Chapter 1 – Overview

Transportation is one of the foundations of civilization, as people and goods must be able to travel from place to place. Transportation infrastructure enables society and the economy to move effectively and prosper. The role Iowa's transportation system has played in its development is clearly identifiable on an aerial photograph. Evident is a pattern of large cities on navigable rivers and past rail lines, county seats regularly located on state highways, and a grid pattern of a road every mile in rural areas. The interdependent relationship between transportation and land use means that decisions made today about the transportation system will not only affect where and how people travel, but how cities, counties, and the state continue to develop.

An important aspect of maintaining and improving this transportation system is reviewing its current state and planning for future needs. High growth areas may require new roads, additional capacity, or improvements to public transportation. Bicycle and pedestrian accommodations are becoming ever more important due to an increased emphasis on livability and active transportation. Autonomous vehicles may bring innovative ways of designing roads and change how we think about transportation.

The aim of this Long-Range Transportation Plan (LRTP) is to document the present state of transportation patterns and infrastructure in the Black Hawk County Metropolitan Area across all modes, and to chart a course for the maintenance and improvement of each mode based on anticipated needs and revenues. This Plan has a horizon year of 2045. As such, it endeavors to gauge the transportation system over nearly three decades. While these forecasted needs are based on past trends and expected progression, it is necessary to periodically review and update this Plan to consider new developments and changing trends. Accordingly, this Plan is evaluated and revised every five years.

Purpose of the Long-Range Transportation Plan

The Long-Range Transportation Plan serves as a mechanism for the metropolitan planning organization (MPO) to examine its current transportation networks including highway, transit, air, rail, bicycle, and pedestrian modes, and to assess their adequacy for the existing population and economy. Moreover, it provides area officials an opportunity to explore the future transportation needs of the community based on existing conditions and projected revenues. This effort is conducted through a traffic modeling process, close coordination with focus groups, a series of meetings with the MPO Technical Committee, and the solicitation of public input to discuss the needs of the region.

This document provides a framework upon which local jurisdictions can base transportation project selection during the annual programming process. Given a constrained financial future, local officials must be able to prioritize and select projects which best meet the needs of the community, and whose costs do not exceed the revenue projected to be available during the life of this Plan.

Metropolitan Planning Organizations and Federal Legislation

Federal law requires the formation of MPOs for urbanized areas with a population greater than 50,000. The role of an MPO is to oversee transportation planning and programming to ensure that existing and future federal expenditures on transportation projects are based on a continuing, cooperative, and comprehensive (3-C) planning process. MPOs bring together cities and counties in an urban area to ensure that planning reflects their region's shared vision.

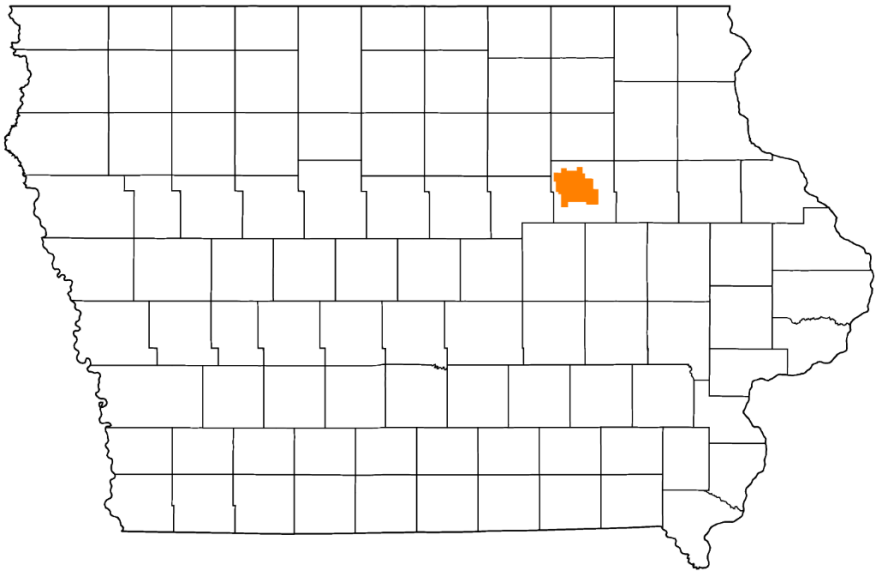
This document has been prepared to meet the federal requirements outlined in the 2015 federal transportation bill, Fixing America's Surface Transportation (FAST) Act, under the authority of the Federal

Highway Administration, the Federal Transit Administration, and the Iowa Department of Transportation. The FAST Act builds on changes that were included in the previous federal transportation bill, Moving Ahead for Progress in the 21st Century Act (MAP-21), which include provisions to make transportation more streamlined, performance-based, and multimodal, and to address challenges including improving safety, maintaining infrastructure condition, reducing traffic congestions, improving efficiency of the system and freight movement, protecting the environment, and reducing delays in project delivery. The FAST Act also incorporates performance goals, measures, and targets into the process of identifying needed transportation improvements and project selection.

Black Hawk County MPO

The Black Hawk County MPO consists of the contiguous urbanized area at the center of Black Hawk County, Iowa (Figure 1.1). The corporate boundaries included in this urbanized area are the cities of Cedar Falls, Elk Run Heights, Evansdale, Hudson, Raymond, and Waterloo. For the purposes of transportation planning, an urban area boundary and study area boundary have been designated (Figure 1.2). The urban area boundary is a smoothed boundary that captures all census-defined urbanized area. This boundary also defines whether roadways are considered urban or rural for the purposes of federal functional classification. The MPO study area boundary extends beyond this and includes the current urbanized area as well as the expected boundary of urban development over the horizon of this Plan. The Black Hawk County MPO study area also includes the city of Gilbertville, and parts of unincorporated Black Hawk County.

Figure 1.1: Black Hawk County MPO Planning Area

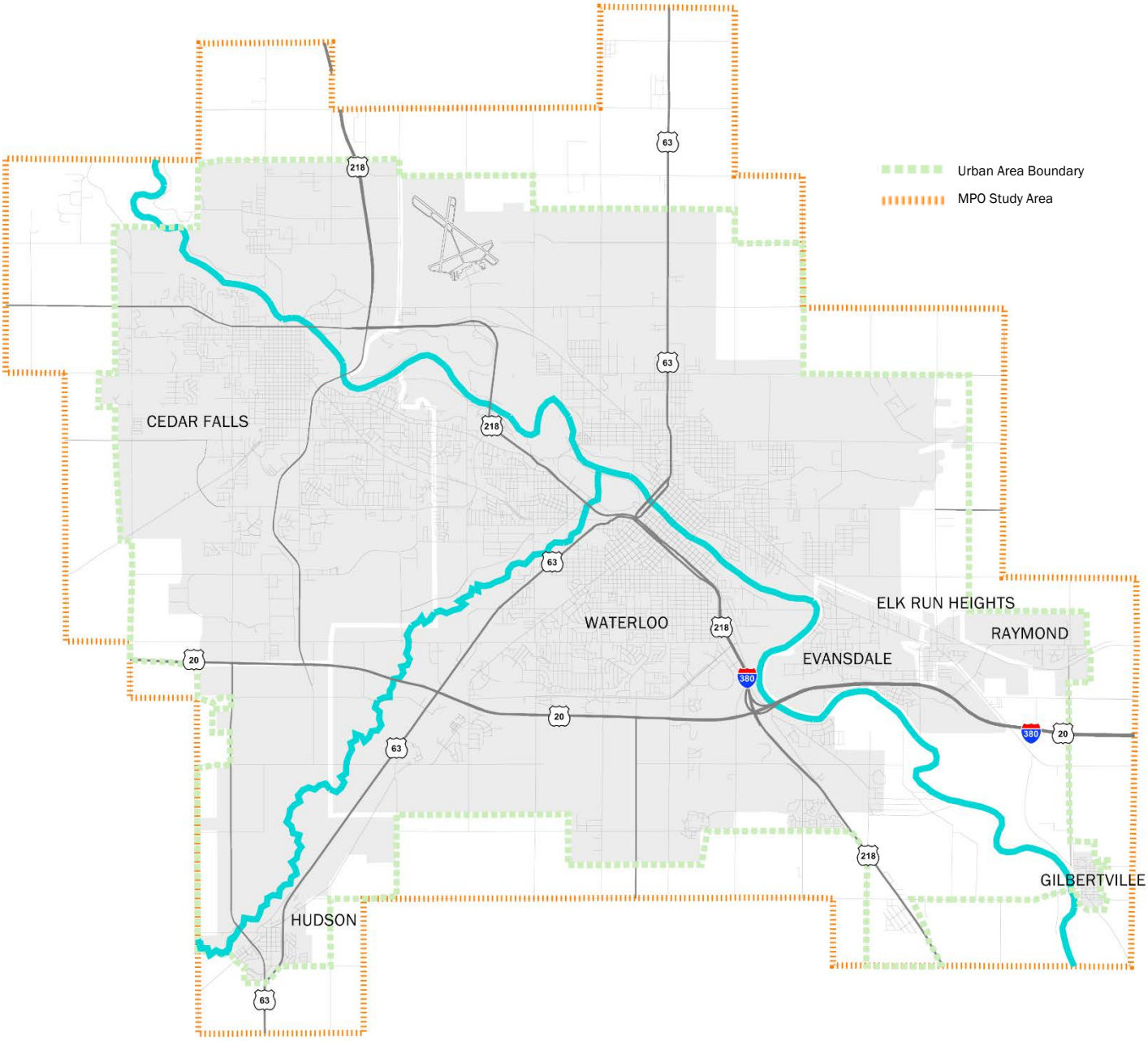


The Iowa Northland Regional Council of Governments (INRCOG) has been designated by the State of Iowa as the MPO for the Black Hawk County Metropolitan Area. While INRCOG provides staff and technical support, the decision-making and programming authority of the MPO rests with its Policy Board. The Policy Board has the power to make policy decisions and conduct comprehensive transportation studies and plans. Voting Policy Board members include an elected official from Cedar Falls, Elk Run Heights, Evansdale, Gilbertville, Hudson, Raymond, Waterloo, and Black Hawk County, as well as a representative from the Metropolitan Transit Authority (MET) and the Waterloo Airport Commission. Non-voting members of the Policy Board include representatives from INRCOG, the Iowa Department of Transportation (DOT), the Federal Highway Administration (FHWA), and the Federal Transit Administration (FTA). The Technical Committee consists of local planners, engineers, modal representatives, and interested parties. The Technical Committee has

extensive knowledge of the area's transportation system and advises the Policy Board but does not vote on policy issues. The Policy Board and Technical Committee meet jointly on a monthly basis. A subcommittee of the Technical Committee is the Transportation Alternatives Program Committee which generally meets annually to discuss and rank transportation alternatives projects.

Another standing committee utilized in the transportation planning process is the Transit Advisory Committee (TAC). This group meets at least twice annually to discuss passenger transportation and human service agency coordination and to help develop the Passenger Transportation Plan (PTP). The MPO also utilizes focus groups as needed, and particularly as part of the development of the LRTP. For this Plan, these groups included Land Use and Bicycle and Pedestrian. Current membership for all MPO committees can be found in the *Appendix*.

Figure 1.2: Black Hawk County MPO Planning Area



Transportation Planning Process

In addition to conducting ongoing transportation planning and programming and participating in studies and projects, the MPO is responsible for completing the following transportation planning documents:

- Transportation Planning Work Program (TPWP) – Outlines the transportation planning activities MPO staff plan to conduct in the next fiscal year and sources of funding; updated annually.
- Transportation Improvement Program (TIP) – Includes all projects programmed for federal transportation funding in the MPO in the next four fiscal years; updated annually.
- Long-Range Transportation Plan (LRTP) – Reviews the current condition and future needs of the transportation system and provides guidance for transportation investment decisions; updated every five years.
- Passenger Transportation Plan (PTP) – Provides coordination between passenger transportation providers and human service agencies and recommends projects to improve passenger transportation; full document update every five years; joint document with the Iowa Northland Regional Transportation Authority.
- Public Participation Plan (PPP) – Details the process the MPO will follow to involve the public in the transportation planning and programming process; updated as needed.

FAST Act Planning Factors

The planning and programming process required of the MPO is outlined in the FAST Act. Like the previous transportation bill, the FAST Act continues, and further strengthens, the requirement that an extensive, ongoing, and cooperative planning effort for the programming of federal funds be undertaken. The MPO's overall transportation planning goal is to provide for the **adequate**, **safe**, and **efficient** movement of persons and goods in the urban area. The MPO utilizes the FAST Act's planning factors to help reach this goal, which are as follows:

- Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency
- Increase the safety of the transportation system for motorized and non-motorized users
- Increase the security of the transportation system for motorized and non-motorized users
- Increase the accessibility and mobility of people and for freight
- Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns
- Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight
- Promote efficient system management and operation
- Emphasize the preservation of the existing transportation system
- Improve the resiliency and reliability of the transportation system and reduce or mitigate stormwater impacts on surface transportation
- Enhance travel and tourism

FAST Act National Goals

The FAST Act emphasizes a performance-based approach and requires a process of performance measurement setting, starting with the U.S. DOT establishing performance measures, followed by the states and MPOs establishing performance targets. The national goals are as follows:

- **Safety** – To achieve a significant reduction in traffic fatalities and serious injuries on all public roads
- **Infrastructure Condition** – To maintain the highway infrastructure asset system in a state of good repair
- **Congestion Reduction** – To achieve a significant reduction in congestion on the National Highway System
- **System Reliability** – To improve the efficiency of the surface transportation system
- **Freight Movement and Economic Vitality** – To improve the national freight network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development
- **Environmental Sustainability** – To enhance the performance of the transportation system while protecting and enhancing the natural environment
- **Reduced Project Delivery Delays** – To reduce project costs, promote jobs and the economy, and expedite the movement of people and goods by accelerating project completion through eliminating delays in the project development and delivery process, including reducing regulatory burdens and improving agencies' work practices

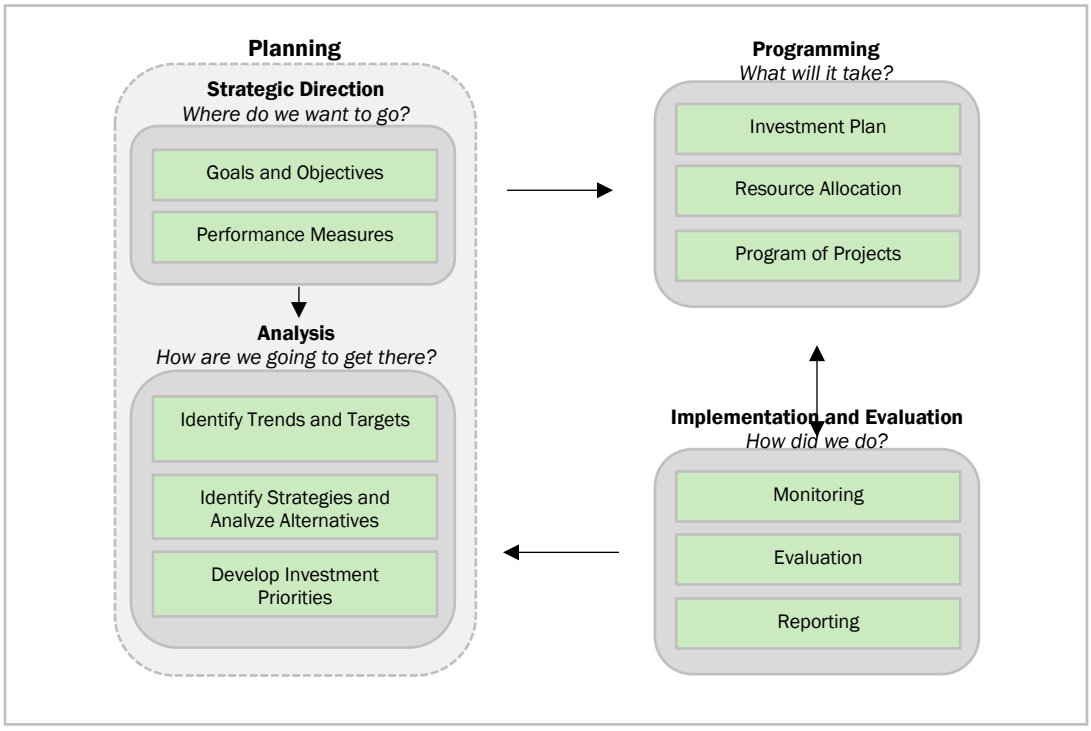
Performance-Based Planning and Programming

The foundation of this Plan is built upon performance-based planning and programming. This approach provides a link between short-term management and long-range decisions about policies and investments made for the transportation system. The approach links specific actionable strategies to help improve decision-making and provides accountability for following through on the plan. The building blocks for a performance-based planning process are goals, objectives, and performance measures which are described as:

- **Goal** – A broad statement that describes a desired end state.
- **Objective** – A specific and measurable statement that supports achievement of a goal.
- **Performance measure** – A metric used to assess progress toward meeting an objective. The MPO coordinates with regional, state, and federal partners to establish performance measures for the MPO planning area.

Performance-based planning and programming begins with a strategic direction, which indicates where the MPO would like to go in the future. The MPO sets this strategic direction by choosing goals, quantifiable objectives, and performance measures to guide decision-making. Next, the MPO creates a long-range plan that identifies trends and targets, defines strategies, analyzes alternatives, and develops investment priorities. The MPO then links the long-range plan to a Transportation Improvement Program (TIP) to deliver projects that improve performance and achieve targets within the strategic direction. Finally, the MPO monitors, evaluates, and reports on the performance-based planning and programming process to create a feedback loop that informs future planning efforts. Figure 1.3 illustrates the performance-based planning and programming process.

Figure 1.3: Performance-based Planning and Programming Process



Source: Federal Highway Administration, Performance-based Planning and Programming Guidebook

National Performance Measures and Targets

The FAST Act requires that State DOTs and MPOs establish performance targets and report on the progress made toward achieving each of these performance targets for the following performance measures:

- **Safety**
  - Total number of traffic related fatalities
  - Rate of traffic related fatalities per 100 million Vehicle Miles Traveled (VMT)
  - Total number of traffic related serious injuries
  - Rate of traffic related serious injuries per 100 million VMT
  - Total number of traffic related non-motorized fatalities and serious injuries
- **Pavement and Bridge**
  - Percentage of pavements of the Interstate System in good condition
  - Percentage of pavements on the Interstate System in poor condition
  - Percentage of pavements of the non-Interstate National Highway System (NHS) in good condition)
  - Percentage of pavements of the non-Interstate NHS in poor condition
  - Percentage of NHS bridges classified as in good condition
  - Percentage of NHS bridges classified as in poor condition
- **System Performance and Freight**
  - Percent of the person-miles traveled on the Interstate that are reliable
  - Percent of the person-miles traveled on the non-Interstate NHS that are reliable
  - Truck Travel Time Reliability (TTTR) Index
  - Annual hours of peak hour excessive delay per capita (not applicable for the MPO)
  - Percent of non-single-occupancy-vehicle travel (not applicable for the MPO)
  - Total emissions reduction (not-applicable for the MPO)

- **Transit Asset Management**
  - Percentage of non-revenue vehicles met or exceeded Useful Life
  - Percentage of revenue vehicles met or exceeded Useful Life
  - Percentage of track segments with performance restrictions (rail)
  - Percentage of assets with condition rating below 3.0 on FTA Transit Economic Requirements Model (TERM) Scale

Performance Targets Methodology

Rather than setting its own targets, the MPO has chosen to support the statewide safety, pavement, and bridge, system performance, and freight targets set by the Iowa DOT, and the transit asset management targets set by MET. The MPO supports those targets by agreeing to plan and program projects so that they contribute toward the accomplishment of the performance measures. The Iowa DOT's methodology for setting federal performance management and asset management targets can be found on the Iowa DOT Office of Systems Planning webpage. Safety targets are set annually as five-year rolling averages. Pavement, bridge, system performance, and freight targets were set in 2018 as four-year targets. Targets to-date are shown in Table 1.1.

By agreeing to support the state's targets for safety, pavement, bridges, system performance, and freight, and MET's transit asset management targets, the Black Hawk County MPO agrees to:

- Work with the Iowa DOT and stakeholders to address areas of concern regarding fatalities and serious injuries, pavement, bridges, system performance, and freight within the metropolitan planning area.
- Work with MET to address areas of concern regarding transit and transit asset management.
- Coordinate with the Iowa DOT and MET and include the State and transit performance measures and targets in the Long-Range Transportation Plan.
- Integrate into the metropolitan transportation planning process the goals, objectives, performance measures, and targets described in other Iowa DOT transportation plans and processes.
- Include a description in the Transportation Improvement Program (TIP) of the anticipated effects of the programming process towards achieving the State safety, pavement, bridges, system performance, freight, and transit asset management targets.

The Iowa DOT Office of Systems Planning provides a federal performance management and asset management website which provides information and links to various resources.

www.iowadot.gov/systems_planning/planning/federal-performance-management-and-asset-management

Performance-Based Planning and the MPO Planning Process

Under the FAST Act, MPO's shall integrate in the metropolitan transportation planning, directly or by reference, the goals, objectives, performance measures, and targets described in other State transportation plans and transportation processes, as well as any plans developed under 49 U.S.C. chapter 53 by providers of public transportation, required as part of a performance-based program. For the Black Hawk County MPO, this includes the State Long Range Transportation Plan, State Transportation Asset Management Plan, Strategic Highway Safety Plan, State Freight Plan, and MET's Transit Asset Management Plan. Links to the State transportation plans are provided on the following pages.

Transportation planning must be cooperative, as no single agency has responsibility for the construction, operation, and maintenance of the entire transportation system. The State plans developed by the Iowa DOT help define Iowa's statewide future transportation vision and identify goals, objectives, and strategies to guide transportation decision-making. The MET Transit Asset Management Plan establishes a strategic and

systematic process of operating, maintaining, and improving the metropolitan transit capital assets through their entire life cycle. A desired outcome of the MPO performance-based planning process is constant quality improvement in project selection, programming, and delivery to help meet the State's and MET's goals. The Black Hawk County MPO's goals and objectives can help implement the State's plans and MET's Transit Asset Management Plan by aligning with goals and objectives identified within the documents. The MPO will review the goals and objectives outlined in statewide plans and MET's Transit Asset Management Plan throughout the planning and programming process to ensure MPO projects align with the goals and strategies and can contribute toward the accomplishment of state and MET performance measures.

To implement performance-based planning, the MPO, MET, and the Iowa DOT will work together to coordinate:

- Collection of performance measurement data.
- Selection of performance targets for the metropolitan area.
- Reporting of metropolitan area targets.
- Reporting of system performance related to specific targets.

The method of coordination between the MPO and the Iowa DOT is outlined in the MPO's Transportation Planning Work Program, and the agreement between MET Transit and the Iowa DOT is outlined in the consolidated funding application. In addition, MPO TIPs are required to document compliance with each of the performance-based planning categories. The TIP discusses how the projects include within it help achieve the state and MPO targets for these areas.

Table 1.1: Iowa DOT Federal Performance Targets*

Goal	Performance Measurement	Baseline	Target	State or MET Adoption	MPO Support of State or MET Target
Safety[1]	Number of fatalities	338.0	353.6	8/31/18	10/11/18
	Fatality rate per 100 million Vehicle Miles Traveled	1.027	1.047	8/31/18	10/11/18
	Number of serious injuries	1,498.8	1,483.7	8/31/18	10/11/18
	Serious injury rate per 100 million Vehicle Miles Traveled	4.568	4.391	8/31/18	10/11/18
	Non-motorized fatalities and serious injuries	146.4	149.8	8/31/18	10/11/18
Pavement and Bridges[2]	Percentage of pavements of the Interstate System in good condition	57.68%	49.40%	5/20/18	6/14/18
	Percentage of pavements of the Interstate System in poor condition	1.75%	2.70%	5/20/18	6/14/18
	Percentage of pavements of the non-Interstate National Highway System in good condition	49.06%	46.90%	5/20/18	6/14/18
	Percentage of pavements of the non-interstate National Highway System in poor condition	14.22%	14.50%	5/20/18	6/14/18
	Percentage of National Highway System bridges classified as in good condition	46.8%	44.6%	5/20/18	6/14/18
	Percentage of National Highway System bridges classified as in poor condition	2.6%	3.2%	5/20/18	6/14/18
System and Freight Reliability[3]	Percent of the person-miles traveled on the Interstate that are reliable	100.0%	99.5%	5/20/18	6/14/18
	Percent of the person-miles traveled on the non-Interstate National Highway System that are reliable	95.6%	95.0%	5/20/18	6/14/18
	Truck Travel Time Reliability (TTTR) Index	1.12	1.14	5/20/18	6/14/18
Transit Asset Management[4]	Percentage of MET's non-revenue vehicles met or exceeded Useful Life Benchmark	66.0%	60.0%	6/29/17	7/13/17
	Percentage of MET's revenue vehicles (buses) met or exceeded Useful Life Benchmark Percentage of MET's revenue vehicles (mini-buses) met or exceeded Useful Life Benchmark	26.0% 54.0%	23.0% 51.0%	6/29/17	7/13/17
	Percentage of MET's assets with condition rating below 3.0 on FTA TERM Scale	0.0%	0.0%	6/29/17	7/13/17

** Rather than setting its own targets, the MPO has chosen to support the statewide safety, pavement, bridge, system performance, and freight targets set by the Iowa DOT, and the transit asset management targets set by MET.*

[1] https://iowadot.gov/systems_planning/fpmam/Iowa-2015-2019-safety-targets.pdf
Safety targets are set as five-year rolling averages; these targets have a baseline of 2013-2017 and are set for 2015-2019.

[2] https://iowadot.gov/systems_planning/fpmam/2018-2021-Pavement-Bridge-Targets.pdf
Pavement and bridge targets are set as four-year targets; these targets have a baseline of 2017 and target year of 2022.

[3] https://iowadot.gov/systems_planning/fpmam/2018-2021-System-Performance-Freight-Targets.pdf
System and freight reliability targets are set as four-year targets; these targets have a baseline of 2017 and target year of 2022.

[4] MET Transit Asset Management Plan
MET targets are set at least once every fiscal year as five-year targets; these targets have a baseline of 2017 and target year of 2022.

State Transportation Plans

The public is the primary beneficiary of the nation's intermodal transportation system built to serve public mobility and productivity. Transportation decisions must be made in an environmentally sensitive way, using a comprehensive planning process that includes the public and considers land use, development, safety, and security. The vision of the Iowa DOT and the Transportation Commission is, "*A safe and efficient multimodal transportation system that enables the social and economic wellbeing of all Iowans, provides enhanced access and mobility for people and freight, and accommodates the unique needs of urban and rural areas in an environmentally conscious manner.*" The Iowa DOT has adopted several plans to address federal requirements and guide transportation investments to achieve the system vision.

Iowa in Motion 2045 State Transportation Plan

Adopted in 2017, the state transportation plan is a long-range document that addresses federal requirements and serves as a transportation investment guide for each transportation mode. This document is updated every five years in order to stay current with trends, forecasts, and factors that influence decision-making. The state transportation plan includes the following:

- Trends – An analysis of demographic, economic, passenger, and freight trends.
- System condition – An overview of each mode within the transportation system.
- Vision – A broad statement that captures the overall vision for Iowa's future transportation system.
- Investment areas – Four overarching areas within which actions are defined to implement the system vision.
- Strategies and improvement needs – Actions and initiatives to implement the vision.
- Costs and revenues – An analysis of anticipated costs and revenues for each mode.
- Implementation – A discussion related to addressing funding needs, programming future investments, and continuous performance monitoring.

The prior state transportation plan, adopted in 2012, focused on policy issues and not on specific actionable items. The 2045 Plan provides specific strategies and improvement needs that can be implemented and revisited over time. Notable enhancements include extensive internal and external stakeholder and public input efforts throughout plan development; and a multimodal action plan, with specific modal strategies and improvement needs.

Four principal investment areas with specific strategies and improvement types were identified to help achieve the system vision. The investment areas include:

- Stewardship through maintaining a state of good repair.
- Modification through rightsizing the system.
- Optimization through improving operational efficiency and resiliency.
- Transformation through increasing mobility and travel choices.

A wide range of strategies have been identified to achieve the vision. Strategies were derived from a variety of sources, including ongoing activities, existing plans, and stakeholder and public input. A total of 80 strategies were identified across the following categories:

- Asset management
- Aviation
- Bicycle/pedestrian
- Bridge
- Energy
- Freight
- Highway
- Public Transit
- Rail
- Safety
- Technology
- Transportation system management and operation (TSMO)

A multi-pronged approach was used to help determine improvement needs across the multimodal system. For highway and bridges, a seven-layer analysis was conducted. The Primary Highway System was divided into 464 corridors for analysis, and needs were identified at the corridor level. A comprehensive matrix covering the entire Primary Highway System is included in the Plan. The matrix shows which needs were identified for each highway corridor. For aviation, bicycle and pedestrian, public transit, rail, and water, needs were derived from existing system plans for those modes or from updated analysis where warranted.

www.iowadot.gov/iowainmotion/files/IIM-2045-Full-Plan.pdf

Iowa Transportation Asset Management Plan 2018

Transportation asset management is a strategic approach to managing transportation infrastructure. It embodies a philosophy that is comprehensive, proactive, and long-term. The overall goals of asset management are to minimize long-term costs, extend the life of the transportation system, and improve the performance of the transportation system. Transportation Asset Management Plans (TAMP) act as a focal point for information about the state's assets, management strategies, long-term expenditure forecasts, and business management processes. The Iowa DOT's TAMP describes how the Iowa DOT manages its bridges and pavements throughout their lives. The document also connects the state transportation plan and system and modal plans to the Iowa DOT's five-year Transportation Improvement Program. In addition to meeting federal requirements, this TAMP meets the following objectives:

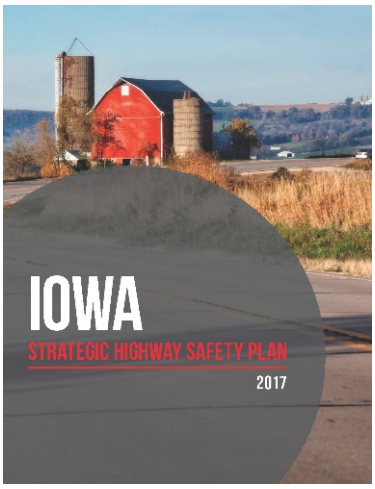
- Defines clear links among agency goals, objectives, and decisions
- Defines the relationship between proposed funding levels and expected results
- Develops a long-term outlook for asset performance
- Documents how decisions are supported by sound information
- Develops a feedback loop from observed performance to subsequent planning and programming decisions
- Improves accountability for decision-making
- Unifies existing data, business practices, and divisions to achieve asset management goals

Consistent with best practices nationally, the Iowa DOT's asset management goals are to:

- Build, preserve, operate, maintain, upgrade, and enhance the transportation system more cost-effectively throughout its whole life.
- Improve performance of the transportation system.
- Deliver to Iowa DOT's customers the best value for every dollar spent.
- Enhance Iowa DOT's credibility and accountability in its stewardship of transportation assets.

www.iowadot.gov/systems_planning/fpmam/IowaDOT-TAMP-2018.pdf

Iowa Strategic Highway Safety Plan 2017



One method states conduct safety planning is through the development a highway safety plan. Starting in 2016, Iowa's traffic safety community began working on an update to Iowa's Strategic Highway Safety Plan (SHSP). This update was written using a data-driven, innovative, and proactive planning process. The SHSP was published in 2017.

As described in the document, the SHSP was written to address not only the Four E's of roadway safety (engineering, education, enforcement, and emergency medical services), but also a fifth E – everyone. The last E is a reminder that safety is everyone's responsibility.

Safety strategies were developed for several areas with the priority strategies outlined in the following categories:

- Education – Multimedia education campaign
- Education – Enhance driver education
- Enforcement – High-visibility enforcement
- Enforcement – Deploy state-of-the-art technology
- Enforcement – Expand impaired enforcement programs
- Engineering – Prevent lane departures
- Engineering – Improve intersections
- Policy – Enhance multiagency collaborative efforts
- Policy – Strengthen legislative policies
- Data Management and Use – Safety data improvement

For the 2017 SHSP, two areas of concern were revealed after crash data was analyzed. Both the older driver and motorcycle-related categories saw an upward trend in severe injuries since the 2013 SHSP was adopted. As these were the only two categories that did not consistently display a downward trend, a special emphasis was placed on them.

www.iowadot.gov/traffic/pdfs/Iowa2017SHSP.pdf

Iowa State Freight Plan 2018

The Iowa DOT has developed a multimodal freight plan to address all modes of the freight transportation system and to incorporate freight considerations into the statewide transportation planning and programming process. The State Freight Plan serves as a platform for safe, efficient, and convenient freight transportation in the state. In recent years, the Iowa DOT has embarked on numerous freight planning activities to help achieve this objective. The State Freight Plan is a way to connect all of these initiatives and allow them to move forward toward a common goal of optimal freight transportation in the state. In addition, the Plan guides Iowa DOT's investment decisions to maintain and improve the freight transportation system. This plan also

- Aligns with the state transportation plan: Iowa in Motion 2045.
- Meets the requirements of the FAST Act.
- Supports national freight goals.

Each of Iowa's freight-related initiatives plays a role in a collaborative planning and programming process. The tools and studies are utilized to develop system and modal plans, such as the State Freight Plan, which are consistent with the state transportation plan. Projects are then identified, studied, and programmed based on the findings and recommendations provided from each of these initiatives.

www.iowadot.gov/iowainmotion/files/Iowa-State-Freight-Plan-Update-2018.pdf

Black Hawk County MPO Goals, Objectives, and Performance Measures

The MPO identified four goals for the 2045 Long-Range Transportation Plan which are to:

- Increase the safety of the transportation system.
- Strategically preserve the existing infrastructure.
- Support an efficient transportation system.
- Provide a high degree of multimodal accessibility and mobility.

The MPO has adopted several objectives to help achieve these goals and performance measurements to track the progress toward meeting the objectives. This includes federally-required performance measurements which are signified with an asterisk in Table 1.2. The MPO's goals and objectives can help implement the state transportation plan and to contribute toward the accomplishment of the state's performance measures.

MPO Performance Report

The Black Hawk County MPO is committed to promoting and implementing a safe, efficient, and multimodal transportation system. The goals and objectives provide the framework for achieving this vision, and the performance measures assess the progress towards meeting the objectives. In order to gauge the region's progress toward achieving these goals, the MPO will prepare a Performance Report halfway through the life of this Plan, or by May 12, 2021. The report will be a valuable tool for the MPO Policy Board to help guide decision-making for transportation investments and will be beneficial for increased public engagement and communication about regional performance. The baseline condition data shown in Table 1.2 will serve as the base for the Performance Report. As planning occurs through multiple cycles, the Performance Report will help to identify recent trends in performance and can be used to refine long-range goals, objectives, and performance measures.

Transportation Performance Management approach
Source: FHWA

Table 1.2: 2045 Long-Range Transportation Plan Goals, Objectives, and Performance Measures

Goal	Objective	Performance Measurement	MPO Baseline Condition Data
Increase the safety of the transportation system	1.1) Reduce the number of traffic fatalities	Total number of traffic fatalities*	6.8 / year
	1.2) Reduce the rate of traffic fatalities	Rate of fatalities per 100 million Vehicle Miles Traveled*	2.092
	1.3) Reduce the number of traffic serious injuries	Total number of serious injuries*	38.6 / year
	1.4) Reduce the rate of traffic serious injuries	Rate of serious injuries per 100 million Vehicle Miles Traveled*	11.876
	1.5) Reduce the number of non-motorized fatalities and serious injuries	Total number of non-motorized fatalities and serious injuries*	6.8 / year
	1.6) Reduce the number of traffic accidents involving pedestrians and bicyclists	Total number of crashes involving pedestrians and bicyclists	40.8 / year
Strategically preserve the existing infrastructure	2.1) Preserve and maintain Interstate system pavement	Percentage of Interstate pavement in good condition* Percentage of Interstate pavement in poor condition*	Good: 75.5% Poor: 0.00%
	2.2) Preserve and maintain non-Interstate National Highway System (NHS) pavement	Percentage of non-Interstate NHS pavement in good condition* Percentage of non-Interstate NHS pavement in poor condition*	Good: 24.2% Poor: 30.6%
	2.3) Preserve and maintain NHS bridges	Percentage of NHS bridge deck area in good condition* Percentage of NHS bridge deck area in poor condition*	Good: 57.8% Poor: 0.0%
	2.4) Preserve and maintain non-NHS road pavement conditions	Percentage of non-NHS roads in good or very good condition Percentage of non-NHS roads in poor or very poor condition	Good: 34.0% Poor: 21.0%
	2.5) Decrease the number of bridges that are posted or closed	Total number of posted or closed bridges	13
	2.6) Decrease the number of bridges that are structurally deficient	Total number of structurally deficient bridges	12
	2.7) Increase the average bridge sufficiency rating	Average bridge sufficiency rating of bridges in the metropolitan area	88.3
Support an efficient transportation system	3.1) Maintain the percent of person-miles traveled on the Interstate that are reliable	Level of Travel Time Reliability (LOTTR)*	100.0%
	3.2) Maintain the percent of the person-miles traveled on the non-Interstate NHS that are reliable	LOTTR*	99.6%
	3.3) Improve freight travel time reliability	Truck Travel Time Reliability (TTTR) Index*	1.19
	3.4) Reduce the total vehicle hours traveled	Travel Demand Model (TDM) base year total vehicle hours traveled (VHT)	83,582 (VHT)
Provide a high degree of multimodal accessibility and mobility	4.1) Provide more on-road bicycle facilities	Number of miles of on-road bicycle accommodations	TBD
	4.2) Provide additional infrastructure to provide pedestrians easy access to commercial districts	Total length of public sidewalks and crosswalks in MPO Pedestrian Master Plan focus areas	282.6 miles
	4.3) A greater percentage of trips are made by foot	Percent of workers who walk to work	5.0%
	4.4) A greater number of trips are made using public transit	Total number of fixed route rides using MET	398,270
	4.5) Decrease the percent of MET's vehicles that are beyond Useful Life Benchmark (ULB)	Percent of revenue vehicles within an asset class that have met or exceeded ULB* Percent of non-revenue vehicles that have met or exceeded ULB*	Buses: 26% Mini-buses: 54% Non-Rev: 66% Facilities: 0%
	4.6) Transit facilities remain in good condition	Percent of MET's facilities with a condition rating below 3.0*	0.0%
	4.7) Increase the number of bus shelters in the metropolitan area	Number of bus shelters	6

**Federally required performance measurement*