# 2. Planning Framework

The planning framework establishes the foundation of the planning process in the Regional Master Plan for the Rockingham Planning Commission region and guides the development of the Long Range Transportation Plan around the principles, vision, goals and recommendations of that document. In addition, the planning framework incorporates the federal planning factors and performance based (3Cs) transportation planning process and the project selection criteria that are utilized to prioritize projects for funding.

# **New Hampshire Livability Principles**

Working with the other New Hampshire Planning Commissions as part of a Sustainable Communities Initiative grant from the US Department of Housing and Urban Development, the RPC developed a Regional Master Plan constructed around a common set of livability principles. These values are grounded in the New Hampshire Smart Growth Principles found in NH RSA 9-A, the Federal Partnership Livability Principles that guide the HUD-EPA-DOT Sustainable Communities Program, as well as the visions, goals, and objectives in local master plans and other documents concerned with the future. While only one of these principles directly addresses transportation issues, all impact, or are related to, the transportation system in some manner.

### 1. Traditional Settlement Patterns & Development Design

Keep the traditional New Hampshire landscape intact by focusing development in town centers and village areas, while leaving open and rural areas for agriculture, recreation, and other suitable uses.

## 2. Housing Choices

Ensure that everyone, regardless of income level, has convenient and affordable choices in where they live. This includes a variety of housing options and ownership types that appeal to people at any stage of life and is convenient to where they work, shop, and play.

### 3. Transportation Choices

Provide a number of options that help people safely and efficiently get where they need to go, whether it is by walking, driving, biking, public transportation, carpooling, or taking a train or plane. Transportation networks should make it easy to get from one place to another, and should also allow the efficient movement of goods to support the economy (commercial freight, rail, and air transport).

## 4. Natural Resource Functions and Quality

Make sure that we protect New Hampshire's beautiful natural landscape, which is home to all of us as well as a wide range of wildlife species. This includes protecting and improving the water we drink, the air we breathe, the forests we love, and the farmland that sustains us.

### 5. Community and Economic Vitality

Continue to make New Hampshire a great place in which to do business, raise a family, recreate, visit, and retire. Our neighborhoods and communities offer opportunities for an excellent education, good health, cultural happenings, and social connections.

#### 6. Climate Change and Energy Efficiency

Identify opportunities to save energy and costs and reduce risks to our communities, businesses and citizens. In recent decades, New Hampshire has seen an increase in extreme storms and flooding coupled with steadily rising fuel and energy prices. How can we reduce dependence on outside sources of energy, construct homes and buildings that are more efficient, and reduce impacts to our communities and infrastructure from extreme storms and flooding?

# Vision for 2045

The 2040 Regional Master Plan for the Rockingham Planning Commission includes the formation of a shared vision for the future region. This Vision is crafted around ideals espoused in local master plans, past regional master plans, and through input from RPC Commissioners and the general public during the plan development process and represents a compelling picture for the RPC region of the future that balances local and regional needs. This vision remains valid for 2045:

The southeastern New Hampshire region enjoys a high quality of life represented by a strong regional economy, distinct community character, and outstanding natural and recreational resources. This has been achieved through careful planning, wise stewardship of natural resources, infrastructure investment, and increasing regional cooperation on shared issues. This vision is supported when:

• Communities are working together to ensure that longterm economic, social and environmental factors are balanced in the planning and decision-making process.

- Development and redevelopment are enhancing and strengthening community centers, preserving rural character, and maintaining traditional landscapes. This provides open space for agriculture, recreation and wildlife areas, and protection of natural resources, while providing residents with a variety of choices for places to live, work, and play.
- Communities are allowing a variety of housing choices for residents of all income levels to strengthen our communities and economic vitality.
- We are investing in the infrastructure systems that support our communities and businesses.
- The region is promoting economic opportunities that result in more high quality jobs, stable property tax rates, enhanced educational opportunities, and improved services for residents and businesses.
- We are striving to protect our natural environment so residents can benefit from its resources without diminishing its quality for other living creatures and future generations.
- Our sense of community is being preserved by protecting and actively using the region's historical resources and cultural heritage.
- Communities are acknowledging and planning for the effects of a changing climate. Anticipated changes include sea-level rise, increasing flood events, more erosion, periods of drought and other natural hazards.
- Residents, businesses, and communities are adapting to the high cost of energy by implementing efficiency

measures for building, increasing public transit options, and developing local renewable energy resources.

• Communities are respectful of property rights in their efforts to manage growth and development.

# **Regional Goal**

To support the Regional Vision and the New Hampshire Livability Principles, a regional goal was developed to better describe the desired end state:

# Promote efficient use of land, resources and infrastructure in southeastern New Hampshire that:

- Creates a high quality built environment while protecting important natural and cultural resources.
- Promotes positive effects of development and minimizes adverse impacts.
- Promotes economic opportunities and community vitality.
- Enhances the coordination of planning between land use, transportation, housing and natural resources.
- Considers and incorporates climate change into local and regional planning efforts.

# **Federal Planning Factors**

When developing the Long Range Transportation Plan and other transportation planning documents, the ten planning factors identified in 23 U.S. Code § 134 (23 C.F.R. Part 450.306 of the Planning Regulations) must be considered. Like the New Hampshire Livability Principles these provide broad-based guidance and apply to multiple aspects of the planning process:

 Support the economic viability of the metropolitan area, especially by enabling global competitiveness, productivity and efficiency;

- 2. Increase the safety of the transportation system for motorized and non-motorized users;
- 3. Increase the security of the transportation system for motorized and non-motorized users;
- 4. Increase accessibility and mobility of people and freight;
- 5. 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;
- 6. Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight;
- 7. Promote efficient system management and operation;
- 8. Emphasize preservation of the existing transportation system;
- 9. Improve the resiliency and reliability of the transportation system and reduce or mitigate stormwater impacts of surface transportation; and
- 10. Enhance travel and tourism.

# Performance-Based Approach

Performance-based planning methods help transform long-term, broad visions of the future into measurable goals and objectives, which can be used to guide decisions and measure success. There are a number of benefits to this approach:

- Improved decision-making regarding infrastructure investments
- Improved return on investments and resource allocation
- Improved system performance
- Increased accountability and transparency

• Demonstrates link between funding and system performance

This update to the Long Range Transportation Plan is the first attempt by the MPO to implement performance-based planning as required by FAST. This work is being completed in conjunction with a cooperative effort of the four New Hampshire MPOs to implement the 21 currently known and required federal performance measures, and to develop a common set of vetted supplemental performance measures, that can be utilized by MPOs as needed.

# **National Performance Goals**

The Moving Ahead for Progress in the 21<sup>st</sup> Century Act (MAP-21) and the subsequent Fixing America's Surface Transportation (FAST) Act, extended these planning factors by establishing seven National Goals for the Federal Aid Highway System. These national goals constitute a set of broad, over-arching requirements that must be incorporated into planning documents and processes as a basis from which progress can be measured on solving the problems of the current transportation system.

- 1. **Safety** To achieve a significant reduction in traffic fatalities and serious injuries on all public roads.
- 2. **Infrastructure Condition** To maintain the highway infrastructure asset system in a state of good repair.
- 3. **Congestion Reduction** To achieve a significant reduction in congestion on the National Highway System.
- 4. **System Reliability** To improve the efficiency of the surface transportation system.

- 5. **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.
- 6. **Environmental Sustainability** To enhance the performance of the transportation system while protecting and enhancing the natural environment.
- 7. **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.

# **National Performance Measures**

Performance measures are utilized to assess progress towards meeting broad goals and objectives and define precisely how that progress will be measured. Within a performance based planning process, performance measures serve to clarify the definition of goals, monitor performance over time, are used as a reference point for target setting, form the basis of policy and investment decisions, and allow planners and the public to assess the effectiveness of projects and strategies in achieving goals and objectives. The Federal Highway administration (17) and Federal Transit Administration (4) have established 21 required metrics (so far) that each MPO must utilize as part of the transportation planning process. These metrics focus on aspects of the National Performance Goals and covering the following areas:

• Pavement condition on the Interstate System and on remainder of the National Highway System (NHS)

- Performance of the Interstate System and the remainder of the NHS
- Bridge condition on the NHS
- Fatalities and serious injuries—both number and rate per vehicle mile traveled--on all public roads
- Traffic congestion
- On-road mobile source emissions
- Freight movement on the Interstate System
- Transit Asset Management
- Transit Safety

As required under the FAST Act, NHDOT has established performance targets for these measures for urbanized and rural areas in coordination with MPOs and public transportation providers. Subsequently the MPO has set targets within 180 days of the State, again in coordination with the State and public transportation providers.

Targets for the State and transit operators relating to Transit Asset Management were adopted in early 2017 and adopted by the MPO in July 2017. Safety related targets were adopted at the State level in August 2017 deadline and by the MPO in February 2018. Targets for Pavement & Bridge Condition (PM2) and Travel Time Reliability (PM3) were adopted by the state of New Hampshire in May 2018 and by the MPO in October 2018.

# **MPO Goals & Performance Measures**

The MPO has developed a set of goals based on the New Hampshire Livability Principles, the Regional Master Plan Vision and Goal, and the Federal Planning Factors and the National Goals for the Federal Aid Highway System as well as past iterations of the Long Range Transportation Plan. These goals are intended to aid in directing transportation funding and prioritizing regional transportation projects and for that reason have been coordinated with a set of performance measures for the transportation system. *Table 2-1* provides the connection between the 11 regional transportation goals and the Federal Planning Factors, National Performance Goals, Known Federal Performance Metrics, New Hampshire Sustainability Principles, and the Regional Vision and Goals as expressed in the RPC Regional Master Plan.

## Goal 1 - Mobility

The region's transportation system offers safe, secure, efficient, and reliable access to employment, housing, commerce, services, entertainment, and recreation.

## Goal 2 – Transportation Choices

The region's transportation system offers equitable and reliable multi-modal transportation choices to better connect people to jobs and services.

## Goal 3 – System Preservation & Modernization

The region's transportation system is maintained in good condition and the preservation and modernization needs of existing components are prioritized ahead of adding new highway capacity.

## Goal 4 - Safety & Security

The region's transportation system is safe and secure for all users.

## Goal 5 – Land Use Integration

New commercial and residential development supports multiple modes of transportation and minimizes the need for expanding capacity of adjacent roads

### Goal 6 – Energy & Environment

The region's transportation system is proactive in protecting natural and historic resources; and is forward looking regarding energy use, energy efficiency and conversion to renewable energy sources.

#### Goal 7 – Resiliency

The region's transportation system is adaptive and resilient to climate change and natural and other hazards.

#### Goal 8 - Economic Vitality

Through strategic investment, the region's transportation system supports an innovative and competitive 21st century economy that connects people, goods, and communities to desired activity and economic centers.

#### Goal 9 - Public Health

The region's transportation system is designed and built to support safe and healthy communities, facilitate active living opportunities, and aging in place.

### **Goal 10 - Efficient and Effective Planning Process**

The MPO provides an efficient and effective implementation of the cooperative, coordinated, and continuous (3C) federal transportation planning process that aids in the efficient and effective implementation of projects.

### Goal 11 – Funding Availability

Adequate and predictable funding is available to meet current and future needs for transportation system maintenance, operation and modernization across all modes.

# **Performance Measures and Targets**

Performance measures and targets provide a direct and measurable connection between the regional goals as established in the Long Range Transportation Plan and specific desired outcomes. Federal regulations require that the MPO set targets in relation to the national performance measures described earlier in this chapter, and that those targets be included in any MPO Long Range Transportation Plan updates after May 1, 2018. US DOT also encourages the inclusion of other metrics that reflect regional goals and priorities not covered under the national performance goals.

In addition to the Federally mandated measures described in the previous section, the MPO is currently in the process of implementing a set of supplemental measures that ensures that each of the twelve MPO Transportation Goals has at least one metric to gauge progress against. *Figure 2-1* indicates which goals have Federal Performance Metrics as well as those for which supplemental measures are being developed in conjunction with the other New Hampshire MPOs. The supplemental measures adopted jointly by the four New Hampshire MPOS include the following:

- 1. Motorcycle Fatalities
- 2. Transportation Related GHG Emissions Per Capita
- 3. Remaining Useful Life for Transit Fleet Vehicles
- 4. Major Employers Served by Transit
- 5. Fixed Route Transit Ridership
- 6. Fixed Route Transit Ridership
- 7. Transit Fleet Using Alternative Fuels
- 8. General Public and Low Income Population Served by Transit

Methodologies for measuring and tracking these metrics have been developed, along with baseline data and trends. Targets are still in development as of the release of this document. Performance measures are still to be defined for several of the MPO Goals identified here, including Transportation Choices, Land Use Integration, Economic Vitality, Public Health Efficient and Effective Planning Process and Resiliency. The list of supplemental measures will be further refined during 2019-2020.

RPC MPO Goal	Federal Performance Goal	Federal Performance Metrics	Planning Factor	NH Livability Principle	Component of Regional Vision and Goal?
Goal 1 - Mobility	FG3, FG5	Multiple	PF4	LP3	Yes
Goal 2 - Transportation Choices	No FG	No*	PF4	LP2, LP3	Yes
Goal 3 - System Preservation and Modernization	FG2, FG3, FG4	Multiple	PF8	LP3	Yes
Goal 4 - Safety & Security	FG1	Multiple	PF2, PF3	LP2	Yes
Goal 5 - Land Use Integration	No FG	No*	PF6	LP1, LP2, LP5	Yes
Goal 6 - Energy & Environment	FG6	Yes	PF5, PF9	LP4, LP6	Yes
Goal 7 - Resiliency	No FG	No*	No PF	LP6	Yes
Goal 8 - Economic Vitality	FG4, FG5	No*	PF1, PF10	LP5	Yes
Goal 9 - Public Health	No FG	No*	PF6	LP1, LP2, LP3, LP5	Yes
Goal 10 - Efficient and Effective Planning Process	FG7	No*	No PF	None	Yes
Goal 11 - Resource Availability	FG7	No*	No PF	None	Yes

#### *Figure 2-1: Connections between Federal and Regional Goals*

FG = Federal Goal & relates back to the National Performance Goals described on page 2-5

PF = Planning Factor & relates back to the Planning Factors described on page 2-3

LP = NH Livability Principle & relates back to those described on pages 2-1 & 2-2

\* The MPO is in the process of developing a set of performance measures that supplement the Federal Performance Metrics and ties each of the MPO Goals to at least one measurable outcome

# **Project Selection Criteria and Process**

In a 2012 statewide effort involving all nine planning commissions, NHDOT, and FHWA, it was determined that the best approach to prioritizing projects was to first examine projects for eligibility and feasibility, and follow that by scoring those eligible and feasible projects against a common set of selection criteria. Once that had been determined, it was left to the individual

agencies to establishing the relative weights of each of the selection criteria to establish priorities within their regions. The most recent iteration of this biennial process was completed by the MPO Transportation Advisory Committee at the October 2018 meeting and that established the relative weights as shown below. The project selection criteria were defined and applied as follows:

- 1. **Mobility:** The mobility criterion is divided into two components:
  - Congestion Mitigation: The extent to which the project is intended to reduce traveler delay. Estimated based on scope of project, location, and current levels of congestion.
  - Freight Mobility: The degree to which the project impacts the movement of goods. Estimated based on perceived utility as a freight corridor.
- 2. **Alternative Modes:** The extent to which the project impacts accommodations for alternative modes of travel. Does the project improve access to goods and services for people without a car.
- 3. **Network Significance:** The two components of the network significance criterion include:
  - Traffic Volume: The highest volume project location receive the highest score and the lowest volume project location receives the lowest score.

- Facility Importance: Based on Functional classification. Higher classes of roadways receive higher scores. This reflects NHDOT's "Tiered" approach.
- 4. **Safety**: The two components of the Safety criterion include:
  - Safety measures: To what degree is the project oriented towards making the roadways safer. Is the project purpose primarily safety or is it something else.
  - Safety Performance: Relative crash frequency at the location based on the last 5 years of data (2009-2013). Crash severity is also considered.
- 5. **State of Repair:** The two components of the State of Repair criterion include:
  - Service Life Remaining: The physical condition of the road and remaining useful life of the pavement. Roadways in better condition will score higher. Currently this is based on the same information from 2013 and 2014, but will be updated when the new data is received from NHDOT.
  - Current Bridge Condition: The physical condition of the bridge and those in the worst condition (Red List) will score higher. Currently this is based on the same information from 2013 and 2014 but will be updated when the new data is received from NHDOT.
- 6. **Support:** The regional priority of the project. This includes consideration of the local priority (10%), regional priority (40%), potential economic impacts (20%), the degree to which the project supports the vision, goals, and objectives of the region (20%), as well as whether the project is listed in local or regional planning documents (10%).
- 7. **Resiliency:** The degree to which the proposed project will address natural hazard mitigation measures

Also new in the 2018 project prioritization round was a division of projects by scale into three categories: Local, Regional and Inter-Regional. The goals of this approach include ensuring that projects of similar scope and scale are compared primarily against one another, such that small scale local needs do not always take a back seat to large inter-regional projects.

The TAC established differing weights for each of the ten criteria based on project scale.

For example congestion mitigation and travel time improvement is a high priority at the inter-regional scale, while safety and alternative modes receive higher priority at the local scale. The three project scales and criteria weighting for each are described in *Figure 2-2* and *Figure 2-3*.

## Figure 2-2 – Local/Regional/Inter-Regional Scales for Project Prioritization

	Local	Regional	Inter-Regional
Focus	Safety, access and multimodal connections within communities	Multimodal connections between communities and regional activity centers	Mobility and intermodal improvements to ensure that the region is well connected to the rest of New England
Project Types	<ul> <li>Smaller scale bike/ped and transit projects</li> <li>Highway projects on "main street" state highways and some local roads</li> <li>Multimodal access to services for all users</li> <li>Complete Streets and context sensitive design</li> </ul>	<ul> <li>Projects primarily on State Highways</li> <li>Regional Transit</li> <li>Regional scale bike/ped</li> <li>Improve Regional Mobility</li> </ul>	<ul> <li>Projects related to National Highway System</li> <li>Delay reduction on critical roadways</li> <li>Freight mobility and travel time</li> </ul>
Key Criteria	<ul><li>Alternative Modes</li><li>Safety</li></ul>	<ul><li>Safety</li><li>Mobility</li></ul>	<ul><li>Mobility</li><li>State of Repair</li></ul>
	<ul> <li>State of Repair</li> </ul>	<ul> <li>Alternative Modes</li> </ul>	<ul> <li>Safety</li> </ul>

	Local	Regional	Inter-Regional	
Mobility	11%	12%	17%	
Alternative Modes	17%	14%	12%	
Network Significant	12%	14%	17%	
Safety	19%	18%	19%	
State of Repair	16%	16%	15%	
Support	15%	15%	10%	
Resiliency	9%	10%	11%	
TOTAL	100%	100%	100%	

# *Figure 2-3 – Project Evaluation Criteria by Project Scale*