

Chapter 2: Goals, Measures, and Targets

VISION

Our region has a well-coordinated multi-modal transportation system that leverages our unique attributes in order to ensure a high-quality of life and economic success.

MISSION

The MPO advances a safe, effective, fully integrated multi-modal transportation system that supports economic development, protects natural assets, and enhances overall quality of life

GOALS

The high-level goals outlined on the following pages work as a system to direct Greater Des Moines toward a more vibrant transportation system. When realized, these goals will ensure the region continues to support a strong economy while protecting the environment. Fulfilling these goals also will enhance the great quality of life residents already enjoy in Greater Des Moines. The current conditions analysis, measures, and targets associated with each goal were identified by the plan's steering committee and through public involvement. They will allow the region to understand the progress made in achieving our goals between now and 2050. These goals will not be achieved overnight. Rather, they will be achieved by continual collaborative efforts in which all stakeholders take an active role.

The MPO identified four goals for Mobilizing Tomorrow. The MPO sought to maintain consistency with the goals identified in The Tomorrow Plan. The Tomorrow Plan's goals were as follows:

- Create a resilient regional economy.
- Improve the region's environmental health and access to the outdoors.
- Further the health and well-being of all residents in the region.
- Increase regional cooperation and efficiency at all levels.

The MPO also considered the ten planning factors, outlined by the US Code of Federal Regulations, that an MPOs is required to consider in its transportation planning process. These planning factors include:

- Support economic vitality.
- Increase safety of the transportation system.
- Increase the security of the transportation system.
- Increase the accessibility and mobility of people and freight.
- Protect and enhance the environment and promote conservation.
- Enhance the integration and connectivity of the system across and between modes.
- Promote efficient system management and operations.
- Emphasize the preservation of the existing transportation system.
- Improve the resiliency and reliability of the transportation system and reduce or mitigate stormwater impacts of surface transportation.
- Enhance travel and tourism.

Finally, the MPO considered how the goals of Mobilizing Tomorrow complement and further the goals of other regional and statewide plans. These include the Iowa Department of Transportation's

Transportation Asset Management Plan (TAMP), Strategic Highway Safety Plan (SHSP), and the Iowa State Freight Plan, as well as the Des Moines Area Regional Transit Authority’s DART Forward Plan.

Figure 1 shows how the goals of Mobilizing Tomorrow align with other planning requirements and documents.

Figure 1: Goal Matrix

		Mobilizing Tomorrow Goals			
		Manage and optimize transportation infrastructure and services	Enhance multimodal transportation options	Improve the region’s environmental health	Further the health, safety, and well-being of all residents in the region
Planning Factors	Support economic vitality.	X	X	X	X
	Increase safety of the transportation system.	X	X		X
	Increase the security of the transportation system.		X	X	
	Increase the accessibility and mobility of people and freight.	X	X		X
	Protect and enhance the environment and promote conservation	X	X	X	X
	Enhance the integration and connectivity of the system across and between modes.		X		X
	Promote efficient system management and operations.	X	X		
	Emphasize the preservation of the existing transportation system.	X	X	X	
	Improve the resiliency and reliability of the transportation system and reduce or mitigate stormwater impacts of surface transportation			X	X
	Enhance travel and tourism			X	X
The Tomorrow Plan Goals	Create a resilient regional economy	X	X		X
	Improve the region’s environmental health and access to the outdoors		X	X	X

	Further the health and well-being of all residents in the region.		X		X
	Increase regional cooperation and efficiency at all levels.	X	X		X
	Transportation Asset Management Plan	X			X
	Strategic Highway Safety Plan	X			X
	Iowa State Freight Plan	X	X	X	X
	DART Forward 2040 Plan		X	X	

PERFORMANCE MEASURES

Performance Measures are metrics used to assess progress towards meeting the plans goals. The MPO will analyze a variety of performance measures to help understand how the transportation system is performing. The MPO has identified several performance measures for each goal and will track these measures in relation to the current condition through the duration of the plan.

TARGETS

Targets are a specific level of performance that is desired to be achieved within a certain timeframe. The MPO will use targets as a basis for comparing progress over time toward a desired outcome.

GOAL 1: Manage and Optimize Transportation Infrastructure and Services

The Greater Des Moines region includes an extensive network of streets, bridges, bicycle facilities, and transit assets. Aging infrastructure and assets will be a critical challenge facing the region over the coming decades. Focusing investment on managing and optimizing our existing transportation systems will ensure that the region remains competitive. These investments should focus on keeping our roadways maintained to a high standard while optimizing our current systems using signal timing and other advances in technology to move people and goods more efficiently throughout the region.

The MPO will use the following measures and targets to evaluate how well the MPO is advancing Goal 1: Manage and Optimize Transportation Infrastructure and Services:

Figure 2: Summary of Goal 1 Measures & Targets

Measure	Current	5-Year Target	2050 Target
Bridge Condition			
Bridges in Good Condition (%)	65.9%	Maintain	85%
Bridge in Poor Condition (%)	4.5%	Maintain	Maintain
Bridge Deck Area in Good Condition (%)	69.0%	Maintain	85%
Bridge Deck Area in Poor Condition (%)	4.6%	Maintain	Maintain
Transit			
Rolling Stock			
Heavy Duty			
Medium Duty			
Light Duty			
Vans			
Equipment			
Support Vehicles			
Facilities			
Admin & Passenger			
Maintenance & Operations			
Parking Facility			
Pavement Condition Index			
% of Pavement on the Interstate in good Condition	47.5%	Maintain	65%
% of Pavement on the Interstate in poor Condition	0.9%	Maintain	Maintain
% of Pavement on the NHS in good Condition	32.5%	Maintain	60%
% of Pavement on the NHS in poor Condition	22.4%	Maintain	5%
% of Pavement on local roads in poor Condition	8%	Maintain	3%
Average PCI of local roads	65	Maintain	80
Regional Trail System			
Number of Gaps	13	11	0
Miles of Gaps	54	45	0
% pavement in good condition	86%	Maintain	90%
% pavement in poor condition	3%	Maintain	2%
Level of Service – Peak Hour- Must get from model			
% of person miles travel on interstate that are reliable			

% of person miles traveled on non-interstate NHS that are reliable			
Freight Impediments			
Truck Travel Time Reliability Index	1.28	maintain	maintain
CV/AV Readiness			
Number of Smart Corridors	0	0	5
Person Miles Traveled - Must get from model			
Annual Hours of Peak-hour excessive delay per capita			

Current Conditions/Measures/Targets Maps

<Map showing Bridge Condition>

<Map showing Bridge Deck Condition>

<Map showing LOS – Interstate>

<Map showing LOS – NHS>

<Map showing Truck Travel Time Reliability Index>

<Maps showing Pavement Condition – Interstate, NHS, Local>

<Map/graph showing PCI local>

<Trail Map showing pavement condition and gaps>

Spotlight Issue

Problem Statement: A lack of affordable places to both live and make a living – including the combined cost of housing and transportation – is one of the reasons why 35 out of every 100 Central lowans live in poverty.

Summary: Families without an affordable place to live often enter a vicious cycle of poverty, making it all but impossible to build a better life. Housing is only part of the equation of affordable places to live; transportation can often make or break a low-income budget. It is imperative that the region spends the resources necessary to maintain the quality of our existing system. Well maintained roadways create less wear and tear on vehicles saving residents money on vehicle maintenance. These savings can help offset housing costs. Less focus on roadway expansion could free up resources that could go towards programs that incentives for affordable housing and transportation options.

Oftentimes, affordable housing is not located near jobs – requiring people to find transportation to reach their employers. This can present low-income households with a series of difficult choices. What if they live near a bus line, but it doesn't operate at the times they need it? Do they get a private vehicle,

even if it consumes an oversized portion of their income, meaning they have fewer resources for other needs? Do they find a more expensive place to live that is closer to their employer?

Initiatives: OpportUnity, DART Forward 2035, Housing Tomorrow

Key Leaders: United Way, DART, Polk County Housing Trust Fund

Transportation Connections:

One of the keys to reducing the cycle of poverty in Central Iowa is developing a transportation network that is both affordable and accessible to all age groups.

That means developing a network of corridors that connect job centers; are located near affordable housing; are accessible by people on foot, on bikes, or in wheelchairs; and where public transit operates frequently for long spans of the day.

A cost-effective method of transportation is crucial to get people from home to school or work and back so they can earn enough money to get out of poverty.

Action Items:

- Encourage all developments in the region to include a percentage of affordable units;
- Identify areas close to job centers with transit access and incentivize affordable housing near these locations;
- Focus more of the regional transportation dollars on a fix-it-first mentality;
- Encourage design decision that prioritize pedestrian comfort;

Goal 2: Enhance Multimodal Transportation Options

The natural and historical reaction to growth trends is toward the expansion of roadway capacity. Like *The Tomorrow Plan*, *Mobilizing Tomorrow* envisions shifting from that historical model due to changing demographics, travel patterns, and rates of car ownership. This goal supports a greater mix of transportation choices, including a robust transit network, an active carpool culture, and land use and design that support walkability. To shift this perspective, *Mobilizing Tomorrow* lays out bold targets for the year 2050.

The MPO will use the following measures and targets to evaluate how well the MPO is advancing Goal 2: Enhance Multimodal Transportation Options:

Figure 3: Summary of Goal 2 Measures & Targets

Measure	Current	5-Year Target	2050 Target
Bicycle System On-Street			
Miles of On-Street Facilities	45.97	118	400
Miles of Protected Bicycle Lanes	0	5	25
Sidewalk System			
Miles of sidewalk			
Sidewalk Gaps			
Mode Choice/Split (%) – Work Trips			
Single Occupancy Vehicles	77	72	50
Carpool	19	21	25
Transit	1	2	15
Walk/Bike/Other	3	5	10
Mode Choice/Split (%) – All Trips			
Single Occupancy Vehicles	42	38	26
Carpool	46	47	54
Transit	1	2	5
Walk/Bike/Other	11	13	15
Transit			
Total Ridership	4,400,000	5,500,000	8,800,000

Current Conditions

<Map of On-Street Bicycle Network>

<Pie Chart showing mode split>

<Chart showing DART Ridership>

<Map of sidewalks>

<Map of sidewalk gaps>

Spotlight Issue

Problem Statement: With an aging population, many areas are unable to meet evolving needs.

Summary: People outlive their ability to drive by an average of 7-10 years. Central Iowa has a rapidly aging population that already experiences transportation barriers to independent living. Providing walking and transit options to these populations is crucial for them to age in place and remain connected to their community. Des Moines joined the Age-Friendly Initiative in 2012 at the behest of Des Moines University, Aging Resources of Central Iowa, and AARP Iowa. Age-Friendly places are measured against criteria for infrastructure, social capital, communications, health services, and community supports.

Initiatives: Age-Friendly Greater Des Moines

Key Leaders: AARP, Des Moines University, Broadlawns

Transportation Connections: Central Iowa, like much of Iowa, is rapidly aging and must adapt to meet evolving needs. Transportation is a crucial component of this and the Age-Friendly Initiative. Safe, appropriate transportation options keep aging residents connected and independent with their surrounding community. As needs change, so too must the transportation system.

For aging populations, trips are less centered on commuting purposes. Medical appointments, volunteering, and connecting to family and friends are key trips and may not follow established routes. Universal design principles, integrated mobility options, and collaborative services are crucial for eliminating transportation barriers and remaining a welcoming region for all ages.

Action Items:

- Support the Installation permanent solution for Connect Downtown projects in Des Moines;
- Work with communities to fully implement new Complete Streets Policies; and,
- Support on-going metro efforts to redesign critical areas such as University Avenue, Douglas Avenue, Market District, and other projects.

Goal 3: Improve the Region’s Environmental Health

Creating and maintaining natural resource corridors, natural stormwater management systems, urban forest canopies, and parks embody the concept of natural stewardship. Good land stewardship ensures long-term environmental and economic health, and its effects improve the mental and physical well-being of people. A green infrastructure network gives people access to nature, recreation, quiet, and views. Trees and other green infrastructure mitigate the negative environmental and economic impacts of natural disasters, stormwater, climate change, and poorly designed developments. Ultimately, green systems make communities more resilient and help to attract people and employers. The transportation system can play a significant role in how Greater Des Moines residents experience the natural environment.

The MPO will use the following measures and targets to evaluate how well the MPO is advancing Goal 3: Improve the Region’s Environmental Health:

Figure 4: Summary of Goal 3 Measures & Targets

Measure	Current	5-Year Target	2050 Target
Environmental Impacts			
Wetlands (acres)			
Surface Waters/Water Quality (streams)(Feet)			
Floodplains (acres)			
Woodlands (acres)			
Farmland (acres)			
Person Miles Traveled			
Annual hours of peak-hour excessive delay per capita			
% of non-SOV travel			

Current Conditions

<Map of existing wetlands>

<map of surface waters/water quality>

<map of floodplains>

<map of woodlands>

<map of farmland>

<Person Miles Traveled Chart>

Spotlight Issue

Problem Statement: Storms are becoming more intense due to climate change, impermeable surfaces are increasing due to region-wide growth, and our current infrastructure practices cannot fully manage stormwater during these events.

Summary of Issue:

For decades cities and counties have been managing stormwater primarily through grey infrastructure such as storm sewers. Traditional development and landscaping designs cause rainfall to flow off roofs, sidewalks, driveways, and compacted lawns. Water flows into the street, down the storm drain and through the storm sewer to the nearest stream, river or lake. Along the way, it picks up pollutants that degrade water quality.

Stormwater runoff can contain nitrogen and phosphorus pollutants from fertilizers, pet and yard waste, fossil fuel and other chemicals. Because stormwater typically flows over hard surfaces directly into a water body or storm drain, there is no opportunity for soil and plants or a water treatment facility to filter out pollutants. Urban and suburban areas produce much more stormwater runoff due to the high amount of paved and hard surfaces.

Flash flooding hazards are also exacerbated by stormwater management issues. When water cannot naturally infiltrate through soils and cannot flow directly into stormwater systems due to already reaching maximum capacity water begins to pool and cause flash flooding.

Ongoing Projects (Orgs/Leaders):

- Capital Crossroads/DMACC Local Governance Collaborative – Stormwater Initiative
- Polk Soil and Water Conservation District & ISWEP – Rainscaping Iowa & Rain Campaign
- Metro Watershed Management Authorities – Watershed Management Plans & Actions
- Iowa Economic Development Authority – Green Streets Initiative

Connections to Transportation:

Cities are defined by water. Waterways define city edges and boundaries, shape growth and development, and provide essential resources for human populations and the built environment. However, development patterns have too often removed water from urban places, channeling stormwater out of the human environment and therefore restricting natural functions and ecosystem services at great economic expense.

Transportation related infrastructure – roads, parking lots, sidewalk – make up a significant percent of the impervious surfaces in the region. Many of these locations are under public ownership, thereby offering a unique opportunity to incorporate street elements that will not only protect the environment but can improve community health and prosperity.

Action Items/Transportation Solutions:

- Develop regional stormwater ordinance framework.
- Increase prevalence of green infrastructure installations throughout the Greater Des Moines metropolitan region.

DRAFT

Goal 4: Further the Health, Safety, and Well-Being of All Residents in the Region

One of Greater Des Moines’s key competitive advantages is its high quality of life. The region is consistently recognized for its affordability, access to the outdoors, and family-friendly atmosphere. However, this way of life is being challenged by impediments to multiple systems, including the area’s car-centered transportation system and decreasing levels of physical activity. For residents to be able to truly enjoy the high quality of life for which Greater Des Moines is known, health and well-being, in all senses of those terms, need to be actively promoted throughout the region.

The MPO will use the following measures and targets to evaluate how well the MPO is advancing Goal 4: Further the Health, Safety, and Well-Being of All Residents in the Region:

Figure 5: Summary of Goal 4 Measures & Targets

Measure	Current	5-Year Target	2050 Target
Crash Data (5-Year Average)			
Number of fatalities	26.0	23.7	2.3
Fatality per 100 million VMT	0.558	0.460	0.046
Number of serious injuries	185.0	150.9	15.1
Serious injuries per 100 million VMT	3.967	2.927	0.293
Number of non-motorized fatalities and serious injuries	23.8	22.5	0
Transportation and Housing			
Housing/Transportation Affordability Index	45	43	38
Access to Necessities			
Multimodal Job Access (% housing units)			
Multimodal Access to Medical Facilities (% of housing units)			
Multimodal Access to Food (% of housing units)			
Access to parks (% of housing units)			

Current Conditions

<Map showing high crash locations with fatalities>

<Map showing serious injuries>

<Map showing non-motorized fatalities/serious injuries>

<Map showing housing/Transportation Affordability Index>

<map showing job access>

<map showing medical access>

<map showing food access>

<maps showing park access>

Spotlight Issue

Problem Statement: Feeding America estimates that more than 55,000 people in Polk County identify as food insecure. One in five children go hungry every day, as do one in eight adults.

Summary of Issue:

While Polk County and the Greater Des Moines region are rich in resources and enjoy a high quality of life, there are people in the community who go without food every day.

As a result, the health, safety, and well-being are significantly compromised for the thousands of residents facing hunger in the region. Their health declines. Their performance at work or school declines. And their self-worth is compromised.

A coalition of organizations in 2015 kicked off a campaign to end hunger in Polk County. The Polk County Board of Supervisors and the Polk County Health Department, together with more than 100 human service nonprofits, joined forces on the Partnership for a Hunger-Free Polk County.

Initiatives: Partnership for a Hunger-Free Polk County

Key Leaders: Polk County Board of Supervisors, Polk County Health Department, Food Bank of Iowa, DART, Des Moines Area Religious Council.

Connections to Transportation:

Many factors contribute to the hunger crisis in our backyard. One significant issue is transportation.

Several organizations help to feed people in the Greater Des Moines region, from food pantries and soup kitchens, to shelters and schools. And they are supported through individual donors, churches, nonprofits, and regional and state-wide food banks.

But even when food is available, not everyone can access it. This is where the transportation system can be part of the problem – or part of the solution. Transportation is part of the problem if people have limited options for accessing food. For example, a household without a car will have limited access to food if there aren't other options like public transit, bike-friendly streets, or sidewalks that connect them to food resources.

To be part of the solution, the regional transportation system needs to provide multiple modes of transportation that are readily useable by all segments of the population, whether they are 8 or 80, whether they are able bodied or require a mobility device, whether they can afford a car or not.

Action Items/Transportation Solutions:

- Increase transit and paratransit options for healthy food access;
- Increase farm to table transportation linkages;
- Protect regional agriculture hinterland through land use practices;
- Protect public health by reducing agriculture-food-transportation related emissions;