

Vision, Goal Statements, and Performance Measures

CHAPTER

2

The Vision, Goals, and Performance Measures are the foundation and framing of the MOVE 2040 plan. These three aspects of the document serve as the basis for the Project Selection Criteria (PSC) and illustrate WAMPO's rationale for the projects selected. This is the first time that WAMPO has instituted performance measures, consistent with the newer, performance-based planning focus of the Federal Department of Transportation. Performance-based planning is a new concept for the WAMPO region; the focus has shifted from maintaining federal funding eligibility to investment outcomes. These metrics will aid greatly in gauging effectiveness and are now required in transportation planning under the MAP-21 legislation passed by Congress in 2012.

The planning process is dynamic. Over the last thirty years, transportation planning has evolved from an internal technical, analytic process with limited public input, to a field that seeks and incorporates public comments and feedback at every stage of the process. To carry out performance-based planning will not only require technical changes in the plan, but also buy-in from stakeholders across the region on an ongoing basis.

The eight factors required by federal law in carrying out the planning process are:

- A. Support the economic vitality [of the United States, the States, nonmetropolitan areas, and metropolitan areas], especially by enabling global competitiveness, productivity, and efficiency;
 - B. Increase the safety of the transportation system for motorized and nonmotorized users;
 - C. Increase the security of the transportation system for motorized and nonmotorized users;
 - D. Increase the accessibility and mobility of people and for freight;
 - E. 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;
 - F. Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight;
 - G. Promote efficient system management and operation; and
 - H. Emphasize the preservation of the existing transportation system.
- All eight items are included in the MOVE 2040 Long-Range plan in the included goal statements. These include but are not limited to Economic Vitality (A), Freight (A, D) Safety (B, C), Choice and Connectivity (D, F, G), Air Quality and Quality of life (E), and Infrastructure condition (H). These goal statements then helped form the Investment Strategy and Performance Measures used in MOVE 2040.



The components that guide the plan—Vision/Goal statements, Investment Strategy, and Performance Measures—are interrelated. Changes in one component were always reviewed to determine the impact on elements in the other two components for compatibility and consistency.

Performance-based planning answers four questions:

- What are the current conditions?
- How should the future system function?
- What actions should be taken to get to the future condition?
- How can progress towards achieving the future be measured?

MOVE 2040 is moving to incorporate Performance Measures into the plan so as to ensure consistency with its Vision, Goals, and Investment Strategies.

Vision and Goal Statements

The Vision statement was established after carrying out a community planning process that included but was not limited to public outreach, stakeholder meetings, and discussion with the PAC and TAC.

Vision

To provide a regional multimodal transportation system that is safe, permits equitable opportunity for its use, and advances the region's ongoing vitality through cost conscious strategic investments.

Building on this Vision statement, WAMPO proceeded to do a major public engagement to identify and rank the goals in the region. Nine (9) goals were identified, and public meetings were held where individuals were given 10 "WAMPO Bucks" to allocate among the goals according to their felt priorities after hearing technical data developed by WAMPO. Those goals are as follows:

Goal Statements

Choice and connectivity

Support the connection of all modes of transportation for people and goods, including equitable access to alternate modes of transportation.

Economic vitality

Support and encourage the region's economic prosperity and economic competitiveness.

Freight movement

Improve the national and international freight network within the region through targeted investments and strengthen access to domestic and international markets.

Improving air quality

Improve air quality and compliance with federal and state regulations.

Infrastructure condition

Ensure that the significant transportation infrastructure assets of the WAMPO region remain in good repair and/or operation.

Quality of life

Enhance the quality of life through transportation investments that provide convenient access to employment, residential development, commercial activity, access to medical care, healthy transportation choices, and responsiveness to the growing diversity of household compositions.

Safety

Maintain and improve the safety of the transportation system component networks.

System reliability and bottlenecks

- Maintain system performance and make targeted investments to provide for predictable travel time.
- Reduce time delays and improve safety at regional bottlenecks.

Investment Strategy

The Investment Strategy phase began with finalizing the goal statements and discussing regional priorities. The PAC hosted a workshop that synthesized the identified priorities into four issue categories. Four concepts for investment came out of the public and stakeholder engagement and Workshop #1 (consisting of TAC and TPB members) held in late February 2014. The following four (4) issue categories in alphabetical order were:

- Demographic Shifts and Environmental Concerns
- Bottlenecks
- Multi-modalism
- System preservation and maintenance

The chart below defines the strategies developed under each of these issues:

ISSUE	FOCUS	PLAN ELEMENTS
Demographic shifts and environmental concerns	Aging population Expanded travel choices	Implementation/funding of Transit Vision Plan Expansion of 2014 bicycle route network Investment in road network to ensure “good” or “fair” rating for 70% of major arterial/road system Implementation of “complete streets” – Streets that serve users other than private automobile.

ISSUE	FOCUS	PLAN ELEMENTS
Bottlenecks	Improved internal communications	<p>Expansion of incident management system and tools to communicate with drivers and network operators</p> <p>Use of the hazard rating system to identify and eliminate railroad conflicts</p> <p>Design/implementation of a signal synchronization initiative on major arterials to reduce recurring delays</p>
Multi-modalism	<p>Accessibility</p> <p>Functionality</p> <p>Connectivity</p> <p>Choice</p> <p>Aging population</p> <p>Infill housing/density strategies</p> <p>Regional coordination</p>	<p>Addition of interstate/regional passenger rail service to and from the City of Wichita</p> <p>Bicycle connectivity with the transportation system</p> <p>Airport connectivity with the transportation system</p> <p>Increased use of technology for safety, incident management, operations improvements</p> <p>Improved internal/external education for improvements in safety and incident management</p> <p>Establishment of commuter services to areas where jobs are plentiful</p> <p>Regional connected bike paths and pedestrian facilities</p> <p>Regional Bike Share Program for short-term bike rentals</p>
System preservation and maintenance	<p>Air quality compliance</p> <p>System growth capacity</p> <p>Effective fund use & leveraging</p>	<p>Improving traffic signalization and cycle lengths</p> <p>Stabilization of transit service</p> <p>Completion of 2015 TIP projects</p> <p>Studies and pilot projects to address needs of the freight community</p>

At the 2nd workshop (PAC hosted, TAC and TPB attended) held in June 2014, these four issue areas and resultant strategies were reviewed by stakeholders with the goal of developing a single unified strategy. This was notably a success as consensus was reached on a final investment strategy. The final investment strategy focused on System Preservation and Maintenance, with an eye toward stabilizing the transit system throughout the WAMPO region.

The final investment strategy statement is as follows:

“Preserve and maintain the current system and conditions. This will include functionality of infrastructure, stabilization of transit service and fleet condition, use of technology to reduce delays and improve safety, and compliance with federal, state, and local laws.”

As part of this strategy, three transportation components were selected to best identify the primary focus areas:

- Maintain good condition of current highways, roads, and streets. Improvements should address both the condition and the purpose of the infrastructure.
- Stabilize transit service in the near term; increase transit service in the mid-term time band by focusing on improving service in the urban core, and in the long term expand service to provide for service between urban centers.
- Address air quality, bottlenecks, choice, connectivity, functionality, and user safety.

Also included in the investment strategy was a focused, conservative fiscal outlook that informed and delimited the number of projects that could be reasonably accomplished. The stakeholders at Workshop #2 agreed that the conservative revenue assumptions recommended by the PAC should be used as a basis for project choices.

The following items were the consensus views of the stakeholders at workshop #2:

- Flat or declining growth in most revenue sources.
- A decline in buying power of 4% per year.
- No new actions at the local level to increase revenue for transportation.
- Continued decline in federal funds.
- Dependence on private/non-profit partnerships for new revenues.

Workshop #2 identified the following outcomes that will determine success of the MOVE 2040 Plan:

OUTCOMES

- Transportation infrastructure and transit vehicle conditions will be as they are today.
- Less frequent and shorter bottlenecks because of the extensive placement and usage of incident management cameras and equipment.
- Use of decision making tools for cost effectiveness.

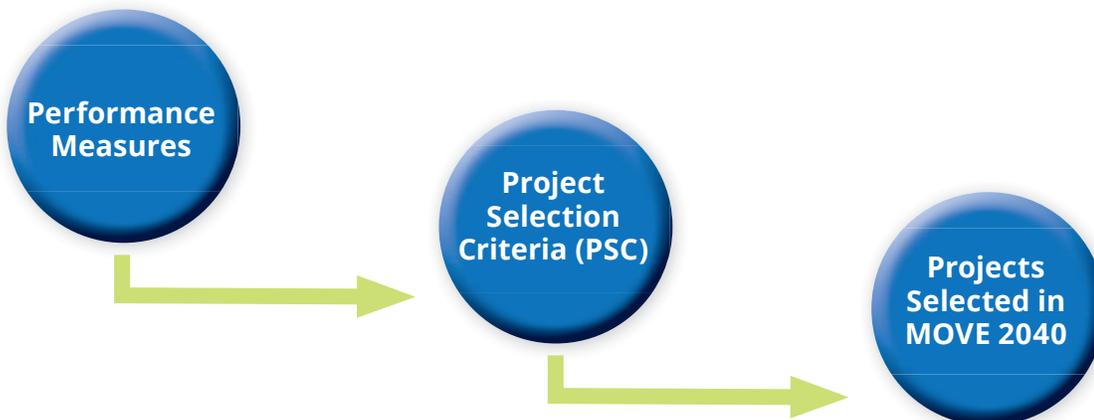
- Increased productivity through new methods, materials, and maintenance practices.
- Increased transit ridership.
- Continued decline in injuries and fatalities.
- Compliance with clean air requirements.
- Better management of the network.
- System will provide more choices and will be “right sized” for its users.
- Transportation network that will accommodate all modes.

Performance Measures

Historically transportation plans and the resulting investments have been judged by key questions such as the extent of public engagement and consistency with overlapping local, state, and/or federal plans. However under MAP-21 an important change occurred. Transportation regions will now be graded on how well the investments impact and meet targets established under the long-range plans approved by the region. Achievement of Performance Measures established under the plan and the federal rulemaking process will gauge MOVE 2040’s success. At the time of the writing of MOVE 2040, most of the Performance Measures called for in MAP-21 were still undergoing the federal rulemaking process. The MOVE 2040 plan will need to be amended in the future as federal rulemaking is completed.

The Vision, Goals and Investment Strategies helped identify plan priorities, which drove the establishment of Performance Measures. Also, in order to assess long-term trends in Performance Measures, each Performance Measure had to have an accessible, multi-year data source. To ensure accurate assessment, each of the Performance Measures is attached to a stated goal of the plan.

The Federal Highway Administration (FHWA) and other federal organizations are identifying required federal performance measures at the state and MPO level, and have already proposed safety-related Performance Measures. The current MOVE 2040 Plan will incorporate those measures; as federal organizations add Performance Measures in other areas, MOVE 2040 will be updated accordingly.



In addition to the connection of the Vision, Goals, and Investment Strategies, Performance Measures were also used to develop the Project Selection Criteria (PSC). The PSC provides the basis for technical ranking to projects submitted for consideration to the long-range plan. Vision/Goals, Investment Strategies, and the PSC are detailed in the appropriate chapters for each of these items.

DETAIL ON GOAL STATEMENTS

Choice and connectivity

Support the connection of all modes of transportation for people and goods, including equitable access to alternate modes of transportation.

Progress on this goal will give the residents of the WAMPO region expanded choices beyond the private automobile. Intermodal transportation options are critical here, such as placing parking or bike racks near transit lines to allow individuals to more easily transfer from one form of transportation to another.

These performance measures focus on Wichita Transit services and bicycle facilities installed within the WAMPO region.

Much of the discussion of these performance measures has been the “setbacks” for transit; that is, whether public transit should be a quarter- or half- mile from the facility from which pedestrians may walk or bike. The discussion considered best practices of other transportation planning bodies, sustainable levels of walking by transit users, and consistency with regional, federal, and/or state requirements. Much of the discussion focused on what would be a reasonable distance a pedestrian would travel to obtain transit service. It was decided that a quarter-mile was the appropriate distance for transit setbacks. The discussion led to a consensus that priority should be given to facilities with more employees to ensure maximum return on transportation investments.

The following are the performance measures connected for Choice and Connectivity.

- Percentage of population within a quarter-mile of a transit line
- Percentage of Title VI population within a quarter-mile of a transit line
- Percentage of top 50 employment sites are within a quarter-mile of a transit line, weighted by number of employees.
- Percentage of population within one mile of a bicycle facility.
- Percentage of Title VI population within one mile of a bicycle facility.
- Percentage of top 50 employment sites within one mile of a bicycle facility, weighted by number of employees.

Economic vitality

Support and encourage the region's economic prosperity and economic competitiveness.

The transportation network is the circulatory system that carries the flow of commerce and human activity in the metropolitan area. It has become even more important to support the economic well-being of the region with transportation projects that provide economic benefit. It was decided that, rather than planning transportation projects that speculate on where economic investment will take place, it would be more prudent to instead ensure that the transportation system does not impede the economic well-being of the region. Road condition was viewed as the best proxy for this criterion.

The WAMPO region does not have a unified method of assessing road conditions; each owner of federally classified roads will use their own system to determine quality. (For more details on how road condition can be determined, please see the Federal Highway Administration publication Practical Guide for Quality Management of Pavement Condition Data Collection, 2013.)

The following performance measure is for the Economic Vitality goal.

- Percentage of federally classified roads that are rated good or better.

Freight movement

Improve the national and international freight network within the region through targeted investments and strengthen access to domestic and international markets.

Freight is an issue of increased focus in the region. With 68.8 billion in freight in and out of our region per year, these modes include rail, truck, air, water, and pipeline (WAMPO Freight Plan, 2006). They work together to move freight from its origin (international, national, regional, or local) to the shops and stores consumers frequent, or directly to residences. In 2006, more than 20 million tons of goods were shipped into the WAMPO region by truck; 1.6 million tons of freight were shipped by rail; and only 17,000 tons by air. Freight movement by truck is anticipated to increase approximately 35% from 20.5 million tons to 31.5 million tons between 2006 and 2030. Rail and air freight tonnage is also projected to increase by 41% and 36%, respectively. Nonmetallic minerals (33%) and food (12%) are the most common freight items shipped into the WAMPO region, while petroleum/coal (27%) and chemical/allied products (29%) are the most common items shipped out.

Freight is essential in the supply chain, as parts and products move from distant warehouses to manufacturing sites in the region. Each mode has its own system and infrastructure, each working together to move goods and products quickly, effectively, and affordably (ACS 2006-2010). Although the freight industry is primarily a function of the private sector, it is still dependent on governments and public agencies to invest in infrastructure to facilitate that movement. Public support of freight has increased as its critical impact on the local economy and employment has been recognized.

There was much debate and discussion about how to measure this goal. The PAC felt that measuring freight by tonnage or value was misleading, as that was more dependent on the economic well-being of the region, and not the actual functional ability of the transportation system. Instead, it was agreed that the focus should be on the ability of freight, no matter the volume, to be able to transit and deliver/pick up goods and products in the WAMPO region. The freight performance measures are focused on safety and maintenance.

The following are the performance measures connected to the Freight Movement goal.

- Measure delay on identified freight routes.
- Maintenance condition of identified freight routes.
- Number of fatalities involving freight. (railroads + trucks)

Improving air quality

Improve air quality and compliance with federal and state regulations.

Currently the WAMPO region is in compliance with national air quality standards. However, the WAMPO region may be placed in non-compliance for ozone. It is important to maintain compliance or quickly return to compliance should the status change. Public bodies that do not meet attainment standards must make thoughtful, difficult choices on the proper mix of policies that will bring them back into compliance, which can occur in one or more measurements.

It was decided that the air quality measurements should focus on ozone, as the air quality in the WAMPO region is deemed fully compliant on other air measures.

The following are the performance measures connected to the goal of Improving Air Quality.

- Modeled emissions of ozone precursors from on-road mobile sources.
- Measuring ozone based on EPA's standards and methodologies for assessing attainment.

Infrastructure condition

Ensure that the significant transportation infrastructure assets of the WAMPO region remain in good repair and/or operation.

The infrastructure conditions being measured consist of three major systems: federally classified roads, bridges, and transit equipment and fleet.

The WAMPO region has 4,886 miles of roadways that include interstates, federal designated highways, state designated highways, and many miles of roads of regional and local significance. Fewer than 35% of the roads in the WAMPO region (around 1587 miles) are currently eligible for federal transportation dollars. Seventy percent of the roads eligible for federal funding are rated as good or better. The WAMPO region does not have a consistent methodology on how road quality is measured. In the

long term it will be important for the WAMPO region to come to a consensus on the methodology to measure road conditions.

Another part of the roadway system is the bridges. The WAMPO region has 1,370 bridges, ranging from small bridges for local use to the historic John Mack Bridge in Wichita.

Of the 1,370 bridges in the WAMPO region, 66 (4.8%) bridges are identified as Structurally Deficient, 47 (3.4%) bridges are classified as Functionally Obsolete, and 69 (5.0%) bridges have a sufficiency rating of 50 or less. Please see Chapter 3 for more detail of these classifications.

Wichita Transit (WT), a department within the City of Wichita, provides fixed-route transit service for the City of Wichita and is the major provider of transit services in the region. These services include line, demand response, and specialty services.

Currently WT offers service with 32 buses on 16 fixed routes. These buses operate Monday through Saturday between 5:20am and 6:55pm, depending on the route. Headways are 30 minutes (peak) and 60 minutes (off-peak). Additionally, the Q-line trolley service runs Monday through Thursday between 6:00pm and 10:00pm (20 minute headways), Friday between 6:00pm and 12:00am (10 minute headways), and Saturday between 12:00pm and 12:00am (10/20 minute headways).

All buses are wheelchair-equipped and most buses have bike racks. There are also 39 shelters and 230 benches along the fixed route system, with bike racks at 127 of those stops.

WT is undergoing a major upgrade and replacement cycle of its current bus fleet. This will make the transit fleet more reliable and less costly to maintain. The average recommended lifespan of current large buses is 12 years, which would indicate that transit providers would need to do at least two complete replacements of its bus fleet in the timespan of the MOVE 2040 plan.

The following are the performance measures for the Infrastructure Condition goal:

- Percentage of federally classified roads that are rated good or better.
- Percentage of roadway bridges in a state of good repair, and are not functionally obsolete or structurally deficient.
- Age of transit bus fleet.

Quality of life

Enhance the quality of life through transportation investments that provide convenient access to employment, residential development, commercial activity, access to medical care, healthy transportation choices, and responsiveness to the growing diversity of household compositions.

Transportation plays a major role in improving or impeding quality of life of a community. For the WAMPO region to continue to grow, it must attract new residents and retain existing residents. Quality of life issues are pivotal to the success of these efforts and were top-of-mind in the public workshops. The topic was highly debated.

The following are the Performance Measures connected to the goal of Quality of Life:

- Percentage of major health facilities that are served by more than one mode of transportation.
- Percentage of top 50 employment sites served by more than one mode of transportation, weighted by employees.
- Percentage of recreational facilities* served by more than one mode of transportation.
- Percent of consumers indicating “Highly Satisfied” or “Satisfied” in survey on satisfaction with transportation system.

**Recreational facilities have been defined for this measurement to include county and city owned facilities, and not for profits which provide a sizable network of facilities in the WAMPO region.*

Safety

Maintain and improve the safety of the transportation system component networks.

Safety is a universal need. Every day in the WAMPO region, nearly 30 reported traffic crashes occur of varying severity and impact. The impacts of traffic crashes are devastating to the families and friends of those killed or injured, and the cost to the region’s economy is substantial. It was estimated that in 2009 alone, traffic crashes cost the WAMPO region over \$448 million and 48 people lost their lives. (WAMPO Safety Plan) and one of the areas in transportation planning that there is a long history of tracking data and using performance-based planning in the safety field.

In the middle of the MOVE 2040 process the federal government started the rulemaking process for safety-related Performance Measures under MAP-21. These have been incorporated into MOVE 2040. Much of the discussion also dealt with the accuracy in reporting non-injury, property damage-only crashes.

The following are the performance measures connected to the Safety goal:

- Number of fatalities on roadways.
- Rate of fatalities on roadways.
- Number of serious injuries on roadways.
- Rate of serious injuries on roadways.
- Number of bicycle fatalities.
- Number of railroad fatalities.
- Number of pedestrian fatalities.
- Number of drivers under 21 involved in fatal crashes.
- Number of drivers over the age of 75 involved in fatal crashes.
- Number of fatalities in crashes involving blood alcohol of .08 or higher.

System reliability and bottlenecks

Maintain system performance and make targeted investments to provide for predictable travel time.

- Reduce travel time delays and improve safety at regional bottlenecks.

In transportation, delay is a universal, common challenge to all communities. Delay greatly impacts both bottlenecks and overall system reliability.

Unlike most other TMAs, the WAMPO region does not suffer notable, systematic, recurring congestion (the average system level delay in peak periods is less than one minute). In addition, current modeling provided for the WAMPO region shows that the level of congestion will not cause notable delay even without major investment in the transportation network over the next 25 years.

These considerations led to a focus on system reliability in a handful of corridors identified as “bottlenecks.” WAMPO will use modeling to measure future delays both system-wide and in specific regions identified as bottlenecks.

The following performance measure is connected to the goal of System Reliability and Bottlenecks.

- Measurement of delay across the system (for system reliability) and across identified areas of concern (for bottlenecks).
- Measurement of travel time uncertainty across the system.

Conclusion

WAMPO has taken the first steps into performance-based planning. This included technical review by planners to determine the facts on the ground; community outreach, including but not limited to public engagement (both inviting the public to comment; and seeking out public engagement with existing social, civic, and other community groups as well as elected officials from across the region).

The Vision, Goals, Investment Strategies, and Performance Measures built a solid foundation and framework and determined what to measure, which in turn led to a robust set of Project Selection criteria.

One of the key concerns noted vis-à-vis the Performance Measures was to make sure data was readily available for any measure established. This decision was made not only to avoid taxing WAMPO staff, but also to ensure that historical performance could be accurately assessed using baseline data. However a few areas, such as “Quality of Life,” will require the region to start collecting data through surveys and other methods.

In conclusion, WAMPO is carrying out performance-based planning for the first time in our history. This change will require the WAMPO region to improve its data collection for consistency and accuracy.

This has resulted in a better planning document in MOVE 2040 that will improve the quality of life in the WAMPO region.

The process of determining Vision, Goals, and associated Performance Measures is described in the next chapter.

