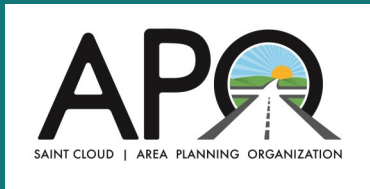


# Saint Cloud Area Planning Organization Transportation Performance Monitoring Report



2022



## Disclaimer and Title VI Assurance

### Disclaimer

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

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### 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



## Title VI Assurance and Title II Assurance

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.

Cabashada ayaa sidoo kale waxaa loo soo gudbin karaa Waaxda Gaadiidka ee Minnesota Xafiiska Xuquuqda Madaniga ah iyadoo la soo dirayo foom cabashada ee khadka internetka (<https://www.dot.state.mn.us/civilrights/nondiscrimination-complaint-form.html>) ama iyada oo la soo wacayo 651 -366-3071.

### Aviso Público De Derechos Bajo El Título VI

La Organización de Planificación del Área de Saint Cloud (APO en inglés) da un aviso público con la presente de que es política de la APO el cumplir plenamente con el Título VI de la Ley de Derechos Civiles de 1964 y de la Ley de Restauración de Derechos Civiles de 1987, de la Orden Ejecutiva 12898 sobre la Justicia Ambiental, y los estatutos y reglamentos relacionados en todos los programas y actividades. El Título VI asegura que ninguna persona, por motivos de raza, color o nacionalidad, podrá quedar excluida de la participación en, se le podrán negar los beneficios de, o de algún modo podrá ser objeto de discriminación en virtud de cualquier programa o actividad por la cual la APO recibe asistencia financiera Federal. Cualquier persona que cree que ha sido perjudicada por una práctica discriminatoria ilegal por la APO 2 SAINT CLOUD AREA PLANNING ORGANIZATION TRANSPORTATION PERFORMANCE MONITORING REPORT 2019 tiene el derecho de presentar un reclamo formal con la APO MnDOT o U.S. DOT. Cualquiera de estos reclamos debe ser por escrito y debe ser presentado ante el Gerente de Cumplimiento del Título VI de la APO dentro de los ciento ochenta (180) días naturales siguientes a la fecha en que la presunta ocurrencia discriminatoria. Para obtener más información, o para obtener un Formulario de Reclamo por Discriminación del Título VI, por favor, dirígete al Sitio web de la APO de Saint Cloud ([www.stcloudapo.org](http://www.stcloudapo.org)) o puedes ver una copia en nuestra oficina en 1040 County Road 4, Saint Cloud, MN 56303.

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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The Saint Cloud Area Planning Organization (APO) hereby gives public notice that it is the policy of the APO to fully comply with the Americans with Disabilities Act of 1990 (ADA) and the Rehabilitation Act of 1973 (Rehabilitation Act) and related statutes and regulations in all programs and activities. Title II of the Americans with Disabilities Act (ADA) requires all state and local government agencies to take appropriate steps to ensure that communications with applicants, participants, and members of the public with disabilities are as effective as communications with others. Any person who believes they have been aggrieved by an unlawful discriminatory practice by the APO has a right to file a formal complaint with the APO, MnDOT, or the U.S. DOT. Any such complaint should be in writing and contain information about the alleged discrimination such as name, address, phone number of complainant, and location, date, and description of the problem. Alternative means of filing complaints, such as personal interviews or a tape recording of the complaint, will be made available as a reasonable modification for persons with disabilities upon request. Complaints should be submitted by the complainant and/or his/her/their designee as soon as possible but no later than sixty (60) calendar days after the alleged discriminatory occurrence and should be filed with

## Title II Assurance

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### **Ogaysiis Guud Ee Xuquuqda Xuquuqda II**

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 codsadyaasha, 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 dhibaata. 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.

### **Aviso Público De Derechos Bajo El Título II**

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



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## Common Acronyms

**ADT:** Average Daily Traffic.

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

**AQI:** Air Quality Index.

**ATAC:** Active Transportation Advisory Committee.

**CNG:** Compressed Natural Gas.

**DOT:** Department of Transportation.

**CR:** County Road.

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

**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.

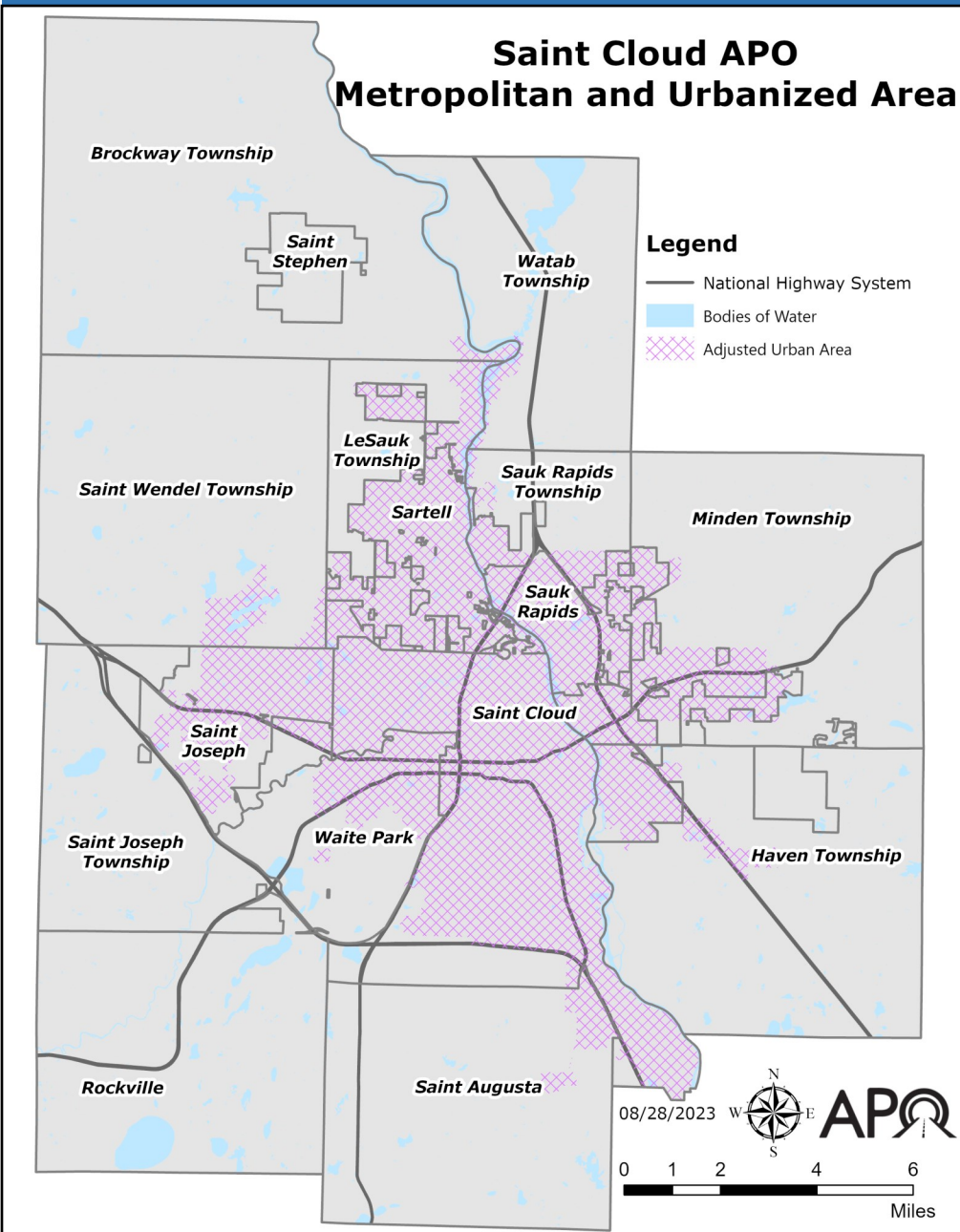
**TPMR:** Transportation Performance Management Report.

**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.

**1966**

Year the APO was incorporated.

**139,467**

Estimated population in the Saint Cloud APO planning area in 2022.



# 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). (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.

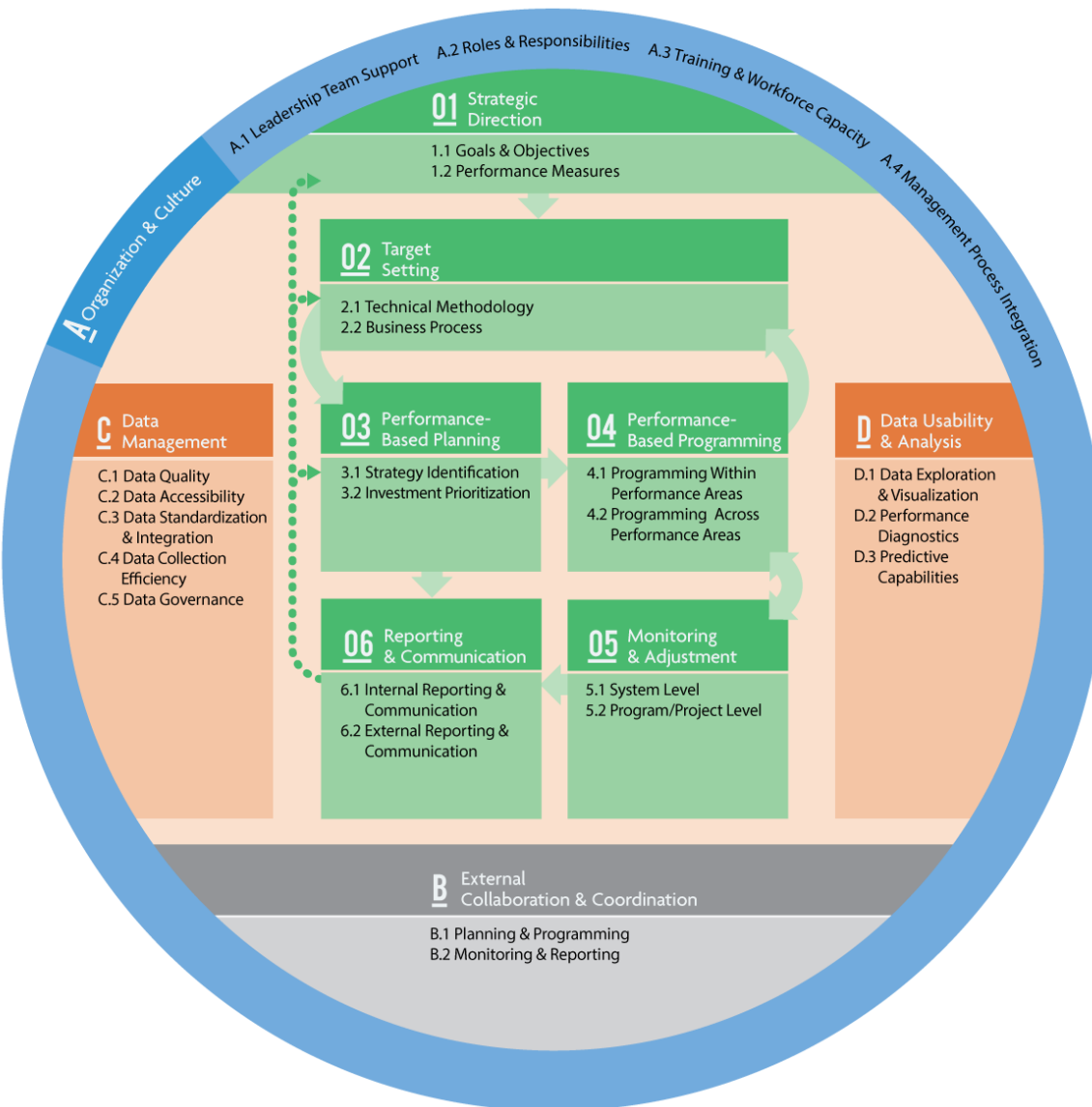
Based on the [Transportation Performance Management \(TPM\)](https://bit.ly/3MIOV2P) (https://bit.ly/3MIOV2P) assessment tool, the APO is currently working towards a maturity level four, functioning phase. Transportation performance management practices have been institutionalized. Staff at multiple levels of the organization understand their roles with respect to achievement of performance targets and are held accountable. Performance reporting processes are well-established and available systems are functioning as intended. Information provided is used to inform actions and pursue course corrections. There is alignment across planning partners on performance measures, benchmarks, and targets. Performance data may still have gaps and quality issues, but processes are in place to improve these over time. Basic predictive capabilities are in place for future performance projections and are starting to be applied. Resource allocation processes are data-driven within performance areas. The agency is able to analyze tradeoffs across selected performance areas, though resource allocation may not be based on these tradeoffs. Data are being gathered to evaluate the costs and effectiveness of actions taken. Communication of performance results is being pursued in a deliberate and strategic manner, with different levels and formats of information designed to meet the needs of different internal and external audiences.



*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

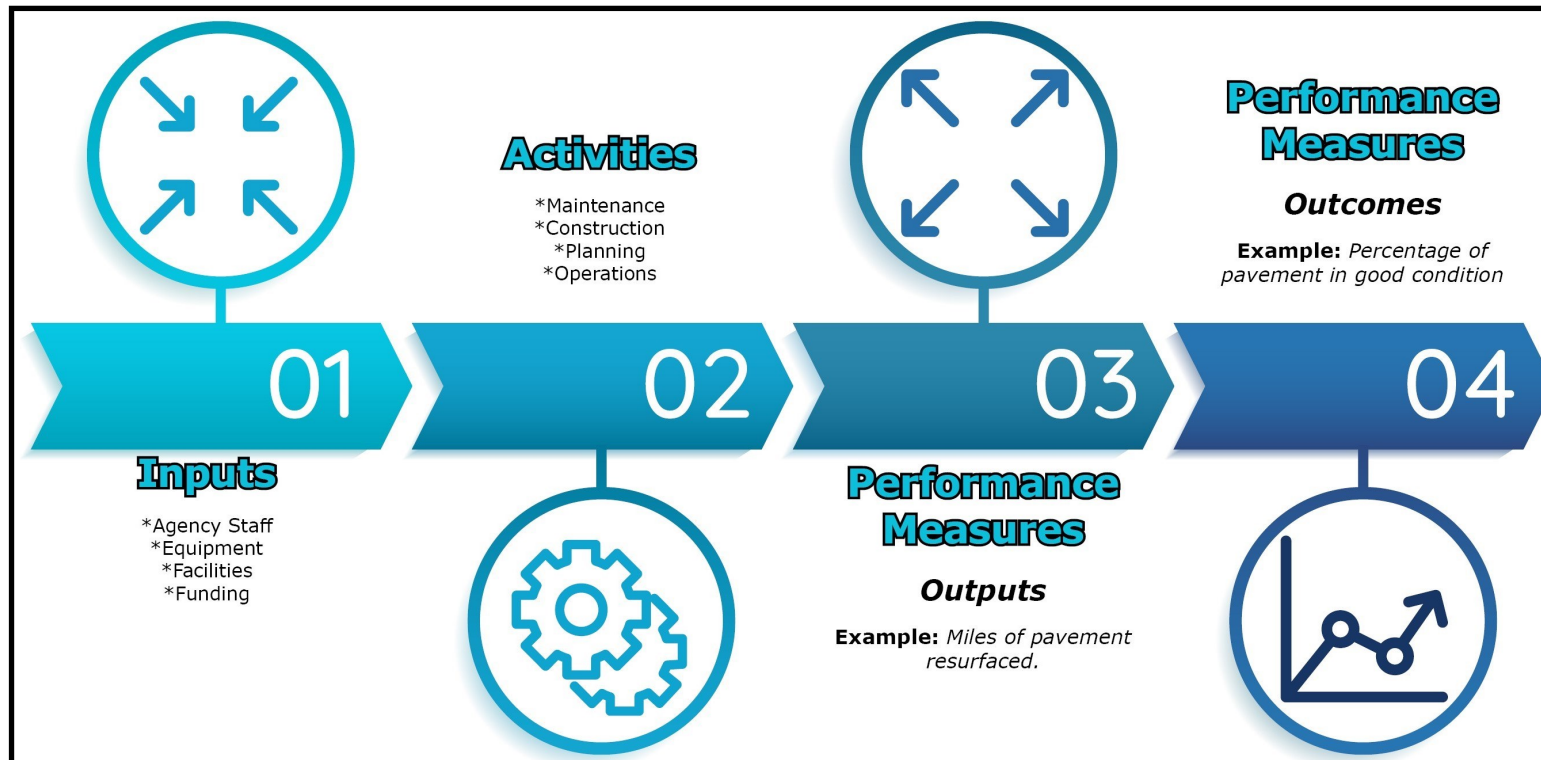
### Why does the APO use Performance Measures?

- ◆ 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.



# Introduction

## Performance Measures

### 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.



Above: Photo of the APO's Technical Advisory Committee (TAC) meeting. Below: Photo of CSAH 133 in Saint Joseph. Photos courtesy of Saint Cloud APO.





# 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.

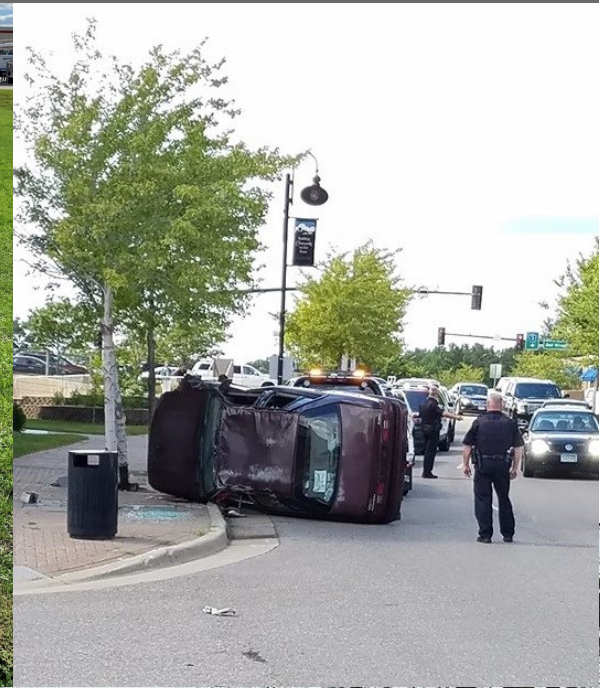
It is anticipated that additional performance measures will be added as a result of the IIJA.

<b>Roadway Safety</b>	<b>Roadway Accessibility, Mobility, and Connectivity</b>	<b>Roadway Management and Preservation</b>	<b>Roadway Metropolitan Vitality and Economic Development</b>
<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

Like 2021, 2022 seems to be showing a continuing return to normalcy.

Vehicle Miles Traveled (VMT) within the Saint Cloud MPA—while not quite at 2018/2019 levels— was slowly making its way to pre-COVID levels in 2022. The region reported 1.31 billion VMT in 2022, up 12.2% from 2020 VMT levels. However, 2022 saw a very slight decrease in VMT levels compared to 2021.

As a result of the post-COVID VMT increases, the number of crashes is subsequently increasing as well. However, the rate of fatal crashes per 100 million VMT and the number of non-motorized fatal and suspected serious injury crashes are decreasing.

Typically, 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.

Due to the changing of MN statute 169.09 subdivision 7, property damage only crashes are no longer explicitly required to be reported by law enforcement to the Minnesota Department of Public Safety. Due to this, fewer lower severity crashes were reported in 2022 and will be moving forward.

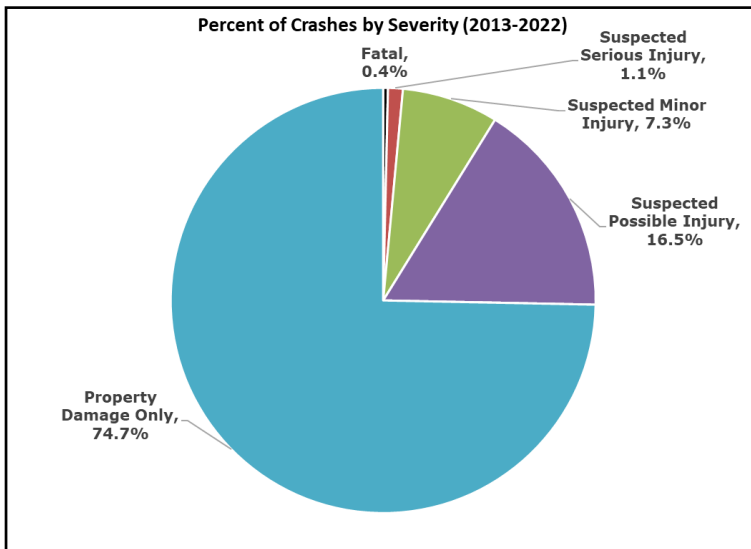


Figure 1.1-Percent of Crashes by Severity (2013-2022)  
Data Source: MnDOT.

The 2022 five year rolling average (2018-2022) for fatal crashes is up about 0.2 crashes compared to 2021. The five year rolling average for suspected serious injury (SSI) crashes also experienced an increase — up 1.8 crashes compared to 2021.

Taking a closer look at both fatal and SSI crashes within the Saint Cloud MPA, around a quarter of fatal crashes and around one in five 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 (1.5%) these vulnerable road users account for a significant share of both fatal and serious injuries.

Overall, some of the most severe crashes occurring within the MPA continue to happen at intersections, particularly along the NHS (I-94, MN 15, MN 23, US 10, and CSAH 75).

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

Although 2020 was such a different year and some effects may not yet be realized, 2021 and 2022 have shown a resurgence toward more normal, albeit lowered, travel behavior.

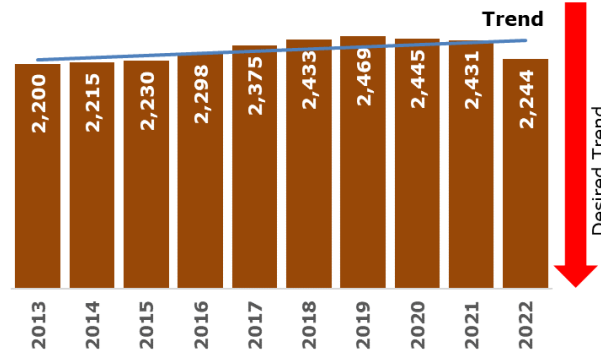
# Goal 1: Maintain and Enhance Transportation Safety

## Saint Cloud APO Transportation Results Scorecard

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

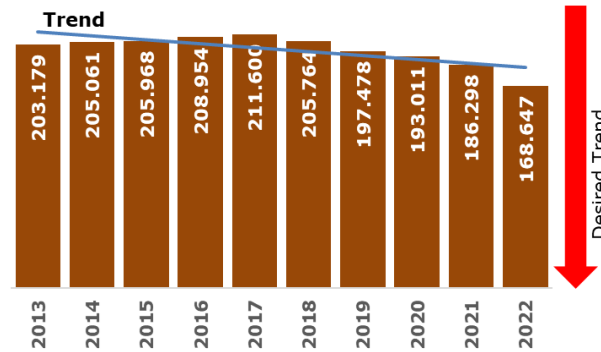
**Rolling Average:** Number of reported crashes for five consecutive years (i.e., 2018-2022), dividing by five, and rounding to the nearest whole number.



The five year rolling average for the number of crashes in 2022 was 2,244. This is a 7.7% decrease from the 2021 five year rolling average of 2,431. Due to reporting requirement changes (Statute 169.09), many low severity crashes aren't being reported to the state. This means that the actual number of crashes is higher than the number reported. The APO desires the total number of crashes to decrease.

### Rate of Crashes Five Year Rolling

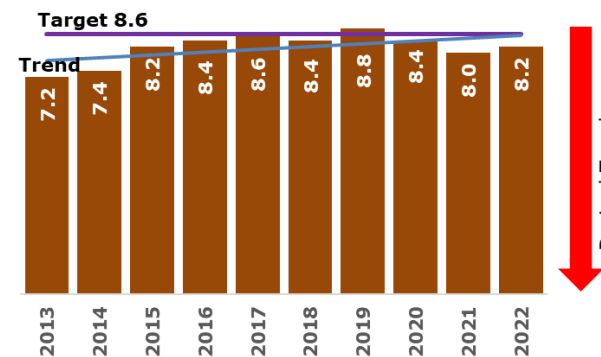
**Average:** Number of reported crashes per 100 million vehicle miles traveled (VMT) for five consecutive years (i.e., 2018-2022), dividing by five, and rounding to the thousandth decimal place.



The five year rolling average for total crash rate in 2022 was at 168.647. This is an 9.5% decrease from the 2021 rate of 186.298. This follows the recent trend of decreasing rates over time. It should be noted the decrease experienced in 2022 is likely a result of the lack of reporting for lower severity crashes. 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., 2018-2022), dividing by five, and rounding to the tenth decimal place.



The five year rolling average for fatalities in 2022 was 8.2. This is an increase of 0.2 fatalities per year from 2021. The APO had set a 2022 target of less than 8.6 fatalities.

See page 25 for more information on fatal crashes.

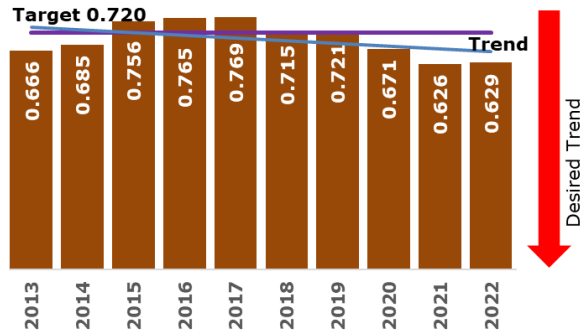


# Goal 1: Maintain and Enhance Transportation Safety

## Saint Cloud APO Transportation Results Scorecard

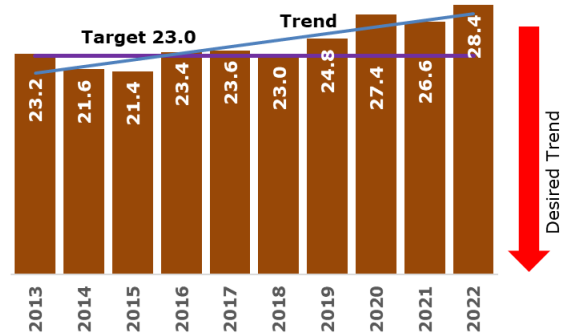
Measure	Multi-Year Trend	Analysis
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**Rate of Fatalities Five Year Rolling Average:** Calculation of the number of fatalities per 100 million VMT (100M VMT) for each of the most recent five consecutive years (i.e., 2018-2022), adding the results, dividing by five, and rounding to the thousandth decimal place.



The 2022 five year rolling average for fatality rate was 0.629. This is an increase of 0.003 from 0.626 seen in 2021. While still short of pre-pandemic traffic levels, this decreased rate is occurring with an increase in travel from 2020. It is also the second lowest fatality rate in the last 10 years. The APO set a 2022 fatality rate target of less than 0.720.

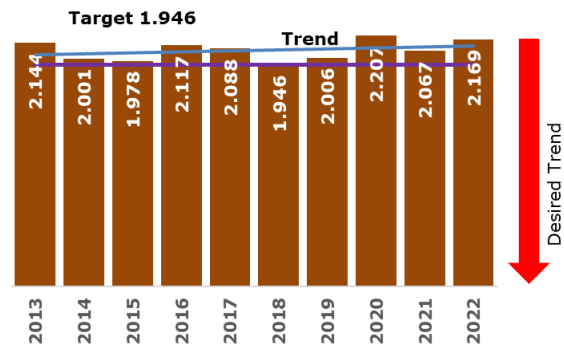
**Number of Suspected Serious Injuries Five Year Rolling Average:** Addition of the number of suspected serious injuries for each of the most recent five consecutive years (i.e., 2018-2022), dividing by five, and rounding to the tenth decimal place.



The five year rolling average for suspected serious injuries in 2022 was 28.4. This is the highest number in the past decade. As of recent years, this number has been trending upward. The APO had set a 2022 target of less than 23.0 serious injuries.

See page 27 for more information on SSI crashes.

**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., 2018-2022), 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 2022 was 2.169. This is an increase of 0.102 from 2.067 in 2021. This number has remained somewhat constant. The APO had set a serious injury rate 2022 target less than 1.946.

# Goal 1: Maintain and Enhance Transportation Safety

## Saint Cloud APO Transportation Results Scorecard

Measure	Multi-Year Trend	Analysis																						
<p><b>Number of Non-Motorized Fatalities and Suspected Serious Injuries Five Year Rolling Average:</b> Addition of the number of non-motorized fatalities and suspected serious injuries for each of the most recent five consecutive years (i.e., 2018-2022), dividing by five, and rounding to the tenth decimal place.</p>	<table border="1"> <caption>Number of Non-Motorized Fatalities and Suspected Serious Injuries</caption> <thead> <tr> <th>Year</th> <th>Value</th> </tr> </thead> <tbody> <tr><td>2013</td><td>5.8</td></tr> <tr><td>2014</td><td>5.2</td></tr> <tr><td>2015</td><td>7.0</td></tr> <tr><td>2016</td><td>7.8</td></tr> <tr><td>2017</td><td>7.8</td></tr> <tr><td>2018</td><td>8.0</td></tr> <tr><td>2019</td><td>8.2</td></tr> <tr><td>2020</td><td>7.8</td></tr> <tr><td>2021</td><td>6.6</td></tr> <tr><td>2022</td><td>6.2</td></tr> </tbody> </table>	Year	Value	2013	5.8	2014	5.2	2015	7.0	2016	7.8	2017	7.8	2018	8.0	2019	8.2	2020	7.8	2021	6.6	2022	6.2	<p>The five year rolling average for non-motorized fatalities and suspected serious injuries in 2022 was 6.2. This is a decrease of 0.4 from the 6.6 recorded in 2021. The APO had set a 2022 target of less than 7.8 non-motorized fatalities and suspected serious injuries.</p> <p>Of note, 2021 and 2022 were the first years since 2014 with no reported non-motorized fatalities.</p> <p>More information on active transportation crashes can be found starting on page 30.</p>
Year	Value																							
2013	5.8																							
2014	5.2																							
2015	7.0																							
2016	7.8																							
2017	7.8																							
2018	8.0																							
2019	8.2																							
2020	7.8																							
2021	6.6																							
2022	6.2																							
<p><b>Number of Chemical Impairment Crashes Five Year Rolling Average:</b> 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., 2018-2022), dividing by five, and rounding to the tenth decimal place.</p>	<table border="1"> <caption>Number of Chemical Impairment Crashes</caption> <thead> <tr> <th>Year</th> <th>Value</th> </tr> </thead> <tbody> <tr><td>2013</td><td>100.2</td></tr> <tr><td>2014</td><td>97.4</td></tr> <tr><td>2015</td><td>97.4</td></tr> <tr><td>2016</td><td>93.4</td></tr> <tr><td>2017</td><td>90.6</td></tr> <tr><td>2018</td><td>84.8</td></tr> <tr><td>2019</td><td>82.0</td></tr> <tr><td>2020</td><td>81.6</td></tr> <tr><td>2021</td><td>80.2</td></tr> <tr><td>2022</td><td>83.2</td></tr> </tbody> </table>	Year	Value	2013	100.2	2014	97.4	2015	97.4	2016	93.4	2017	90.6	2018	84.8	2019	82.0	2020	81.6	2021	80.2	2022	83.2	<p>The five year average for the number of chemical impairment crashes in 2022 was 83.2. This is an increase of 3.2 from the previous year. The number of chemical impairment crashes had been in decline, although, in recent years the rate of decline has slowed. The APO desires the number of chemical impairment crashes to decrease.</p> <p>More information on chemical impairment crashes can be found starting on page 30.</p>
Year	Value																							
2013	100.2																							
2014	97.4																							
2015	97.4																							
2016	93.4																							
2017	90.6																							
2018	84.8																							
2019	82.0																							
2020	81.6																							
2021	80.2																							
2022	83.2																							
<p><b>Percent of Chemical Impairment Crashes Five Year Rolling Average:</b> 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., 2018-2022), dividing by five, and rounding to the tenth decimal place, expressed as a percent.</p>	<table border="1"> <caption>Percent of Chemical Impairment Crashes</caption> <thead> <tr> <th>Year</th> <th>Value</th> </tr> </thead> <tbody> <tr><td>2013</td><td>4.6%</td></tr> <tr><td>2014</td><td>4.4%</td></tr> <tr><td>2015</td><td>4.4%</td></tr> <tr><td>2016</td><td>4.1%</td></tr> <tr><td>2017</td><td>3.8%</td></tr> <tr><td>2018</td><td>3.5%</td></tr> <tr><td>2019</td><td>3.3%</td></tr> <tr><td>2020</td><td>3.4%</td></tr> <tr><td>2021</td><td>3.3%</td></tr> <tr><td>2022</td><td>3.9%</td></tr> </tbody> </table>	Year	Value	2013	4.6%	2014	4.4%	2015	4.4%	2016	4.1%	2017	3.8%	2018	3.5%	2019	3.3%	2020	3.4%	2021	3.3%	2022	3.9%	<p>The percent of chemical impairment crashes for the five year period ending in 2022 was 3.9%. This is a 0.6 percentage point increase 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.</p> <p>This increase can in part be attributed to the decrease in lower severity crash reporting. It would likely still be around 3.5% of all crashes. The APO desires the percent of chemical impairment crashes to decrease.</p>
Year	Value																							
2013	4.6%																							
2014	4.4%																							
2015	4.4%																							
2016	4.1%																							
2017	3.8%																							
2018	3.5%																							
2019	3.3%																							
2020	3.4%																							
2021	3.3%																							
2022	3.9%																							

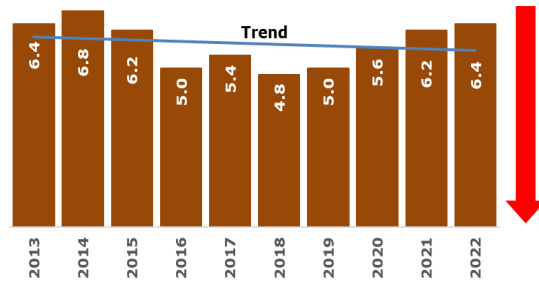
# Goal 1: Maintain and Enhance Transportation Safety

## 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

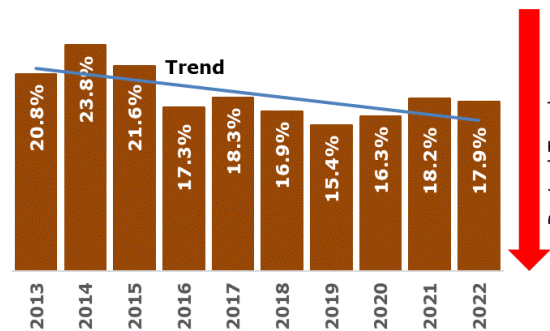
**Rolling Average:** Addition of the number of fatal and suspected serious injury crashes wherein the driver had been drinking or taking drugs for each of the most recent five consecutive years (i.e., 2018-2022), dividing by five, and rounding to the tenth decimal place.



The five year average for number of fatal and suspected serious injury chemical impairment crashes in 2022 was 6.4. This is a increase of 0.2 from the 6.2 chemical impairment crashes reported in 2021. Chemical impairment crashes involving fatalities or SSIs have been increasing in the past five 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

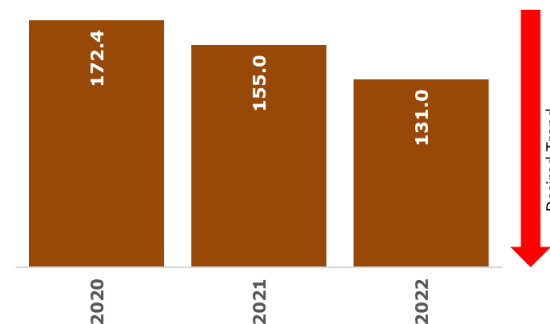
**Rolling Average:** Addition of the number of fatal and suspected serious injury chemical impairment crashes divided by the total number of fatal and suspected serious injury crashes for each of the most recent five consecutive years (i.e., 2018-2022), dividing by five, and rounding to the tenth decimal place, expressed as a percent.



The percent of fatal and suspected serious injury chemical impairment crashes for the five year period ending in 2022 was 17.9%. The percent of total fatal and suspected serious injury crashes due to chemical impairment is down from the past, but has remained somewhat constant in the last seven years. People chemically impaired have the chance to act more recklessly, thus chemical impairment crashes 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

**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., 2018-2022), dividing by five, and rounding to the tenth decimal place.



The five year average for the number of distracted driving crashes in 2022 was 131.0. However the actual number in 2022 was 75, much lower than the averages seen prior. This number is likely low in part due to the decrease in lower severity crash reporting and because in 2015-2016 the way distracted driving is reported changed. The APO desires the number of distracted driving crashes to decrease.

See page 32 for more information on distracted driving crashes.

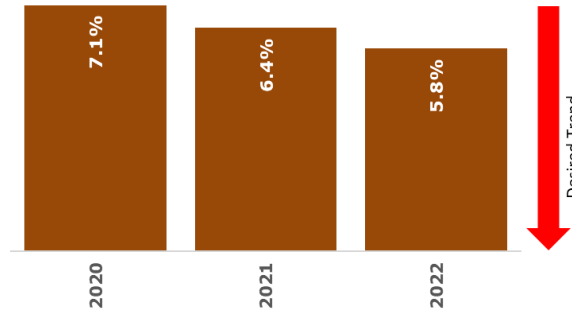


# Goal 1: Maintain and Enhance Transportation Safety

## Saint Cloud APO Transportation Results Scorecard

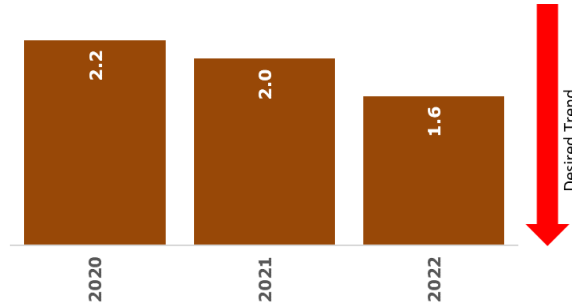
Measure	Multi-Year Trend	Analysis
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**Percent of Distracted Driving Crashes Five Year Rolling Average:**  
 Addition of the number of crashes of all types involving distracted driving divided by the total number of crashes for each of the most recent five consecutive years (i.e., 2018-2022), and rounding to the tenth decimal place, expressed as a percent.



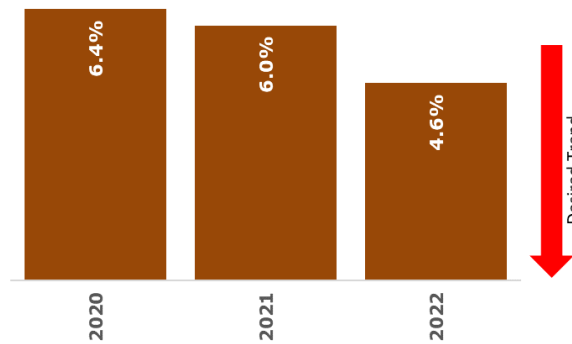
The percent of distracted driving crashes for the five year period ending in 2022 was 5.8%, a decrease of 0.6 percentage points from the prior year. However, according to MnDOT’s Traffic Engineering Department, it is likely that distracted driving makes up a larger proportion of all crashes than reported as the number of crashes involving distracted driving is likely underreported. The APO desires the percent of distracted driving crashes to decrease.

**Number of Fatal and Suspected Serious Injury Distracted Driving Crashes Five Year Rolling Average:**  
 Addition of the number of fatal and suspected serious injury crashes of all types involving distracted driving for each of the most recent five consecutive years (i.e., 2018-2022), and rounding to the tenth decimal place.



The number of fatal and suspected serious injury distracted driving crashes for the five year period ending in 2022 was 1.6. This is a decrease of 0.4 crashes from the previous year. The APO desires the number of fatal and suspected serious injury distracted driving crashes to decrease.

**Percent of Fatal and Suspected Serious Injury Distracted Driving Crashes Five Year Rolling Average:**  
 Addition of the number of fatal and suspected serious injury distracted driving crashes divided by the total number of fatal and suspected serious injury crashes for each of the most recent five consecutive years (i.e., 2018-2022), and rounding to the tenth decimal place, expressed as a percent.



The percent of fatal and suspected serious injury distracted driving crashes for the five year period ending in 2022 was 4.6%. This is a decrease of 1.4 percentage points from the previous year. The APO desires the percent of fatal and suspected serious injury distracted driving crashes to decrease.

# Goal 1: Maintain and Enhance Transportation Safety

## Saint Cloud APO Transportation Results Scorecard

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

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

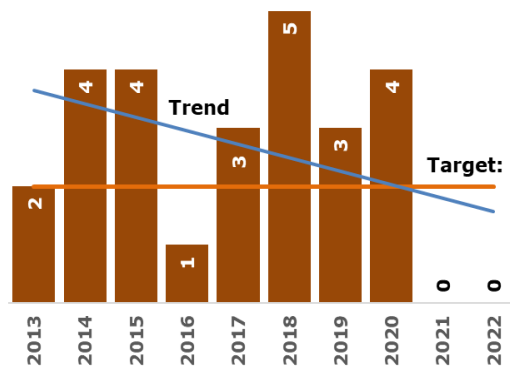
Target: 0



Desired Trend

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

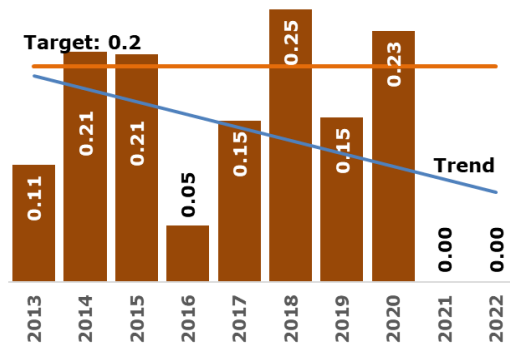
**Number of FR Injuries:** Total number of reportable FR injuries.



Desired Trend

No reportable FR injuries occurred in 2021 and 2022. 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.



Desired Trend

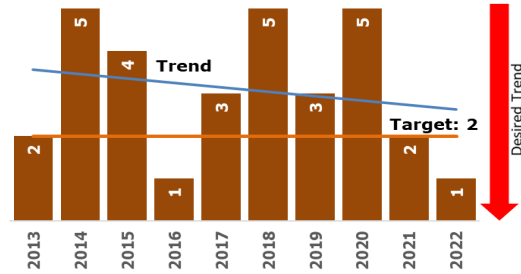
The rate of reportable FR injuries per 65,000 vehicle revenue miles was 0.00 in 2021 and 2022. The APO desires the rate of FR injuries to decrease.

# Goal 1: Maintain and Enhance Transportation Safety

## Saint Cloud APO Transportation Results Scorecard

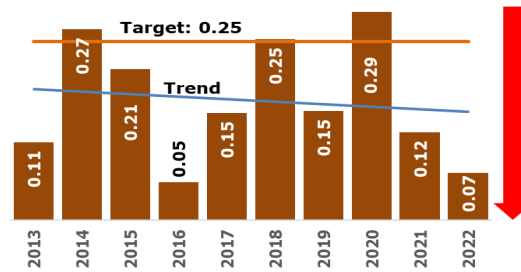
Transit Measure	Multi-Year Trend	Analysis
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**Number of FR Safety Events:** Total number of reportable FR safety events.



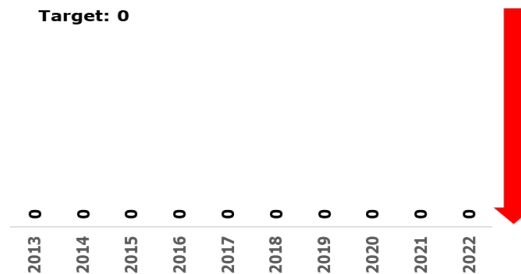
One safety event was reported in 2022. This is one less safety events than what was reported in 2021 and ties 2016 in the lowest number of FR safety events reported. The APO desires the number of FR safety events to decrease.

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



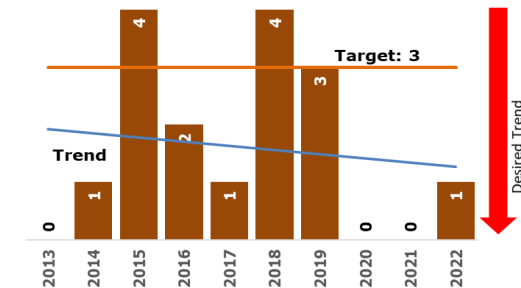
The 2022 FR reportable safety event rate per 65,000 vehicle revenue miles was 0.07. This is a 0.05 year over year decrease and the lowest rate since 2017. The APO desires the rate of FR safety events to decrease.

**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 one reportable DAR injury in 2022. The APO desires the number of DAR injuries to decrease.

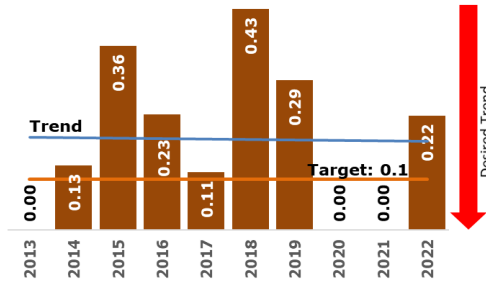


# Goal 1: Maintain and Enhance Transportation Safety

## Saint Cloud APO Transportation Results Scorecard

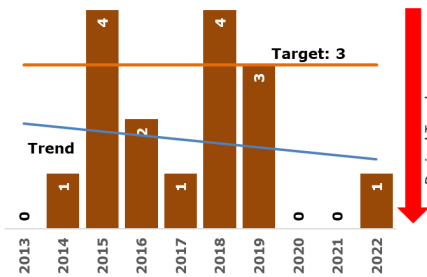
Transit Measure	Multi-Year Trend	Analysis
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**Rate of Injury (DAR):** Number of injuries divided by total vehicle revenue miles expressed per 65,000 vehicle revenue miles.



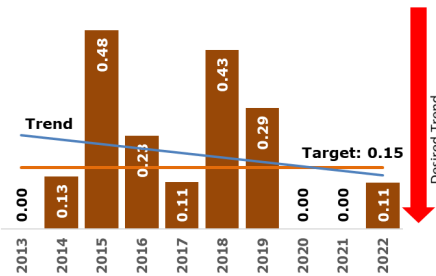
The rate of reportable DAR injuries per 65,000 vehicle revenue miles in 2022 was 0.22, the first reportable rate of injury for DAR since 2019. The APO desires the rate of DAR injuries to decrease.

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



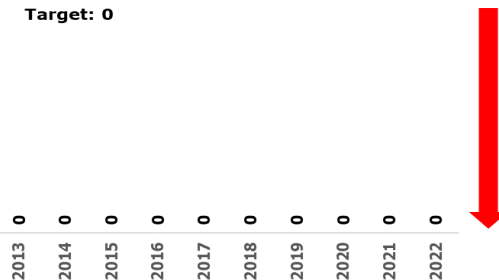
One DAR safety event was reported in 2022. The APO desires the number of DAR safety events to decrease.

**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 in 2022 was 0.11, the first reportable safety event rate for DAR since 2019. The APO desires the rate of DAR safety events to decrease.

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



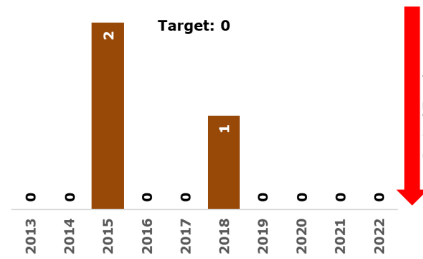
No fatalities have been reported in the past 10 years. The APO desires the number of NCB fatalities to stay at zero.

# Goal 1: Maintain and Enhance Transportation Safety

## Saint Cloud APO Transportation Results Scorecard

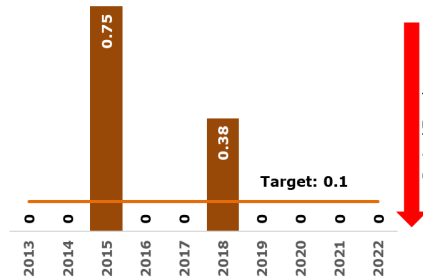
Transit Measure	Multi-Year Trend	Analysis
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**Number of NCB Injuries:** Total number of reportable NCB injuries.



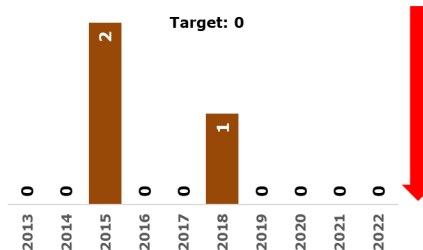
No NCB injuries were reported in 2022. The APO desires the number of NCB injuries to stay at zero.

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



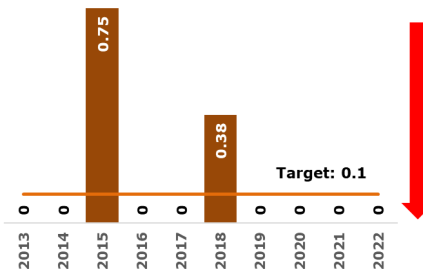
The rate of reportable NCB injuries per 65,000 vehicle revenue miles remained at zero in 2022. The APO desires the rate of NCB injury rate to remain at zero.

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



There were no reportable safety events in 2022. 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 remained at zero in 2022. 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.

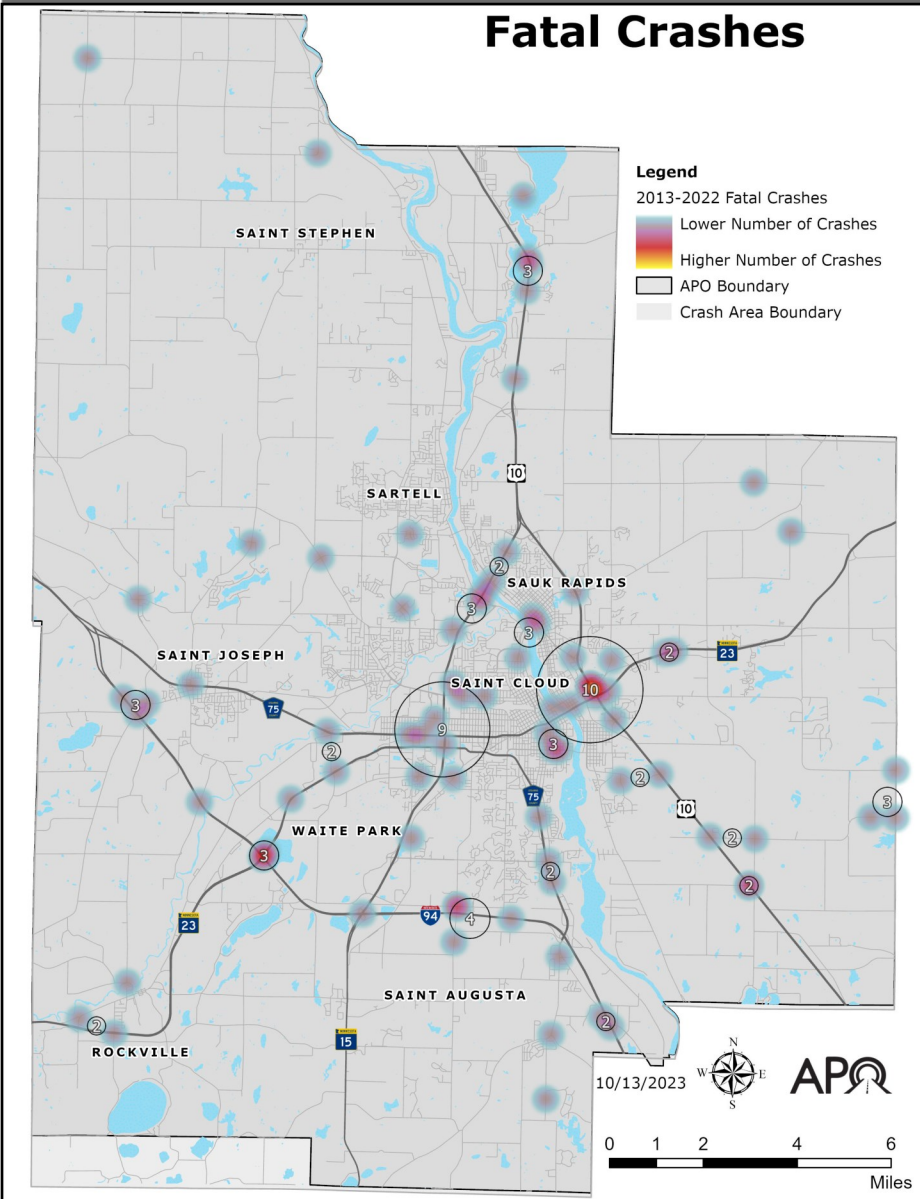
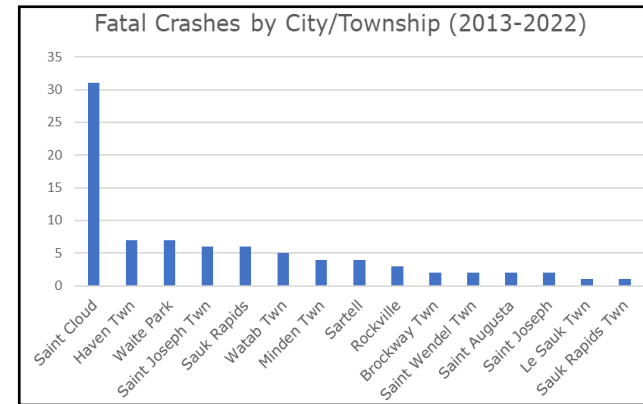


Figure 1.2-Fatal Crashes

Data Source: MnDOT.

## Fatal Crashes

Figure 1.2 highlights the locations of traffic fatalities within the APO planning area between 2013 and 2022. 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 left shows the number of fatal crashes occurring in each area. Saint Cloud sees the most travel of all the listed areas. Two fatal crashes occurred in each Saint Joseph and Saint Augusta from 2013-2022.

Figure 1.3-Fatal Crashes by City/Township (2013-2022) Data Source: MnDOT.

## Seriousness of Crash

### Fatal crash

Any crash in which a death has occurred as a result of the crash.

### Suspected Serious Injury

Includes injuries serious enough to prevent normal activity for at least one day, such as massive blood

### Suspected Minor Injury

Injuries that are evident at the scene, but not serious enough to prevent normal activity, such as

### Possible injury

Non-visible injuries but there are complaints of pain or momentary unconsciousness, such as headaches, etc.

### Property Damage

No injuries as a result of the crash.

# Goal 1: Maintain and Enhance Transportation Safety

## Saint Cloud APO Fatal Crashes

### 2013-2022 Fatal Crashes

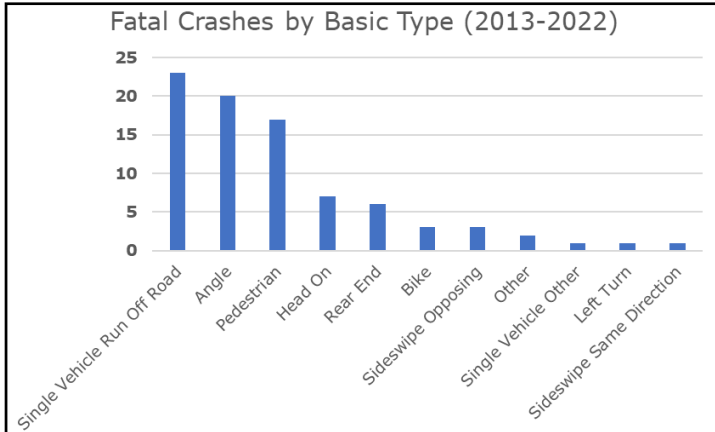


Figure 1.4-Fatal Crashes by Basic Type (2013-2022)  
Data Source: MnDOT.

Of the 84 crashes involving a fatality, the three most commonly involved basic types were Single Vehicle Run Off Road, 27%, Active Transportation User (Pedestrians and Cyclists, 20% and 4% respectively), 24%, and Right Angle Crashes, 24%. These types of crashes account for 75% of all fatal crashes. Fatal crashes made up 0.4% of all crashes from 2013-2022.

However, Pedestrians and Cyclist involved crashes only made up 1% each of all crashes, while Right Angle Crashes made up nearly 19% and Single Vehicle Run Off Road only 17%.

These fatal crashes are pretty evenly split at intersections versus not at an intersection (46% and 48% respectively). Only about 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% decrease in fatal crashes](#), an 83% decrease in life-altering injury crashes, and a 42% 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 89% 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 10% were unknown. Of the remaining 72 people involved, 17% resulted as a failure to yield right-of-way and 14% were a result of drivers speeding.

The percent of males, 74%, involved in fatal crashes is well over double that of females, 26%. Nearly 40% of the people involved in fatal crashes were over the age of 50 while making up about 37% of the areas population. While only around 10% of the area's population, not including individuals younger than 15, is between 15 and 19, they made up just over 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 continues to have more fatal crashes along the corridor than other parts of the NHS.

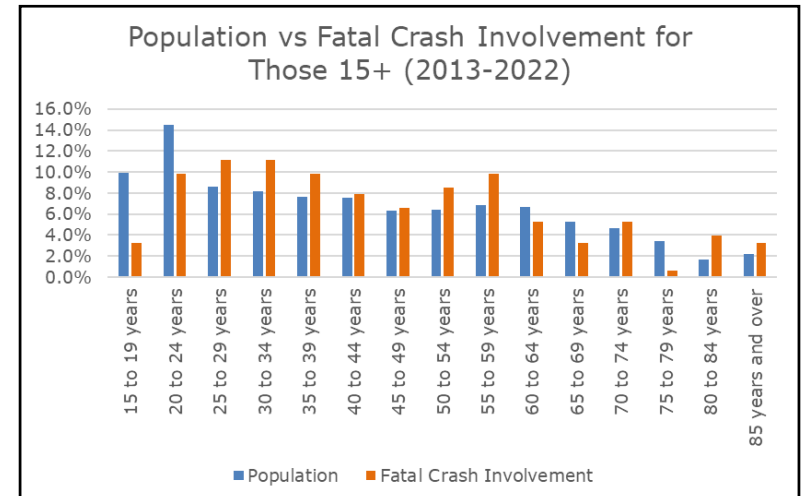


Figure 1.5-Population vs Fatal Crash Involvement for those 15+ (2013-2022) Data Source: MnDOT. 26



# Goal 1: Maintain and Enhance Transportation Safety

## Suspected Serious Injuries

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

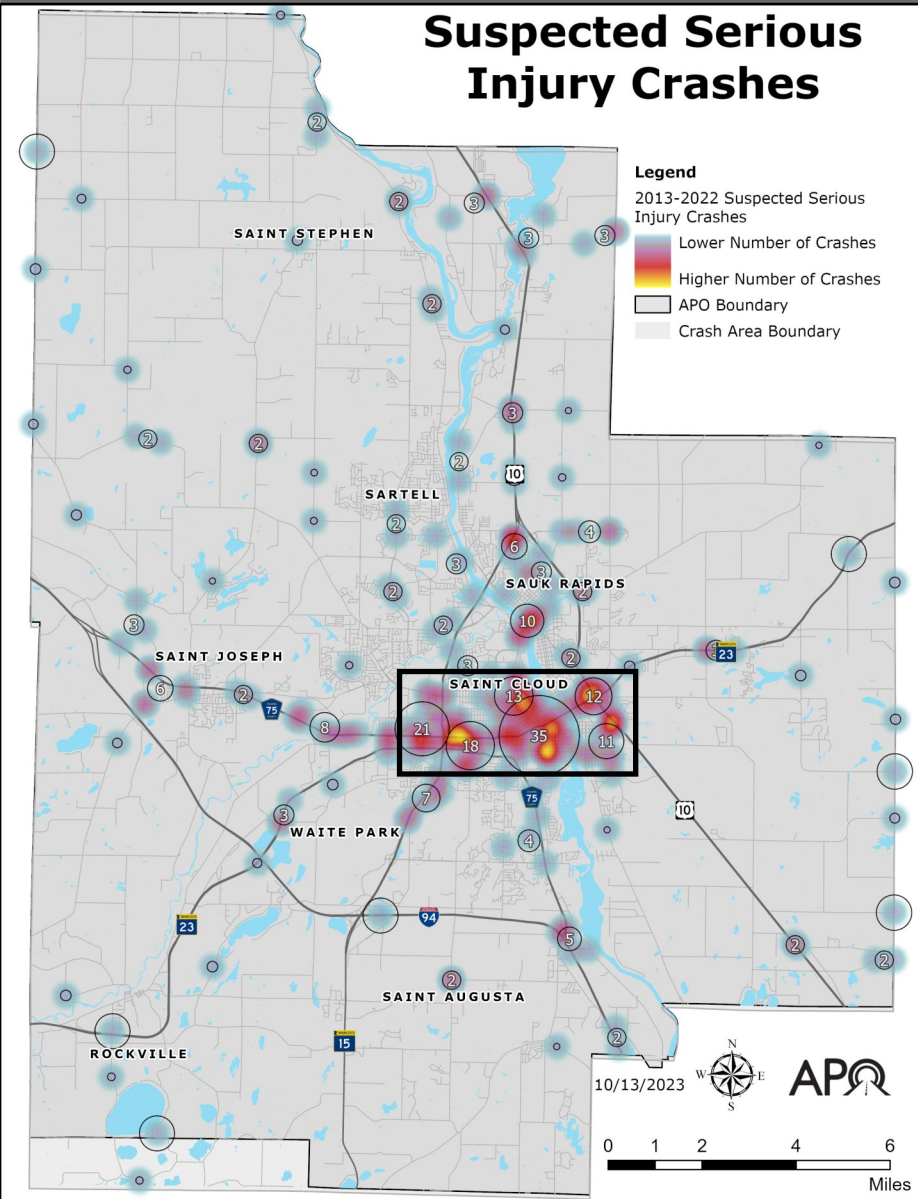
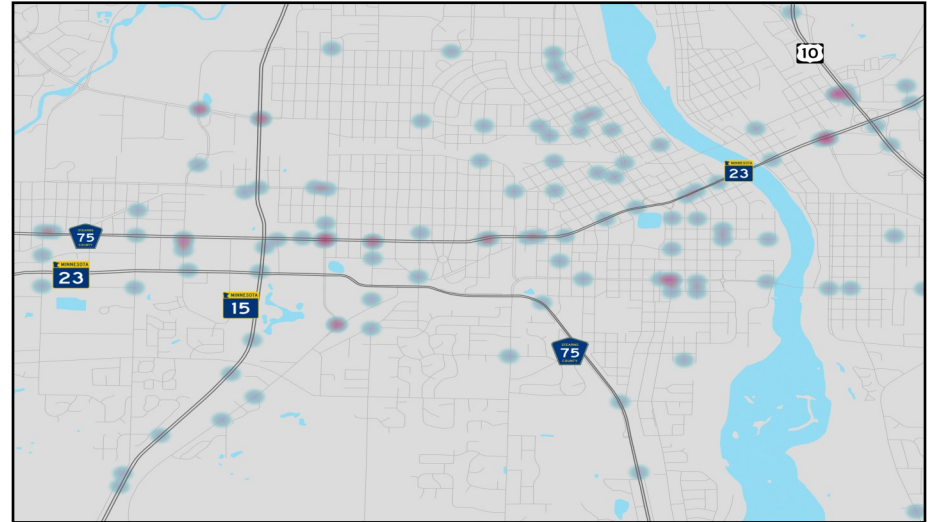


Figure 1.6-Suspected Serious Injury Crashes

Data Source: MnDOT.

## Suspected Serious Injury Crashes

Figure 1.6 highlights the locations of traffic SSI crashes within the APO planning area between 2013 and 2022. Similar to fatalities, a majority of these crashes occurred on or near the NHS.



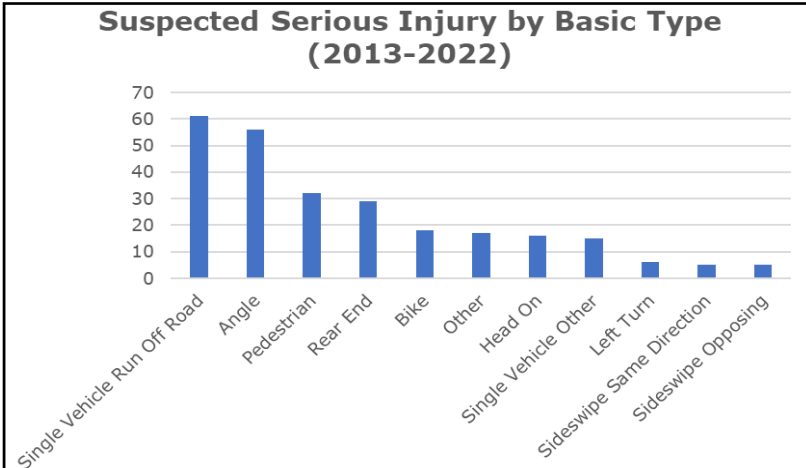
The average cost per crash was updated in 2023 by U.S. Department of Transportation on a per crash basis for use in calculating benefit/cost comparisons. The costs include economic cost factors and a measure of the value of lost quality of life that society is willing to pay to prevent deaths and injuries 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

# Goal 1: Maintain and Enhance Transportation Safety

## Saint Cloud APO Suspected Injury Crashes

### 2013-2022 Suspected Serious Injury Crashes



Of crashes which resulted in a suspected serious injury (SSI), the three most common basic types were Single Vehicle Run Off Road, 23%, Right Angle Crashes, 22%, and Active Transportation Users (Pedestrian/Cyclist, 12%/7%), 19%. 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 (49%) or not at an intersection (47%). Less than 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 (2013-2022) Data Source: MnDOT.

Physical condition is often easier to determine in SSI crashes than in ones involving a fatality. Nearly 79% of people involved, driver or any mode of transportation, were not on drugs or alcohol. However, the percent of people taking drugs, 1%, 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 — 65% and 30% respectively.

About 42% of people in SSI crashes had no clear contributing action. Of those with a contributing action, the most common contributing factor was a failure to yield right of way (24%). The next most common types of SSI crash contributing factors were operation of a motor vehicle in a careless/negligent/erratic way (10%), "other contributing action" (8%), and speeding (7%). 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 each age range makes in the population 15+ and the involvement in SSI crashes. The age ranges for SSI crashes match much more closely to the population percents compared to fatal crashes. Other than a few groups, most age ranges are evenly experiencing SSI crashes in relation to the proportion of the population they represent.

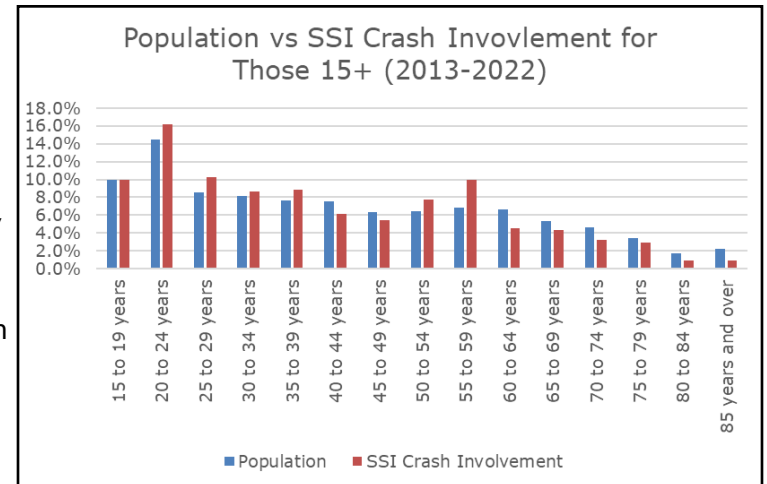
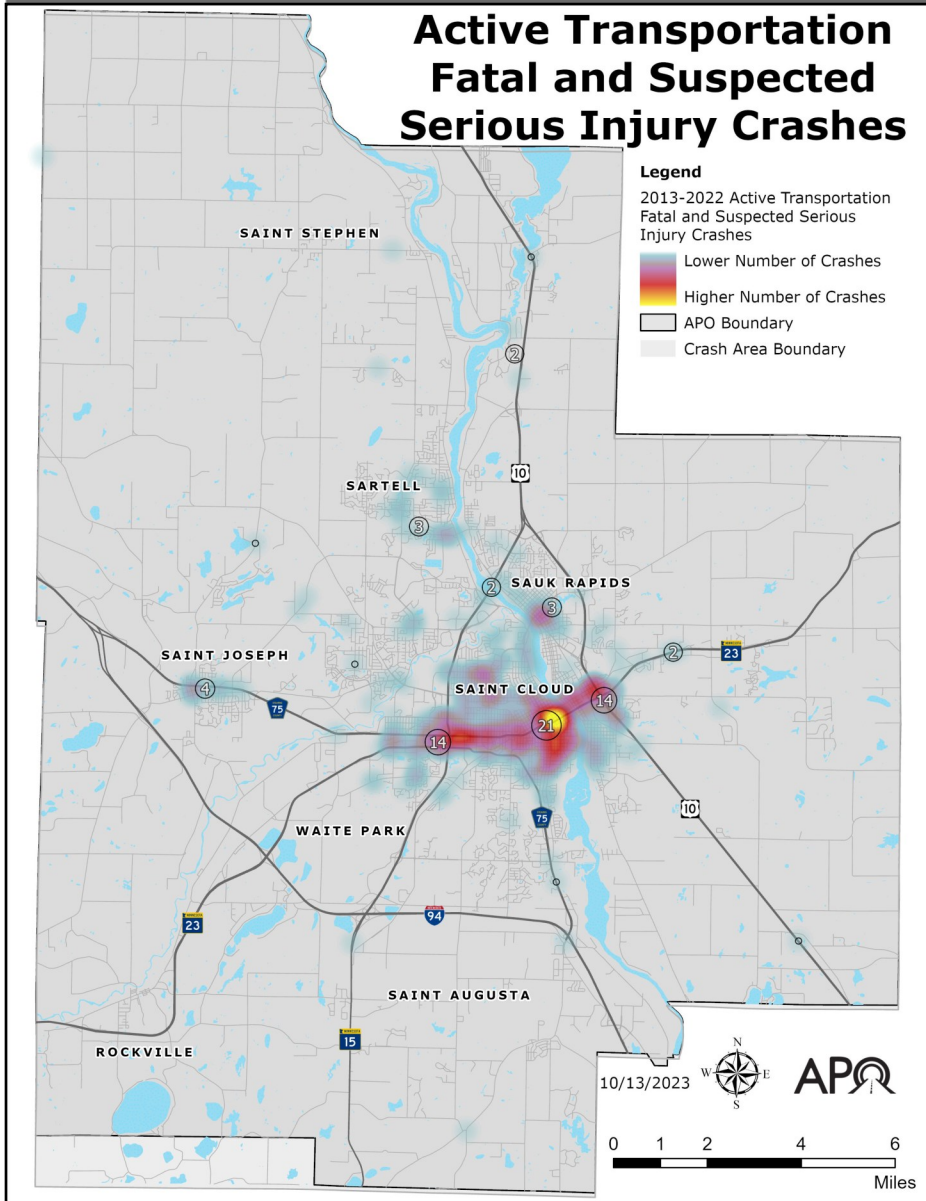


Figure 1.8-SSI Population vs SSI Crash Involvement for those 15+ (2013-2022) Data Source: MnDOT.

# 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 2013 to 2022. Active transportation involves any non-motorized user, such as a person who walks or cycles.

- ◇ Between 2013 and 2022 there were 70 fatal or SSI crashes involving active transportation.
- ◇ 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 9%.
- ◇ Active transportation crashes can involve people of all ages, not just young or old.
- ◇ Overall crashes involving cyclists tend to occur more often at intersections. For pedestrians, crashes occur similarly at intersections and not.

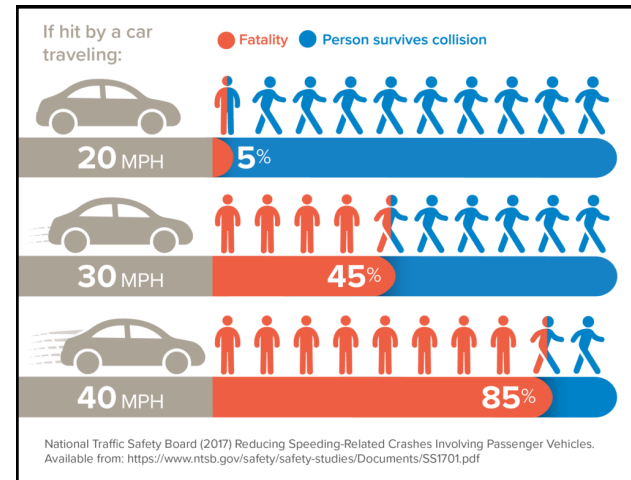


Figure 1.9–Active Transportation Fatalities and Suspected Serious Injuries



# Goal 1: Maintain and Enhance Transportation Safety

## Chemical Impairment Crashes

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

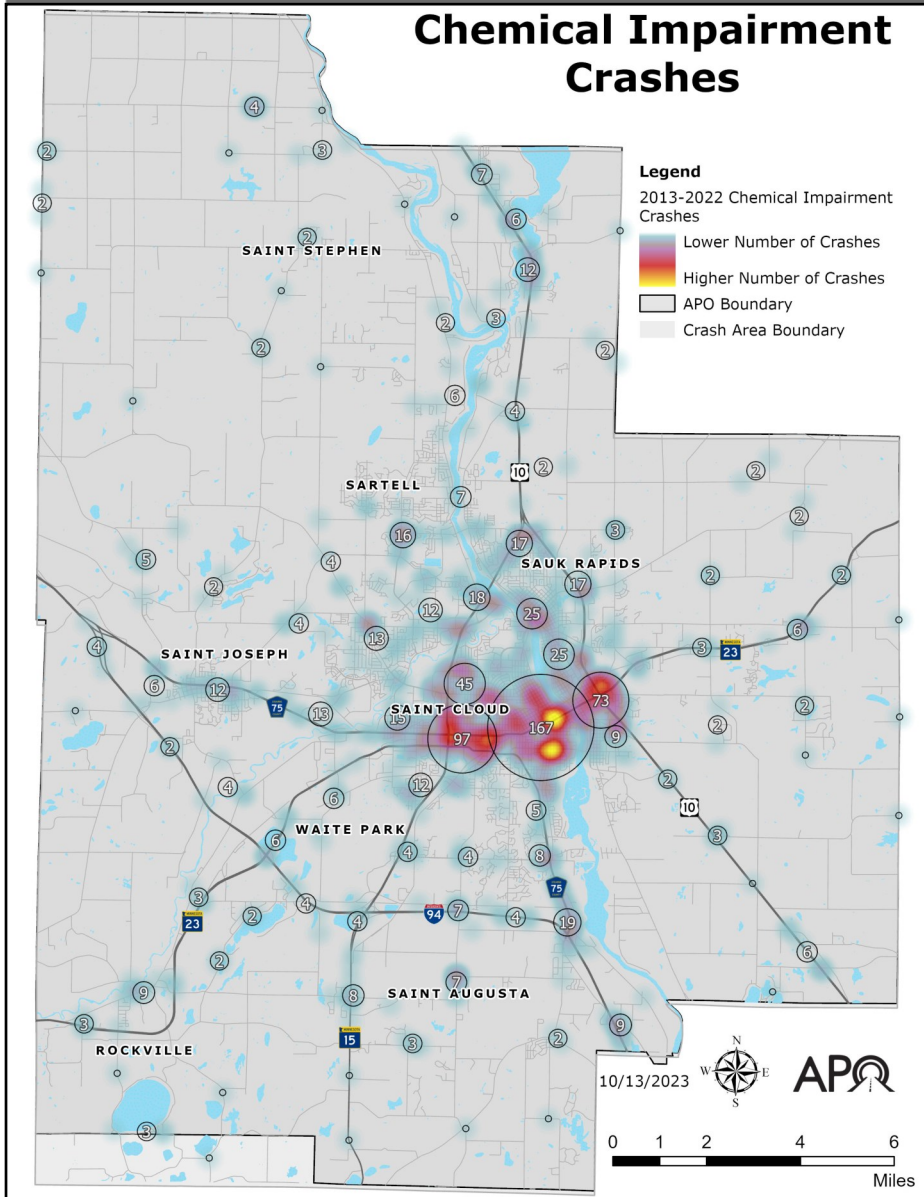


Figure 1.10-Chemical Impairment Crashes

Data Source: MnDOT.

## Chemical Impairment Crashes

Figure 1.10 displays the locations where chemical impairment crashes occurred in the APO planning area from 2013 to 2022.

BLOOD ALCOHOL CONCENTRATION (BAC) IN G/DL	TYPICAL EFFECTS	PREDICTABLE EFFECTS ON DRIVING
.02	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)
.05	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
.10	Clear deterioration of reaction time and control, slurred speech, poor coordination, and slowed thinking	Reduced ability to maintain lane position and brake appropriately
.15	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 37 people in the United States die in drunk-driving crashes — that’s one person every 39 minutes. In 2021, 13,384 people died in alcohol-impaired driving traffic deaths — a 14% increase from 2020. These deaths were all preventable.”**

Data Source: NHTSA.



# Goal 1: Maintain and Enhance Transportation Safety

## Saint Cloud APO Chemical Impairment Crashes

### 2013-2022 Chemical Impairment Crashes

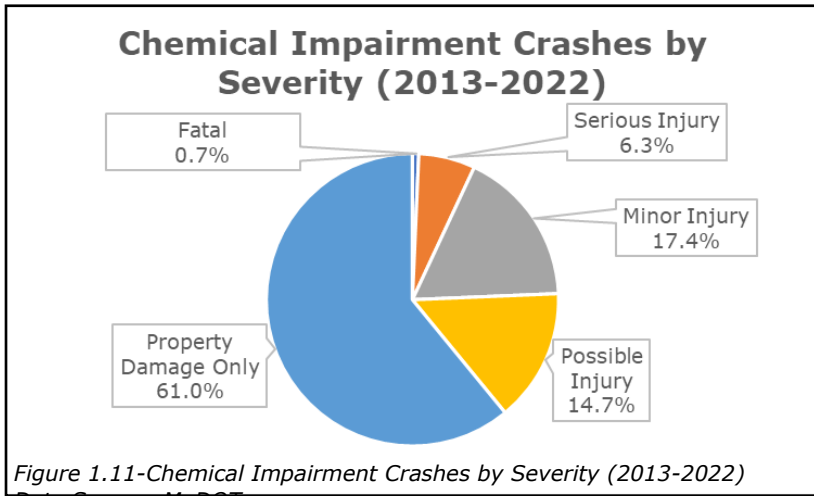


Figure 1.11-Chemical Impairment Crashes by Severity (2013-2022)  
Data Source: MnDOT.

Approximately 0.4% of crashes within the APO's planning area involve a fatality and 1.1% result in a SSI. However, 17% of all fatal and serious injury crashes within the metro can be attributed to chemical impairment.

Looking at the basic types involved with chemical impairment crashes, about 48% involve a single vehicle running off the road, while 15% 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.

When looking at physical condition, of the 863 drivers/active transportation users involved in these crashes 356 were not on drugs/alcohol. People in an apparently normal physical condition make up nearly 41% of drivers/active transportation users involved in chemical impairment crashes.

Of those involved in chemical impairment crashes, nearly 2% are under the age of 18, while those aged 20-34 make up nearly 41%. Of note, people aged 20-34 make up only 25% of the region's population. The split along gender lines for chemical impairment crashes is 75% male and 25% female.

While 33% of crashes involving a chemically impaired individual occurred during daylight, nearly 63% occurred when it was dark out. The remaining 4% occurred during dawn/dusk.

Chemical impairment crashes occurred 1.6 times as often on average for a single weekend date versus single weekday.

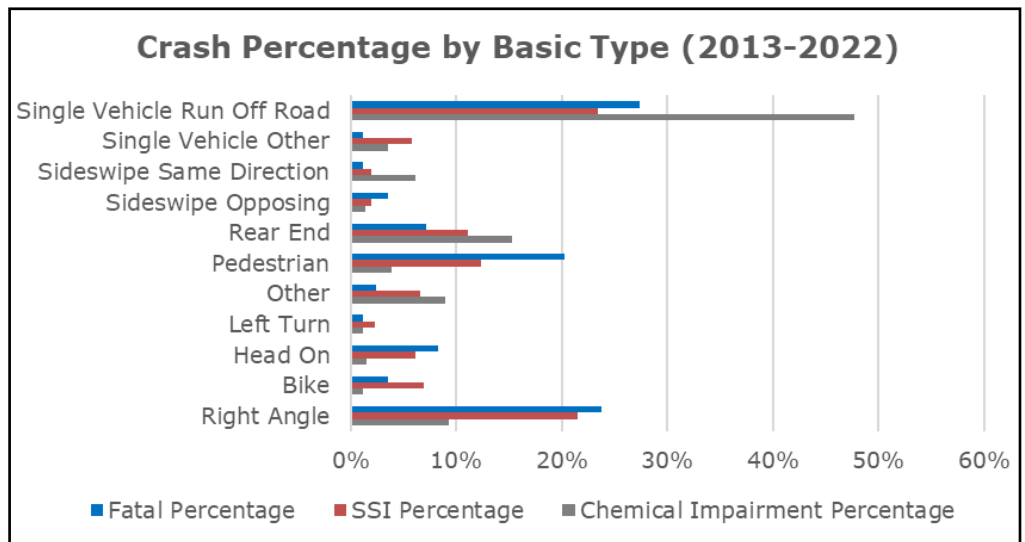


Figure 1.12-Crash Percentage by Basic Type (2013-2022) Data Source: MnDOT. 31

# Goal 1: Maintain and Enhance Transportation Safety

## Distracted Crashes

Number of crashes involving distracted drivers.

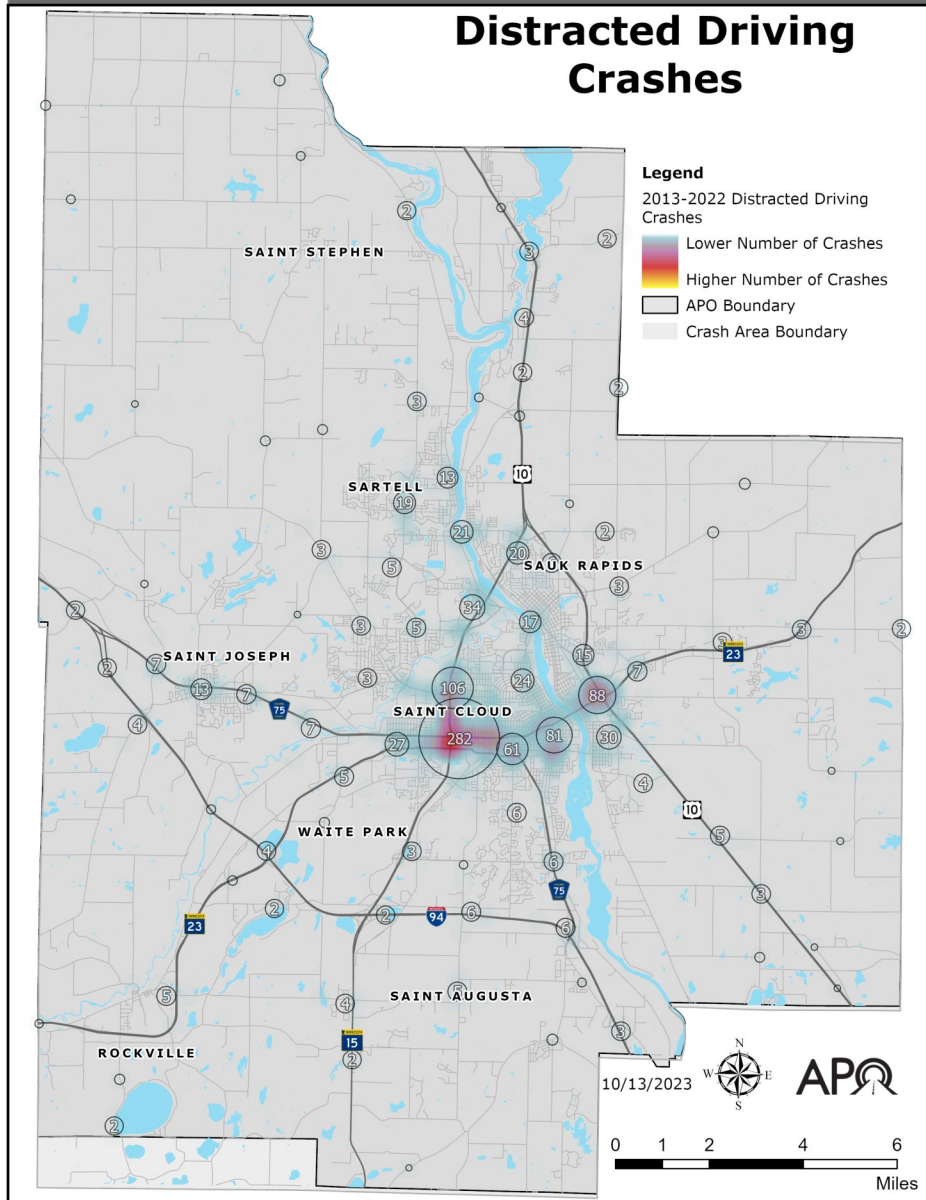


Figure 1.13-Distracted Crashes

Data Source: MnDOT.

## Distracted Crashes

Figure 1.13 displays the locations where distracted crashes occurred in the APO planning area from 2013 to 2022.

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. This data is further affected by lower severity crashes being reported less.

- ◇ About 1/3 of distracted driving crashes resulted in rear end collisions.
- ◇ Most of these crashes occurred at intersections (55%), while 38% occurred 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."**

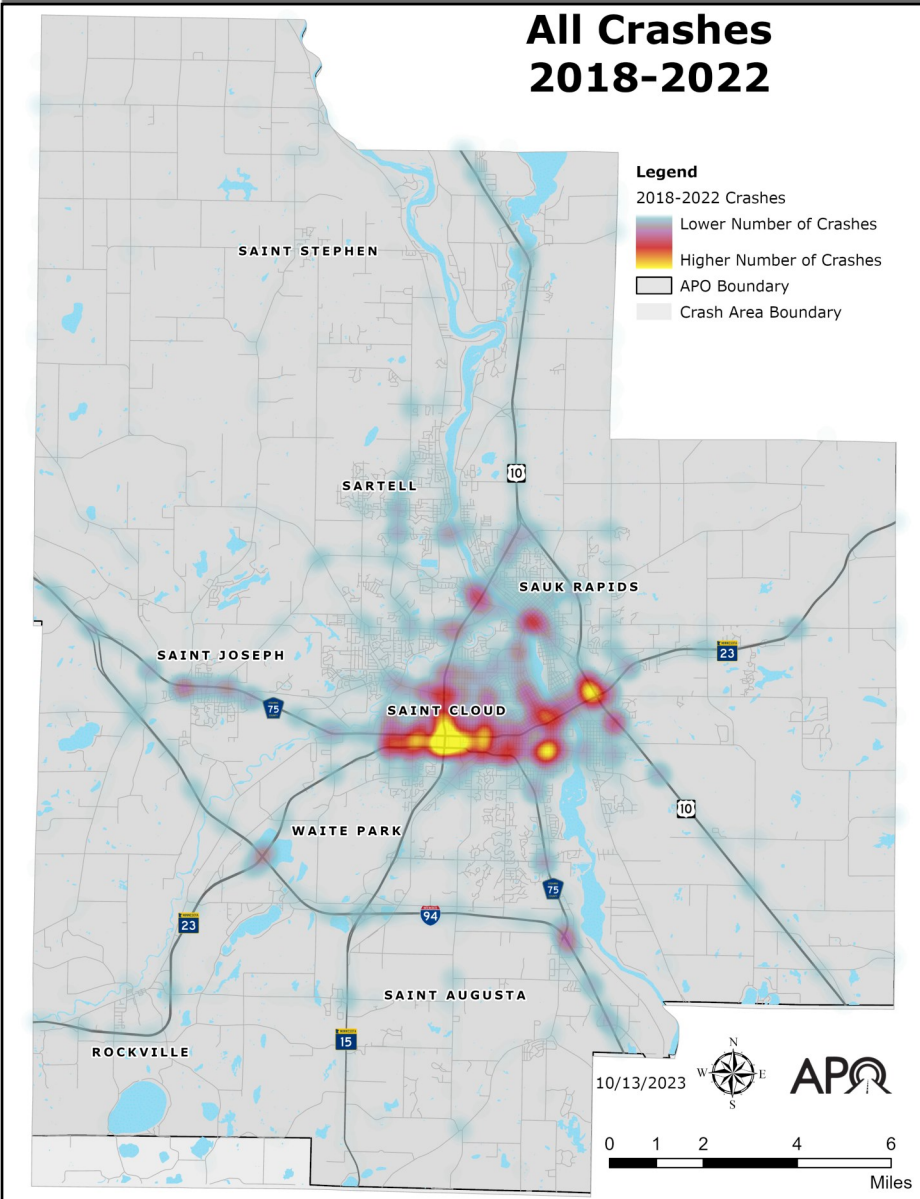
**"You cannot drive safely unless the task of driving has your full attention. Any non-driving activity you engage in is a potential distraction and increases your risk of crashing."**

Data Source: NHTSA.

# Goal 1: Maintain and Enhance Transportation Safety

## All Crashes

Number of crashes occurring from 2018 to 2022.



### Crashes Occurring from 2018 to 2022

Figure 1.14 displays the locations where all crashes occurred in the APO planning area from 2018 to 2022.

Crashes occur more often where there is more travel. In the map on the right the largest number of crashes are occurring at and around the intersections of NHS roadways. This is particularly noticeable along all of the NHS excluding I-94. I-94 has fewer access points than the other NHS roadways causing it to experience fewer crashes. It is important to keep in mind that while a large number of crashes occur here, they tend to be less severe. MN 23 serves as the other east-west connection to I-94 and intersects with all of the other major roadways in close proximity. When looking at the intersections within the APO region, intersections with MN 23 have the highest number of crashes followed by MN 15.

Intersections	Total Crashes	Entering Volume	Crash Rate per million entering vehicles
St Germain ST E & Franklin Ave NE	53	11200	2.59
University DR S & 9th AVE S	117	31950	2.01
MN 15 & CSAH 75 (Division St)	225	62250	1.98
MN 15 & MN 23 (2nd St S)	182	53050	1.88
MN 15 & CSAH 81 (3rd St N)	154	47900	1.76

Figure 1.14-All Crashes 2018-2022

Data Source: MnDOT.



## 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





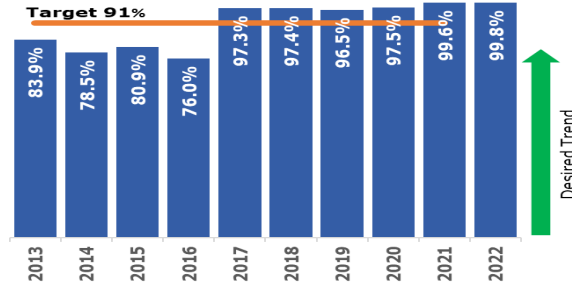
# Goal 2: Increase System Accessibility, Mobility, and Connectivity

## Saint Cloud APO Transportation Results Scorecard

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

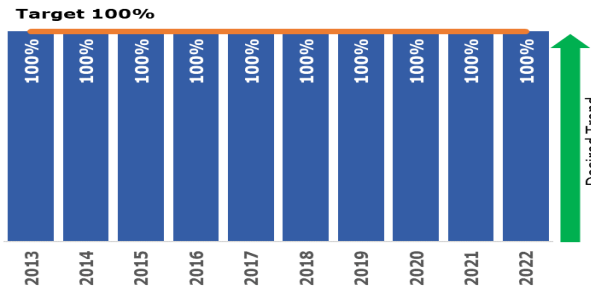
Annual percent of person-miles traveled that are reliable.



The non-Interstate NHS has continued to operate reliably as of 2017. The APO has set a 2023 target of at least 91% reliability.

### Interstate Reliability:

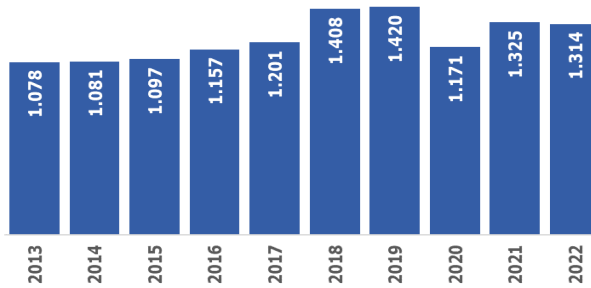
Annual percent of person-miles traveled that are reliable.



I-94 continues to operate extremely well with no significant reliability issues. The APO has set a 2023 target of 100% reliability.

### Vehicle Miles Traveled (VMT):

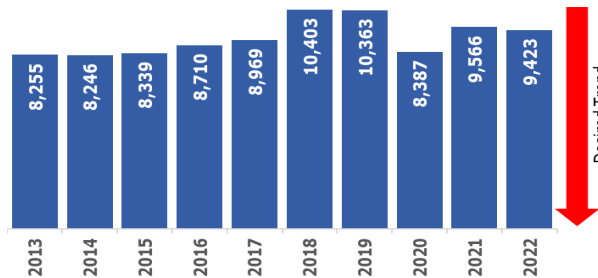
Number of miles traveled by motor vehicle expressed in billions.



VMT has increased from the levels seen during the COVID-19 pandemic. However, VMT has not yet returned to pre-pandemic levels. VMT prior to 2018 was calculated in part by the APO using a different method than MnDOT currently uses. MnDOT starting supplying all relevant VMT data in 2018. The APO does not have a set target.

### VMT Per Capita:

Number of miles traveled by motor vehicle divided by population.



VMT per capita decreased 1.5% from 9,566 in 2021 to 9,423 in 2022. 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

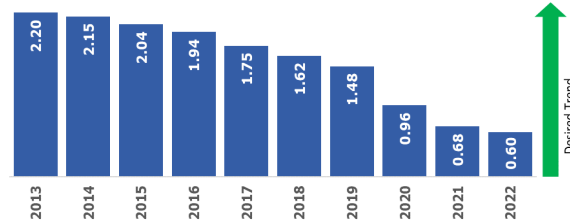
### Transit Measure - Federal Fiscal Year

### Multi-Year Trend

### Analysis

#### Number of Annual Fixed Route (FR) Transit Riders:

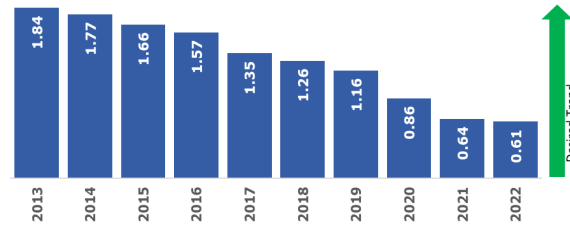
Annual number of transit riders by FR (in millions).



The number of annual FR transit riders has continued to decrease. Since 2013, FR ridership has fallen nearly 72.7%. Metro Bus has decreased service in response to the pandemic as well as having dealt with staffing shortages. The APO desires the number of fixed route transit riders to increase.

#### Passengers Per Revenue Mile (FR):

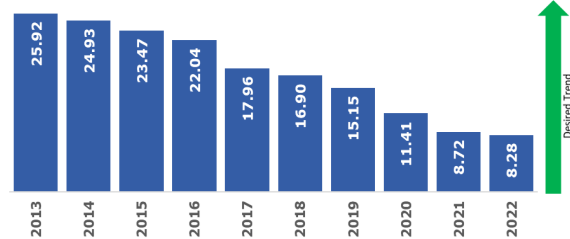
The number of passengers divided by the number of miles traveled by FR.



FR passengers per revenue mile has decreased by 0.03 from 0.64 in 2021 to 0.61 in 2022. The number of revenue miles has also been decreasing over the years. The APO desires FR passengers per revenue mile to increase.

#### Passengers Per Revenue Hour (FR):

The number of passengers divided by the number of hours traveled by FR.



FR passengers per revenue hour has decreased by 0.44 from 8.72 in 2021 to 8.28 in 2022. The number of revenue hours has been decreasing from 2020. The APO desires FR passengers per revenue hour to increase.

#### Number of Annual Dial-a-Ride (DAR) Transit Riders:

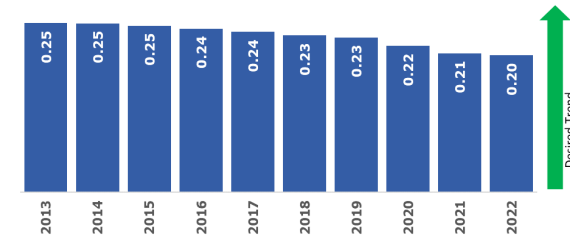
Annual number of transit riders by DAR.



The number of annual DAR transit riders rose by 16.31% from 101,125 in 2021 to 117,617 in 2022. The APO desires the number of DAR transit riders to increase.

#### Passengers Per Revenue Mile (DAR):

The number of passengers divided by the number of miles traveled by DAR.



DAR passengers per revenue mile has decreased by 0.01 from 0.21 in 2021 to 0.20 in 2022. The miles driven to reach these new DAR riders increased at a greater rate than the ridership increase. This caused a decrease in passengers per revenue mile. The APO desires DAR passengers per revenue mile to increase.

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

## Saint Cloud APO Transportation Results Scorecard

### Transit Measure - Federal Fiscal Year

### Multi-Year Trend

### Analysis

#### **Passengers Per Revenue Hour (DAR):**

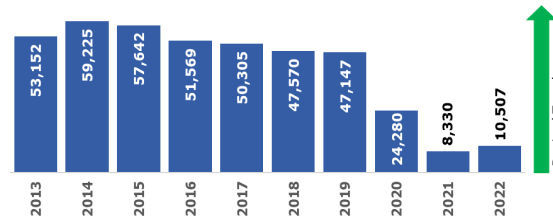
The number of passengers divided by the number of hours traveled by DAR.



DAR passengers per revenue hour decreased by 0.08 from 2.72 in 2021 to 2.64 in 2022. Revenue hours for DAR have not yet recovered from COVID which has resulted in this slight decline. The APO desires DAR passengers per revenue hour to increase.

#### **Number of Annual Northstar Commuter Bus (NCB) Transit Riders:**

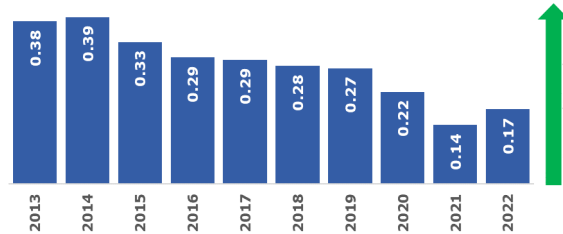
Annual number of transit riders on NCB.



Annual NCB transit ridership has increased by 26.1% from 8,330 in 2021 to 10,507 in 2022. Even with limited train runs due to the impacts of COVID, NCB bus use has increased. The APO desires the NCB transit ridership to increase.

#### **Passengers Per Revenue Mile (NCB):**

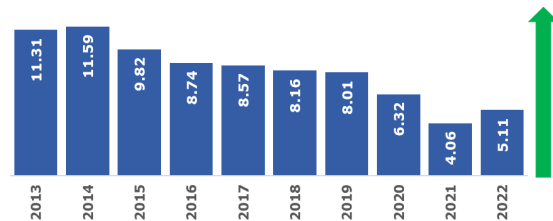
The number of passengers divided by the number of miles traveled by NCB.



Passengers per revenue mile has increased by 0.03 from 0.14 passengers per revenue mile in 2021 to 0.17 in 2022. The APO desires NCB passengers per revenue mile to increase.

#### **Passengers Per Revenue Hour (NCB):**

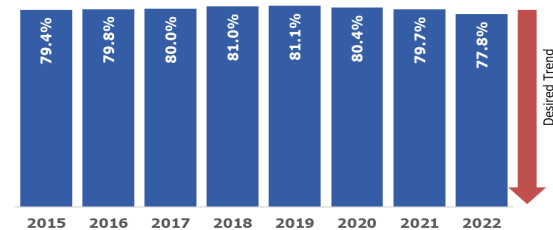
The number of passengers divided by the number of hours traveled by NCB.



Passengers per revenue hour has increased by 1.05 from 4.06 passenger per revenue hour in 2021 to 5.11 in 2022. The APO desires NCB passengers per revenue hour to increase.

#### **Percent of Single Occupancy Vehicle (SOV) Travel:**

Percent of travel to work alone in a motorized vehicle.



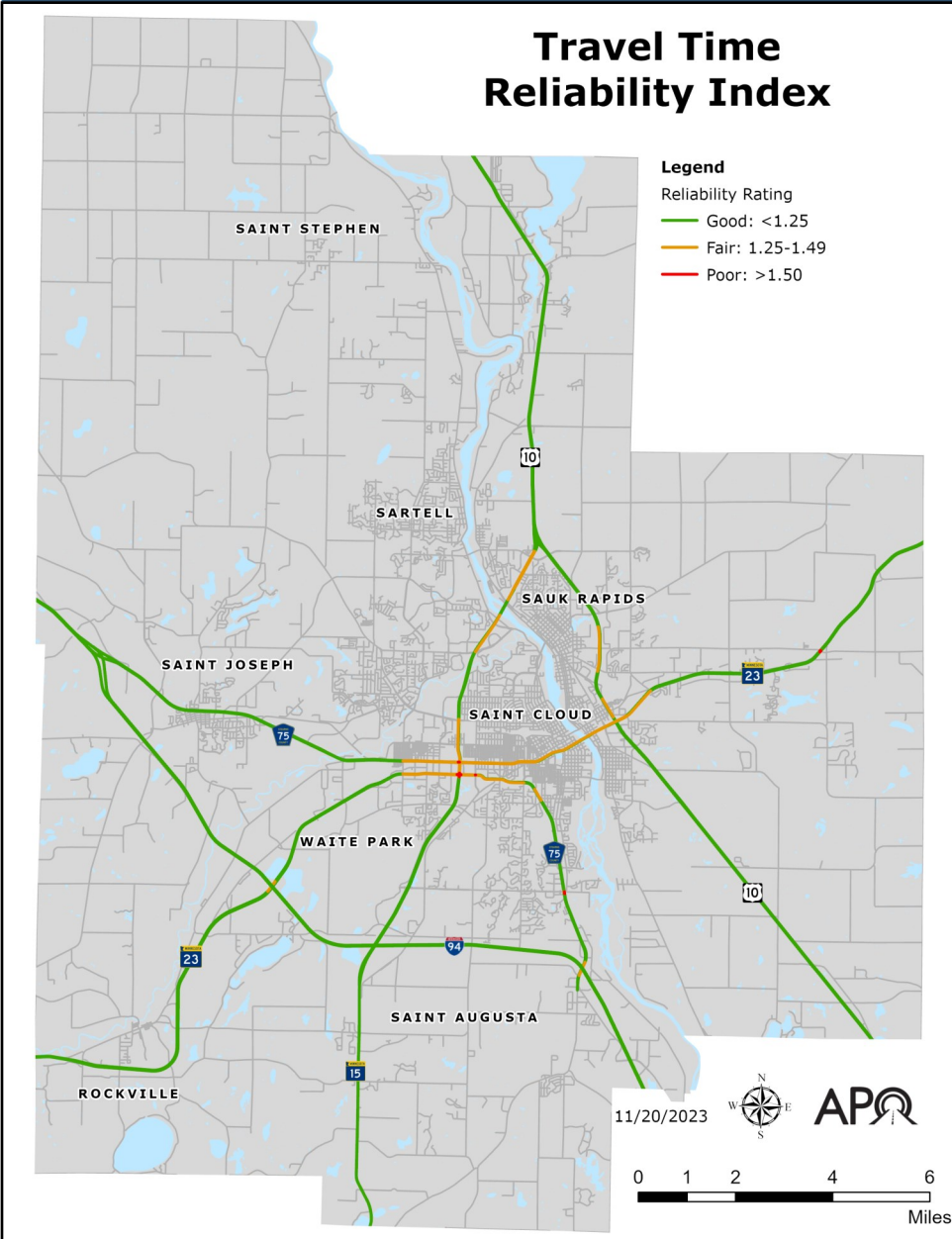
The percent of travel done by workers 16 years and older has decreased by 1.9% from 79.7% in 2021 to 77.8% in 2022. This is the lowest percent SOV travel recorded in the last eight years of data collection. The APO desires SOV travel to decrease.

The federal fiscal year runs from Oct. 1-Sept. 30. For example, federal fiscal year 2022 runs from Oct. 1, 2021 - Sept. 30, 2022.

# 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.



## 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; 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

Figure 2.1-Time Travel Reliability

Data Source: NPMRDS.



## 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 (2021)	Annual Vehicle Miles Traveled (2022)	Percent Change (2021-2022)
Saint Cloud	519,558,014	516,807,436	-0.5%
Sartell	73,981,427	80,286,172	8.5%
Sauk Rapids	57,461,515	58,346,334	1.5%
Waite Park	79,720,853	82,246,709	3.2%
Saint Joseph	37,503,797	37,434,161	-0.2%
Saint Augusta	58,988,191	59,490,675	0.9%
Rockville	59,944,362	56,024,791	-6.5%
Saint Stephen	3,816,362	3,563,031	-6.6%
<b>Total</b>	<b>890,974,521</b>	<b>894,199,309</b>	<b>0.4%</b>

Data Source: MnDOT.

### VMT Travel by Municipality

Vehicle miles traveled in 2022 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 0.4% from the previous year.

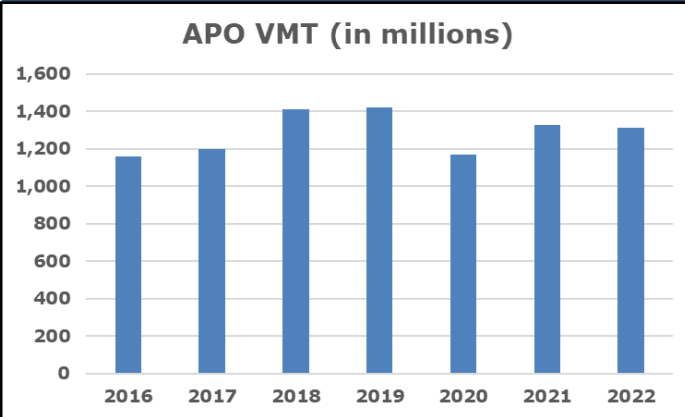
#### Strategies to Lower VMT:

- ◆ 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

### Vehicle Miles Traveled

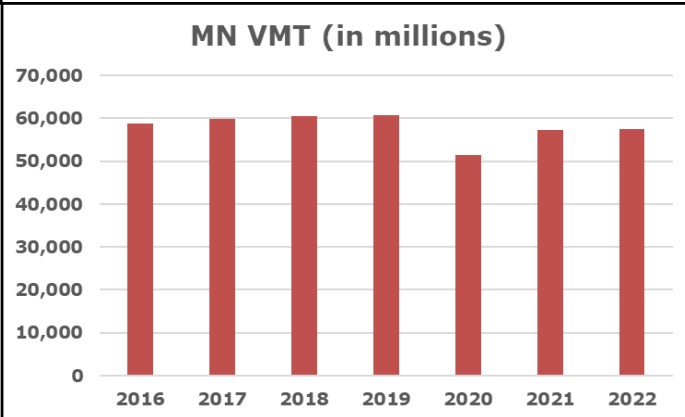
Vehicle Miles Traveled (VMT) is a measure of all miles driving within an area within a specific period.



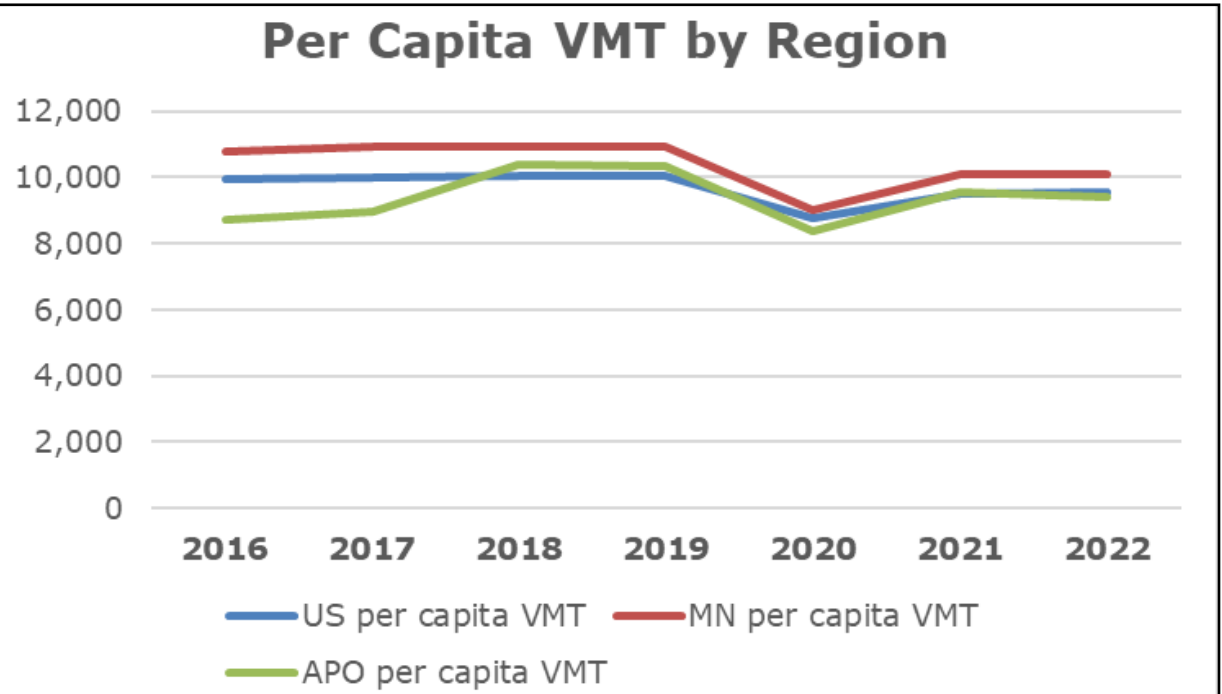
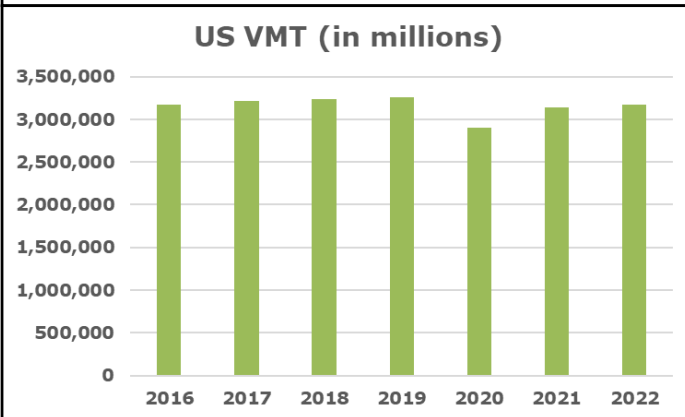
### A Comparison in VMT: APO, Minnesota, and US Trends

VMT for the APO region was calculated differently prior to 2018 which mostly accounts for the huge percent change seen. It is likely that it would have seen a small positive growth from 2017 to 2018 based on the previous data. MnDOT's own VMT calculation system changed following 2015.

VMT trends between the three regions, the APO region, the state of Minnesota, and the United States mainly followed the same patterns of increasing and decreasing. The APO typically experiences a more pronounced change than these other regions due to the size of the area involved. A small increase in VMT in the APO area, for example, can have a big impact on local VMT, but the impact is relatively minor at the state and national levels.



VMT per capita shows a similar story. Following 2018, when the APO began receiving all VMT data from MnDOT, the ups and downs from year to year are similarly mirrored throughout each region.



Figures 2.2-2.5 APO VMT, MN VMT, US VMT, and Per Capita VMT by Region

Data Source: MnDOT, FHWA, and the US Census Bureau



## 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.



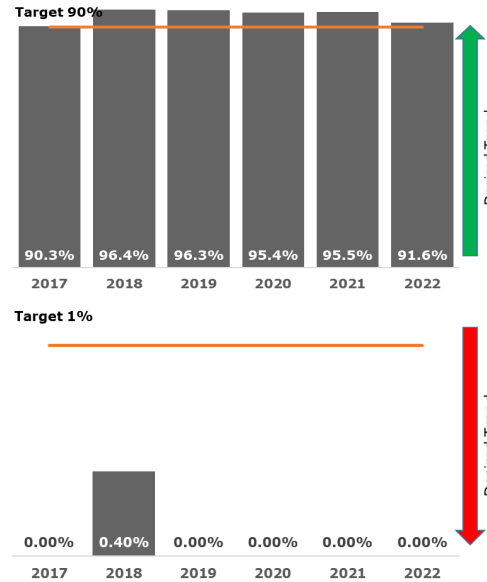


# Goal 3: Efficiently Manage Operations and Cost-Effectively Preserve the System

## Saint Cloud APO Transportation Results Scorecard

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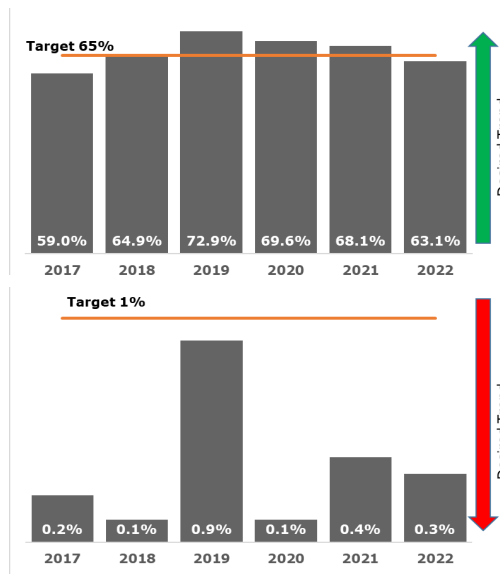
**Interstate Pavement Condition:** Percent of total lane miles that are rated in good and poor condition.



In 2022, 91.6% of the Interstate’s pavement was rated in good condition. This is a 3.9 percentage point decrease from 2021. The APO has set a 2023 Interstate pavement condition target of at least 90% in good condition.

No Interstate pavement within the MPA was rated in poor condition in 2022. The APO has set a 2023 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 and poor condition.



Non-Interstate NHS pavement in 2022 was rated at 63.1% in good condition. This is an 5.0 percentage point decrease from 2021. The dip in non-Interstate NHS pavement condition can be attributed, in part, to the omission of 2022 pavement data on CSAH 75. If we adjust the 2022 pavement condition to include 2021 condition data from CSAH 75, this would result in a good condition rating of 63.5% -- only a 4.6 percentage point decrease. The APO has set a 2023 non-Interstate NHS pavement condition target of at least 65% in good condition.

Non-Interstate NHS pavement in 2022 was rated at 0.3% in poor condition. This is a 0.1 percentage point decrease from 2021. As CSAH 75 was missed in the pavement data collection for 2022, if 2021 numbers are used for CSAH 75 then the percent of pavement in poor quality would still be 0.3% in 2022. The APO has set a 2023 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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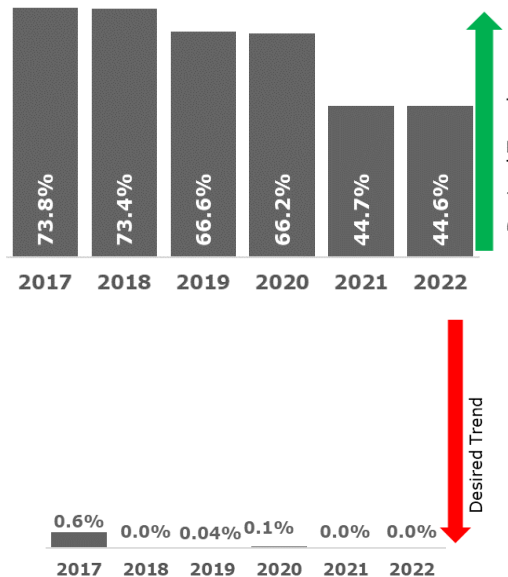
**National Highway System (NHS) Bridge Condition:** Percent of bridges by deck area classified in good and poor condition.



In 2022, 22.0% of NHS bridge deck area was in good condition. This is 30.5 percentage point drop from 2021. As a result, the number of bridges in the APO’s planning area that are in fair condition has risen considerably — up from 47.5% to 78.0% The APO has set a 2023 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 2023 target of less than 1% in poor condition.

**Condition of All Bridges:** Percent of bridges, including NHS bridges by deck area classified in good and poor condition.



In 2022, 44.6% of all bridge deck area in the MPA was rated in good condition. Similar to the NHS bridge condition, the decline experienced over the past two years is related to a number of bridges moving from a good condition to a fair condition. The APO does not have a set target, but desires this to increase.

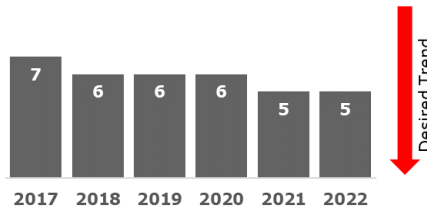
In 2022, no bridge deck area in the MPA was rated in poor condition. This has remains relatively unchanged since 2018. The APO does not have a set target.

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

## Saint Cloud APO Transportation Results Scorecard

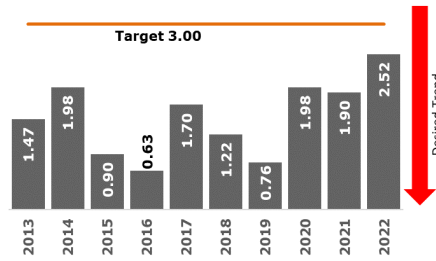
Measure	Multi-Year Data	Analysis
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**Bridge Weight Restrictions:** Number and condition of bridges with a capacity rating posting.



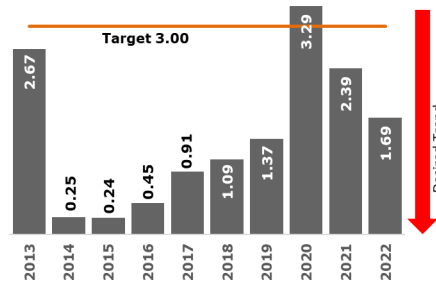
There were a total of five bridges with weight restrictions in the APO planning area in 2022. All five of these bridges are in fair condition. The APO has not set target.

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



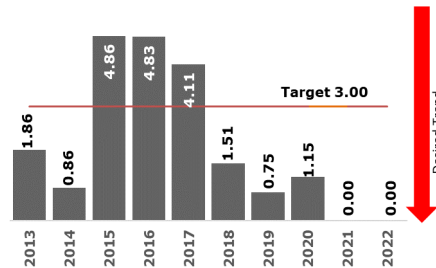
The mean number of major mechanical failures per 65,000 vehicle revenue miles for FR in 2022 was 2.52. This is an increase of 0.62 from the previous year. The average age of FR buses is 8.5 years. These buses have a useful life of 12 years. The APO desires the number of FR mechanical failures to decrease.

**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 2022 was 1.69, a decrease of 0.70 from the previous year. The average age of DAR buses is 4.9 years. These are starting to get close to their useful life of 7 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 2022 was zero. This decrease was maintained from last year. The average age of NCB buses is 4.6 years. These buses have a useful life of 12 years. The APO desires the number of NCB mechanical failures to decrease.

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

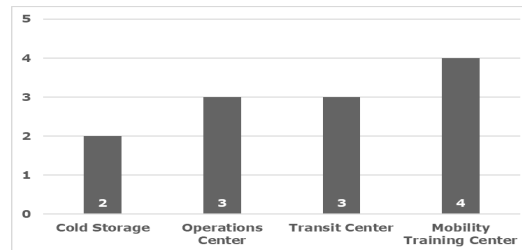
## Saint Cloud APO Transportation Results Scorecard

### 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.

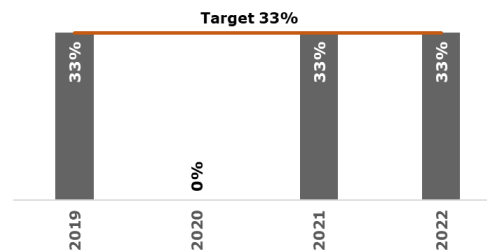
Measure	Data	Analysis
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#### TERM Scale for Facilities



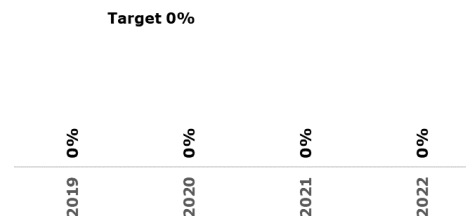
The TERM scale uses the number 1 through 5 to describe the condition of an asset — with 5 being excellent and 1 being poor. While the cold storage is rated at marginal, the operation center and transit center are rated as adequate. The mobility training center is rated as good.

#### 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 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 2023 target of 33% of facilities being below 3 on the TERM scale.

#### Passenger/Parking Facilities



No Metro Bus passenger/parking facilities were rated below a 3 on the TERM scale in 2022. The transit center is the only facility type operated by MTC within this category. MTC set a 2023 target of 0% of facilities below 3 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.

Measure	Data	Analysis
<b>Equipment (non-revenue service vehicles)</b>	<p>Target 0%</p> <p>0.0% 2021 0.0% 2022</p>	No non-revenue service vehicles have exceeded their useful life in 2022. MTC set a 2023 target of 0% exceeding useful life.
<b>Rolling Stock (revenue vehicles) - Class 700 Buses</b>	<p>10.3% 2021 20.5% 2022</p> <p>Target 13%</p>	For the class 700 buses (FR buses), 20.5% have exceeded their useful life. The inability to get new buses in a timely fashion is due to a multitude of reasons including supply chain issues and inflation drastically raising the price of buses. MTC set a 2023 target of 13% exceeding useful life.
<b>Rolling Stock (revenue vehicles) - Class 400 Buses</b>	<p>20.0% 2021 20.0% 2022</p> <p>Target 0%</p>	For the class 400 buses (DAR buses), 20% have exceeded their useful life. MTC set a 2023 target of 0% exceeding useful life.
<b>Rolling Stock (revenue vehicles) - MCI buses</b>	<p>Target 0%</p> <p>0.0% 2021 0.0% 2022</p>	No MCI buses (NCB buses) have exceeded their useful life. MTC set a 2023 target of 0% exceeding useful life.



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

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

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



Photos courtesy of MnDOT.

### How is Pavement Condition Calculated?

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

## Data Collection Method

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

Data Source: MnDOT.

### Types of Distress

### Example

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



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



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



Data and photos courtesy of MnDOT.

### Equipment Used

### Example

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

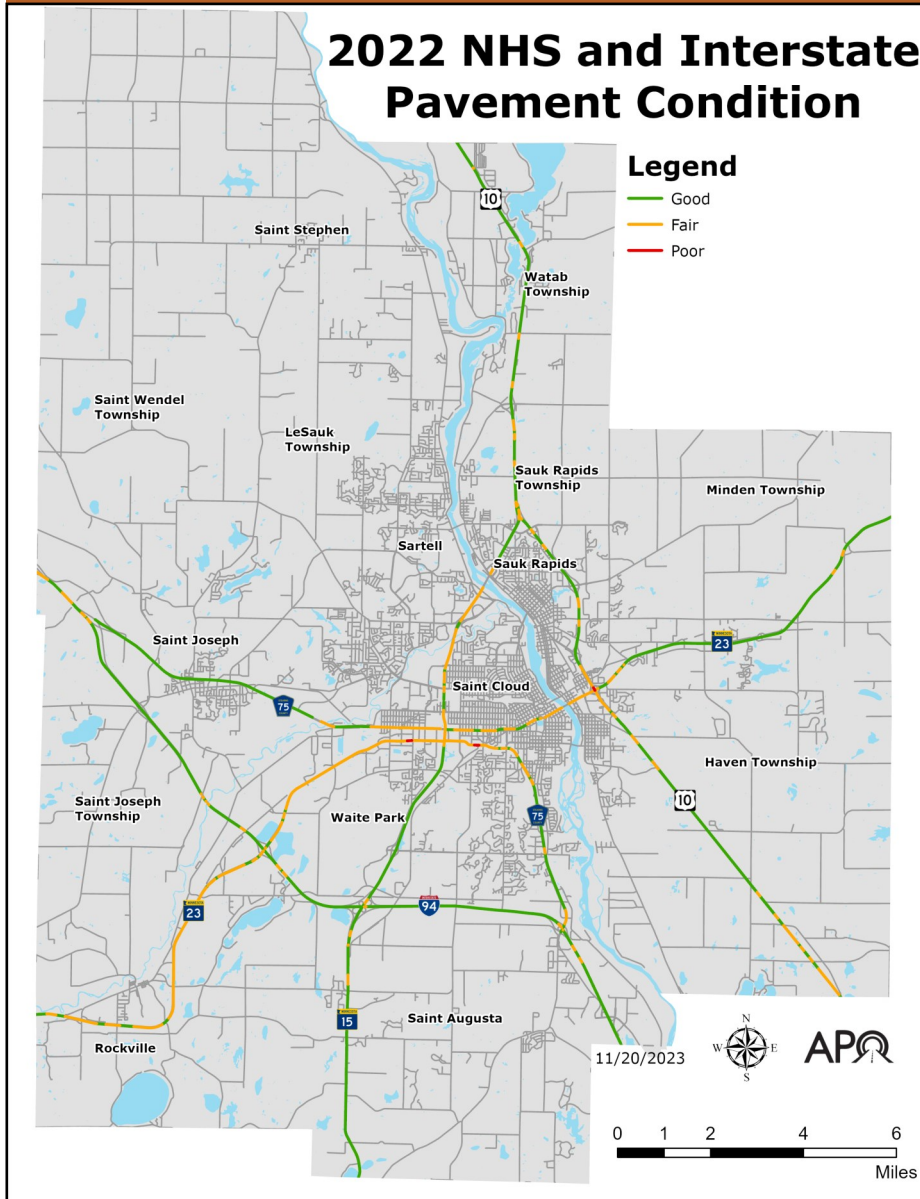


Data and photo courtesy of MnDOT.

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

## Pavement Conditions

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



## Pavement Condition

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.

In 2022, 69.7% of Interstate and NHS pavement within the APO planning area was in good condition, 30.1% in fair condition, and 0.2% 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 (under construction in 2023); Second Street S between 33rd Avenue N and 25th Avenue S; and MN 23 between Second Ave S and 10th Avenue S. Of note, pavement condition for CSAH 75 was not collected in 2022. The information depicted on the map for CSAH 75 is from 2021. No significant pavement work on CSAH 75 occurred in 2022, however a project was completed in 2023.

## International Roughness Index (IRI)

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

Figure 3.1-Pavement Condition (Data for CSAH 75 replaced with 2021 as it was not collected for 2022) Data Source: MnDOT



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

## Bridge Condition

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



Photos courtesy of MnDOT.





### How is Bridge Condition Calculated?

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

## Routine Inspection

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

Data Source: MnDOT.

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

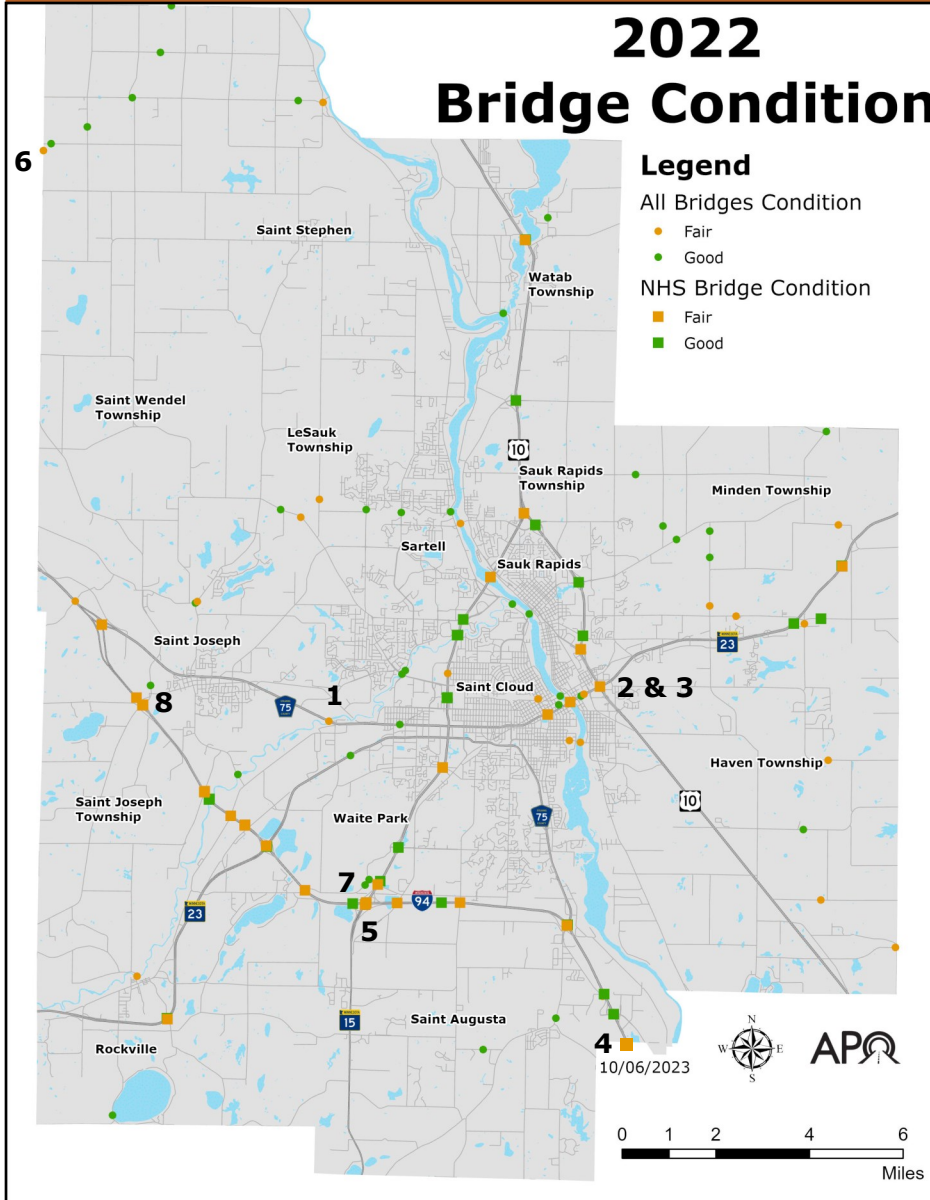
Data and photos courtesy of MnDOT.



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

## Bridge Condition

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



### Condition of All Bridges

Of the 112 bridges in the APO planning area, 61 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. This score looks at the lowest rated bridge component. The LPI only assigns scores to bridges owned by local agencies to assist in replacement schedules. There are 22 bridges with an overall rating of 5/10 and of those, below are eight 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*	CSAH 75 over Sauk River	Stearns County
2*	TH 23 NB over US 10	MnDOT
3*	TH 23 SB over US 10	MnDOT
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 EB over TH 15	MnDOT
8	I 94 WB over CSAH 2	MnDOT

Figure 3.2-Bridge Condition

Data Source: MnDOT.

Note: Those with an \* next to the rank are currently scheduled for replacement. 50

# 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).

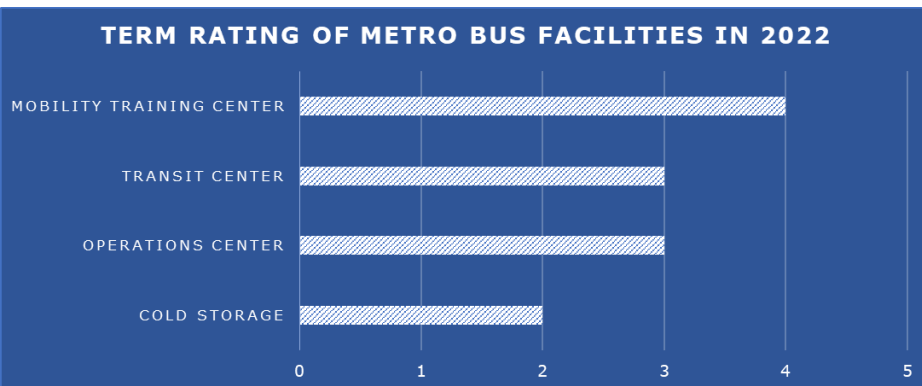


Figure 3.3 TERM Rating of Metro Bus Facilities in 2022 Data Source: National Transit Database and Metro Bus.

### 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.



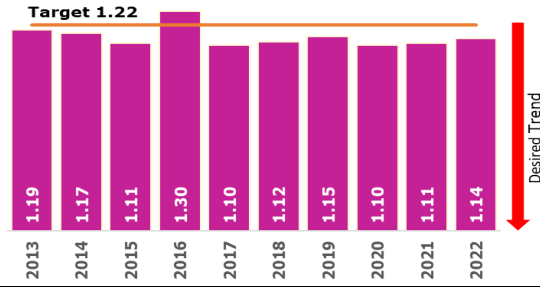
Photos courtesy of the APO.

# Goal 4: Support Metropolitan Vitality and Economic Development

## Saint Cloud APO Transportation Results Scorecard

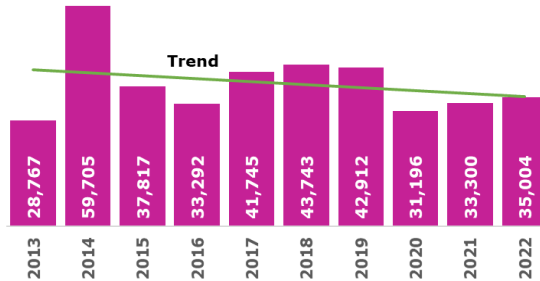
Measure	Multi-Year Trend	Analysis
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**Truck Travel Time Reliability (TTTR):** Calculated by dividing the ratio of the 95th percentile time by the normal time (50th percentile).



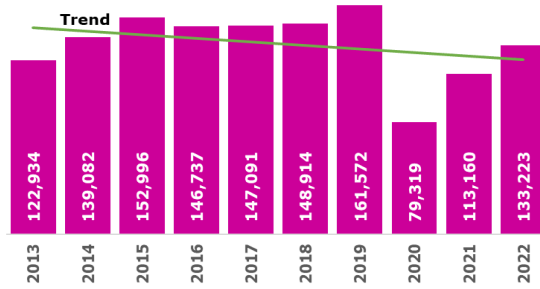
Truck Travel Time Reliability (TTTR) index has increased by 0.03 from 1.11 in 2021 to 1.14 in 2022. The closer to 1 this value is, the better. Overall TTTR appears to be relatively constant. The APO has set a 2023 target of less than 1.22.

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



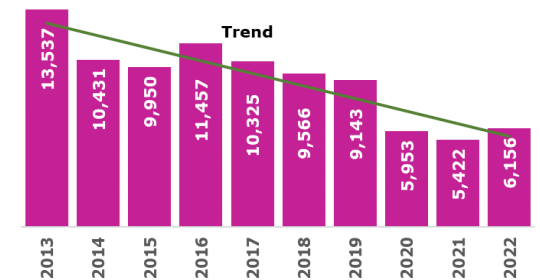
Air passengers at the STC have increased 5.1% from 33,300 passengers in 2021 to 35,004 passengers in 2022. The number of passengers appears to be recovering and returning to pre-pandemic levels. The APO does not have a set target.

**Tri-CAP One-Way Trips:** Annual number of one-way transit trips plus annual number of one-way volunteer driver trips.



The number of Tri-CAP one-way trips has increased 17.7% from 113,160 trips in 2021 to 133,233 trips in 2022. The number of Tri-CAP one-way trips has continued to rebound. 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 increased by 13.5% from 5,422 in 2021 to 6,156 in 2022. While still down from the pandemic, the number of passengers is showing an increase from 2020. Prior to the pandemic, Amtrak was already experiencing a downward trend in ridership.



# 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).

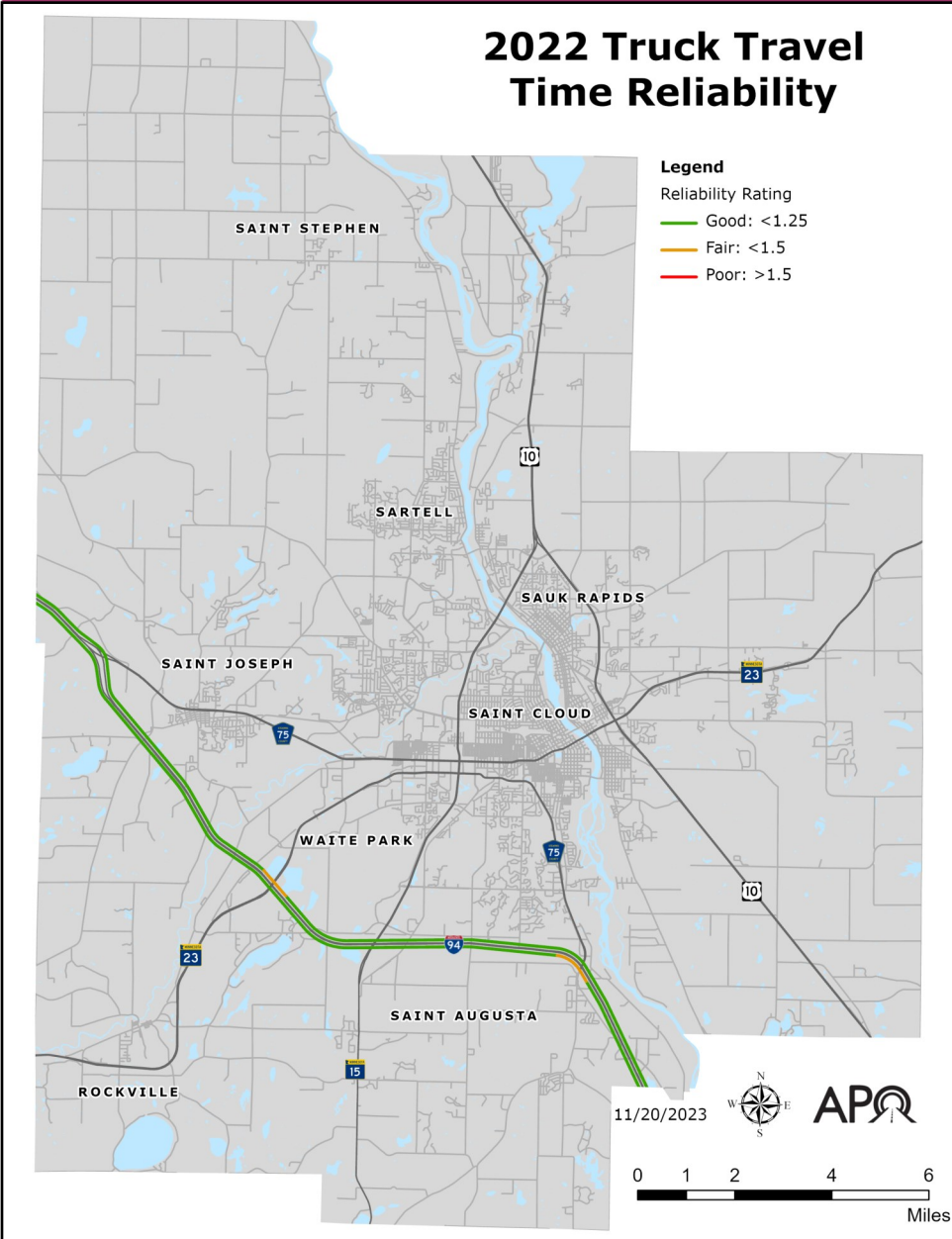


Figure 4.1-Truck Travel Time Reliability

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 FHWA standards.

The section of I-94 that passes through the APO’s MPA has a TTTR of either good or fair. The stretches near MN 23 and I-94 and CSAH 75 and I-94 are the only stretches rated as fair. 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.

**1,400**

Number of acres the airport resides on.

**\$49 Million**

Estimated annual impact on the local economy.

#### 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.

# Goal 4: Support Metropolitan Vitality and Economic Development

## Broadband Access and Modes of Transportation taken to Work

### Broadband Access for households and the Modes of Travel taken to Work

#### Broadband Access

An increasingly important tool in providing access to education, health care, and the ability to stay connected is broadband access.

President Biden signed in to law the Infrastructure Investment and Jobs Act (IIJA) in November 2021. Part of this Act apportioned funding to investment in broadband infrastructure—especially in rural communities.

While reliable Internet access has transformed the way individuals stay connected, it has also transformed the transportation sector. This includes the rise of remote work settings (no longer necessitating a daily commute) as well as the increase in online shopping and delivery services.

As show in Figure 4.2 below, access to broadband can be correlated to household income. While broadband access has been improving for households earning under \$75,000, those earning less than \$20,000 are about twice as likely to not have broadband access as those earning between \$20,000 and \$75,000.

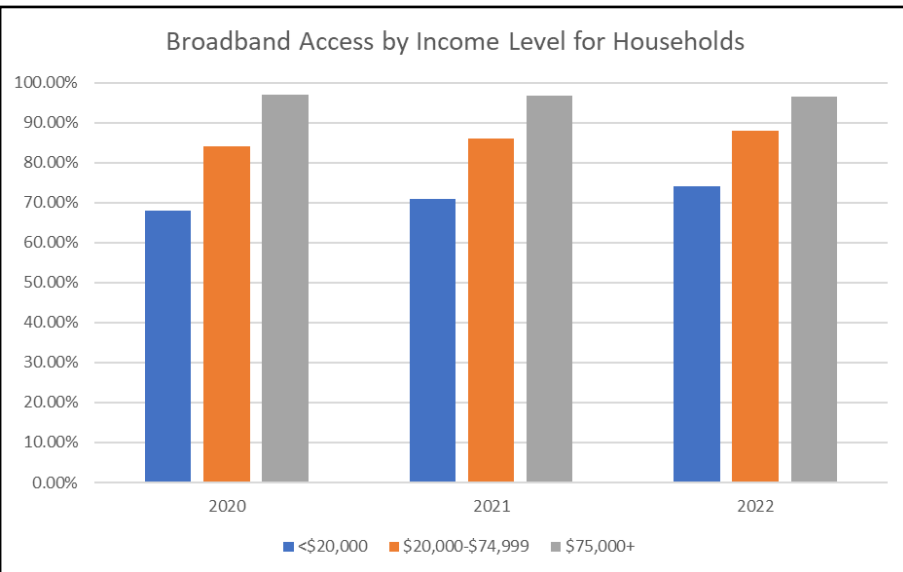


Figure 4.2 - Broadband Access by Income Level for Households  
Data Source: U.S. Census ACS Five Year Estimates

#### Modes of Travel to Work

Working remotely has become increasingly common for Minnesotans. In a recent DEED analysis ([bit.ly/3ULztJW](https://bit.ly/3ULztJW)), approximately 25% of Minnesota’s workforce with remote capabilities is working remotely several days a week in 2023. However, this is not the case with our neighboring states which saw between 10.2% and 16.7% for the same measure.

With this increase in working from home, these people are not necessarily making fewer trips. The lack of commuting trips from this group have partially changed to trips for errands such as shopping or trips to drop off/pick up their kids from school. There has also been a change in when the other trips resulting from the lack of a work commute are occurring. These new trips tend to occur at non-peak commute times, either earlier in the morning or around midday. This should help alleviate some congestion issues related to peak travel times.

The percent of people working from home has nearly doubled since 2019. Much of the decrease in people driving to work alone is due to an increase in accessibility of other options.

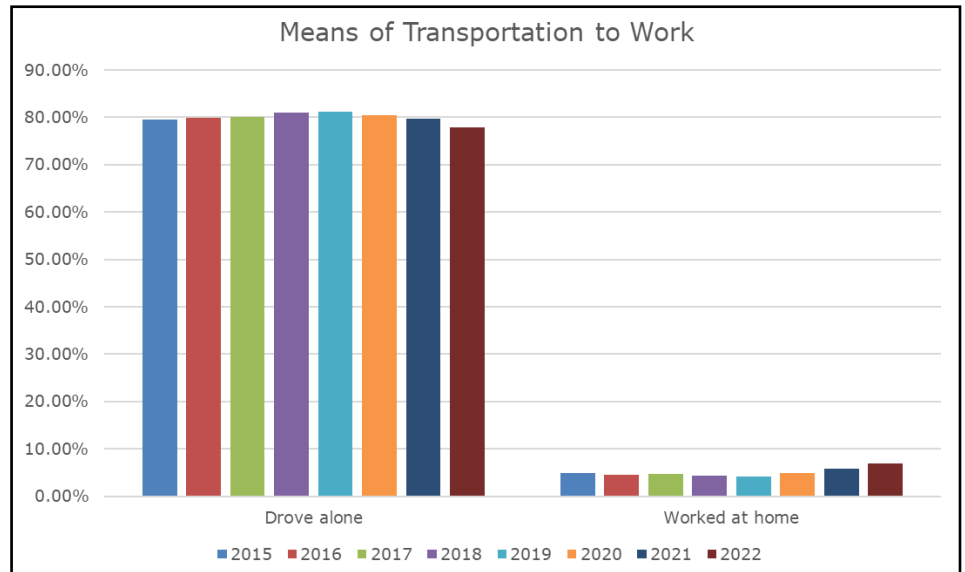


Figure 4.3 - Means of Transportation to Work  
Data Source: U.S. Census ACS Five Year Estimates



## Goal 4: Support Metropolitan Vitality and Economic Development

### Modes of Travel taken to Work

Distribution of the means of transportation people are taking to work

### Means of Transportation to Work

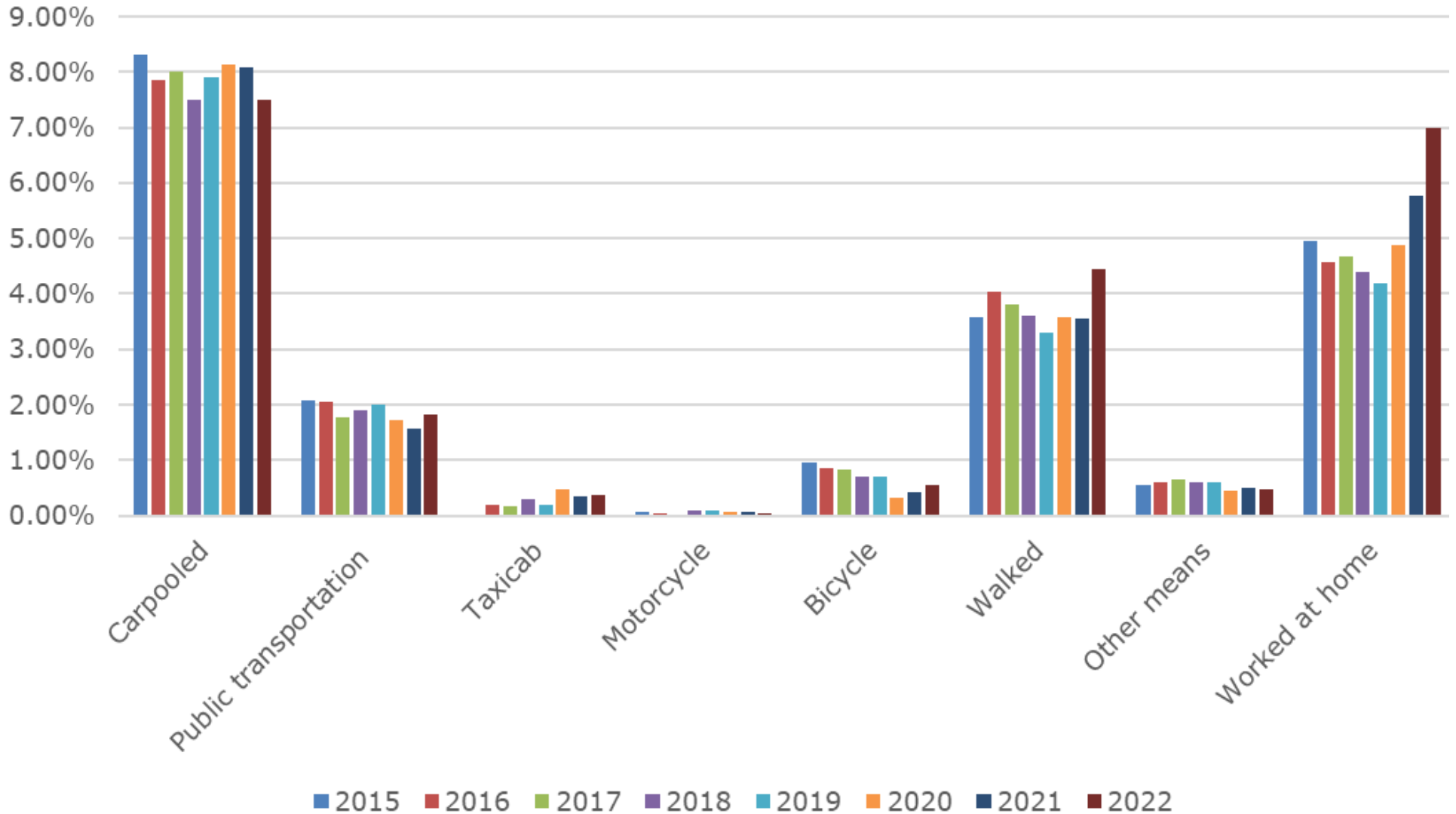


Figure 4.4 - Means of Transportation to Work

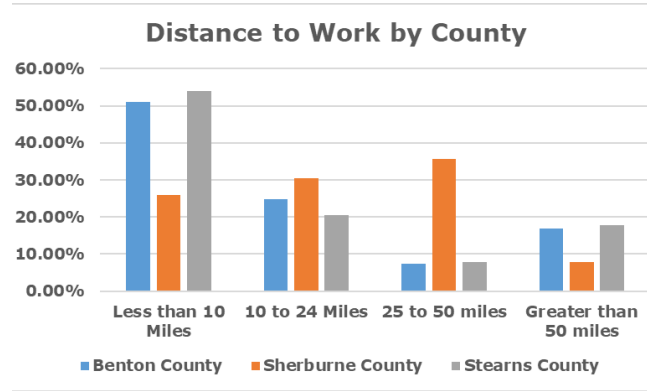
Data Source: U.S. Census ACS Five Year Estimates

# Goal 4: Support Metropolitan Vitality and Economic Development

## Saint Cloud APO Economic 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.



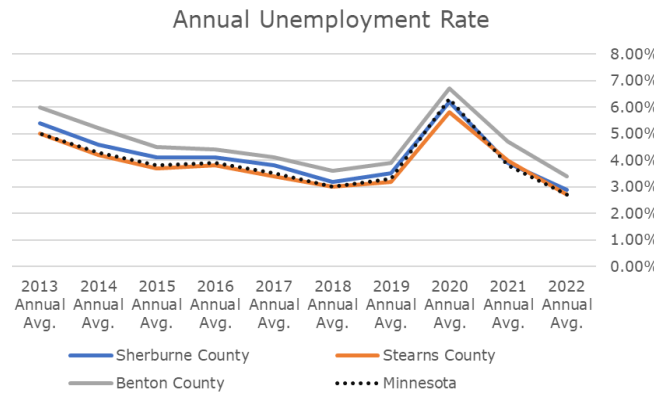
Stearns and Benton County have a very similar curve to their distances traveled for work, but Sherburne County has a much more uniform travel distances under 50 miles likely due to it being between the Twin Cities and Saint Cloud.

Information for 2022 was not available.

**Annual Unemployment Rate for Counties:**

The annual unemployment rate for Sherburne, Stearns, and Benton Counties and the State of Minnesota.

Data courtesy of the U.S. Bureau of Labor Statistics (BLS)



The counties tend to follow similar ups and downs for unemployment rates. Unemployment rates within all three of the counties included are at the lowest they have been in the past 10 years.

In 2020, the counties all experienced a drop in their labor force. This means that the number of people either employed or unemployed decreased from 2020 onward. But, positive growth in the labor force has occurred between 2021 and 2022 for each region.

The counties tend to follow the same trends as the overall of Minnesota.



## 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.



Photos courtesy of the APO.



# Goal 5: Promote Energy and Environmental Conservation

## Saint Cloud APO Transportation Results Scorecard

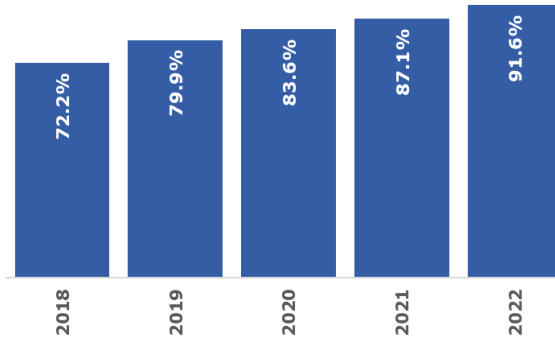
Measure	Multi-Year Trend	Analysis																																												
<p><b>Air Quality Five Year Rolling Average</b> - Annual count of days in each Air Quality Index (AQI) category; good, moderate, unhealthy for sensitive groups, and unhealthy dividing by five, and rounding to the nearest tenth decimal place.</p>	<table border="1"> <caption>Good Air Quality (Five Year Rolling Average)</caption> <thead> <tr> <th>Year</th> <th>Percentage</th> </tr> </thead> <tbody> <tr><td>2012</td><td>79.2%</td></tr> <tr><td>2013</td><td>81.2%</td></tr> <tr><td>2014</td><td>82.6%</td></tr> <tr><td>2015</td><td>84.6%</td></tr> <tr><td>2016</td><td>88.0%</td></tr> <tr><td>2017</td><td>90.1%</td></tr> <tr><td>2018</td><td>89.7%</td></tr> <tr><td>2019</td><td>90.1%</td></tr> <tr><td>2020</td><td>90.0%</td></tr> <tr><td>2021</td><td>87.6%</td></tr> </tbody> </table> <table border="1"> <caption>Moderate Air Quality (Five Year Rolling Average)</caption> <thead> <tr> <th>Year</th> <th>Percentage</th> </tr> </thead> <tbody> <tr><td>2012</td><td>20.3%</td></tr> <tr><td>2013</td><td>18.4%</td></tr> <tr><td>2014</td><td>17.1%</td></tr> <tr><td>2015</td><td>15.2%</td></tr> <tr><td>2016</td><td>11.9%</td></tr> <tr><td>2017</td><td>9.9%</td></tr> <tr><td>2018</td><td>10.2%</td></tr> <tr><td>2019</td><td>9.8%</td></tr> <tr><td>2020</td><td>9.9%</td></tr> <tr><td>2021</td><td>12.0%</td></tr> </tbody> </table>	Year	Percentage	2012	79.2%	2013	81.2%	2014	82.6%	2015	84.6%	2016	88.0%	2017	90.1%	2018	89.7%	2019	90.1%	2020	90.0%	2021	87.6%	Year	Percentage	2012	20.3%	2013	18.4%	2014	17.1%	2015	15.2%	2016	11.9%	2017	9.9%	2018	10.2%	2019	9.8%	2020	9.9%	2021	12.0%	<p>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. Information for 2022 was not available.</p> <p>The APO desires the air quality of improve.</p> <p>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. Information for 2022 was not available.</p> <p>The APO desires the air quality of improve.</p>
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# Goal 5: Promote Energy and Environmental Conservation

## Saint Cloud APO Transportation Results Scorecard

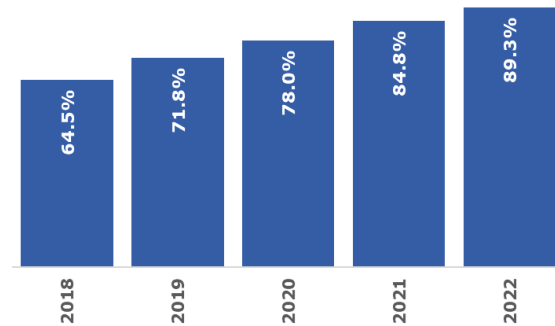
Measure	Multi-Year Trend	Analysis
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**Percent of Total Fuel Usage by Revenue Vehicles Using Compressed Natural Gas (CNG):** Percent of fuel consumed using CNG by Metro Bus revenue vehicles versus all other fuel types.



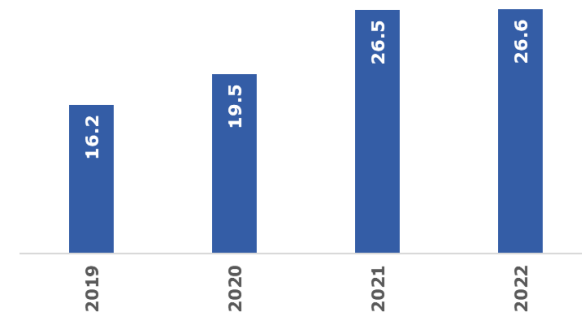
The percent of total fuel consumption using CNG has increased 4.5 percentage points from the previous year. The miles travelled using diesel dropped from 285,000 to 185,000 while the miles travelled using CNG dropped from 1,584,000 to 1,550,000. Metro Bus has made a considerable effort in transitioning from using diesel to CNG as fuel within their fleet.

**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 2022 has increased 24.8 percentage points since 2018.

**Number of Electric Vehicles (EVs) Versus Number of Public Charging Stations:** Number of registered EVs divided by the number of public charging stations.



The number of EVs per charging station outlets increased by 0.1 from 2021 to 2022. The number of EVs in the region has increased as well. While there isn't a perfect ratio of EVs to chargers, this shows that the number of EVs is increasing faster than the number of public charging stations.

Most charging stations have more than one port to allow for multiple vehicles to charge. There are currently 23 level 2 charging ports and 7 DCFC ports within the region between 14 charging locations.

**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.



Photo 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.

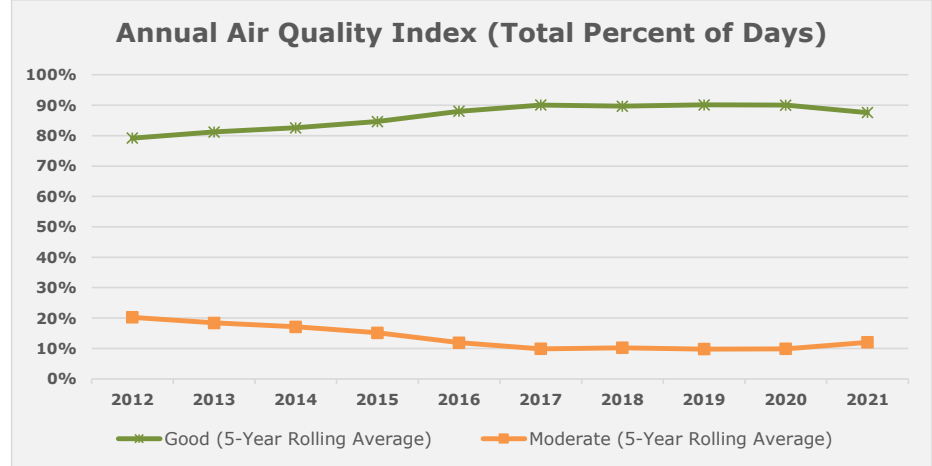


Figure 5.1-Annual Air Quality Index  
Data Source: Minnesota Pollution Control Agency (MPCA)  
Information for 2022 was not available.

**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.

States and MPOs are now being required to set decreasing greenhouse gas emissions targets. Air quality should start to improve as less pollutants from vehicles are being emitted.

<b>21.5%</b>	<b>25.8%</b>
Air pollution caused by on-road vehicles.	Air pollution caused by off-road vehicles (construction and agricultural).

Data Source: MPCA, Statewide Air Emissions Data (2020).



## Goal 5: Promote Energy and Environmental Conservation

### Water Quality

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

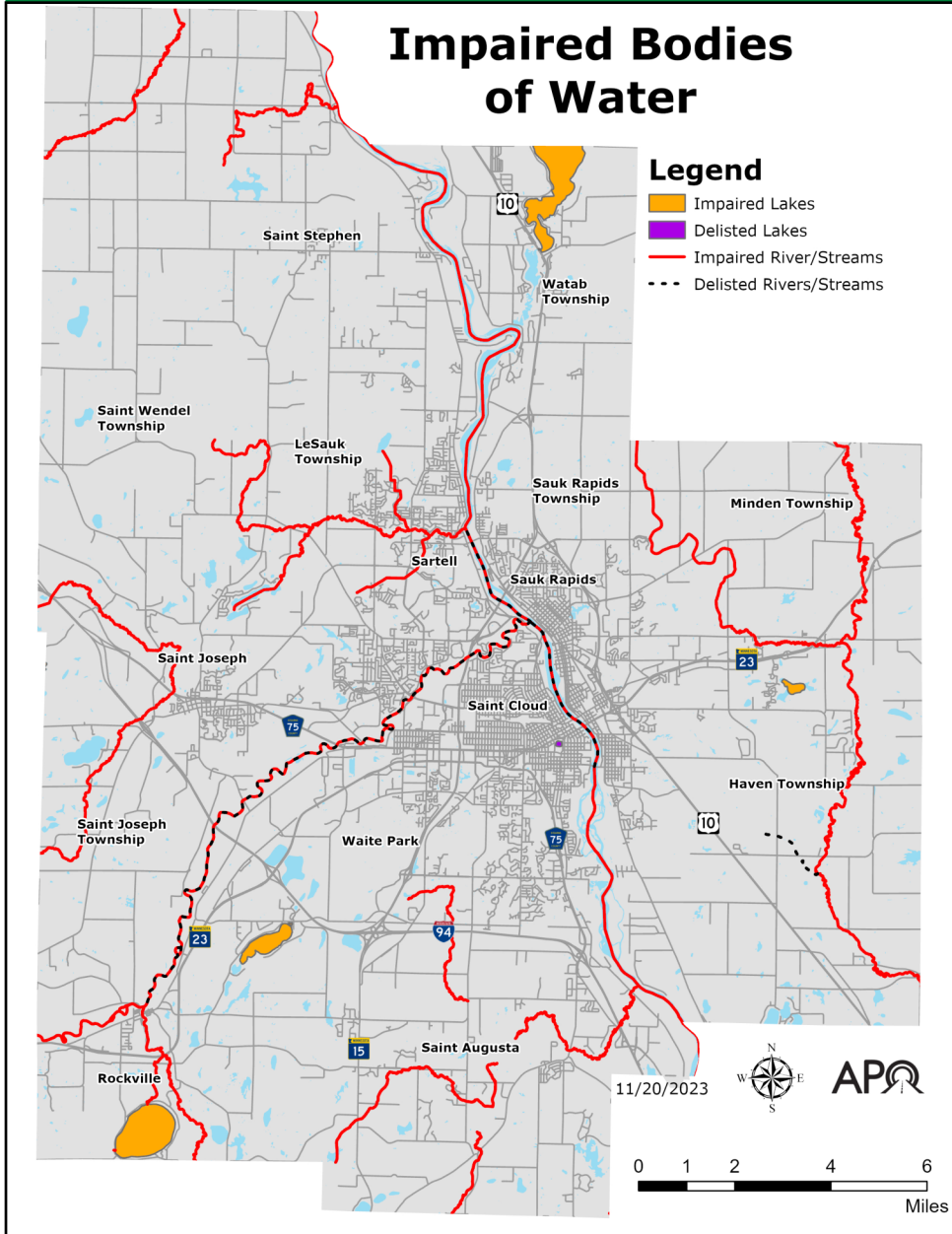


Figure 5.2-Water Quality in 2022

Data Source: MPCA.

### Water Quality

Five lakes within the APO's planning area are being monitored for pollution: Donovan, Little Rock, Grand, Sagatagan, and Pleasant Lake. Between 2021 and 2022, Pleasant Lake was relisted as an impaired body of water. However, in that same time frame, Lake George was delisted due to restoration efforts.

Sixteen rivers/streams are being monitored for pollution within the APO planning area: County Ditch 12, 13, and 16; Elk River; Johnson Creek (Meyer Creek); Mayhew Creek; Mill Creek; Mississippi River; Plum Creek; Sauk River; Spunk Creek; Stony Creek; Watab River (North and South fork); and three unnamed creeks. Stony Creek is a new addition to this list.

The Sauk River and Mississippi river were both delisted previously for certain pollutants/stressors but issues remain with other pollutants/stressors. The unnamed creek south of the Haven Township label was also delisted.

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 even year.

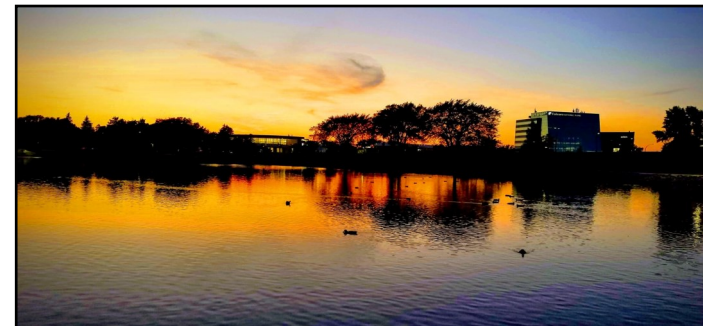


Photo courtesy of the Saint Cloud APO.

## Goal 5: Promote Energy and Environmental Conservation

### Registered Electric Vehicles

#### Number of registered electric vehicles (EVs)

#### Electric Vehicles

In 2022 there were 372 registered electric vehicles (EVs) in the APO region compared to 265 in 2021. Of the 372 EVs, 156 are in Saint Cloud, 73 in Sartell, 34 in Sauk Rapids, five in Saint Joseph, 25 in Saint Augusta, and nine are in Waite Park. Our region has a fraction of the 34,000 registered EVs across the State of Minnesota.

The number of EVs registered in the Saint Cloud Metro Area is increasing similarly to the state of Minnesota. Both areas saw a large increase in EVs between 2020 and 2021, Minnesota a nearly 85% increase and the Saint Cloud Metro Area just over a 125% increase. Between 2021 and 2022 neither area saw that doubling, both saw a similar percentage increase of new EV registrations. Minnesota had nearly 10,600 new EV registrations while the Saint Cloud Metro Area had nearly 110. Even with that growth, EVs still make up a rather small percentage of vehicles purchased statewide.

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 Location	2019	2020	2021	2022
Saint Cloud	39	53	118	156
Sartell	20	27	50	73
Sauk Rapids	13	13	26	34
Saint Joseph	0	0	3	5
Saint Augusta	5	10	17	25
Waite Park	4	2	7	9
Other cities and townships within the region	16	12	44	70
<b>APO region total</b>	<b>97</b>	<b>117</b>	<b>265</b>	<b>372</b>
<b>Percent change from prior year—APO</b>	<b>N/A</b>	<b>21%</b>	<b>126%</b>	<b>40%</b>
<b>Minnesota total</b>	<b>10,065</b>	<b>13,014</b>	<b>23,897</b>	<b>34,473</b>
<b>Percent change from prior year –MN</b>	<b>N/A</b>	<b>29%</b>	<b>84%</b>	<b>44%</b>

Figure 5.3 - EV Registration data comes from the Minnesota Public Utilities Commission (MPUC), 2023.

Note: Data is not collected at regular intervals. January 2023 data was substituted in for 2022 data as no snapshot was taken in 2022.

The original data from MPUC was corrected and the table above shows the corrected data.

**Up to 88%**

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

**More than 80%**

Percent of charging of EVs which occur at home, particularly when sleeping.

**1.9%**

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



# Goal 5: Promote Energy and Environmental Conservation

## Electric Vehicle Charging Stations and Locations

### EV Charging Locations

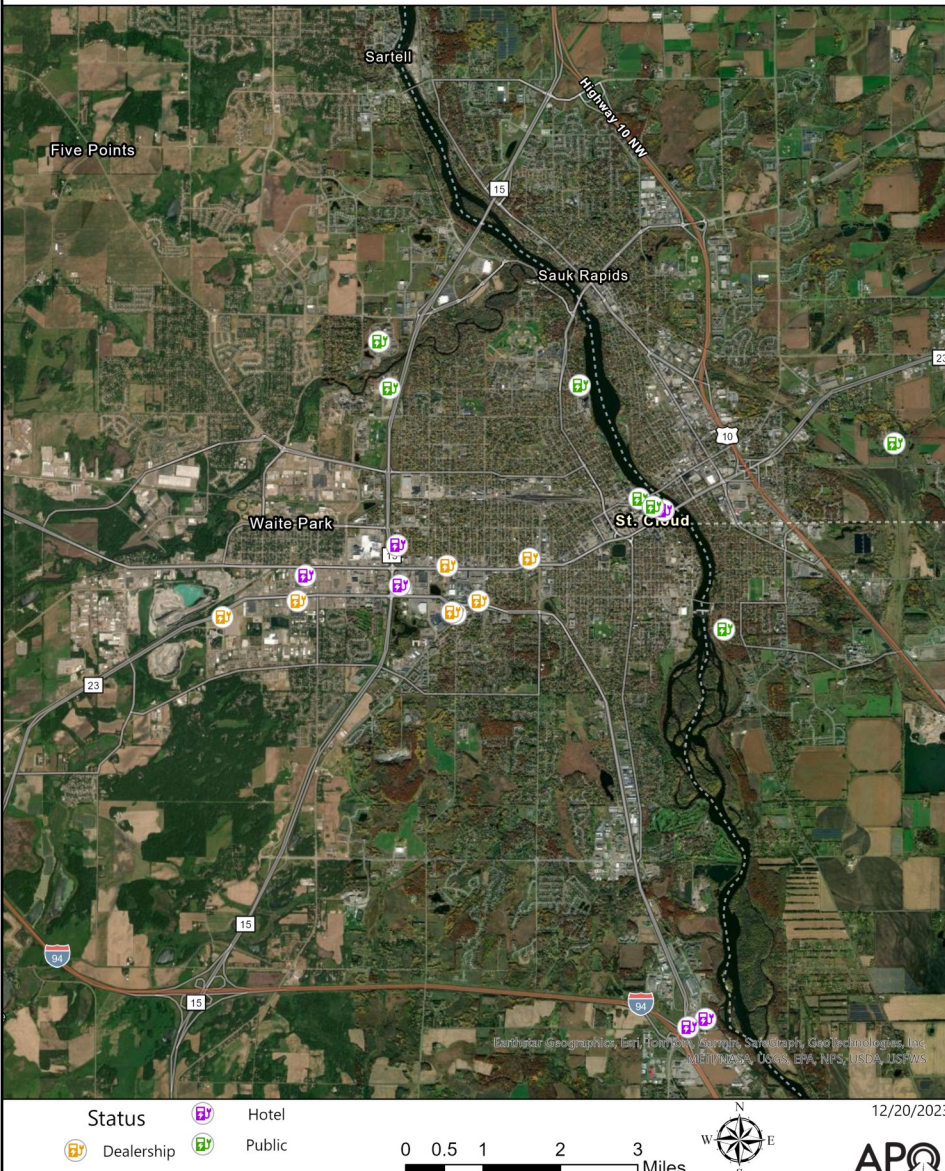


Figure 5.4–EV Charging Locations

Data Source: PlugIntoMN and Plugshare

### 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 seven public and seven dealership EV charging stations in the Saint Cloud metro area: eight level 2 ports and five DCFC ports. These charging locations include two level 2 ports and one DCFC port at Saint Cloud Honda, one level 2 port at Saint Cloud Toyota, two level 2 ports and two DCFC ports at Miller Nissan, two DCFC ports at Miller Buick GMC, two level 2 ports at Riverside Park, two level 2 and two DCFC ports are located at 504 First St. N, four level 2 ports at the CentraCare Health Plaza, one level 2 port at the MnDOT building in northern Saint Cloud, eight level 2 ports at the Saint Cloud Hospital, and one level 2 port at the Saint Cloud Campground and RV Resort. One level 1 port station not shown is located at the Kwik Trip on the east side of Saint Joseph. Hotels seem to currently only provide level 1 ports.