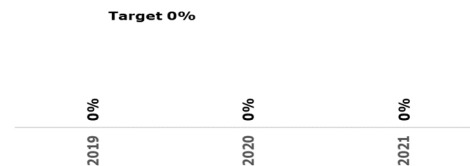
The TERM scale uses the number 1 through 5 to describe the condition of an asset — with 5 being excellent and 1 being poor. While the cold storage is rated at marginal, the operation center and transit center are rated as adequate. The mobility training center is rated as good.

#### Administrative/Maintenance Facilities



This measure looks at a combination of the cold storage facility, operations center, and mobility training center to give an overall rating for the MTC. MTC's cold storage facility was rated under a 3 which caused 1/3 of these assets to be noted here. MTC has set a 2022 target of 33% of facilities being below three on the TERM scale.

#### Passenger/Parking Facilities



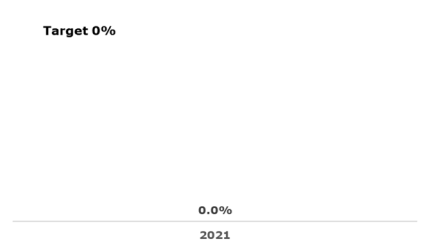
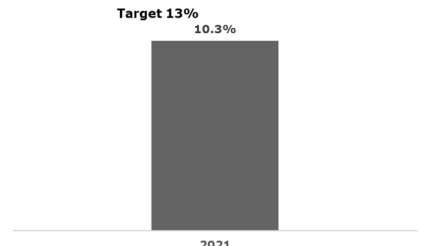
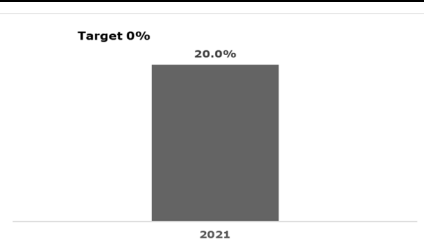
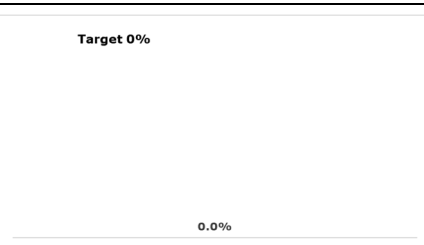
No Metro Bus passenger/parking facilities were rated below a three on the TERM scale in 2021. The transit center is the only facility type operated by MTC within this category. MTC set a 2022 target of 0% of facilities below three on the TERM scale.

# 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>Equipment (non-revenue service vehicles)</b></p>	 <p>Target 0%</p> <p>0.0%</p> <p>2021</p>	<p>No non-revenue service vehicles have exceeded their useful life in 2021. MTC set a 2022 target of 0% exceeding useful life.</p>
<p><b>Rolling Stock (revenue vehicles) - Class 700 Buses</b></p>	 <p>Target 13%</p> <p>10.3%</p> <p>2021</p>	<p>For the class 700 buses (FR buses), 10.3% have exceeded their useful life. MTC set a 2022 target of 13% exceeding useful life.</p>
<p><b>Rolling Stock (revenue vehicles) - Class 400 Buses</b></p>	 <p>Target 0%</p> <p>20.0%</p> <p>2021</p>	<p>For the class 400 buses (DAR buses), 20% have exceeded their useful life. MTC set a 2022 target of 0% exceeding useful life.</p>
<p><b>Rolling Stock (revenue vehicles) - MCI buses</b></p>	 <p>Target 0%</p> <p>0.0%</p> <p>2021</p>	<p>No MCI buses (NCB buses) have exceeded their useful life. MTC set a 2022 target of 0% exceeding useful life</p>

# 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

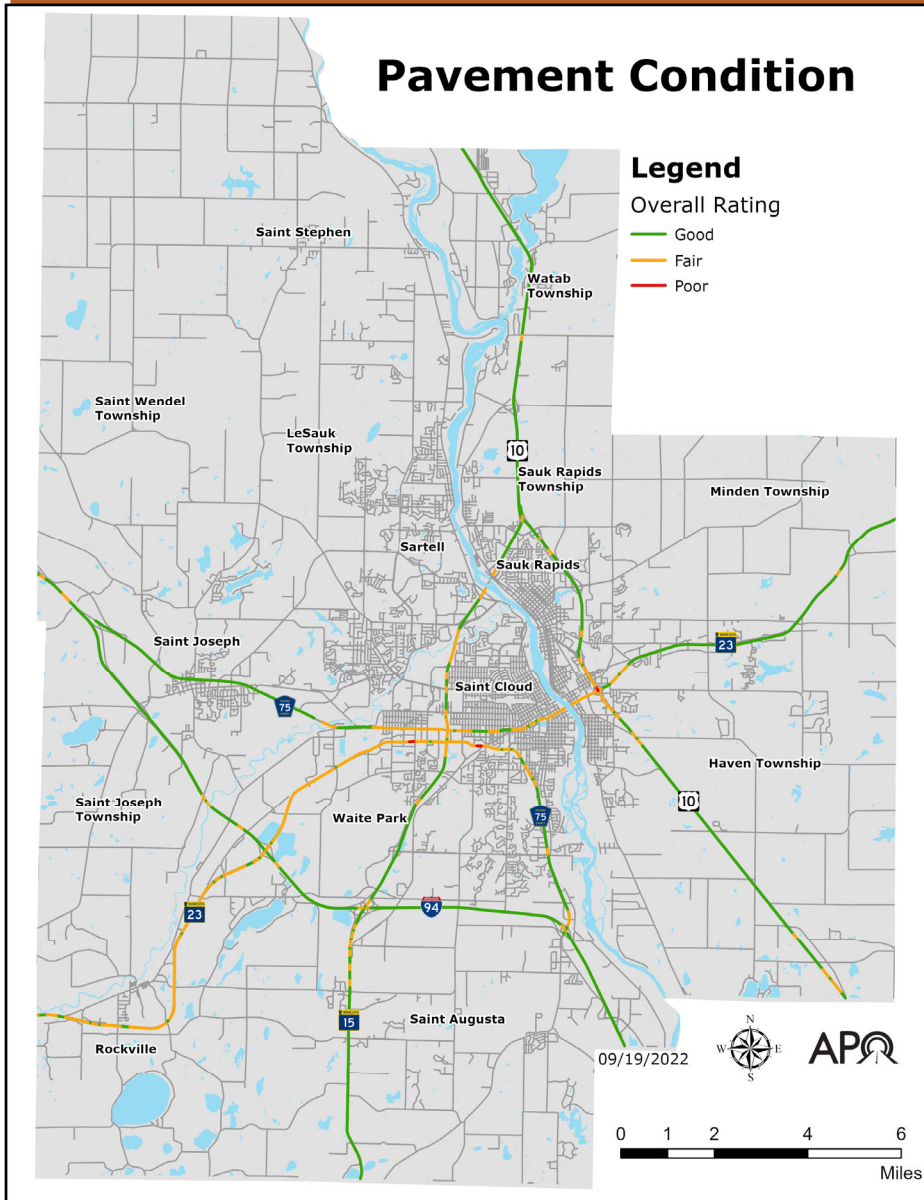


Figure 3.1-Pavement Condition Data Source: MnDOT

## Pavement Condition

In 2021, 73.8% of Interstate and NHS pavement within the APO planning area was in good condition, 25.9% in fair condition, and 0.3% in poor condition as displayed in Figure 3.1. Some of the worst pavement areas are located near the interchange of US 10 and MN 23, Second Street S between 33rd Avenue N and 25th Avenue S, and MN 23 between Second Ave S and 10th Avenue S.

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.

# 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

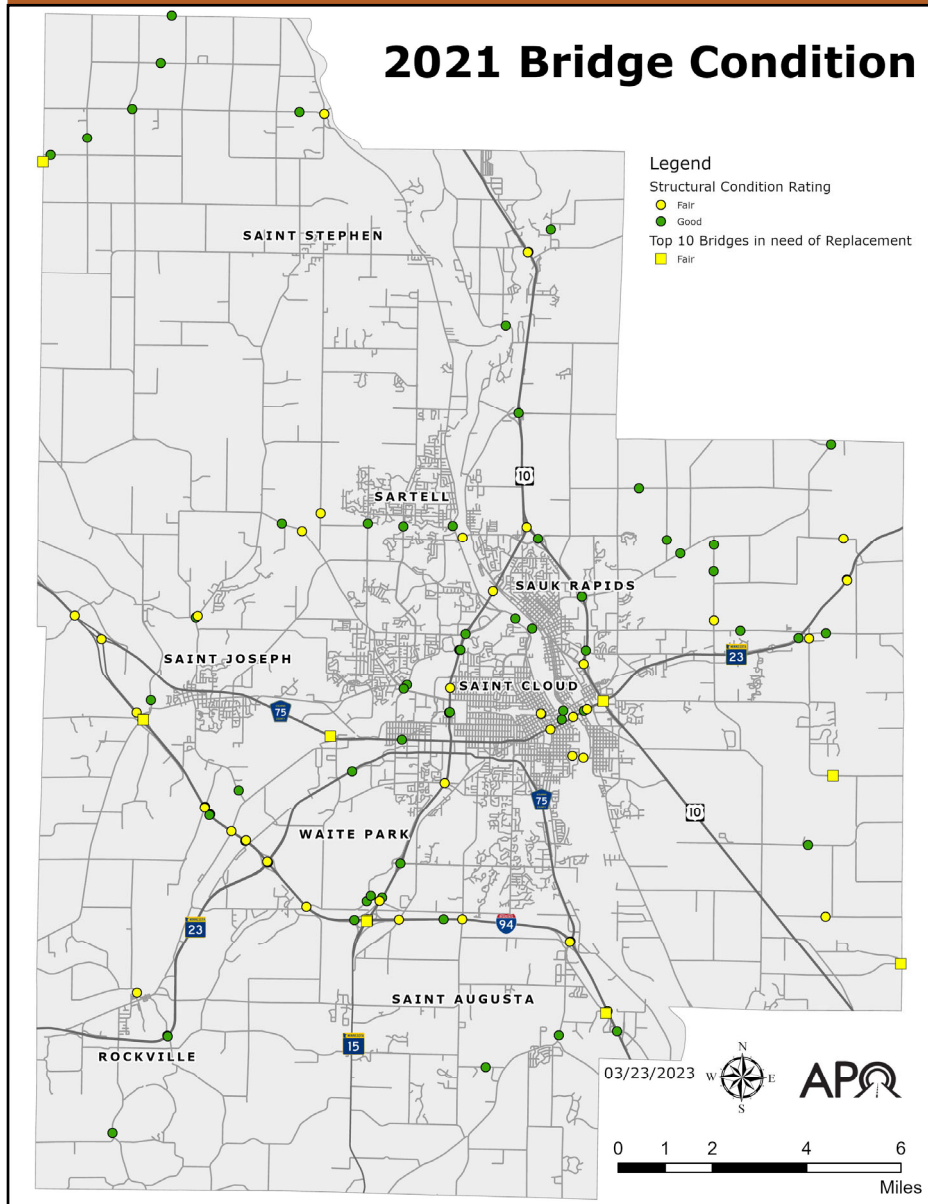


Figure 3.2-Bridge Condition

Data Source: MnDOT.

### Condition of All Bridges

Of the 112 bridges in the APO planning area, 62 are rated in good condition and 50 are in fair 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 are 10 of the lowest rated bridges based on an average of their deck, substructure, and super structure that fell into the fair rating.

Rank	Location of Bridge	Owner
1*	TH 23 NB over US 10	MnDOT
2*	TH 23 SB over US 10	MnDOT
3*	CSAH 75 over Sauk River	Stearns County
4	CSAH 75 over St Augusta Creek	Stearns County
5	I 94 EB Collector RD over MN 15	MnDOT
6	CSAH 3 over Spunk Creek	Stearns County
7	I 94 WB over CSAH 2	MnDOT
8	I 94 EB over TH 15	MnDOT
9	CR 62 over Elk River	Sherburne County
10	CSAH 16 over Elk River	Sherburne County

Note: Those with an \* next to the rank are currently scheduled for replacement. 48



# 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).

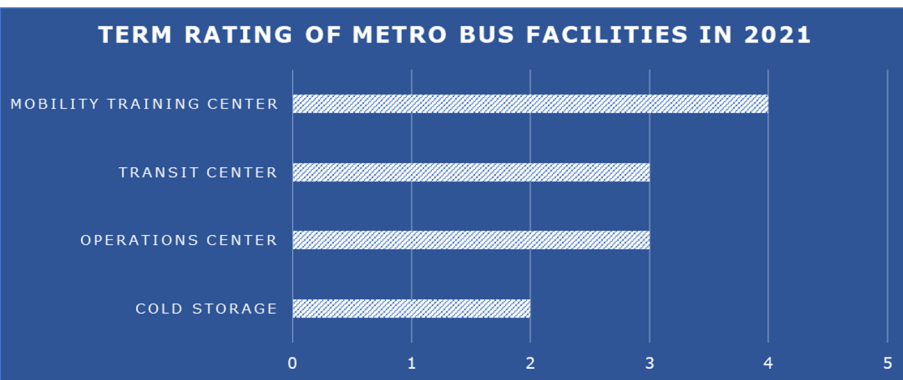


Figure 3.3 TERM Rating of Metro Bus Facilities in 2021 Data Source: National Transit Database and Metro Bus.

### 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.

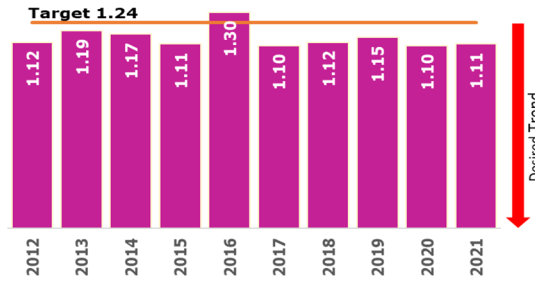
# Goal 4: Support Metropolitan Vitality and Economic Development

## Saint Cloud APO Transportation Results Scorecard

Measure	Multi-Year Trend	Analysis
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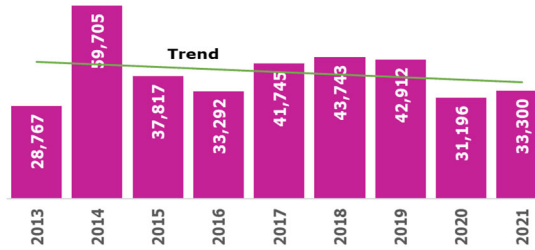
### Truck Travel Time Reliability (TTTR):

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



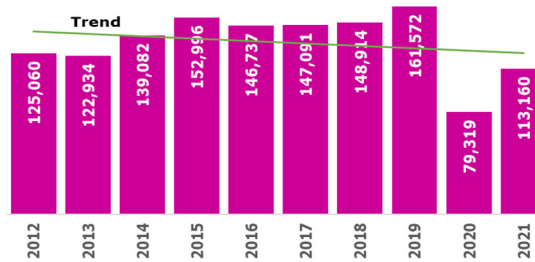
Truck Travel Time Reliability (TTTR) index has increased by 0.01 from 1.10 in 2020 to 1.11 in 2021. Overall TTTR appears to be relatively constant. The APO has set a 2021 target of less than 1.24.

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



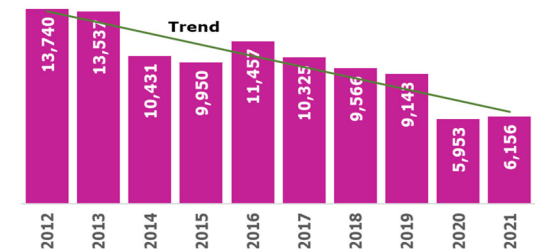
Air passengers at the STC have decreased 22.4% from 42,912 passengers in 2019 to 33,300 passengers in 2021. The number of passengers appears to be recovering and returning to pre-pandemic levels. The APO does not have a set target.

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



Tri-CAP one-way transit trips decreased 30.0% from 161,572 trips in 2019 to 113,160 trips in 2021. These number of transit trips appears to be rebounding from the pandemic decrease. It should be noted that Tri-CAP numbers were growing due to the expansion of their service area in 2019. The APO does not have a set target.

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



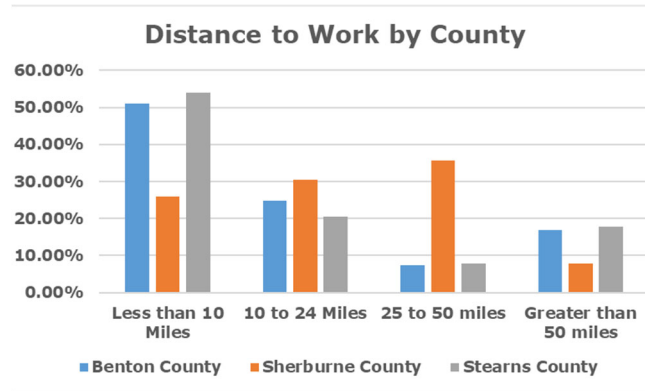
Amtrak numbers decreased by 32.7% from 9,143 in 2019 to 6,156 in 2021. While still down, the number of passengers is showing an increase from 2020. Although prior to the pandemic we were already seeing a downwards trend in ridership.

# Goal 4: Support Metropolitan Vitality and Economic Development

## Saint Cloud APO Transportation Results Scorecard

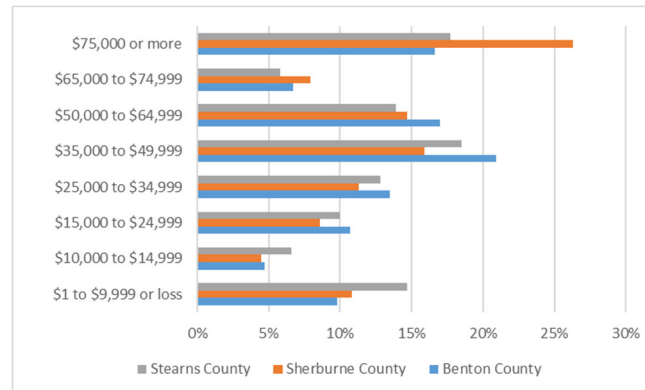
Measure	Multi-Year Trend	Analysis
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**Distance to Work from Home:**  
The distance an individual has to drive to reach their workplace.



Stearns and Benton County have a very similar curve to their distances traveled for work, but Sherburne County has a much more uniform travel distances under 50 miles likely due to it being between the Twin Cities and Saint Cloud.

**Income for workers 16 years and over with earnings:**  
The earning from the past 12 months (in 2021 inflation-adjusted dollars) for workers



Just over 25% of the population of Sherburne County is making \$75,000 or more a year. This is around 10% more of the population than compared to Benton and Stearns County in the same bracket. Sherburne County is also in between two major metropolitan areas which likely plays a role in this. Beyond this disparity, the counties tend to follow similar levels of the percent of their populations earning a certain income level.

# 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).

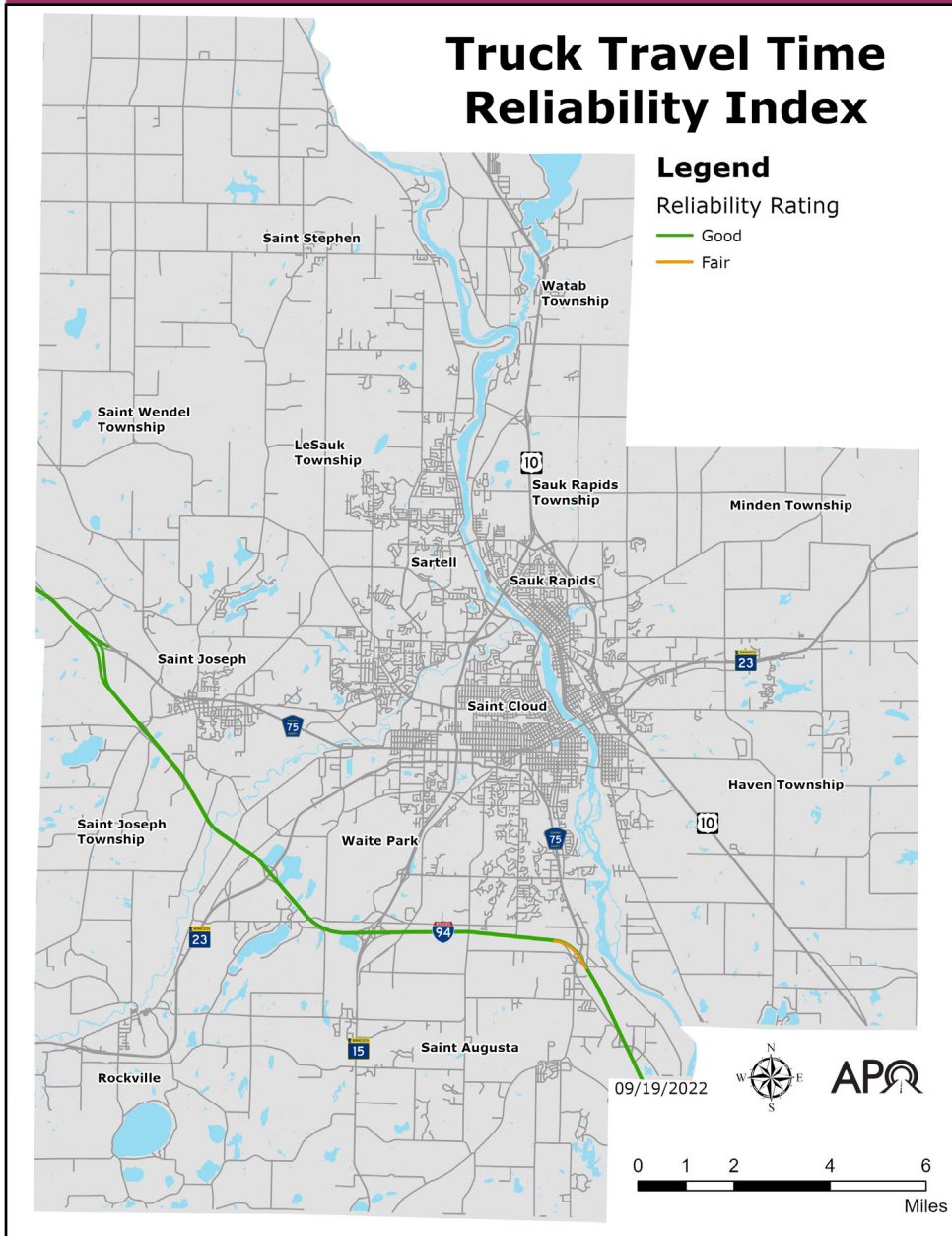


Figure 4.1-Truck Travel Time Reliability

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 (95th percentile) 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 truck time travel reliability rating of 1.5 it would take the average vehicle 1 minute 30 seconds to travel that roadway on a “very bad day” 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 by Saint Augusta 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 66 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 driver 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 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	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.

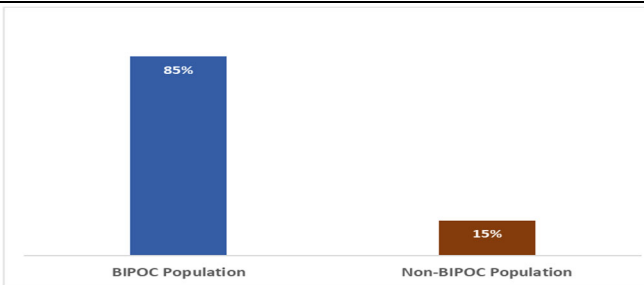


The five year rolling average percent of days with good air quality increased 8.4 percentage points since 2012, from 79.2% to 87.6% in 2021. Air quality will likely plateau although that could occur at a higher percentage of "Good" quality days. The APO desires the air quality of improve.

The five year rolling average percent of days with moderate air quality decreased 8.3 percentage points since 2012, from 20.3% to 12% in 2021. 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

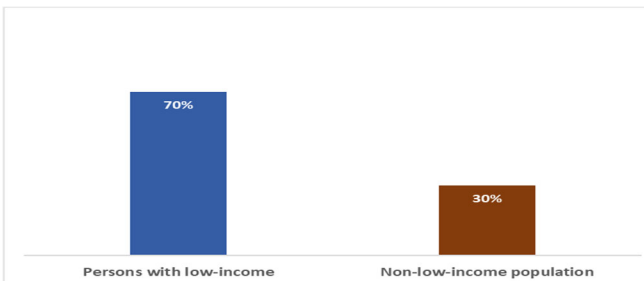
The percentage of transportation investments in high BIPOC population census blocks.



Identified in the 2021-2024 Transportation Improvement Program (TIP), 85% 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 households with low-income.



Identified in the 2021-2024 Transportation Improvement Program (TIP), 70% of programmed projects intersect with census blocks with high concentrations of low-income households.

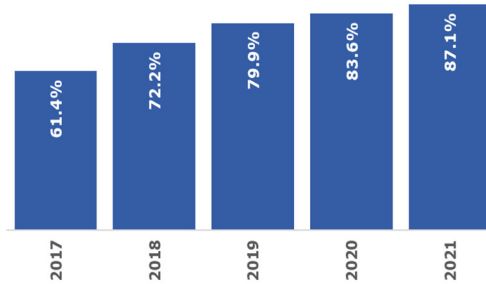


# Goal 5: Promote Energy and Environmental Conservation

## Saint Cloud APO Transportation Results Scorecard

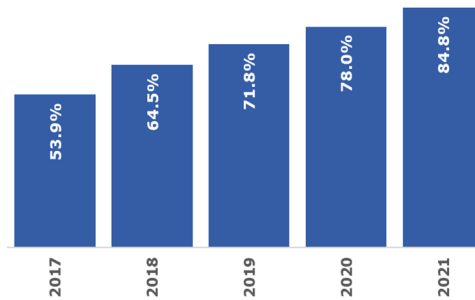
Measure	Multi-Year Trend	Analysis
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**Percent of Total Fuel Usage by Revenue Vehicles Using Compressed Natural Gas (CNG):** Percent of fuel consumed using CNG by Metro Bus revenue vehicles versus all other fuel types.



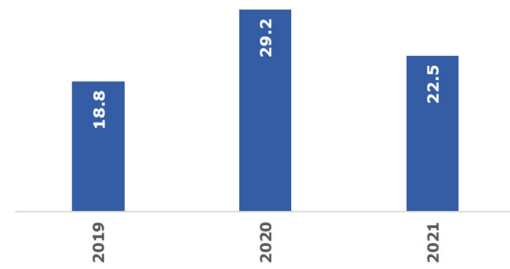
The percent of total fuel consumption using CNG has increased 25.7 percentage points since 2017. However, the total gallons of any type of fuel consumed fell from 412,000 in 2020 to 348,000 in 2021.

**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 2021 has increased 30.9 percentage points since 2017.

**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 public charging station outlets decreased 23% from 29.2 in 2020 to 22.5 in 2021. The number of EVs in the region has increased as well. This means that similar to gas stations adding pumps, more people will be able to charge their vehicle at the same time.

## Goal 5: Promote Energy and Environmental Conservation

### Air Quality

Annual count of days in each Air Quality Index (AQI) category; good versus moderate or below 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.

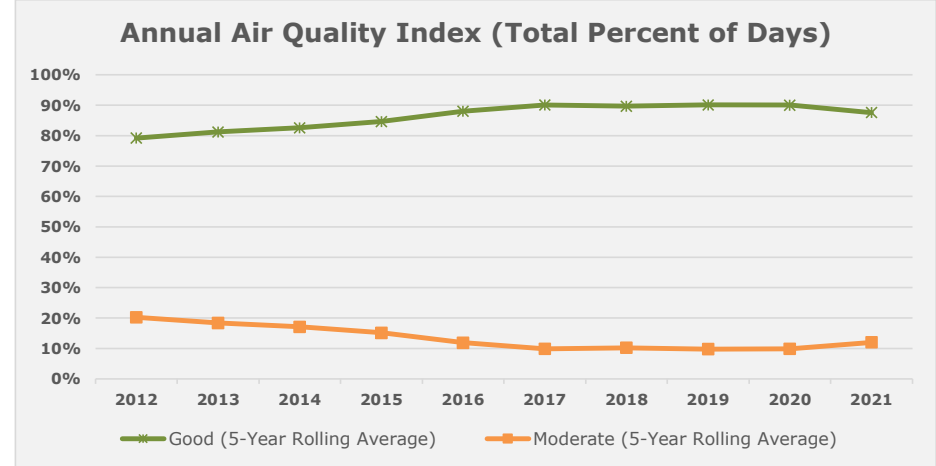


Figure 5.1-Annual Air Quality Index

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 decrease 2.5 percentage points to 87.6% compared to 90.1% in 2017 as shown in Figure 5.1. Moderate AQI days five year average have been fairly steady — up to 12.0% as of 2021 compared to 9.9% in 2017. There have been 28 days with an AQI that was unhealthy for sensitive groups and six days that were unhealthy in general since 2001. Changes in technology such as fuel efficient vehicles and manufacturing innovations have helped keep air quality in good condition.

<b>24%</b>	<b>20%</b>
Air pollution caused by on-road vehicles.	Air pollution caused by off-road vehicles (construction and agricultural).

The data in the table above is from 2020. Data Source: MPCA.

## Goal 5: Promote Energy and Environmental Conservation

### Water Quality

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

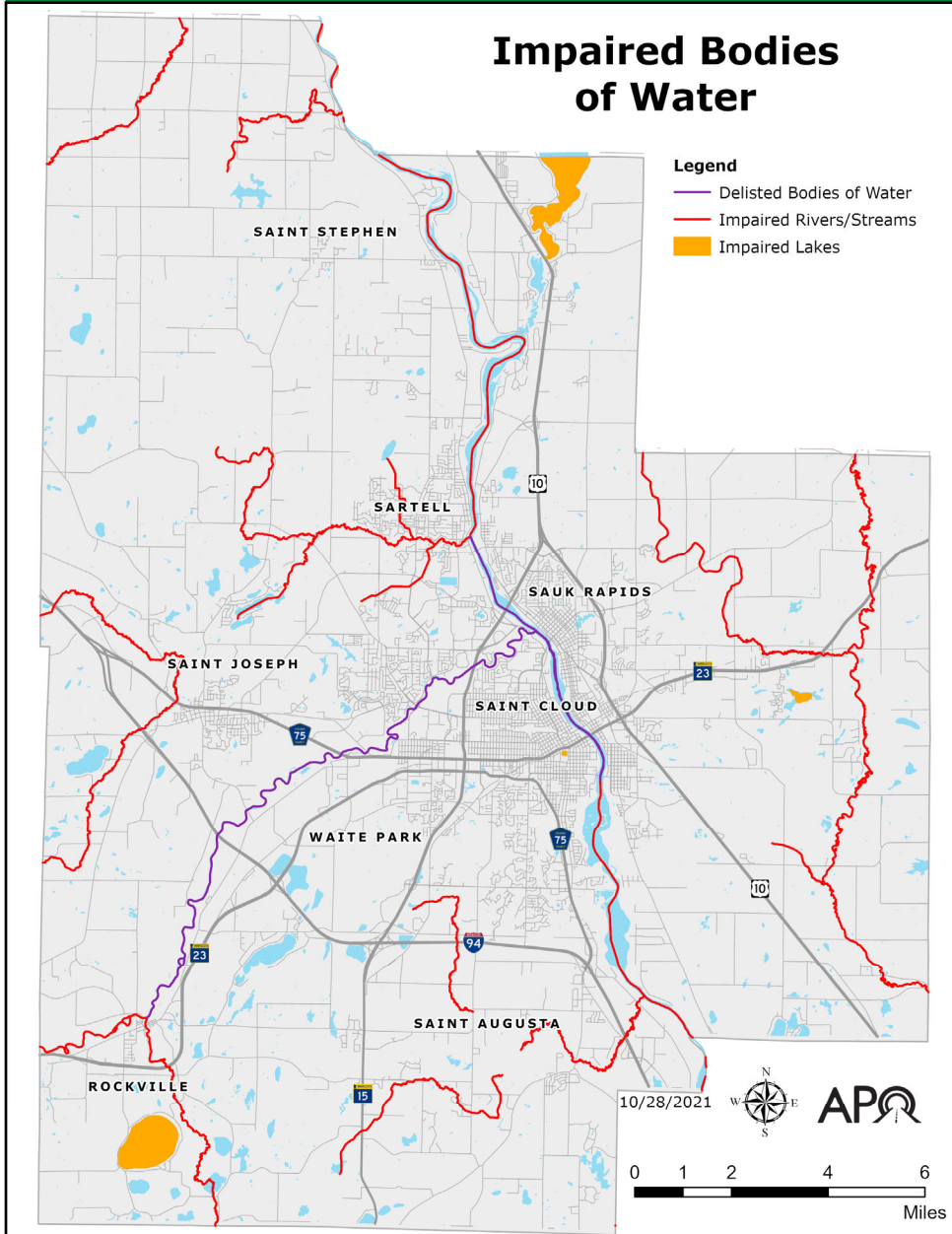


Figure 5.2-Water Quality in 2020

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).

This data is updated every other year. The most recent data available was current as of 2020.



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.

In 2021 there were 225 registered electric vehicles (EVs) in the Saint Cloud metro area compared to 175 in 2020. Of the 225 EVs, 121 are in Saint Cloud, 50 in Sartell, 26 in Sauk Rapids, three in Saint Joseph, 18 in Saint Augusta, and seven are in Waite Park. Our region has a fraction of the 23,000 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	2021
Saint Cloud	64	96	121
Sartell	28	36	50
Sauk Rapids	15	23	26
Saint Joseph	5	5	3
Saint Augusta	N/A	10	18
Waite Park	1	5	7
<b>Total</b>	<b>113</b>	<b>175</b>	<b>225</b>

Figure 5.3 - EV Registration data comes from the Minnesota Public Utilities Commission, 2021.

Note: Data is not collected at regular intervals.

### 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 five EV charging stations in the Saint Cloud metro area: eight level 2 ports and two DCFC ports. These charging locations include two level 2 ports at Saint Cloud Honda, one level 2 port at Saint Cloud Toyota, one level 2 port at Miller Nissan, two level 2 ports at Riverside Park, and two level 2 and two DCFC ports are located at 504 First St. N.

Additional EV charging stations are popping up all across the metro.

**65%**

Percent reduction in greenhouse gas emissions EVs provide over gas powered vehicles

**95%**

Percent of charging of EVs which occur at home.

**1.9%**

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