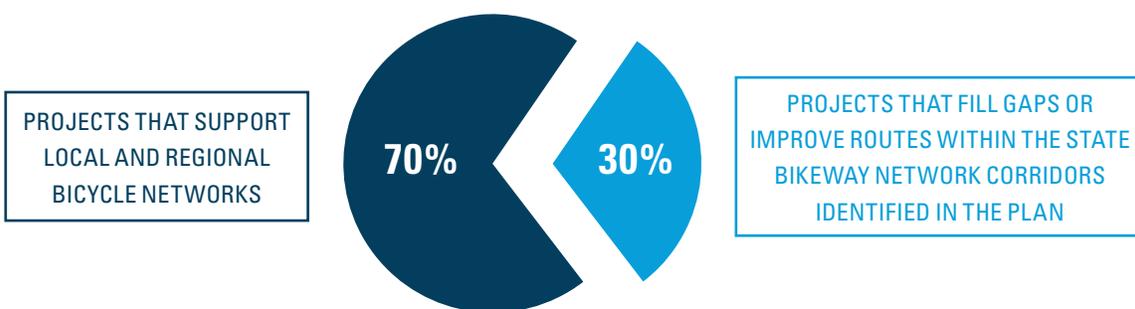


Bicycling contributes to the quality of life for people in Minnesota by connecting them to daily activities and creating access to the state's amenities. The Statewide Bicycle System Plan provides a framework for how MnDOT will address bicycling needs and interests in Minnesota.

Vision

BICYCLING IS SAFE, COMFORTABLE AND CONVENIENT FOR ALL PEOPLE

WHERE FUNDING WILL GO



PLAN GOALS ARE TO INCREASE

Safety and comfort

Build and maintain safe and comfortable bicycling facilities for people of all ages and abilities

Local bicycle network connections

Support regional and local bicycling needs

State bicycle routes

Develop a connected network of state bicycle routes with partners

Ridership

Increase ridership of people who already bicycle and people who don't

KEY FINDINGS

- ▶ The public values state bicycle routes, but people value opportunities for local and regional bicycle travel more
- ▶ State bicycle routes create opportunities for inter-community travel across the state and beyond
- ▶ People prefer riding on facilities separated from cars and trucks

WHAT DOES SUCCESS LOOK LIKE?

MnDOT will measure progress toward the plan's vision to make bicycling safe, comfortable and convenient for all people within three key areas:

- ▶ better understanding the number of people who are bicycling
- ▶ the rate of crashes and injuries
- ▶ are projects making needed improvements

THE PLAN INCLUDES 19 STRATEGIES DEVELOPED TO SUPPORT LOCAL BICYCLE NETWORKS, DEVELOP STATE BICYCLE ROUTES, INCREASE RIDERSHIP AND INVEST IN SAFETY AND COMFORT.

BIKE EVENT ECONOMICS

2015

According to the study, an estimated

\$121 spent per visitor*
in the event area.

Bicycle event visitors* spent

\$8.5 million
in Minnesota

*Visitors are people traveling more than 50 miles or staying overnight.

Bicycling event visitors in Minnesota supported an estimated

\$14.3 million
of economic activity

including

\$4.6 million labor income
150 jobs

An estimated

61,610 people
rode in bicycle events

HEALTH IMPACTS

According to the study, at least

244,000 people
in the Twin Cities area
occasionally commute
by bicycle

12-61
deaths are prevented
per year

Savings of
\$109 million
to
\$569 million
per year

Current 10-year value of
\$0.99 billion
to
\$5.19 billion

Bicycling is associated with reduced rates of chronic disease.



For three bicycle trips per weeks, there is a statistically significant reduction in metabolic syndrome, obesity and hypertension after adjusting for other risk factors.

Estimating the value of chronic disease prevention is difficult, but each prevented case of hypertension (including co-morbidities) is associated with

\$11,200
of greater medical spending per year

10% reduction in all-cause mortality from
100 minutes/week
of bicycling

Learning from public engagement

MnDOT worked actively to engage the public during this planning process, and achieved one of the highest levels of public participation recorded in a statewide planning initiative. More than 4,500 people participated in public outreach activities to provide input to this plan. Engagement efforts included two series of public open houses in each MnDOT District, a series of workshops in each district among MnDOT staff and agency partners, and equivalent online engagement opportunities. MnDOT learned:

Key Finding 1: [The public values state bicycle routes, but people value opportunities for local and regional bicycle travel more.](#)

People consistently told MnDOT they value opportunities for local bicycle travel more than statewide. Local and regional bicycling networks support trips within and around communities. In places where state trunk highways overlap with a community's local bicycling network, MnDOT can improve the safety and comfort of conditions by investing in infrastructure on or across the state trunk highway even if it is not part of a designated state bicycle route.

Key Finding 2: [State bicycle routes create opportunities for inter-community travel across the state and beyond.](#)

State bicycle routes connect communities and destinations. In many cases, designated state bicycle routes will be eligible to become part of the U.S. Bicycle Route System and connect Minnesota to a national network of bicycling facilities. People value MnDOT's investment in state bicycle routes to support local bicycling trips and long-distance travel.

Key Finding 3: [People prefer riding on facilities separated from motor vehicle traffic.](#)

People strongly expressed preference for separated bicycle facilities. These can take the form of shared use paths, or an exclusive facility located within or adjacent to a roadway that is physically separated from cars and trucks. Separated bike lanes are sometimes called "cycle tracks" or "protected bike lanes."



Supporting local bicycle networks

This planning process has broadened MnDOT's perspective regarding investment in local and regional bicycle infrastructure. Plan participants rated investments to facilitate local travel two to three times higher than investments for statewide bicycle travel. Even though MnDOT roadways form a minority of local and regional bicycling networks, MnDOT has a role in facilitating local trips along or across state highways.

The availability of adopted local and regional bicycle plans enhances MnDOT's capacity to support local bicycle trips along or across the state highway network. Regardless of whether a local bicycling plan exists, communication and regular coordination between MnDOT and local/regional partners is crucial to successful collaboration on local and regional networks.

The strategies listed below demonstrate MnDOT's commitment to addressing local bicycling needs through both planning and implementation. MnDOT will:

STRATEGY 1. Establish a local bicycle planning technical assistance program to advance collaboration toward a bicycle system that conveniently connects people to important destinations by bicycle.

STRATEGY 2. Coordinate and consider regional and local partner participation in MnDOT plans and projects to efficiently respond to critical local and regional bicycle connections.

STRATEGY 3. Continue supporting efforts to allow local jurisdictions flexibility in choosing road designs that support bicycle travel.

STRATEGY 4. Build bicycle facilities that have the appropriate amount of separation from motor vehicle traffic based on the local context.

STRATEGY 5. Develop a process to annually track bicycle infrastructure investments by MnDOT district and statewide.

STRATEGY 6. Include bicycling infrastructure as an asset in the formal Transportation Asset Management Plan process.

STRATEGY 7. Continue bi-annual data collection to update bicycle-related information available for state, county and local roadways.

STRATEGY 8. Develop a bicycle safety plan using a data-driven, interdisciplinary approach that targets areas for improvement and employs proven countermeasures to enhance bicycling safety.



Developing State Bicycle Routes

MnDOT is committed to supporting a state bicycle network and participating in the U.S. Bicycle Route System. Partners in MnDOT's 2013 Statewide Bicycle Planning Study identified connections among destinations as their most significant concern regarding statewide bicycle travel. One of MnDOT's objectives in initiating this planning was to identify statewide destinations that should be linked via a state bicycle network. MnDOT received assistance from the public to prioritize these connections for future designation as a state bicycle route and/or U.S. Bicycle Route. This section presents the State Bicycle Network and MnDOT's strategies to implement this system.

The State Bicycle Network identified through this plan will function as a guide for prioritizing future infrastructure investments and formal designation of state bicycle routes along specific routes. Statewide high priority corridors are the first corridors on the State Bicycle Network that MnDOT will consider for infrastructure improvements and future designation as state bicycle routes.

The destinations on the statewide high priority corridors include:

- Twin Cities to Grand Portage, via Hinckley and Duluth
- Twin Cities to Mankato loop via the Minnesota River Valley and Northfield
- Moorhead to St. Cloud, via Detroit Lakes, Fergus Falls and Alexandria

MnDOT will develop the State Bicycle Network through the following strategies:

STRATEGY 9. Using the State Bicycle Network as guidance, work with local agencies and partners to designate routes as state bicycle routes and as United States Bicycle Routes (e.g. Mississippi River Trail Bicycle Route/USBR 45).

STRATEGY 10. Work with partners to develop and evaluate/update route and promote designated routes.

STRATEGY 11. Work with partners to improve and sign designated state bicycle routes to enhance the convenience and comfort of these facilities.

STRATEGY 12. Maintain up-to-date information about implementation of the State Bicycle Network through consistent and centralized data collection.



The State Bikeway Network

Increasing Ridership

MnDOT supports a holistic approach to achieving its vision of making bicycling a safe, comfortable and convenient option for all people through the “5 Es.” The 5Es include Engineering, Evaluation, Education, Enforcement and Encouragement. Each of these categories is a necessary and mutually supporting part of MnDOT’s overall strategy toward achieving a multimodal transportation system that is accessible to people of all ages and abilities.

While previous strategies focus on engineering improvements, the strategies below call out evaluation, education, enforcement, and encouragement activities that have a core role in staff work plans or activities that will receive greater support from the agency based on findings from this planning process. MnDOT introduces a sixth “E”, termed Evolution to describe how the agency will respond to the changing bicycling landscape beyond adoption of this plan.



EDUCATION

STRATEGY 13. Promote safe driving/bicycling behaviors by developing educational materials and supporting partners in sharing these messages with bicyclists and drivers (e.g. Share the Road).

ENFORCEMENT

STRATEGY 14. Work directly with state, regional and local efforts to enforce laws that make bicycling safer.

EVALUATION

STRATEGY 15. Create a statewide bicycle traffic monitoring program to count and estimate bicycle traffic volumes at selected locations throughout the state.

ENCOURAGEMENT

STRATEGY 16. Encourage bicycle system use by updating and publishing the Minnesota Bicycle Map every two years.

STRATEGY 17. Share information about bicycling opportunities in Minnesota to encourage ridership.

EVOLUTION

STRATEGY 18. Update the Statewide Bicycle System Plan every five years.

STRATEGY 19. Review the Minnesota Bicycle Facility Design Manual every two years to ensure standards reflect current conditions and are consistent with other MnDOT policies. Full manual updates will be periodic and respond to industry innovations.

INTRODUCTION

Investing in safety and comfort

MnDOT oversees planning, construction and maintenance projects on the state trunk highway system. MnDOT will support bicycling within its jurisdiction through investments on the state trunk highway system that facilitate safe and comfortable travel for people of all ages and abilities.

INVESTMENTS TO SUPPORT LOCAL AND REGIONAL BICYCLE NETWORKS

When making bicycling improvements on the state trunk highway system, MnDOT will target approximately 70 percent of funds toward projects that support local and regional bicycle networks. State trunk highways often create gaps in local bicycling networks. Destinations such as schools, churches, and recreational opportunities are often located next to state trunk highways. Large infrastructure such as bridges, overpasses, and interchanges can inhibit safe bicyclist crossings, and they frequently last 50 or more years before reconstruction. Targeting 70 percent of MnDOT's bicycling infrastructure investment toward local bicycle networks is intended to address these gaps.

Potential projects will be prioritized as follows:

1. Improvements and facilities along or across state trunk highways identified in a local or regional plan (e.g. Safe Routes to School plan, MPO, county, or city bicycle/trail plan, municipal comprehensive plan, etc.) or identified through local coordination described in Chapter 6.
2. Improvements along or across trunk highways to close gaps in existing or planned DNR-managed state trails
3. Investments within population centers greater than 5,000
4. Investments that create separation between bicyclists and motor vehicle traffic

INVESTMENTS TO DEVELOP THE STATE BICYCLE ROUTES

When making bicycling improvements on the state trunk highway system, MnDOT will target approximately 30 percent of funds toward projects that fill gaps or improve routes within State Bicycle Network corridors identified in this Plan. MnDOT districts will target state bicycle investments toward statewide high priority corridors and regional priority corridors on the State Bicycle Network.



PHOTO COURTESY OF ZAIDMAN



PHOTO COURTESY OF SACCO

Measuring our success

MnDOT will measure progress toward the plan vision of making bicycling a safe, comfortable and convenient transportation option for all people within three key areas: ridership, safety, and assets.

RIDERSHIP

The plan's vision is that bicycling is a "safe, comfortable and convenient option for all people." Although convenience and comfort are defined and perceived differently among individuals, ridership increases across the population are an indicator that more people find bicycling to be a comfortable and convenient choice. MnDOT will measure the following to assess increases in ridership:

- Bicycle Commuters in Minnesota
- Regular Bicycle Ridership
- Regular Bicycle Ridership among Women

SAFETY

Safety is a key area of performance for all MnDOT infrastructure and is the subject of the multi-agency Toward Zero Deaths initiative that focuses on reducing roadway-related deaths and injuries statewide. MnDOT will measure bicycling safety through the following indicators:

- Bicyclists at Index Monitoring Sites
- Annual Bicycle-Vehicle Crashes
- Growth in Cycling Compared to Growth in Crashes

ASSETS

As MnDOT seeks to increase safety and comfort for bicyclists, it is important that the agency track the development or existence of bicycling facilities in its jurisdiction, the state trunk highway network.

As coordination with partner agencies and data collection methods improve over time, MnDOT will seek to track bicycling infrastructure on local, county and Department of Natural Resources' properties. MnDOT will assess progress toward supporting bicycling on its assets through the following measures:

- MnDOT Projects That Address Bicycling Needs
- State Bicycle Designation and Mapping

