CHAPTER 14
WORK PROGRAM

The Metropolitan Council will carry out or participate in many studies and plans over the next three years. This is not an exhaustive list of all work to be completed, but rather a list of projects that will contribute to the work of the Met Council and will likely require coordination among agencies. Several ongoing work items that are regularly conducted by the Met Council are not included here.

Chapter 14 contains the most significant changes from the 2018 update to the Transportation Policy Plan. In addition to the pace of change and new technology in transportation, the onset and ongoing impacts of the COVID-19 (coronavirus) outbreak require that the Met Council deeply consider how these unplanned changes will alter the transportation system and the way people in the region travel.

The studies listed here will be used to gather additional information and perform further analysis to inform future revisions to this policy plan and to the next update of the Regional Development Guide to occur in 2023-2024.

COVID-19 (coronavirus)

In the spring of 2020, as this plan was being drafted for public comment, the COVID-19 outbreak was having intense impacts on society around the world and here in the Twin Cities. Transportation related behavior and finances are being profoundly impacted, at least in the short term. It is too soon to understand fully those short-term impacts, much less any possible longer-term impacts to transportation behavior and finances and how any of these changes may impact different population groups. This plan does not reflect the results of these changes and so several work program items are listed here so that they can be considered in the future in terms of behavior and how that change in behavior affects transportation finances and safety. We do know that before the COVID-19 outbreak, Minnesota has had some of the greatest health and economic disparities in the country between whites and people of color and American Indians. We also recognize the heavy toll the outbreak is taking on communities that are already significantly impacted by these inequities. Our region needs to address these disparities as part of a broad range of public investments in housing, transportation, education, and economic opportunity.

Financial Impact of COVID-19

This update does not take into consideration the COVID-19 (coronavirus) outbreak and its impacts on transportation revenue. It is already clear that many of the most important revenue sources for transportation will see, at a minimum, severe near-term shortfalls from those that have been anticipated in this plan. As travel has greatly decreased, so have federal and state gas tax revenues and transit fares. As auto sales slow, so does the revenue from Minnesota's Motor Vehicle Sales Tax. This analysis of the short- and long-term financial impact of COVID-19 on transportation will consider

relevant data and various projections of transportation revenues, and potential program level impacts to construction and operation of the highway and transit systems. This work will be done in cooperation with MnDOT and the region's transit providers. This work will support an amendment to this plan or the next regular replacement of it.

Travel Behavior Impacts of COVID-19

In response to the COVID-19 (coronavirus) outbreak, the region is following state, national and worldwide guidance on creating social distance between people by asking them to stay home. This action has had, and will continue to have, an influence on travel behavior. During, and in the aftermath of the outbreak, the Met Council will use available data sources, including Travel Behavior Inventory household survey data, roadway traffic counts, and passive origin-destination travel data to study the short- and long-term effects of COVID-19. During the outbreak, travel has gone down substantially with school and workplace closures reducing the number of people commuting. In addition, people are taking fewer non-essential retail, social, and cultural trips. This has had significant impacts on transit ridership, highway congestion, and air pollution. At this time, it is unknown how and to what extent long-term travel behavior will be affected, and whether or not there will be permanent increases in telecommuting and on-line commerce. The Met Council will study and monitor these long-term effects for different population groups and on all modes of passenger transportation and on freight moving over the region's highways, for possible application in future travel forecasts.

Aviation Impacts of COVID-19

In response to the COVID-19 (coronavirus) outbreak, the region is following state, national and worldwide guidance on creating social distance between people by asking them to stay home. This action has had and will continue to have an influence on air travel. The Met Council will assess the impact of the outbreak on the regional aviation system, including travel to and from the airport, employment, and airline passenger demand and capacity. The outbreak also will have at minimum a short-term impact on business travel, and the study will analyze the impacts that will have on the regional aviation system.   This outbreak has had significant impacts on all aspects of the aviation system, including airport and airline revenues, capital improvement projects, airport operations and even transit ridership. At this time, it is unknown how and to what extent long-term travel behavior will be affected, and whether or not there will be permanent increases in telecommuting and on-line commerce. The Met Council will study and monitor these long-term effects on the aviation system for passenger transportation and the movement of air freight in and out of the region.

Highway Related Studies

Congestion Management Process (CMP) Plan

The Congestion Management Process (CMP) is a cooperative, cohesive, data-driven, and regionally agreed upon process to identify and mitigate congestion along the transportation network. To assist in strengthening the regional congestion management process, the Metropolitan Council has an item in the work program specifically addressing CMP-related items.

In 2018-2019 the Council, with assistance and input from a CMP Technical Advisory Committee, developed a broad plan to determine the extent of the CMP network; developed methodologies for analyzing and measuring both recurring and non-recurring congestion; established a comprehensive data collection program for regional coordination and monitoring; and assessed the effectiveness of previous CMP strategies in mitigating congestion within the region. One result of this effort is a plan that is organized around the federal eight-action step process and will serve to guide the regionally coordinated Congestion Management Process. This plan will continue to be refined with a new methodology using speed and congestion data to determine the extent and duration of congestion on regional corridors.

The Metropolitan Council will also assess the thresholds for determining if a roadway is congested, particularly on the A-minor arterial network. The CMP will also identify the A-minor arterials that are acting as relievers to congested freeway segments. Means in which to disseminate this information to the public and effectively communicate to policymakers will continue to be developed. This includes the development of a performance dashboard and an evaluation of the region's transportation system in relation to peer regions.   In addition, the Council will develop a detailed handbook of the corridor analysis methodology, which will contain sufficient detail to allow stakeholders such as MnDOT, the cities, and counties to conduct CMP corridor analyses in a consistent manner.

Highways Performance Measures and Funding Decisions

As highway assets degrade, more and more of the transportation revenues are needed to preserve the existing system. This effort will look at existing pavement and bridge performance targets. It will also analyze the assumptions used in the pavement and bridge models to allocate resources to see if they adequately account for the high amount of traffic and freight in the region.

The study will also examine and develop performance measures for regional mobility to see how they might play a role in MnDOT funding decisions. The goal is to identify a mobility need monetary value based upon performance measures and targets that can then be incorporated into the next Minnesota State Highway Investment Plan (MnSHIP) Update. This task would be a joint effort between MnDOT and the Metropolitan Council.

Assessment of Regional Congestion Mitigation Philosophy

This effort will include a public conversation about the region's current approach to highway congestion mitigation and building understanding, agreement and refinement as to how the region invests in congestion mitigation. The review will focus on policymaker input but will also include other technical stakeholders and the general public. Context on the issue will be provided through data on existing and future congestion, funding availability, and the trade-offs of pursuing different approaches moving forward. As part of the discussion, technology solutions, spot improvements, strategic capacity investments and the trade-offs between MnPASS and other lane expansion will be discussed. The results of this pubic discussion will refine or change the regional highway investment direction for inclusion in the 2050 TPP.

Regional Solicitation Projects Before and After Analyses

This project will assist the Council in evaluating the impact the Regional Solicitation has had on the region by evaluating actual project outcomes against the outcomes (criteria) evaluated through scoring measures during the project application and scoring process. It will examine the anticipated benefits of projects to the region in comparison to the actual benefits of the funded, constructed projects. This will assist in determining if the measures used in the Regional Solicitation are successful in garnering the desired outcomes or if the measures need to be modified to attain the desired outcomes.

Connected and Autonomous Vehicles (CAV)

The advent of more connected vehicles, the rapid development of autonomous vehicles, and the evolution of new models of new transportation ownership/provision will have profound impacts on the region's transportation use, economics, and infrastructure. The Metropolitan Council is well positioned to convene regional stakeholders to formulate policy responses to technology change and to study impacts to all transportation modes and systems.

Collaboration among state, regional, local, and corporate stakeholders will be necessary to address the myriad of issues in how legislation, regulation, policy, and planning tools address issues across all transportation modes resulting from connected and autonomous vehicle adoption. The Metropolitan Council, with MnDOT, will work together on developing regional collaboration among all transportation stakeholders on connected and autonomous vehicle technology, deployment, policy, and planning. The collaboration may take the form of a set of workshops, and dedication of staff resources.

Metropolitan Council staff will continue to participate in national conversations regarding connected and autonomous vehicles (CAV) and will become local resources on planning efforts, integrating work being done by USDOT, the Association of Metropolitan Planning Organizations, the Transportation Research Board, researchers, other peer regions and states into regional planning work.

The following list of Work Program items are related to the topic of connected and autonomous vehicles. The field of vehicle automation continues to evolve rapidly. It is expected that any specific work plan will quickly become out-of-date, and these items will be revisited and potentially amended annually.

CAV Scenario Development and Performance Measurement

Connected and autonomous vehicle development will be integrated into a performance-based planning framework. Measures will be developed to track the trajectory for various potential scenarios that the region, or parts of it, may be experiencing. Scenarios may include adoption rate of autonomous and/or connected technology, public acceptance of a particular technology, and the degree to which public and private shared mobility technologies exist and affect travel behavior. How and at what rate connected and autonomous vehicles will exist in the market in the planning horizon is uncertain, and planners and policymakers need to begin to plan for the possibility of multiple futures.

Emerging Truck Technologies

A review will be conducted of new and emerging technologies related to freight transportation. Among other issues, this review will include a planning and implementation assessment of automation technology for the commercial trucking industry. This effort will document current and planned deployment of autonomous trucks, the implications for street/highway planning, and the potential impacts to the freight transportation workforce.

Regional Transportation Research and Modeling

Travel Behavior Inventory Program

The Metropolitan Council has historically, in coordination with MnDOT and regional partners, conducted a battery of data collection to learn about where, how, when, how often, and why people in the region travel. The Travel Behavior Inventory (TBI) is used to provide policymakers and researchers current data about travel in the region and to develop updates to the region's travel demand forecasting models. During the last four years, the region has transitioned the TBI program from a decennial project to a continuing program of data collection and travel model improvement activities. A Regional Travel Forecasting Committee consisting of Council, agency, academic, county, and city staff meets regularly to provide comment and direction on TBI studies and model development projects. The centerpiece of the TBI program will continue to be the biennial household travel survey, which began in 2018 with a second round of household travel surveys beginning in 2020. The travel data collected through these household surveys will be analyzed and incorporated into the regional travel model. A transit on-board survey will be conducted every five years, with the next occurring in 2021 and a special generator travel survey of the airport will also be conducted in 2021. Other data collection activities may be done as custom surveys or as third-party data purchases.

Regional Travel Demand Model

Work will continue on implementing and enhancing the Activity Based Model that has been implemented over the past couple of years. Several projects to add analytical components to the model, in coordination with planning needs and to update the model in light of new survey data, will occur over the next five years including: implementing ActivitySim an open-sourced activity-based modeling software; implementing the federal STOPS modeling software for transitway corridor modeling; and improving the current Tourcast modeling software which serves as the backbone of the current activity-based travel demand model.

Transit Related Studies

Comprehensive Transit Financial Report

Minnesota Statute requires the Metropolitan Council to work with regional transit providers and funders to prepare a comprehensive report on metropolitan area transit finance every two years, starting with the first report submitted in 2018. The report will provide a catalog of all funding sources and

expenditures related to transit in the metropolitan area. The report will include a section summarizing the status of "guideway" and "busway" projects (referred to as transitways in this plan) in the metropolitan area, including past and projected expenditures for each project and updates on project status. The report also includes an analysis of the performance of the transit network at the route and line level, along with reporting on performance standards including for farebox recovery.

Network Next

Metro Transit, the region's largest transit provider, is working on a multifaceted effort to develop a vision for their bus network for 2040. This effort will address a number of areas of potential investment in transit including transit service, bus rapid transit investment, customer facilities (e.g. bus stop shelters and transit centers), transit information, and possible relationships between transit and shared mobility. The outcome of these topics may have implications for regional planning, given the size and extent of Metro Transit's network, but two areas are of particular interest for future updates of the Transportation Policy Plan:

- **Local Bus Speed and Reliability Improvements** The plan's strategies address the need to work collaboratively as a region to build transit advantages that provide fast and reliability transit as an alternative to single-occupant vehicles. Chapter 6, "Transit Investment Direction and Plan," describes the extensive network of highway transitway advantages and transitways, but there is not a significant discussion of transit advantages or other strategies for providing faster, more reliable service on the local bus network. This component of Network Next will assess the performance of routes and implement improvements to the local bus network (excluding corridors already examined, such as the arterial bus rapid transit corridors) to address reliability and speed issues. The results of this initiative, particularly the evaluation of implemented strategies on select local routes, will provide a better understanding of the impact of specific strategies that could be implemented on additional routes. This initiative may inform strategies in the Plan and Regional Transit Design Guidelines in Appendix G. The initiative will include collaborations with local municipalities and other stakeholders for implementation, since many options may involve changes to roadway design or operations. As the region's transit network continues to grow, the Metropolitan Council can also use this information to help local governments plan for effective transit service in their community.
- **Arterial Bus Rapid Transit Network Update** Successful implementation and operation of the A and C Lines has created significant interest in identifying and selecting new arterial bus rapid transit corridors. Metro Transit plans to include an evaluation of arterial BRT corridors in Network Next that will go beyond the five lines currently in development. The study will re-evaluate corridors previously studied and will identify and evaluate new corridors for potential arterial BRT service. In partnership with agencies and local communities, an evaluation framework will include technical performance and corridor readiness factors. Study results are anticipated to guide prioritization and selection of the region's next arterial BRT lines. This study will advance in coordination with Metro Transit's Service Improvement Plan update that

is also part of Network Next. The Metropolitan Council will work closely with local communities, transit riders, and the public to conduct this corridor evaluation.

Bus Service Allocation Study

The plan stresses the importance of transit investments in making progress toward the transportation goals for the region. However, there are different roles for transit that require different types of service with conflicting priorities with limited resources. One role transit can play is serving a limited number of the highest demand corridors, where land use and development can support strong ridership. Another role transit can play is providing access to a large number of people and jobs across the region to provide an alternative to driving, regardless of the ridership potential. The transit system can be designed to address these two roles on opposing ends of a spectrum, maximizing efficiency or maximizing coverage. The Metropolitan Council will work with regional transit providers to conduct a study that will analyze how current transit service is allocated between service meant to maximize efficiency and service meant to increase transit coverage. The study will explore the trade-offs of the different approaches, identify a target balance of investment, and identify possible transit solutions to serve areas of the region that can't be effectively served with fixed-route service.

Microtransit and Shared Mobility Access to Transit

One of the major challenges facing the Twin Cities is improving accessibility to underserved employment opportunities; areas that are difficult to serve cost effectively with fixed-route transit. The plan states that new advances in mobility technology should be used to complement the fixed-route transit network. Emerging transportation technology has created new forms of "shared mobility", modes of transportation characterized by dynamic routing and the integration of improved user interaction with services. Examples of shared mobility modes include transportation network companies, bikeshare, and microtransit. The Metropolitan Council will work with regional transit providers, local governments, and regional employers to explore studies that fill in gaps in our knowledge of access to the regional transit system through emerging technologies and modes. Potential study areas include defining a role for shared mobility in the transportation system and how it can contribute to the plan's goals and objectives. The specifics of these studies will likely react to emerging technologies in shared mobility and will be identified as needs come up.

Mobility Hub Planning Guide

This project will develop a planning guide for regional stakeholders involved in the development of mobility hubs -- places where travelers can easily access and connect among multiple transportation options (including public transit, shared vehicles, and other modes). The project will document the various mobility hub design and implementation options and provide specific guidance for both regional and local stakeholders as they plan, design, implement, and manage mobility hubs within the different contexts they are being considered. The planning guide is needed to ensure a consistent and successful customer experience for mobility hubs across different jurisdictions and in different contexts. The project will also deliver an analysis of local land use and transportation contexts where mobility

hubs are best supported. The guide will also include an analysis of existing transportation services, land use, demographics and other factors in order to highlight areas with the highest need for and the most benefit from mobility hubs.

Downtown Transit Capacity and Transit Advantages Analysis

One of the goals in Chapter 6, "Transit Investment Direction and Plan," is to improve access to destinations. Consequently, the strategies to do so include expanding the transitway and bus network that connects in downtown Minneapolis and downtown Saint Paul. There are 16 local bus routes that travel through downtown Minneapolis or Saint Paul and 16 local bus routes that terminate in either downtown along with the substantial number of peak period express bus routes. The Blue Line and Green Line will travel through downtown Minneapolis when the light rail extensions open. There are also several other transitways planned to serve downtown Minneapolis or downtown Saint Paul. The Marquette and 2nd Avenue express bus lanes provide a good example of adding transit advantages in downtown to address capacity, reliability, or travel time concerns. This analysis will consider strategies for maximizing transit capacity in downtown Minneapolis and potentially downtown Saint Paul, as well as strategies to increase reliability and speed of transit in or passing through the downtowns. The cities of Minneapolis and Saint Paul will be partners on this work and these efforts may be integrated into local planning efforts as opposed to a Metropolitan Council-led project.

Bicycle and Pedestrian Related Studies

Regional Bicycle Transportation Network Bikeway Facility Guidelines and Measures

The previous 2040 TPP describes a range of appropriate bikeway facility types for the Regional Bicycle Transportation Network (RBTN), but stops short of offering guidance as to where in the region, or along which roadway categories, specific treatment types may be preferred. In addition, requests for adding new corridors or alignments to the RBTN have been evaluated using a set of mostly qualitative regional bikeway guiding principles. Reviews have also looked conceptually at how new alignments would alter the existing spacing and route directness of RBTN alignments and corridors. As the RBTN is expected to expand to serve regional growth, formalized measures for evaluating corridor spacing and route directness are needed to improve regional network planning and to supplement the review process for future RBTN additions. This study will be conducted to fulfill two primary purposes:

- Provide recommendations for preferred facility treatments on RBTN alignments in urban, suburban, and rural areas hosting the RBTN, and
- Develop recommended guidelines for applying quantifiable measures when evaluating potential RBTN corridors and alignments

Regional Bicycle System Inventory Update

The Regional Bicycle System Inventory was first compiled by the seven metro counties in collaboration with Met Council in 2016; the purpose of the inventory is to assist local planning agencies when

developing local bike plans or reviewing adjacent jurisdiction plans. Building on current activities by the Metro GIS Collaborative in regional facilities data aggregation, the regional bicycle system inventory will be updated to include agencies with newly adopted bicycle plans and to expand the list of facility types implemented in city plans. A process will be developed for coordinating regular system inventory updates.

Pedestrian Safety Action Plan

The Twin Cities area has almost 55% of Minnesota's pedestrian fatalities from 2013-2015 compared to 26 percent of all traffic fatalities in the state. While walking trips are 6 percent of all trips made within the region, almost 17% of all traffic fatalities involve pedestrians. This project will include systemic crash data analysis to identify crash characteristics and risk factors for pedestrians, as well as working with regional stakeholders on identifying countermeasures and program recommendations, including inclusion in the regional solicitation. This analysis would also include looking at crashes in areas with higher percentages of people of color or people with low incomes; other studies done throughout the nation show disproportionate numbers of high-severity crashes in neighborhoods with environmental justice populations.

Bicycle and Pedestrian Count Program

Metropolitan Council will seek consulting assistance to identify requirements and locations for a regional count program for use in regional pedestrian and bicycle planning. MnDOT's Bicycle and Pedestrian Counting Initiative started to institutionalize bicycle and pedestrian counts by providing annual training for local partners in how to conduct counts; the installation of permanent monitoring stations throughout the state, including the Twin Cities region; and a MnDOT district-based portable counting equipment loan program to support local partners in conducting bicycle and pedestrian counts. Metropolitan Council will work with MnDOT to maximize the use of their portable counting equipment within the region and identify any needs for additional counting capacity.

Review of Best Practices for Walkable Neighborhoods and Connections to Transit

Metropolitan Council staff will review best practices for infrastructure treatments supporting walkable neighborhoods and enabling better pedestrian connections to transit in different types of communities. For the majority of transit trips, riders reach their stops by walking. Identifying best practices can help to address gaps in the pedestrian system and its connection to transit.

Regional Sidewalk Inventory Development

The lack of consistently available sidewalk data hinders planning for walking, including in relation to transit in the region. In 2018, Metropolitan Council's GIS department initiated discussions about collecting this data and found that data is inconsistently available and in varied formats that create additional work to convert for regional network use. Based on this research, creating the network data was the preferred option. Other large MPOs in regions such as Philadelphia, Chicago, and Houston

have created regional sidewalk datasets and could serve as models for this work. The Council would work in partnership with local communities in identifying the needed characteristics for routable network data.

Freight Related Studies

Regional Truck Data Collection Framework

In collaboration with MnDOT, the Metropolitan Council will develop a framework for collecting truck classification data on regional truck freight corridors that responds to short-term and long-term data needs. Development of the framework will include:

- Coordination with MnDOT and County highway departments to review existing and planned data collection efforts for the Twin Cities metro area relevant to truck volumes and regional trip patterns on principal and minor arterials.
- Contacting staff from peer state DOTs and regional MPOs to determine the most promising truck data collection methods and technologies to employ in this region.

Industrial Land Atlas Mapping Tool

In 2017 the Industrial Land Inventory was assembled in response to the Thrive MSP 2040 Plan commitment to developing a region-wide inventory of industrial land, thus enabling analysis of industrial land with freight access; it also addressed the region's interest in how industrial sites relate to the freight transportation system. As a continuation of that effort, an Industrial Land Atlas will be developed as an interactive on-line mapping tool for accessing the Industrial Land Inventory database. The inventory and interactive on-line tool will allow economic developers and private sector planners to assess industrial land options and to prioritize sites for future development. These will also enable local governments to better understand the region's supply of industrial land and to identify where industrial land preservation may need to be prioritized.

Aviation Related Studies

Regional Aviation System Study

Along with conducting the Aviation System Impacts of COVID-19 analysis, the 2009 aviation system technical report, (Regional Aviation System Plan) will be updated before the adoption of the next Transportation Policy Plan. The update will include an analysis of the system changes and improvements since 2009 particularly related to the COVID-19 event, system performance evaluation, and local and national system forecasts and trends. This study will also look at the impacts of the recent Long-Term Comprehensive Plans that will have been adopted by the Metropolitan Council for the regional aviation system. This study will also look at the impacts of the Unmanned Aerial Systems (UAS) on the regional system as well as the effects of the evolution of Light Sport Aircraft. This study could be financed in part through a planning grant from the Federal Aviation Administration.

General System Planning

Safety Planning and Priorities in the Region

Significant safety planning has been done in the region through MnDOT's Toward Zero Deaths initiative and development of an updated statewide Strategic Highway Safety Plan that was finalized in 2020. MnDOT also partnered with each county in the state to develop County Road Safety Plans and has piloted plans for cities. To assist with the goal of improving safety for all users of the system in the region, the Metropolitan Council will review statewide and local safety plans, crash data, and other safety planning efforts to identify safety needs and priorities for all modes within the region, in coordination with other local partners. Upon completion of the Pedestrian Safety Action Plan, the Met Council plans to conduct a regional safety study that extends beyond pedestrians and includes all modes of travel. This will be a performance-based plan that will incorporate the federal safety performance targets and steps needed to meet these targets. During the COVID-19 outbreak in early 2020, traffic volumes declined, yet fatalities from traffic crashes increased statewide, compared to previous years with higher traffic volumes. The Council will work with its state partners to track and better understand any changes in fatalities and serious injuries from traffic crashes during the pandemic.

Equity Analysis for Transportation

The Metropolitan Council's Choice, Place and Opportunity: An Equity Assessment of the Twin Cities Region (2014) analyzed the region and its investments to understand patterns of need and opportunities. To fully integrate equity into the transportation planning process, the Metropolitan Council will conduct additional analysis on transportation-related issues. Two potential areas for study are safety outcomes by race and income and spending on preservation and maintenance and condition of transportation facilities by race and income. Putting an equity lens into operation throughout transportation planning decision making is another step in ensuring that transportation policies, practices, and procedures advance equity rather than create barriers to equity. The use of such a lens should be done in combination with using disaggregated data when possible and leveraging existing assets to make any necessary changes to transportation policies, practices, and procedures. Work described earlier in this chapter that will be done to understand the impacts of the COVID-19 outbreak should disaggregate demographic data as much as possible to better understand any differences between population groups for effects on travel behavior and employment.

Electric Vehicles Planning Study

As metropolitan regions begin to shift to connected and autonomous vehicles and implement shared mobility options, there is a general consensus that both public and private vehicle fleets will become electrified. Electric vehicles in fact already widely exist in the market. Although few in numbers, widespread use may proceed what is often thought of as a connected and autonomous future. Fleet electrification can have many positive environmental benefits including climate mitigation and public health but may also require substantial changes in the regional electric grid and where and how

vehicles are charged. This study on vehicle electrification is to plan a network of charging stations to support and encourage electric vehicle (EV) purchase and use in the Twin Cities. This study would summarize the role EVs can play in local climate mitigation, the hurdles to widespread EV adoption, current and planned energy production capacity and greenhouse gas mix, the capital and operating costs of EVs as compared to internal combustion engine vehicles and, national and local best practices and resources.

Planning Scenarios for Greenhouse Gas Emissions

Metropolitan Council Community Development is creating web-based tools for the region, counties, cities and townships to help build land use and transportation planning scenarios for mitigating greenhouse gas emissions. Transportation is one of Minnesota's largest sources of greenhouse gas emissions.

Research shows that compact, mixed-use neighborhoods make it easier to reduce these emissions. People living in compact neighborhoods drive less and the buildings, like duplexes and small apartments, have higher energy efficiency. Electric vehicles will also play a large role in mitigating climate change. What remains uncertain is how emerging trends like telecommuting, automated vehicles, ridehailing apps, and micromobility, like bikeshare and scooters, will impact transportation and land use scenarios. These scenarios are built around adopting a specific policy and will look at both the economic and equity impacts in the area. The intent of these tools is to support local governments as they consider how to mitigate the effects of climate change.