

3 GOALS AND PERFORMANCE MEASURES

The KFP serves as an independent document that supports the implementation of the commonwealth's LRSTP. The KFP's goals are consistent with the LRSTP's goals and objectives and the goals of the National Freight Policy. In addition to the goals, the KFP identifies a set of objectives and performance measures that articulate KYTC's freight investment priorities to help define freight system investment needs and identify the desired future performance of the system.

3.1 2014 LONG-RANGE STATEWIDE TRANSPORTATION PLAN GOALS

In 2013-2014, KYTC undertook a significant effort to engage Kentuckians to develop an overall transportation vision and goals for Kentucky's future. Through input from the public and focus groups, the LRSTP identified the following vision for Kentucky's future transportation system:

A well-maintained, multimodal transportation system that delivers safe and reliable trips which improve Kentucky's quality of life.

To support this vision, two unique sets of goals were established: project goals and process goals. Project goals are used to measure the effectiveness of proposed system improvements. Process goals set performance standards for methods and practices to be used to deliver improvements and to maintain the system. These goals were established for both passenger and freight transportation, and they are shown in **Table 3-1**. Therefore, the KFP has adopted these same goals. This will reinforce the long-term viability and implementation of the LRSTP and KFP as they support Kentucky's transportation vision.

Table 3-1: LRSTP and KFP Project and Process Goals

Project Goals
Providing a safe and secure system
Maintaining and improving existing infrastructure on a continual basis
Ensuring dependable, effective and efficient facilities
Improving local, regional and global connectivity and access
Including all appropriate modes of transportation within a fully-integrated system
Process Goals
Dependable access to markets, jobs and resources
Consideration of human and natural resources
Efficient and flexible use of available resources
Transparent decision-making processes

3.2 ALIGNMENT WITH NATIONAL FREIGHT POLICY GOALS

The KFP goals were established after reviewing the goals of National Multimodal Freight Policy and the National Highway Freight Program. By focusing on these national goals, the KFP is a required framework for performance measure development.

Goals in the National Multimodal Freight Policy (49 U.S. Code § 70101)

- 1) Identify infrastructure improvements, policies, and operational innovations that
 - a. strengthen the contribution of the National Multimodal Freight Network to the economic competitiveness of the United States;
 - b. reduce congestion and eliminate bottlenecks on the National Multimodal Freight Network; and
 - c. increase productivity, particularly for domestic industries and businesses that create high-value jobs;
- 2) Improve the safety, security, efficiency, and resiliency of multimodal freight transportation;
- 3) Achieve and maintain a state of good repair on the National Multimodal Freight Network;
- 4) Use innovation and advanced technology to improve the safety, efficiency, and reliability of the National Multimodal Freight Network;
- 5) Improve the economic efficiency and productivity of the National Multimodal Freight Network;
- 6) Improve the reliability of freight transportation;
- 7) Improve the short- and long-distance movement of goods that—
 - a. travel across rural areas between population centers;
 - b. travel between rural areas and population centers; and
 - c. travel from the Nation's ports, airports, and gateways to the National Multimodal Freight Network;
- 8) Improve the flexibility of States to support multi-State corridor planning and the creation of multi-State organizations to increase the ability of States to address multimodal freight connectivity;
- 9) Reduce the adverse environmental impacts of freight movement on the National Multimodal Freight Network; and
- 10) Pursue these goals in a manner that is not burdensome to State and local governments.

Goals in the National Highway Freight Program (23 U.S. Code § 167)

- 1) Invest in infrastructure improvements and to implement operational improvements on the highways of the United States that—
 - a. strengthen the contribution of the National Highway Freight Network to the economic competitiveness of the United States;
 - b. reduce congestion and bottlenecks on the National Highway Freight Network;
 - c. reduce the cost of freight transportation;
 - d. improve the year-round reliability of freight transportation; and
 - e. increase productivity, particularly for domestic industries and businesses that create high-value jobs;
- 2) Improve the safety, security, efficiency, and resiliency of freight transportation in rural and urban areas;
- 3) Improve the state of good repair of the National Highway Freight Network;
- 4) Use innovation and advanced technology to improve the safety, efficiency, and reliability of the National Highway Freight Network;
- 5) Improve the efficiency and productivity of the National Highway Freight Network;

- 6) Improve the flexibility of States to support multi-State corridor planning and the creation of multi-State organizations to increase the ability of States to address highway freight connectivity; and
- 7) Reduce the environmental impacts of freight movement on the National Highway Freight Network.

Table 3-2 below demonstrates the alignment of Kentucky's LRSTP and KFP goals with the National Multimodal Freight Policy goals and National Highway Freight Program goals.

Table 3-2: Alignment of KFP Goals with National Freight Policy Goals

KFP Goals		National Goals		Multimodal Freight Policy								Highway Freight Program						
				Identify Infrastructure Improvements, Policies, & Innovations	Safety, Security, Resiliency	State of Good Repair	Advanced Technology	Economic Efficiency	Reliability	Connected Freight Network	Planning & Partnerships	Environmental	Supplement State Freight Program	Infrastructure & Operations Improvements	Safety, Security, Resiliency	State of Good Repair	Advanced Technology	Network Efficiency & Productivity
Providing a safe and secure system	Project Goals	X	X					X			X	X	X					
Maintaining and improving existing infrastructure on a continual basis		X	X	X		X	X	X				X	X	X		X		
Ensuring dependable, effective, and efficient facilities		X	X	X	X	X	X	X	X			X	X	X	X	X	X	
Improving local, regional, and global connectivity and access		X			X	X	X	X	X		X	X			X	X	X	
Including all appropriate modes of transportation within a fully-integrated system		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Dependable access to markets, jobs, and resources	Process Goals	X	X			X	X		X		X	X	X			X	X	
Consideration of human and natural resources		X	X						X	X	X	X	X				X	X
Efficient and flexible use of available resources		X				X	X	X	X		X	X				X	X	
Transparent decision-making processes		X							X	X		X	X					X
		49 USC 70101										23 USC 169						

3.3 OBJECTIVES AND PERFORMANCE MEASURES

The KFP identifies a set of objectives that articulate KYTC's freight goals, help define freight system investment needs, and identify the desired future performance of the freight network. Specifically, performance measures can be used to quantifiably assess freight infrastructure investment. In addition, performance measures can be used to increase communication with the general public, freight stakeholders, and elected officials. Internal to KYTC, performance measures can serve three specific purposes:

PLANNING: Performance measures can be used as a tool to evaluate proposed projects and scenarios to gauge their effectiveness in achieving the KFP's goals. These high-level metrics can create an evaluation of alternatives.

IMPLEMENTATION: Performance measures can be used as a tool to emphasize KFP goals within the policy development, budgeting, programming, and project selection processes. For example, the measures might assist decision-makers in the project selection process by providing metrics about their potential effectiveness.

ACCOUNTABILITY: Performance measures can be used as a tool to facilitate tracking and reporting KYTC's progress in achieving the KFP's goals to support accountability for plan implementation and results.

Performance measures are a tool to achieve the plan, not a grade. They must be applied to something within KYTC's control—otherwise a performance measure has no value and only presents a risk of KYTC being held accountable for results it cannot influence. The potential performance measures listed below are tied to quantitative information where available. They are intended to guide future investment decisions and can also be used to assess the progress of the KFP's implementation. A guiding principal in developing performance measures is that they utilize existing performance data and leverage current (or planned) data collection activities.

In addition to the performance measures, indicators are identified. Indicators are important data points to monitor the status of the freight system; however, they are outside of the control of KYTC. The performance measures and indicators will be further defined in forthcoming planning activities by KYTC. Additionally, the FHWA continues to develop national management standards for the NHS, which encompasses a large portion of Kentucky's freight transportation system. The KFP goals, objectives, performance measures, and indicators are listed in **Table 3-3**. Each measure is designed to track progress towards a pre-determined target.

Table 3-3: KFP Goals, Objectives, Performance Measures, and Indicators

Goal 1: Providing a safe and secure system	
Objectives	Performance Measures
<ul style="list-style-type: none"> Reduce rates of crashes, injuries, and fatalities involving freight-carrying vehicles on the highway network Provide adequate truck parking availability 	<ul style="list-style-type: none"> Commercial vehicle crash rate Grade crossing crash/incident rate
	Indicators <ul style="list-style-type: none"> Number of public truck parking spaces Railroad incidents/near-misses Inland waterway crashes/incidents Aviation crashes/incidents Change in tonnage/value/miles Resiliency - recovery
Goal 2: Maintaining and improving existing infrastructure on a continual basis; Ensuring dependable, effective and efficient facilities	
Objectives	Performance Measures
<ul style="list-style-type: none"> Keep Kentucky's state highway pavement, bridges, and highway-related assets in good condition Assist modal partners in achieving state-of-good repair for aviation, riverports, rail, and navigable waterway infrastructure Maintain a program of public, highway-rail at-grade crossing evaluations 	<ul style="list-style-type: none"> Percent of structurally deficient bridges on freight network Percent of freight network meeting pavement condition targets Number of weight-restricted bridges on the freight network Number of vertical restrictions on the freight network Congestion of the freight network (level of service or volume/capacity) Reliability (buffer index/planning index)
	Indicators <ul style="list-style-type: none"> Percent of publically-owned airports meeting the commonwealth's standards Rate of dredging Condition of locks and dams
Goal 3: Improving local, regional and global connectivity and access; Including all appropriate modes of transportation within a fully-integrated system; Dependable access to markets, jobs and resources	
Objectives	Performance Measures
<ul style="list-style-type: none"> Improve the efficiency of freight transportation and the capacity of freight-related infrastructure throughout Kentucky Improve freight network access Address bottlenecks on the freight network Improve access to freight generators, including energy activity areas and freight-related businesses 	<ul style="list-style-type: none"> Congestion on intermodal connectors and roads leading to major energy/manufacturing centers Pavement and bridge ratings on intermodal connectors and roads leading to major energy/manufacturing centers Reliability on intermodal connectors

Goal 4: Consideration of human and natural resources	
Objectives	Performance Measures
<ul style="list-style-type: none"> Reduce the environmental impacts of building, maintaining, and operating Kentucky's transportation system 	<ul style="list-style-type: none"> MPO air quality ratings
	Indicators
	<ul style="list-style-type: none"> Number of freight crashes that require environmental cleanup Change in freight ton-miles Change in freight tonnage movement by mode
Goal 5: Efficient and flexible use of available resources; Transparent decision-making processes	
Objectives	Indicators
<ul style="list-style-type: none"> Minimize congestion on the freight network Minimize the time the freight network suffers interruption from an incident 	<ul style="list-style-type: none"> The percentage of miles on freight network in an uncongested condition Hours of downtime on freight network resulting from incidents

3.4 TRANSPORTATION PERFORMANCE MEASURES AND CONGESTION / MOBILITY ANALYSIS

Travel time data is analyzed to calculate national performance measures. Traffic trends provide current and projected traffic volume estimates for planning, project development, environmental analysis, operations, and other purposes as well as updates and maintains local, regional, and statewide traffic models (KySTM).

KYTC participates in the Texas Transportation Institute's (TTI) Mobility Measurement in Urban Transportation (MMUT) pooled fund study to track and guide the mobility measure research in major metropolitan areas. For Kentucky, Louisville, Lexington, and Northern Kentucky/Cincinnati are evaluated annually. More information about this pooled fund study can be viewed at <https://mobility.tamu.edu/>.

States are required to calculate performance measures and targets for the Interstate and non-Interstate National Highway System (NHS) using all traffic and freight specific traffic for the purpose of carrying out the National Highway Performance Program (NHPP). Performance measures are calculated for traffic congestion, freight mobility, on-road mobile source emissions, and greenhouse gas (GHG) emission. Final NHHP guidance was adopted in May 2017.

KYTC relies on the National Performance Measure Research Data Set (NPMRDS) supplied by FHWA. Examples of the procedures KYTC's uses to identify Kentucky's congested road segments are presented in Chapter 4. More information about the NPMRDS can be viewed at FHWA's Performance Management website at <https://www.fhwa.dot.gov/tpm/>.