

# LONG-RANGE TRANSPORTATION PLAN: 2025-2050

February 2025 Draft Rockingham Planning Commission Metropolitan Planning Organization

# **TABLE OF CONTENTS**

Introduction	07
Regional Conditions	13
The Plan	26
Plan Implementation	52

Rockingham Planning Commission MPO • Long-Range Transportation Plan 2025-2050

# ACRONYMS

ACS: American Community Survey ACT: Alliance for Community Transportation ADA: Americans with Disabilities Act ADT/AADT: Average Daily Traffic / Average Annual Daily Traffic CART: Greater Derry-Salem Cooperative Alliance for **Regional Transportation** CEDS: Community Economic Development Strategy CFR: Code of Federal Regulations CMAQ: Congestion Mitigation/Air Quality **CMP: Congestion Management Process** COAST: Cooperative Alliance for Seacoast Transportation EPA: Environmental Protection Agency FAST: Fixing America's Surface Transportation Act (2015) FEMA: Federal Emergency Management Agency FHWA: Federal Highway Administration FTA: Federal Transit Administration FY: Fiscal Year **GIS:** Geographic Information System **ITS: Intelligent Transportation Systems** LEP: Limited English Proficiency LRTP: Long Range Transportation Plan

MTA: Manchester Transit Authority MAP-21: Moving Ahead for Progress in the 21st Century MBTA: Massachusetts Bay Transportation Authority MPO: Metropolitan Planning Organization MUTCD: Manual of Uniform Traffic Control Devices NEPA: National Environmental Policy Act NHCZP: New Hampshire Coastal Zone Program NHDES: New Hampshire Department of Environmental Services NHDHHS: New Hampshire Department of Health & Human Services NHDOT: New Hampshire Department of Transportation NHOPD: New Hampshire Office of Planning & Development NHSG: New Hampshire Seacoast Greenway NNEPRA: Northern New England Passenger Rail Authority NOAA: National Oceanic and Atmospheric Administration PEL: Planning and Environmental Linkages (FHWA Program) PREP: Piscatagua Region Estuaries Partnership RCC: Regional Coordinating Council for Community Transportation **REDC: Regional Economic Development Center** RPC: Rockingham Planning Commission / Regional Planning Commission RSA: New Hampshire Revised Statutes Annotated RSMS: Road Surface Management Systems

SABR: Seacoast Area Bicycle Riders SRPC: Strafford Regional Planning Commission SRTS: Safe Routes to School TAC: Technical Advisory Committee TAP: Transportation Alternatives Program TASC: Transportation Assistance for Seacoast Citizens TDM: Transportation Demand Management TIP: Transportation Improvement Program TMA: Transportation Management Association TPC: Transportation Planners Collaborative UPWP: Unified Planning Work Program USDA: United States Department of Agriculture USDOT: United States Department of Transportation USGS: United States Geological Survey UZA: Urbanized Area

### ACKNOWDLEGEMENT

This document has been prepared by the Rockingham Planning Commission in cooperation with the U.S. Department of Transportation - Federal Highway Administration; the New Hampshire Department of Transportation; and the Federal Transit Administration. The contents of the report reflect the views of the authors who are responsible for the facts and accuracy of the data presented herein. The contents do not necessarily reflect the official views or policies of the Federal Highway Administration, the New Hampshire Department of Transportation, or the Federal Transit Administration. This report does not constitute a standard, specification, or regulation.

Adopted by the MPO Executive Committee on: \_\_\_\_\_







# **CIVIL RIGHTS & NON-DISCRIMINATION POLICY**

It is the policy of the Rockingham Planning Commission (RPC) Metropolitan Planning Organization (MPO) to effectuate Title VI of the Civil Rights Act of 1964, as amended, the Civil Rights Restoration Act of 1987, and related statutes and regulations in all Federal programs and activities. Pursuant to this obligation and MPO commitment, no person shall, on the grounds of race, color, or national origin be excluded from participation in, be denied the benefits of, or otherwise be subjected to discrimination in any program or activity carried out by the MPO.

Further, it is the policy of the MPO to go beyond the basic requirements of Title VI and ensure that transportation planning services are provided without regard to sex, age, or disability status. The MPO will monitor and enforce statutory requirements imposed on its sub-recipients and participants of Federally assisted programs and projects. MPO further assures that every effort will be made to ensure nondiscrimination in all of its programs and operations, regardless of funding source.

MPO meetings are held in accessible locations, and reasonable accommodations are made for individuals with disabilities upon request within a reasonable advance notice period (usually two weeks or 10 business days). If you would like accessibility or language accommodation for any RPC MPO meeting, please contact the RPC Business Manager at 603-658-0517 or by email: email@therpc.org.

If you feel you have been discriminated against based on your race, color, national origin, sex, age, or disability status, you may file a complaint following the RPC MPO Title VI Complaint Form. If you cannot download the document or need additional information, please feel free to contact the Rockingham Planning Commission at 603-778-0885.

Rockingham Planning Commission MPO • Long-Range Transportation Plan 2025-2050



# Introduction

The Rockingham Planning Commission (RPC) is designated as the Metropolitan Planning organization (MPO) for 27 communities in Southeast New Hampshire. The region is home to just under 200,000 people living in a mix of coastal and inland communities. The region is connected via an impressive network of highways and local roads, bridges, railroads, ports, sidewalks, and trails moving people and goods. In the past decade, a significant portion of the region's roads and bridges have been restored & rehabilitated to good condition.

Despite major setbacks in investment & ridership for public transit due to Covid-19, public transit ridership in the region has overwhelmingly rebounded and exceeded economic recovery goals. Recreational trails throughout the RPC region contribute to New Hampshire's multi-billion outdoor recreation economy. Every \$1 invested in public transit in the region results in over \$4 in economic returns. The increasing number of volunteer driver and medical transportation services are working to meet the region's growing need for accessible senior transportation.

While we've come a long way, there's still a long way to go. Public and active transportation options in the region have significant gaps, largely due to limited State and Federal funding for transit. Lack of transportation choice contributes to the housing crisis for people who, for many reasons, may not drive or own a car. The impacts of extreme weather and climate events like coastal flooding during storms have increasingly eroded important transportation infrastructure.

The responsibility of the MPO is to develop and maintain a long-range transportation plan overseeing assets, challenges, projects, and recommended strategies to improve the region's transportation system.



Rockingham Planning Commission MPO • Long-Range Transportation Plan 2025-2050

# **MPO Planning Process**

Federal regulations require each Metropolitan Planning Organization to develop a Plan that covers at least 20 years ahead and includes specific information about system performance, planned projects, and financial resources.

The Plan should help guide the prioritization and funding of regional transportation investments and must be updated every five years (every four years in areas that fail to meet federal air quality standards).

The MPO's last plan update was adopted in March 2021 for programmed projects through 2045. This update of the Plan programs investment and strategies through 2025-2050.

### LONG-RANGE TRANSPORTATION PLAN (LRTP) 11-20+ Regional Goals, Priorities, and Projects Major updates: Every 4-5 years · Projects have to be in the LRTP to get YEARS TO IMPLEMENTATION selected for the Ten Year Plan (TYP) TEN YEAR PLAN (TYP) 4-10 10 years of funded projects Major updates: every 2 years State commitment to build listed projects · Projects in the LRTP get selected to be in the Ten Year Plan (TYP) TRANSPORTATION IMPROVEMENT PROGRAM (TIP) 1-4 Projects selected for implementation in next 4 years Funding is fiscally constrained Major updates: every 2 years

# **Public Involvement**

### **Idea Generation Sessions**

Over 60 participants contributed to our Idea Generation Sessions in March 2024 and September 2023. Outreach was conducted via social media, word of mouth, email, and working with university partnerships to provide course credit for students from the region whom attended.

### Surveys

Multiple surveys provided feedback for this Plan Update, primarily the Plan Update Survey which garnered over 7,000+ individual pieces of feedback from 296 respondents. Other surveys informing this update of the plan include:

- Age-Friendly Community Surveys from several RPC communities
- Regional Safety Action Plan Survey

## Additional Outreach informing this Plan Update

- NHDES & NH Listens Climate Action Plan Public Session (January 2024)
- Age-Friendly Communities Outreach (Continuous since 2021)
- Safe Streets For All (SS4A) public input sessions (October 2024 January 2025)
- Amtrak Downeaster guided tour & investments discussion with NNEPRA (2024)

The full public involvement summary and outline of the plan development process is available in: **Appendix A: Public Outreach Summary.** 

Survey Question: How would your rank the importance of the following priorities for our transportation system?



# **Top Needs & Themes Identified in Outreach**

# Support for Public Transportation serving town-to-town (inter-regional) and region-to-region (intra-regional) travel needs.

- A need for increased frequency and reliability of key transit routes, as well as increased frequency of commuter options linking our region to Boston.
- Fixed Route Bus Transit beyond 5 PM and on weekends.

#### Concerns about aging in place with the current transportation system.

- A need for more senior & medical transportation options (i.e. ADA Paratransit)
- Uncertainty about what to do if driving becomes a non-option due to age, illness, or a disability.
- Desire for more pedestrian and bicycle-friendly land use patterns and amenities.

#### Climate Resilience & Environmental Protection is a top priority.

- Concerns about how flooding, heat, drought, storms, sea level rise, and other climate conditions will impact our transportation infrastructure.
- Strong support for investments that protect fresh water resources, mitigate risks, and improve overall resilience to a changing & increasingly volatile climate.

#### Across age groups and outreach sessions, people value connection to community.

• Support for alternative transportation options beyond driving that link residential areas with entertainment & socialization, such as community centers, libraries, theaters, local businesses, and outdoor recreation opportunities.

The full public involvement summary and outline of the plan development process is available in: **Appendix A: Public Involvement Summary.** 

# Plan Frameworks Performance Based Planning

The MPO is required under Federal law to track the performance of the region's transportation system. This requires performance measures and targets to be met & evaluated. In addition to the performance measures required by the FAST Act, the MPO works with other regional planning commissions in the state to track additional measures relevant to New Hampshire. System performance metrics, targets, and progress are located throughout the plan when they correlate with Plan goals. The full system performance report is in Appendix C: System Performance Report.

### **Performance Measures**

- Pavement condition
- Bridge condition
- 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

### **Federal Planning Factors**

Per federal regulations (23 CFR 450.306(b)):

1. Support the economic vitality 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.

10. Enhance travel and tourism.

For more information on the Planning Process and Frameworks, visit Appendix **B: Plan Frameworks and Guidelines.** 

# **Plan Goals**

In addition to Plan Frameworks required by the FAST Act, the MPO maintains its own set of goals for planning the transportation system. These goals are derived from public outreach, coordinating plans at the local, State, and Federal levels, and previous iterations of the plan. This update includes refreshed goals that aim to re-center transportation around human & environmental needs, while reducing redundancy in the previous 11 goals.

# A Thriving Region: Goals that make our region a great place to live, work, and play.

#### Goal 1: Housing & Community Connection:

The region's transportation system connects housing and opportunities for employment, education, healthcare, groceries, social interaction and other basic needs within walking, biking, and transit distances.

#### Goal 2: Access & Choice:

The region's transportation system provides an efficient, reliable, safe, accessible, convenient multimodal network of transportation options for all road users.

#### Goal 3: Energy & Environment:

The region's transportation system respects, conserves, and preserves land, water, wildlife, energy, and other natural resources.

# Quality Transportation System: Goals that ensure reliable system performance.

#### Goal 4: Safety & Security:

The region's transportation system ensures safe travel for all road users during daily life & emergency scenarios.

#### Goal 5: Economic Vitality:

The region's transportation system connects the workforce, enhances local business access, and supports an efficient, sale, reliable supply chain.

#### Goal 6: Well-Maintained & Resilient:

The region's transportation system is planned, operated, and maintained to withstand emergency scenarios, wear and tear, and changing climate conditions.













# **REGIONAL CONDITIONS**

## Timeline

The RPC region is made up of 27 communities from Rockingham County in Southeast New Hampshire. Natural resources in the region have supported a thriving population, ecosystem, and economy throughout multiple industrial revolutions. Understanding how historic growth & development patterns have interacted with the region's environment and economy, as well as how past transportation decisions have influenced the region, can guide smart investment decisions for future decades.

### Origins

The Rockingham Planning Commission (RPC) region's natural and social history has evolved over the course of several centuries. English settlement in the region dates back to 1623; and Indigenous sites and people date back to time immemorial. European settlement & industrialism marked the beginning of a new paradigm in infrastructure and economic development goals, and a drastically different approach to environmental stewardship.

### **19th and Early 20th Century**

The 1700's and 1800's involved early development in the region including wood covered bridges, roads, and other infrastructure to support the growing textile, shoe, & lumber industries. An abundance of rivers and proximity to the Atlantic coast made the region an ideal place for water-powered mills, port-based trade, agriculture and aquaculture, and manufacturing. Trolley systems and inter-urban railways allowed for early residential development patterns to become more spread out and opened opportunities to live and work in significantly more places than before. Portsmouth, Exeter, Hampton, NH and Amesbury, MA were connected through these types of local railways. US Route 1 was among the earliest highways in the region and provided early access to trade & travel.



Historic postcard of Hampton Trolley via RPC.

### Early to Mid 20th Century

Following World War II ending in the 1940's, the Federal Government began several decades of expansion of the nation's interstate highway system. The opening of Interstate 95 fundamentally altered travel in the region by connecting the everyday traveler with highway access north from Portland, through the region, and south towards Boston.

Coastal development began the pattern of depleting coastal assets such as sand dunes, which only remain today at ~15% of their 1985 land cover due to fill & development. Development of transportation corridors connecting Boston to Portland expanded the regional economy from primarily agriculture and manufacturing to sectors like retail, services, and tourism. Highway commute options and land availability for housing set the the region in motion to become an attractive commuter-residential hub for the Boston & Portland area workforces.

### Late 20th Century

The continuing era of highway investment & expansion throughout the decades to come marks the shift in Federal and State investments moving away from railroads & public transit. Following the end of streetcar and trolley systems, COAST started serving the region in 1982.

Today, many of the state's remaining railroads have been converted into roads or rail trails. The Boston & Maine railroad connecting Boston to Portland is owned & operated by CSX for freight, and has been leased to Amtrak for the Downeaster Passenger Service.



NH 101 and NH 125 in Epping, Photo via RPC.



I-95 Traffic, Photo via RPC.

### **Our Future**

The decades ahead pose a number of new and ongoing challenges requiring a transportation system for the region that is safe, resilient, reliable, accessible, and well-connected through a variety of transportation options.

- Limited transportation options beyond driving a personal vehicle and limited housing options have led to increased commute times and barriers to workforce development.
- Development in environmentally sensitive areas has exacerbated flooding conditions as natural disasters and extreme weather conditions worsen in frequency and severity.
- The region's median age is continuing to increase annually, meaning our region's population is projected to continue skewing older throughout 2050. This poses challenges in a system predominantly designed around vehicle travel as residents age out of driving and may require additional transportation & housing options to age in place.
- Development patterns in the region are often that of suburban and rural single family homes, which has made supporting a public transit system in the region exceptionally difficult. Despite significant funding and land use challenges, COAST data shows significant ridership gains and economic returns on investments in ridership.

The RPC's Long Range Transportation Plan for 2050 aims to outline a pathway to connecting people and goods with their everyday destinations in a manner that is safe, secure, reliable, efficient, accessible, multi-modal, and informed by changing conditions.



Photo via RPC.



Photo via RPC.

# **Trends & Conditions**

### **Population**

#### **Growing Population:**

The region's population increased from 117,962 to 198,870 from 2000 to 2020 and is projected to continue to increase to 220,329 by 2050. (RLS Statistics, US Census.)

#### Aging Region:

The average age of the RPC Region has increased from 43.2 in 2010 to 47 in 2020. As the region ages, the number of non-drivers is expected to increase. The AARP estimates that 1 in 5 people beyond the age of 65 age out of driving. By 2050, it is estimated that the majority of the population will be over the age of 65 in the region based on current age projections.

#### **Slow Annual Growth:**

The region experienced an unprecedented boom in population after World War 2 when highways bridged access and spurred new economic and residential development. In the 2000's, the rate at which the population increases has slowed down drastically due to factors like less available housing, higher cost of living, fewer births, and changes in regional economics impacting the workforce.



# **Trends & Conditions**

### Commuting

#### **Return to Office:**

Covid-19 shifted a large percentage of commuters into remote work in March 2020, but Workplace Return to Office (RTO) policies enacted since 2021 have considerably reversed this trend.

#### **Travel Modes:**

Driving is still the primary mode of commuter travel, largely due to sprawling land use patterns.

#### **Commute Times:**

Average commute times increased from 2010 to 2015 and increased again from 2015 to 2020 in the following municipalities: Brentwood, Danville, Fremont, Kingston, Newton, North Hampton, Portsmouth, Salem, Seabrook, and South Hampton. Rye was the only community that saw mean commute times decrease from 2010 to 2015 and again from 2015 to 2020.

#### **Commute Flow:**

Census data estimates that nearly 58% of people living in the region commute outside of the region for work. Only 42.3% of residents in the region also work in the region.



### Commuter Mode of Transportation, Region and State, 2012-2022

Source: US Census

Mode of Transportation	RPC Region		New Hampshire			
	2022	2017	2012	2022	2017	2012
Car, truck, or van	84.4%	89.5%	89.8%	82.8%	88.7%	88.9%
Drove alone	94.2%	93.1%	93.5%	75.7%	80.9%	80.9%
Carpooled	5.8%	6.9%	6.4%	7.2%	7.9%	8.0%
Public transportation (excluding taxicab)	0.7%	0.8%	0.8%	0.6%	0.8%	0.9%
Walked	1.6%	2.0%	2.2%	2.2%	2.7%	2.8%
Bicycle	0.1%	0.2%	0.5%	0.2%	0.3%	0.3%
Taxicab, motorcycle, or other means	1.0%	0.7%	0.8%	1.0%	1.1%	1.0%
Worked from home	15.5%	6.7%	6.0%	13.1%	6.4%	6.1%

# Trends & Conditions

No-vehicle households are not provided specific

protections under federal or state civil rights laws. No-vehicle households have significantly different transportation and housing needs when compared to individuals who have a private automobile.

People with no vehicle must choose to live in locations where access to employment, housing, food, education, and services do not require driving a private automobile. Such an arrangement can only be achieved where individuals can access public transit, private transportation services, or trails for bicyclists and pedestrians. Where no-vehicle households overlap with other classifications, the compounding conditions increase the chances of equity disparities. For example, having a physical disability cannot be used to refuse an individual from some forms of employment, but having a private automobile for transportation to and from work can be used as a requisite for employment.

**Map 1-3** shows the regional distribution of No-Vehicle Households. The majority of the region's municipalities have a rate less than 1.3% while some census block groups in Exeter, Hampton, Portsmouth, and Salem have high concentrations of no vehicle households ranging between 11.81% and 21.5%.



Map 1-3: Percent of Households with No Vehicle, 2021 Source: US Census

"It's very difficult for older citizens to find safe and affordable transportation. I don't own a car so I have managed to get by with a little help from a neighbor or two and Trip Link."

-Survey Respondent, Hampstead

# Trends and Conditions Access & Disability

People living with disabilities are often left out of pillars of everyday life due to barriers in transportation. The limited availability of dealerships who can service wheelchair-adaptable vehicles, uncertainty in availability of transportation to medical appointments, and a lack of ADA-compliant accommodations throughout the transportation system are just some of the challenges the region faces in providing access to all road users.

Families with a member living with disabilities often care for their dependents well into adulthood. According to a 2021 survey by ABLE-NH, more than 50% of respondents expressed a desire to live independently from their family, with appropriate, and nearby support. Accessibility upgrades to transportation infrastructure such as sidewalks, shared use paths, and intersections, and public transit may be needed for individuals to achieve independent employment and living arrangements.

The civilian non-institutionalized population with a disability in the RPC Region in 2020 was 21,295, or approximately 11% of the population. Disability rates are expected to increase as the region ages, adding additional demand for more accessible transportation options beyond driving a single-occupancy vehicle.



routes and increased frequency." - Survey Respondent

### **Trends and Conditions** Socioeconomic Conditions

The RPC conducted an analysis highlighting high concentrations of non-white populations, persons with disabilities, no-vehicle households, people over 65, and persons in poverty.

By identifying community tracts with high concentrations of underserved aroups. transportation policies can be tailored to address specific needs, such as increasing the availability and accessibility of public transportation options, improving bicycle & pedestrian networks, and accessible infrastructure. These changes can enhance access to essential services, employment opportunities, and social activities. For example, improving transit options in areas with a high number of no-vehicle households can significantly reduce travel times and costs, thereby alleviating some of the financial burdens on low-income families.

Additionally, ensuring that seniors and persons with disabilities have reliable and accessible transportation options can greatly enhance their independence and quality of life. By mapping socioeconomic disparities to inform transportation planning, policymakers can foster more equitable and inclusive communities where all residents have the opportunity to thrive.



Map 1-5: Socioeconomic Conditions by Block Group Source: US Census

# Trends and Conditions Vehicle Miles Traveled

#### Vehicle Miles Traveled (VMT):

VMT measures the total number of miles driven by all vehicles within a specific area, and within a specific time frame. This data is helpful for indicating which roads might have the most wear & tear, emissions, and congestion. Map 1-6 indicates trends in travel in the RPC region.

#### **Traffic Volumes:**

VMT decreased significantly in 2020 due to Covid-19 remote work protocols. Returning to the office has brought VMT back up to near prepandemic levels, as reflected in 2023 data. It is expected that VMT will continue to increase annually.

#### VMT Reduction is Driven by Commuters:

The drastic reduction in VMT from 2019-2021 was largely the product of fewer commute trips being made. Commutes to work and school are the primary purpose of the majority of vehicle trips in the region. Efforts for reducing emissions, maintaining roads and bridges in good condition, and reducing congestion should include strategies like mixed use development and complete streets models. These strategies reduce trip length by providing commuters with options to walk, roll, or take transit.



Map 1-6: Vehicle Miles Traveled (VMT), 2021-2023 Source: NH DOT

# **Trends & Conditions**

### Highway & Bridge Condition

#### **Current Trends**

Pavement conditions in the region have improved significantly on the national highway system in the past five years.

Between 2018 and 2023:

- The total percent of pavement considered to be in good condition increased from 53.5% to 61.4%.
- The total percent of pavement in fair condition was maintained, only falling 0.5% in five years.
- The total percent of pavement in poor condition decreased from 13.3% in 2018 to 6.9% in 2023.

#### **Future Conditions**

Future conditions for the pavement system will depend upon diversifying funding sources and seeking alternate funding beyond the gasoline tax. The increasing efficiency & fuel economy of vehicles, in addition to the growing cost of maintenance and repair from more frequent disruptive weather, decreases the value of revenue derived for pavement condition repairs.



Rockingham Planning Commission MPO • Long-Range Transportation Plan 2025-2050

#### **Map: Road Functional Classification**



Table: Road Functional Classification			
Rural Roadways	Miles	Urban Roadways	Miles
Principal Arterials	89.2	Principal Arterials - Interstate	63.2
Minor Arterials	3.2	Principal Arterials - Other Freeways and Expressways	45.2
Major Collector	54.7	Principal Arterials - Other	57.4
Minor Collector	32.1	Minor Arterials	79.2
Local Road	392.5	Collector	183.1
Private Road	124.1	Local Road	807.6
Total	695.8	Total	1235.7
Total Road Miles = 1931.5			

# Trends & Conditions Road Ecology

Estuaries making up our region's watersheds have natural drainage patterns. The ability for surface water & wetlands to drain is essential for preventing & mitigating floods, supporting wildlife populations, maintaining healthy watersheds, and capturing carbon emissions and pollution. Transportation Impacts on Wetlands include:

- In Wetland Buffer setbacks and other land adjacent to wetlands, Impervious surfaces like roads, parking lots, roofs, and driveways can prevent water absorption and increase stormwater runoff.
- In the Seabrook-Hampton Estuary, SHEA estimates only 15% of the region's original 1985 levels of sand dunes remain due to fill & development.
- Stormwater runoff collects pollutants, which the New Hampshire Department of Environmental Services (NH DES) estimates account for over 90% of the state's water pollution.

Nature-based and engineered solutions like buffer rain gardens, culvert upgrades, and compact landuse designs in low-flood risk areas can reduce the impacts of stormwater pollution and flooding. By focusing development within existing paved areas, we can limit expanding disruption to environmentally sensitive areas of the region.



Map 1-7: Surface Water & Wetlands Source: GRANIT

### **Over 90%**

Percent of water pollution in New Hampshire caused by stormwater runoff. (NH DES, 2024)

# 7 Pounds

Amount of Tire Particle pollution deposited by the average driver into the environment every year. (EPA, 2024)



# Trends and Conditions Flood Risk Scenarios

Analysis done by the RPC in 2022 for the Seacoast Transportation Corridor Vulnerability Assessment provides in-depth insight into future anticipated conditions surrounding Sea Level Rise (SLR) impacts.

#### **Assessment and Scenario Analysis Findings**

- The region's roadways can continue to function reasonably well with up to two feet of SLR but, by four feet of sea level rise, connectivity and access are severely disrupted and system functionality declines.
- Communities with marsh land development may experience impacts at 1.0 SLR.
- At 4.0 SLR, several sites are predicted by the flood risk model to be limited in functionality including Portsmouth city streets, Water Street in Exeter, Squamscott Road in Stratham, several local roads in Rye, and portions of US-1, NH-1A, and NH-1B along the coast.

More frequent flooding and storms predicted for future years will underscore the necessity of maintaining emergency vehicle access and evacuation routes in good condition, avoiding development in high-risk flood zones, incorporating stormwater risk assessments throughout transportation planning & investment decisions, and maintaining stream crossings and other flood preventative infrastructure in functioning conditions.

#### Scale of transportation network impacts under each SLR Scenario

Source: Seacoast Transportation Corridor Vulnerability Assessment, 2022

Sea-Level Rise Scenario	Uninterrupted North-South routes available (3 to start)	Uninterrupted East-west routes available (22 to start)	Estimated disrupted daily volume (number of vehicles)
1.0 Feet	3	20	10,000
1.7 Feet	3	18	20,000
4.0 Feet SLR	1	7	108,000
6.1 Feet SLR	Not Started	Week 38	Unknown

### 10,065

Homes in Rockingham County, NH at that are at a moderate risk of flooding over the next 30 years. (Flood Factor, https://riskfactor.com/)

The full Seacoast Transportation Corridor Vulnerability Assessment is available at: <u>www.therpc.org/SCTVA.</u>

# 1. Housing & Community Connections

**2050 Vision:** The region's transportation system connects housing and opportunities for employment, education, healthcare, groceries, social interaction and other basic needs within walking, biking, and transit distances.

### **Background: Communities Then**

Before cars and highways became more common starting in the early to mid-20th century, communities were typically designed for people to get around by walking, biking, horseback, or other non-motorized modes. Passenger rail systems connected the region to other towns, regions and states. Rural and agricultural communities in the region were among the first to embrace personal vehicles.

### **Communities Now**

- Most households own cars because of the generally less compact land use pattern of the region. Over 80% of the region's residents commute to work by driving. The region's median average commute time is over an hour daily. Residents of all ages share mutual concerns about access to destinations as non-drivers.
- A lack of utility infrastructure, mainly water and sewer systems, makes increasing housing availability more challenging. The high cost and low availability of housing in the region can exacerbate commute distances & time spent reaching essential destinations.
- Zoning regulations vary by municipality but can include barriers to more "walkable" communities. Examples of this are large minimum lot sizes for housing, parking minimums, and generally more restrictions around multi-family developments & missing middle types of housing.



Photo via RPC.

### **RPC Region Commuter Modes**



Source: Census

### **Objectives**

- Reduce the overall commute lengths in the region through land use planning coordination.
- Support coordinated planning activities that match new housing developments with multimodal transit options.
- Improve local last-mile access to public & active transit amenities.
- Enhance access to community facilities, entertainment, recreation, and other opportunities for community interaction.

### **Commuting in the RPC Region**

Census data reveals that in 2022, around 84% of the region's working population drove to work. Only about 1.6% of people walked, 0.7% of people in the region used public transit, and 0.1% commuted by bicycling. Public outreach via survey for the Plan update showed a strong desire to be able to commute by multiple modes, including by bicycle and by commuter rail, but limited options for commuting exist in the region beyond driving due to past transportation development patterns.

Census data also shows that over a third of working people who live in the region travel outside of the region to work. Roughly the same amount (38%) of working people live outside the region, but commute to the RPC region for work. The smallest category of the workforce are people both living & working in the region, just over one quarter (27.8%). Continued data analysis on commute in & out flow hot spots can guide transit investments for future commuter services.

### **Age-Friendly Communities**

Retiring from driving can be one of the most difficult milestones in a senior's life. Additionally, being too young to legally drive can leave younger people feeling isolated and lacking social connection & opportunity. Over the past five years, the RPC has worked with residents aged 65+ in the region to identify needs and goals for age-friendly living. Commonly identified transportation needs include:

- Expanded options for volunteer driver programs and on-demand transit
- Expanded options for fixed route public transit
- Sidewalks, crosswalks, shared use paths, and/or designated bike lanes for non-motorized transportation and outdoor recreation



Age-Friendly Community design principles can provide starter homes for younger people and downsized, more accessible & easily maintained homes for older people, while enhancing pedestrian access.

Graphic via New Hampshire Housing Toolbox.

Rockingham Planning Commission MPO • Long-Range Transportation Plan 2025-2050

### Where can we build more compactly?

While there are many factors that may impact housing in the RPC Region that are beyond the control of municipalities and communities, there are also many levers a municipality can control that may impact housing opportunity and barriers within municipal and regional boundaries. These controls range from land use regulations, development of infrastructure, adoption and implementation of tax incentives or policies, among others.

One factor influencing housing development in the region is where infrastructure exists that may support the additional growth in new housing. To demonstrate where the opportunity for additional housing and increased density may exist, the RPC conducted a simple analysis in 2023 as part of the Regional Housing Needs Assessment to look at regional housing opportunity as it relates to existing transportation networks and water and sewer infrastructure, as well as opportunities for future expansion of the infrastructure.

#### How to read the map:

The resulting map shows areas that scored higher and may support increased density in green shaded areas. These areas tend to be in the more developed sections of the region on major transportation corridors and have some proximity to existing water and sewer infrastructure.

#### Important:

It should be noted that this analysis is intended to help advance a larger conversation about the distribution of housing in the region and not to indicate a specific site should be targeted for development. **Infrastructure Analysis Co-Occurrence (2023)** Source: Rockingham Planning Commission



#### Weights for Co-occurrence

Dataset	Weight
Landmass after constraints	2
Major Roads within 0.5 miles	3
Major Roads within 1.0 miles	2
Major Roads withing 3.0 miles	1
Within 500' of Water and Sewer Line	2
Withing 1000' of Water and Sewer Line	1

Rockingham Planning Commission MPO • Long-Range Transportation Plan 2025-2050

### **Transportation and Land Use Planning Coordination Scenarios & Outcomes**

Торіс	Little to No Coordination	Status Quo Levels	Increased Coordination	
Land Use	More sprawl, loss of open space	Some sprawl, some open space	Less sprawl, less open space lost	
Traffic Congestion	Worsened congestion	Continued trend of increased Congestion vithin mostly acceptable levels of delay		
Viability of Public Transit	Decrease in Viability	Continued trend of decreasing Increase in Viability viability in rural and suburban areas,		
Access to Walking and Biking	Decreased access	Continued trend of decreasing walkability with sprawling expansion	Increased access: Trails, neighborhood connections to community centers of activity & entertainment	
Regional Attraction for Travel and Tourism	Lowest levels of regional attraction	Continuing trend of increased tourism, but alongside increased congestion due to lack of options beyond drivingIncreased attractiveness without increased strain congestion. Transit as an driver of tourism.		
Rural Character	Decreased: Continued sprawl, chain development, more pavement	Continued decrease in rural character	Increased protection of community character and more opportunities to proactively reflect character in design and planning.	
Loss of agricultural and environmentally sensitive land	Increased risk of losing open & agricultural land to sprawl	Continuing trend of land loss to paved expansions and sprawl	Decreased risk of land loss	
Vehicle Miles traveled (VMT)	Higher Increase in VMT	More Modest Increase in VMT Potential to decrease VMT		
Transportation options	Decreased access & choice	Little to no change in access & choice More opportunities for impro transportation options		
Meeting Housing Needs in the Region	Least opportunities, less efficient energy & land use, higher costs, lower availablity	Some opportunities, but lost potential opportunities for meetir housing needs including affore energy costs		

Rockingham Planning Commission MPO • Long-Range Transportation Plan 2025-2050

# 2. Access & Choice

**2050 Vision:** The region's transportation system provides an efficient, reliable, safe, accessible, convenient multimodal network of transportation options for all road users.

### Background

Accessibility measures how easily people can reach goods, services, activities, and destinations. In the region, those with motor vehicles have generally excellent access to destinations, but many older adults, individuals with disabilities, younger people, and other no-vehicle households face significant challenges reaching work, or traveling for other needs. For the region's growing older adult population, reliable transportation to medical appointments, grocery stores, and basic services can be critical to maintaining independence. Younger people in the region and nationwide increasingly prefer communities where they can access work, services, and entertainment without relying on cars, or where a two-worker household can manage with a single car.



Photo via RPC.

### **Objectives**

- Improve connectivity and safety for the expanding network of bicycle and pedestrian trails and low-traffic roads.
- Strengthen access to regional and local public transit through advocating for reliable funding for operations.
- Promote multimodal transportation through improved sidewalks, trails, last-mile transit connections, and on-demand transit services.

### **Public Transit Access**

Although New Hampshire is limited in public transportation options compared to neighboring states, public transportation has a long history as a vital resource and link for many people in the region. The region is served by the COAST and MTA for local and regional access, as well as inter-regional travel to neighboring regions through Boston Express and C&J. COAST and MTA also operate on-demand, ADA-compliant paratransit for seniors & individuals with disabilities. NNEPRA (Northern New England Passenger Association) operates passenger rail service on the former Boston & Maine Railroad owned and operated by CSX. The Downeaster offers five round trips a day between Boston & Brunswick, ME with stops in Exeter, Dover, and Durham. This array of service providers and their offerings aims to meet the dynamic needs of people travelling in the region.

In 2020, transit ridership plummeted nationally due to the COVID-19 pandemic and subsequent driver shortages. Today, COAST's fixed route ridership services are back to 95% of pre-COVID levels and demand response ridership is exceeding pre-COVID rates. Ridership growth is expected to continue as housing affordability concerns push Seacoast workers further from their jobs, and an aging population results in more non-drivers. The survey conducted for RPC's Age Friendly Community gathered over 1900 responses and identified lack of transportation options as the single greatest concern about aging in place for older adults in the region. Despite ridership gains, service operators are facing funding challenges at the State & Federal level. Forced cuts to needed services could impact access needs many workers in the region as well as for older adults and people with disabilities.

### **Senior Transportation**

Beyond the five MPO communities with formal public transit service from COAST and MTA/CART, much of the rest of the region has some level of community transportation coverage at least for older adults and people with disabilities through non-profit transportation providers like Meals on Wheels of Rockingham County, various volunteer driver programs, and several town-specific senior transportation programs in Atkinson, Sandown, Rye and Portsmouth. These are critical resources in communities where low population density cannot support fixed route bus service. The MPO has worked over time to develop and expand volunteer driver capacity to fill gaps in access in the region.

# 598,000+

Amtrak Downeaster Passengers in Fiscal Year 2024 *Source: NNEPRA, 2024* 

# 373,940

COAST Fixed Route Passengers in Fiscal Year 2024 *Source: COAST, 2024* 

# 24,797

COAST ADA Paratransit Riders in Fiscal Year 2024 *Source: COAST, 2024* 

# 333,915

MTA Fixed Route Passengers in Fiscal Year 2024 *Source: MTA, 2025* 

# 20,106

MTA On-Demand Response Passengers in Fiscal Year 2024 *Source: MTA, 2025* 

Rockingham Planning Commission MPO • Long-Range Transportation Plan 2025-2050

### **Bicycle & Pedestrian Access**

The region also benefits from four regional rail trails that connect communities and serve as safe active transportation routes and linear parks. Development of the NH Seacoast Greenway (NHSG), New Hampshire's segment of the East Coast Greenway, has been a regional priority for many years. It will eventually extend from Portsmouth to Seabrook, and in 2024 opened its first eight miles between Portsmouth and North Hampton. The Salem Bike/Ped Corridor forms the southernmost segment of the Granite State Rail Trail (GSRT) that will eventually extend north to Lebanon via Manchester and Concord. The Rockingham Recreation Trail's (RRT) Portsmouth Branch extends 26.5 miles from Newfields to Manchester. A second leg connects Fremont to Windham. RPC staff have had limited involvement in the RRT and GSRT, though there is increasing interest among trails groups in connecting Seacoast trails to Manchester and point south and north.

The growing bicycle & pedestrian network in the region can be continually enhanced to meet needs through connecting trails, sidewalks, and low-volume roads with context-appropriate solutions. Complete Streets Policies can design streets that are better suited to the needs of people walking and rolling through ADA-compliant sidewalks, shared use paths, transit stops, and buffers from vehicle traffic, multi-sensory intersections, and accessible wayfinding signage, among other safety features specific to the context. Responding to a high priority from the NH Bicycle & Pedestrian Plan (2022), NHDOT has been developing a statewide Complete Streets Policy to guide their own work and serve as an example for communities looking to adopt a local Complete Streets Policy.



Photo via RPC.



Photo via RPC.

Rockingham Planning Commission MPO • Long-Range Transportation Plan 2025-2050

### **Identified Needs: Transit**

- Increasing the frequency of fixed route public transit to extend to more locations, later hours, and weekends
- Increased availability of volunteer driver & on-demand transit services for older adults and people with disabilities
- Improved last-mile access to bus stops through better pedestrian & bicycle accommodation
- Transit options connecting Portsmouth to Exeter
- Improved transit options for people below 65 years of age beyond fixed route and ADA systems
- More extensive inter-regional connections including service between the Seacoast and Manchester
- Increased commuter travel options between the region and Boston
- · East-to-west transit options linking both sides of the region

### **Identified Needs: Bicyclists & Pedestrians**

Public input for the plan, as well as outreach in recent years for multiple statewide and regional plans have emphasized:

- Improved crossing safety, traffic calming, and where possible better separation between automobiles and people walking and bicycling.
- · Better enforcement of speed and distracted driving laws
- Better education of drivers and cyclists on safely sharing the road
- Collecting better data on pedestrian and bicycle traffic volumes, crashes involving vulnerable road users, and road characteristics such as shoulder width, prevailing traffic speeds.
- Bicycling and walking facilities separated from vehicles given increasingly distracted drivers.



Photo via RPC.



Photo via RPC.

Rockingham Planning Commission MPO • Long-Range Transportation Plan 2025-2050

### **Future Facilities and Services**

- COAST: COAST's upgraded operational facility will enhance COAST's ability to provide accessible, affordable, convenient, and reliable transit for the region. Upgrades to COAST's current facility will allow for on-site fleet storage and repairs, which will reduce the cost of weather-related maintenance and off-site repairs, in addition to reducing 1,500 hours of fleet idling each year. Construction is scheduled to go to bid at the end of 2025 for phased construction in 2026 and 2027. The estimated cost is just over \$17M and will be funded by multiple sources including FTA capital grants, private contributions, the State of New Hampshire, and the US DOE.
- MTA: MTA received roughly \$20 million though the FTA for a new transit center that will replace the city's outdated facility and enable MTA to expand its transit services in a similar fashion to COAST.
- NH Seacoast Greenway: A second phase of the NHSG extending into Hampton Town Center is scheduled for completion by late 2025, while two remaining phases will connect through Hampton Falls and Seabrook by 2032. In 2024 RPC secured a \$1.4 million Federal RAISE (Rebuilding American Infrastructure with Sustainability and Equity) grant to accelerate engineering and permitting to redesign and rehabilitate the abandoned rail causeway across Hampton Marsh. The causeway project will be the final segment of the NHSG, completing New Hampshire's portion of the East Coast Greenway extending 2,900 miles from Maine to Florida.
- Volunteer Driver Programs: Five different volunteer driver programs (VDPs) together cover most communities in the MPO region, though there are gaps in coverage particularly along the NH125 corridor including Raymond, Fremont, Kingston, Newton and Plaistow. Working with these communities to develop VDP coverage remains a priority for the MPO.

Rockingham Planning Commission MPO • Long-Range Transportation Plan 2025-2050

### Map: RPC Region Public Transit Access



Rockingham Planning Commission MPO • Long-Range Transportation Plan 2025-2050

# 3. Energy & Environment

**2050 Vision:** The region's transportation system is designed, operated, and maintained to respect, conserve, and preserve land, water, wildlife, energy, and other natural resources.

### Background

Transportation is one of the largest sources of emissions in the RPC region, on par with the state and country. This is largely due to single-occupancy vehicle use, portbased activity, and freight transportation's use of petroleum, commonly referred to as fossil fuels. In addition, over 90% of water pollution in New Hampshire is created from runoff caused by rain & snow draining over impervious surfaces like driveways, parking lots, and roads (NH DES). Our transportation infrastructure also poses threats to wildlife and other natural resources by fragmenting habitats with development. Without coordination between transportation & environmental systems, the likelihood can increase for transportation-related wildlife collisions and fatalities, as well as disrupted migration and wildlife breeding patterns critical to the ecosystem's health.

### **Future Anticipated Conditions**

- Demand for energy to power the transportation sector is expected to increase through 2050 based on FHWA freight projections. Mode-shift for heavy duty vehicles and passenger vehicles can reduce the petroleum usage associated with the largest sources of greenhouse gas emissions.
- More frequent and severe flooding predictions for the decades leading up to 2050 could increase the potential for more stormwater pollution events. Decreasing the amount of planned impervious surfaces and focusing funding on maintaining existing roads rather than paving new ones can reduce the impacts of impervious surface on water quality & wetlands.



View of the Squamscott River from the Amtrak Downeaster, Photo via RPC.
#### **Objectives**

- Increase coordination with local and State environmental agencies and organizations to incorporate new emissions-reducing technologies.
- Reduce Greenhouse Gas Emissions, stormwater pollution, and land use inefficiency stemming from the transportation system.
- Increase consideration & prioritization of the natural environment & wildlife in transportation planning.

#### **Reducing Costs & Emissions**

Petroleum is the primary driver of emissions in the region, state, and country's transportation system. In a joint blueprint for transportation de-carbonization formed by the DOT, HUD, DOE, and EPA, three main strategies were identified as effective routes for reducing greenhouse gas emissions from transportation sources:

- Convenient: Land use planning strategies and programs that open up opportunities for shorter, non-motorized & active commutes. This could include physical community design in addition to travel demand management programs such as CommuteSMART Seacoast, a program that provides discounts to local businesses for commuters using alternative modes beyond driving alone.
- Efficient: Improving options more efficient travel through incentives for car and van-pooling, operational efficiency improvements, increasing public transit service, and more efficient fuel economy for freight & passenger vehicles.
- **Clean:** Deploying renewable energy sources for vehicles and fuels including cleaner electricity, biofuels, and Hydrogen.

Reducing our transportation system's impact on the environment cannot be achieved through these strategies alone. Resilience, conservation, and restoration measures to protect wildlife are also an important part of reducing our environmental impact.





New Hampshire's Total GHG Emissions by Sector, 2021



#### Wildlife & Transportation

Transportation can play a role in wildlife protection instead of fragmentation. This could be achieved in the RPC region through improved roadside vegetation management practices, replacing undersized culverts, implementing wildlife crossings, and continued signage & driver education about driving near wildlife. Improved data analysis to identify areas where the most wildlife collisions occur in the region could be helpful in determining the most effective locations for wildlife crossing improvements.

The NH DES is in the process of updating the State Wildlife Action Plan (SWAP). The SWAP was last updated in 2015. The prior plan emphasized the importance of ecological restoration and ensuring stream crossings such as culverts don't continue to fragment habitats, preventing migration and passage for aquatic species.

#### **Impacts of Land Use Inefficiency**

**Water Quality:** Impervious surfaces like parking lots, driveways, and highways act like a water prevention barrier when excess precipitation from rain and snow needs to drain back into the ground. Impervious surface can disrupt drainage patterns and exacerbate flooding conditions be displacing stormwater. Reducing the use of impervious surfaces through porous or "permeable" pavement, developing in pre-paved areas, and continually updating and incorporating flood risk assessment findings can reduce the risk and impacts of stormwater pollution & flooding.

**Agricultural Land Loss:** Developing in open space or agricultural areas reduces the chance of using land for agriculture later on. The loss of farmland to residential, commercial, and industrial development has become increasingly common as less young people go into farming and land becomes more expensive. Protecting the quality of our natural resources can be achieved in part through shifting new development to pre-developed areas and preserving open space for future generations of people and wildlife.





Rockingham Planning Commission MPO • Long-Range Transportation Plan 2025-2050

## 4. Safety & Security

**2050 Vision:** The region's transportation system ensures safe travel for everyone, whether it's for daily trips or during emergencies like evacuations.

## Background

Over the past five years, crashes in the MPO region have increasingly resulted in severe injuries and fatalities, in line with state and national trends. Motorcyclists, pedestrians, bicyclists, and older drivers face disproportionate risks of being involved in crashes. A safer transportation system for the region is a priority for all stakeholder in the region and is crucial to preventing fatalities and injuries, fostering freight security & economic vitality, and the generally safe movement of people and goods.

#### **Planning for Safer Systems**

Safety efforts in the region are coordinated at local, state, and federal levels. NH DOT regularly updates the Strategic Highway Safety Plan (SHSP) as part of the Highway Safety Improvement Program (HSIP), with the 2022-2026 SHSP identifying ten primary crash causes. The Regional Safety Action Plan (RSAP), funded through the FHWA's Safe Streets and Roads for All (SS4A) Grant Program, aligns with these emphasis areas and supports the national goal of zero traffic deaths by 2050.

The ten primary causes of crashes in New Hampshire are referred to in the various coordinated safety plans as Critical Emphasis Areas, or CEA's. The three most applicable to the MPO region are distracted driving, older drivers, and vehicle occupant protection.

RPC Region Fatal, Serious, and Minor Injury Crashes by Year Source: FARS Data 2018-2022



#### **Critical Emphasis Areas (CEA's)**

- 1. Intersections
- 2. Roadway Departures
- 3. Distracted Driving
- 4. Impaired Driving
- 5. Speed & Aggressive Driving
- 6. Vehicle Occupant Protection
- 7. Older Drivers
- 8. Teen Traffic Safety
- 9. Vulnerable Motorized Road Users: Mopeds and Motorcycles
- 10. Vulnerable Non-Motorized Road Users: Pedestrians & Bicyclists

#### **Objectives**

- Eliminate roadway fatalities and serious injuries by 2050.
- Improve safety outcomes for vulnerable road users, including older drivers, pedestrians, bicyclists, and motorcyclists.
- Expand public education and outreach on safe occupant protection & road user behaviors.

#### **Crash Analysis**

Analysis of regional crash data in 2018-2022 from FARS (Fatality Analysis Reporting System) shows the following key findings:

- Older Drivers are over-represented in crashes. People over age 65 make up nearly a quarter of the region. Older drivers were involved in approximately 4,514 crashes, and 31% of crashes at intersections involved older drivers. This underscores the importance of transportation options once driving becomes less safe, and continually improving the transportation system to accommodate an aging population.
- **Distracted Driving is a primary cause of crashes.** 4,341 crashes in the data could be attributed to distracted driving. it is likely that the number of crashes occurring due to distracted driving is under-reported. New Hampshire is a No-Hands state meaning that it is illegal to handle a phone while driving, although phone use while driving persists. Teen drivers make up 28% of reported distracted driving-related crashes.
- Improper Occupant Protection is a leading causes of crashes, and is correlated with more severe injuries and fatalities. 2,387 crashes in the data involved improper occupant protection, meaning not using a seatbelt, helmet, or other essential safety precautions while traveling. New Hampshire's seatbelt use is significantly lower than the national average, contributing to a higher rate of fatalities and serious injuries. Over half of the 65 fatal crashes that have occurred in the region during the 5-year period (57%) involved improper occupant protection.



Source: FARS 2018-2022, Courtesy of VHB.

## Low: \$122,129,793 High: \$211,391,429

#### Estimated Social & Economic Cost of Crashes to the Region in 2023

Source: NHTSA 2019 Cost Analysis, 2023 RPC Region Crash Data

• Vulnerable road users are over-represented in injuries and fatalities. Approximately 60% of crashes in the region involving motorized road users like motorcyclists and people on mopeds resulted in fatal, serious, or minor injuries. 57% of crashes involving non-motorized road users like pedestrians and bicyclists, slightly less than motorcyclists and mopeds, resulted in fatal, serious, or minor injuries. Targeted safety improvements for motorcyclists, mopeds, pedestrians, and bicyclists would reduce the occurrence of regional crash-related fatalities and injuries.

#### **Regional Safety Action Plan (RSAP)**

The MPO is in the process of completing a Regional Safety Action Plan (RSAP) based on regional crash data and public input. This plan is part of the USDOT program called Safe Streets and Roads For All (SS4A). The maps in this chapter were derived from VHB's crash analysis for SS4A as they are the most recent analysis of crash data for the region. Safety Action Plans are based off the public input received and concentration, severity, and recurrence of crashes, as well as the Safe Systems Approach adopted by NH DOT. Upon completion of the Safety Action Plan, communities will be able to apply for funding to implement plan strategies.

Outreach conducted for the RSAP has included a survey, in addition to focused outreach sessions with vulnerable road users and social service providers in the region. When asked what types of solutions would improve roadway safety in our region, suggestions primarily included:

- Sidewalks, Wider shoulders, and bike lanes to accommodate bicyclists and pedestrians. Widened lanes for active transportation also provides vehicles with more room to pass vulnerable road users safely.
- **Strengthening enforcement.** People cited a desire for stricter law enforcement for drivers engaging in distracted driving, speeding, and aggressive behaviors like tailgating.
- **Traffic Calming Measures.** Improvements for slowing speeds were suggested including more stop signs, speed bumps, increasing roadway signage, and crosswalks.

**Motorcycle Crashes, 2018-2022** Source: FARS, Courtesy of VHB.



**Distracted Crashes, 2018-2022** Source: FARS, Courtesy of VHB.



Rockingham Planning Commission MPO • Long-Range Transportation Plan 2025-2050

## **5. Economic Vitality**

**2050 Vision:** The region's transportation system supports our regional economy through connecting the workforce to housing and employment opportunities, enhancing pedestrian & bicycle access to local businesses, and supporting an efficient, sale, reliable supply chain.

### Background

Managing the region's economy and supporting a high quality of life requires attracting and retaining a viable workforce. Transportation plays a massive role in the economy by providing the foundational network we use for commuting, tourism, freight, and consumer access to businesses.

#### **Commuter Connections**

One of the major challenges facing both the region's existing and potential workforce is the lack of options for commuting beyond driving a personal vehicle (See Chapter 2: Regional Conditions). The MPO administers a transportation management association (TMA) for the region called CommuteSMART Seacoast, enabling employers to connect their employees with options for carpooling, bikepooling, and specialized transit options. Outreach conducted both in the Plan update survey and through talking with CommuteSMART participants reveals that safe infrastructure for biking and walking, as well as limited transit options, are a barrier to commuting without a car.

Tens of thousands of commuters in the region also use C&J bus services or the Amtrak Downeaster every day for commuting to Boston. Growing demand for these services often causes the Amtrak Downeaster to sell out during peak commuter hours.



Photo via RPC.

# 77

"People who do not drive do not have access to as much opportunity since the bus service area is small and buses are infrequent."

-Survey Respondent

Rockingham Planning Commission MPO • Long-Range Transportation Plan 2025-2050

#### **Objectives**

- Improve travel time reliability and manage congestion for both people and goods.
- Prioritize investments that enhance safe, reliable, versatile workforce mobility and freight movement.
- Strengthen outdoor recreation and tourism through accessible and convenient transportation options.

#### **Regional Economics**

The economy in the MPO region is largely driven by retail, healthcare & social services, manufacturing, tourism. The region's multi-sector economy is supported by a strong transportation network for freight and natural resources supporting outdoor recreation & tourism. Return-to-office policies are reducing the number of people working remotely by bringing more people back into the in-person workforce.

As the region's median age continues increasing, workforce retention & opportunity could look different than today. Expanding commuting options, job training, and affordable housing within reasonable commute distances can help meet the needs of a changing regional economy.

#### **CEDS Regional Economic Priorities**

The MPO partners with the Regional Economic Development Center of Southern New Hampshire (REDC). REDC has the lead responsibility for economic development planning in southeastern New Hampshire. REDC's Comprehensive Economic Development Strategy or CEDS provides annually updated goals and objectives for economic development in the region. The most recent iteration of CEDS includes investing in infrastructure planning and improvements such as roads, bridges, walkable communities, water and wastewater systems, broadband, energy networks, and multimodal transportation systems to strengthen and diversify the regional economy, promote economic resiliency, and strengthen the region's adaptation to climate change. Efficient, resilient transportation is also important for the CEDS focused goal areas of workforce attraction and retention, diversified housing availability options, and sustainable living.

#### **Buses are an Economic Driver**

Public transit is a critical economic driver in the region. A 2021 economic analysis by SRPC and RPC found that every \$1 invested in public transit generates approximately \$4.08 in economic returns, making COAST's impact on the Seacoast over \$31 million. Transit provided over 373,000 people last year with connections to work, school, shopping, errands, and other activities that drive the economy.

COAST anticipates a funding shortfall in upcoming fiscal years due to census boundary changes, as well as budget changes at the State and Federal levels. highlighting the need for sustained investment in inter-regional transit. COAST is pursuing multiple new funding sources to continue service operations and construction of the upgraded facility.

#### **Passenger Rail Success**

The Amtrak Downeaster is one of the highest-performing regional Amtrak lines in the country, carrying over 596,000 passengers in FY2024 (NNEPRA, 2024). With six daily round trips, the service is often at capacity during commuter hours, helping reduce roadway congestion, crashes, and delays.

Because New Hampshire does not provide state funding for passenger rail, Downeaster service improvements are driven by CSX who owns the rail line as well as investments from Maine and Massachusetts. NNEPRA's strategic plan includes improves to stations to Wells, Maine

## **\$156 Million**

Amtrak Downeaster Revenue, 2001-2024. *Source: NNEPRA, 2024* 

## \$31 million

COAST Estimated Annual Economic Impact, FY 2021 *Source: COAST, 2024* 

## \$4.08

Return on every \$1 of investment in public transit *Source: RPC, SRPC, 2021* 

#### Freight

Goods movement continues to be a growing sector of travel in the region, as well as an important aspect of the regional and national economy. Approximately 90% of the fuel oil used to heat just under half of New Hampshire homes is imported through the Port of New Hampshire and Sprague Terminal in Newington, both in the RPC region. The Freight Analysis Framework developed by FHWA predicts that overall freight in New Hampshire will increase from 12.2 Billion ton miles in 2022 to an estimated 20.2 billion ton miles in 2050. Truck freight is the primary mode of freight movement in the region. The State Freight Plan developed by NHDOT continues this assumption in addition to increased movement via air, water, mail, and little to no change or decrease in the percent of freight movement in the region that is rail-based.

The increased volume of freight being moved in the region brings with it a number of issues, concerns and needs, including:

- **Improved intermodal freight infrastructure.** Double tracking the B&M main line through New Hampshire is a frequently cited need that would expand freight and passenger rail capacity.
- Heavy truck damage to roadways Longer, heavier trucks are damaging roadways that were not designed to manage current allowable weights and infrastructure not designed for the turning radii necessary for the longest trucks. New pricing strategies are needed to ensure trucks are contributing to the Highway Fund commensurate with their impact on the region's and state's roads and bridges.
- Hauling hazardous materials Public concern has increased regarding the safety of moving hazardous materials through communities on rail and roadway. This underscores the important of public engagement in system planning and project programming.



Photo via RPC.

#### **Reliable Travel & Congestion**

Reliable travel times are crucial to an economy where people and goods need to reach destinations on time. The MPO measures the performance of reliability on the region's roadway network broken down by interstate and non-interstate miles.

Congestion in the region is considerably low compared to the rest of the country. Peak rush hour brings an anticipatable level of delay due to the increased volume of cars on the road. Other roadway conditions like inclement weather, special events & holidays, crashes, and construction can also increase the level of roadway delay.

As shown in the reliability index graphs, congestion resulting in above-acceptable levels of delay typically happens in July and August during peak tourist season. Understanding seasonal peaks in congestion can assist in the planning of future mode-shift strategies to reduce the level of delay.

The full system performance report is available in: **Appendix C: System Performance Report.** 



2023 Interstate Travel Time Reliability, RPC Region





#### 2023 Truck Travel Time Reliability Index, RPC Region

Rockingham Planning Commission MPO • Long-Range Transportation Plan 2025-2050

## 6. Well-Maintained and Resilient

**2050 Vision:** The region's transportation system is planned, operated, and maintained to withstand emergency scenarios, wear and tear, and changing climate conditions.

## Background

Over the past decade, the Northeast has seen more hazardous weather events, primarily flooding from storms. These hazardous weather events expose critical challenges for the region's transportation system. Coastal roads such as NH-1A and Route 1 frequently flood in storm events. Inland communities experience overflow flooding, especially near rivers and streams. This causes severe damage to roads and can make them unusable to drivers and emergency vehicle responders alike. Repairs and restoration are costly in terms of infrastructure, public health, the economy, and the environment.

In addition to climate conditions, regular wear and tear as well as increased vehicle weight and volume depletes pavement conditions. Flooding in caused significant damage to several coastal communities in December 2023-January 2024 when record-breaking levels of water onto shore.

Repairs to just 3% of NH-1A were needed, which has cost over \$310,000 and over 3,200 project hours billed to damage repairs on 1A (NHDOT, April 2024). The MPO conducted flood and sea level rise scenarios as part of the SCTVA in 2022.

The frequency and intensity of storms is expected to increase the rate at which coastal roads flood. Proactive investments in the resiliency of the transportation system can mitigate the increase in anticipated repair costs to roads and bridges.



Damage to NH-1A from January 2024 flooding, photo via NHDOT.

#### **Objectives**

- Maintain existing roads before expanding the roadway network.
- Upgrade and restore bridges and culverts in critical condition.
- Prioritize climate adaptation and infrastructure resilience in planning and projects.
- Encourage alternative transportation modes to reduce road wear and congestion.

#### **Road & Bridge Conditions**

NHDOT's Bridge Strategy ranks deficient bridges to determine which ones to repair first. In the RPC region, discussions have focused on aging bridges and undersized culverts. Recently, several critical bridges have been replaced or repaired, leading to significant progress on state-owned "Red List" bridges and some municipal bridges in poor condition.

The RPC is also evaluating stream crossings to help local and state agencies pinpoint hazardous areas. The goal is to identify stream crossings that may fail during major storms and assess whether they block fish and wildlife movement. This information will help municipalities prioritize which crossings need upgrades or replacements

Bridge Replacement Priorities will only become more important as increasingly intense climate conditions age and weather bridges in addition to project increases in commercial freight. The region has made substantial progress on bridge replacements with three currently remaining.

The region's pavement condition has improved greatly since 2018 (specific numbers). Routine maintenance for roads that are vulnerable to flooding includes (but is not limited to) pavement patching, mowing, sweeping, debris removal, opening inlets, clearing outlets, and leveling shoulders. Routine maintenance by NH DOT has continued on NH-1A along damaged segments since January's flooding events.



#### 2023 Pavement Condition, RPC Region



#### 2018 vs 2023 RPC Region Pavement Condition



Rockingham Planning Commission MPO • Long-Range Transportation Plan 2025-2050

## Table: Red-List Bridges, RPC Region (2023)

Municipality	Bridge No.	Location	Roadway	Year Built
Epping	108/030	PISCASSIC RIVER	NH125	1928
Fremont	106/076	EXETER RIVER	SCRIBNER ROAD	1941
	119/064	EXETER RIVER	NH111A	1978
	155/133	PISCASSIC RIVER	MARTIN ROAD	1930
Hampton	235/025	HAMPTON RIVER	NH 1A	1949
	163/184	CSX(ABD)	US 1	1936
Kensington	071/109	GREAT BROOK	NH150	1988
New Castle	066/071	LITTLE HARBOR	NH 1B	1942
Newton	064/107	CSX	POND ROAD	1920
	053/105	COUNTRY POND	WILDERS GROVE RD	1989
Newton	148/132	CSX	US 1	1935
	202/061	LITTLE RIVER	NH111	1923
Portsmouth	198/107	HODGSON BROOK	CATE STREET	1940
	231/103	NORTH MILL POND	MAPLEWOOD AVENUE	1940
	191/110	HODGSON BROOK	COAKLEY ROAD	1940
Raymond	083/154	LAMPREY RIVER	DUDLEY ROAD	1914
	116/052	FORDWAY BROOK	NH102	1900
Salem	115/097	SPICKET RIVER	BRIDGE STREET	1900
South Hampton	099/062	POWWOW RIVER	WHITEHALL ROAD	1976
	069/066	POWWOW RIVER	HILLDALE AVE	1920

Rockingham Planning Commission MPO • Long-Range Transportation Plan 2025-2050

#### **Culverts and Stream Crossings**

Three culvert replacements in the region are slated to take place at the Awcomin Marsh along Route 1 in Rye and two culvert replacements on Squamscott Rd off Route 33 in Stratham. Funding for more culvert replacements is available through the New Hampshire Stream Crossings Initiative (NHCSI) led by NHDES.

#### **Seawall Revetments**

Originally constructed in 1978, the seawall revetments along the coast were heavily damaged by March 2018 nor'easters. In response, NHDOT partnered with FEMA to fund reconstruction across nine sections, from Odiorne Point State Park (Rye) to Fox Hill Point (North Hampton). Using preexisting materials, the new revetments feature:

- A shale core wrapped in geotextile fabric for durability.
- Boulder reinforcements to absorb wave energy.
- Land-side armor stones to protect against erosion.

The Transportation Improvement Program (TIP) has programmed funding for segmented reconstruction of the seawall revetments through 2030 to enhance coastal resilience.

By prioritizing resilience-focused investments, the region can better withstand climate impacts, improve infrastructure longevity, and protect critical transportation assets.



Sanders Point in Rye, December 23 2022 Storm, Photo via RPC.



High Tide at the Causeway, December 23 2022 Storm. Photo via RPC.

## **Future Flooding Conditions**

- The region experiences frequent inundation of roads and properties from storm events and high astronomical tides. It is anticipated that the number of storms and "sunny day floods" in the region will increase in frequency & severity in years to come.
- In communities like Hampton and Rye, flooding often occurs from the inland estuary/harbor side where development has occurred in or near marshland. In storm events, storm surge will exacerbate flooding in these areas and expose communities to damaging wave action. Coastal Communities like Rye, Hampton, New Castle, and Seabrook will see the first impacts of 1.0-1.7 feet of Sea Level Rise projected in the SCTVA.
- Flooding isn't just a risk that's unique to coastal communities. The Exeter and Squamscott rivers drain approximately 125 square miles across 12 communities in the eastern and central portions of the region. More frequent flooding has the potential to impact Great Bay communities including Exeter and Stratham roads at 4.0 feet of sea level rise.
- Communities like Salem where development is in close proximity to rivers & streams have an increased chance of riverine flooding, where more frequent flooding and storms predicted for future years will underscore the necessity of maintaining emergency vehicle access and evacuation routes in good condition, avoiding development in high-risk flood zones, incorporating stormwater risk assessments throughout transportation planning & investment decisions, and maintaining stream crossings in functioning condition.





**DRAFT - FEB 2025** 

Source: Seacoast Transportation Corridor Vulnerability Assessment, RPC 2022.

## PLAN IMPLEMENTATION

## **Overview**

The MPO Transportation Improvement Program and Long Range Transportation Plan are required to include a financial plan that demonstrates how the projects in the TIP and LRTP can be implemented given the anticipated revenues available to the region. This section is a summarized version of **Appendix D: Fiscal Constraint.** The requirements of this process, the assumptions that are utilized, and the estimated revenues and project programming are included in full in Appendix D.

To facilitate this aspect of TIP and LRTP development, the four New Hampshire MPOs worked to develop a common set of fiscal assumptions and tables. This coordination resulted in a list of common assumptions, funding distributions, and a standardized set of tables found in **Appendix D** that show funding expected to be available to New Hampshire as well as the individual MPO regions.

Table 1:	Table 1: Revenue Distribution										
Region	Lane Miles of FAE Roadways	Percent of FAE Lane Miles	2020 Census Population	Percent of Population	Composite Share of FHWA Funds	Turnpike Lane Miles	TPK Share				
NRPC	759	8.84%	217,543	15.79%	12.31%	94.8	19.59%				
RPC	1,066	12.41%	198,870	14.44%	13.42%	151.7	31.35%				
SNHPC	1,252	14.57%	285,230	20.71%	17.64%	77.5	16.02%				
SRPC	732	8.52%	156,145	11.34%	9.93%	114	23.56%				
Other Areas	4,781	55.66%	519,741	37.73%	46.70%	45.9	9.49%				
NH Total	8,590		1,377,529			483.9					

The full fiscal constraint report including project selection is available in: **Appendix D: Fiscal Constraint Report.** 

Table 7: Fiscal Constraint Summary										
	2025-2028	2029-2034	2035-2040	2041-2045	2046-2050					
FHWA (Including State	FHWA (Including State and Other Matching Funds)									
Revenues	\$291,548,013	\$268,818,090	\$268,818,090	\$224,015,075	\$224,015,075					
Programmed	\$291,548,013	\$256,210,460	\$263,657,923	\$213,749,893	\$198,036,284					
Remaining	\$0	\$12,607,631	\$5,160,167	\$10,265,183	\$25,978,792					
FTA (Including State ar	nd Other Matching Funds	)								
Revenues	\$67,357,602	\$106,006,289	\$90,893,233	\$73,639,187	\$73,639,187					
Programmed	\$67,357,602	\$106,006,289	\$75,492,655	\$60,394,124	\$60,394,124					
Remaining	\$0	\$0	\$15,400,578	\$13,245,063	\$13,245,063					
State (Including Other	Matching funds)									
Revenues	\$35,172,869	\$217,741,604	\$214,880,768	\$182,938,554	\$155,499,822					
Programmed	\$35,172,869	\$31,013,545	\$58,698,662	\$52,940,456	\$33,359,916					
Remaining	\$0	\$186,728,060	\$156,182,106	\$129,998,098	\$122,139,906					
All Funding	All Funding									
Revenues	\$394,078,484	\$592,565,984	\$663,156,366	\$562,873,942	\$543,999,096					
Programmed	\$394,078,484	\$393,230,293	\$397,849,240	\$327,084,473	\$291,790,324					
Remaining	\$0	\$200,221,471	\$177,628,632	\$154,246,494	\$162,101,911					

The full fiscal constraint report including project selection is available in: **Appendix D: Fiscal Constraint Report.** 

## **Projects**

#### **Transportation Improvement Program (TIP): 2025-2028 Major Highlights**

Below is a list of highlighted projects programmed in the 2025-2028 TIP with the largest total costs.

Table: TIP 2025-2028 Major Highlights									
Project No.	Location	Description	Total Cost	Total in TIP					
42312, 42312A, 42312B, 42312C	North Hampton-Rye	Reconstruction of Revetment Sea Walls	\$88,651,987	\$ 64,270,413					
112385	Newington-Dover	General Sullivan Bridge Replacement/ Rehabilitation	\$66,287,691	\$64,665,691					
29608	Epping	NH 125 Capacity & Traffic Management	\$27,369,249	\$7,423,849					
10044E	Plaistow-Kingston	NH-125 Improvements	\$27,317,089	\$21,907,289					
43839	Candia-Raymond	NH 101 Rehabilitation/ Reconstruction	\$24,414,922	\$22,984,922					

The full fiscal constraint report including project selection is available in: **Appendix D: Fiscal Constraint Report.** 

TIP Proje	TIP Projects (2025-2028)								
Project Number	Community	Location	Scope	TotalCost	Project Focus				
43839	Candia- Raymond	NH Route 101	Rehabilitation/Reconstruction of a section NH Route 101	\$24,414,922	Infrastructure Condition				
44367	COAST	COAST	Reinvigorate the CommuteSMART Seacoast(TMA) with new programming& outreach proposed 5 years	\$751,825	Congestion, Safety				
29608	Epping	NH 125	NH Rte 125 Capacity and traffic management improvements from Brickyard Plaza to NH 87	\$27,369,249	Congestion, Safety				
43430	Epping	NH125	Address Red-Listed bridge carrying NH 125 over Piscassic River (Br. No. 108/030)	\$2,742,020	Infrastructure Condition				
40623	Exeter	NH 111A	Bridge Replacement to address Priority Bridge carrying NH 111A over Little River (Br No 075/078)	\$4,185,058	Infrastructure Condition				
44410	Exeter	NH 108	Address condition of bridge carrying NH 108 over Exeter River (Br. No. 089/045)	\$8,802,970	Infrastructure Condition				
44624	Exeter	Epping Road	Install (2) electric vehicle DC fast charging stations at 158 Epping Road	\$507,267	Emissions Reduction				
43849	Greenland	NH 33	Engineering assessment to improve resiliency and capacity to NH33 bridge over Winnicut River.	\$220,000	Congestion, Safety				
41717	Hampstead	NH121/Derry Rd/Depot Rd	Improve the intersection of NH121/Derry Rd/Depot Rd	\$2,649,291	Safety, Congestion				
42606	Hampton	Winnacunnet Rd	Complete Streets Improvements on Winnacunnet Road.	\$1,227,042	Safety, Non-Motorized				
42573	Hampton	US Route 1	Address Red List bridge (163/184) carrying US 1 over PAR (Abd) in the Town of Hampton	\$7,129,797	Infrastructure Condition				
41584	Hampton	NH101/US1	NH 101/ US 1 interchange reconfiguration	\$7,840,898	Safety, Congestion				
40797	Hampton	NH 1A (Ocean Boulevard)	Improvements to NH 1A (Ocean Boulevard) from State Park Road to NH 27 (High St).	\$13,283,996	Safety, Congestion				

Design Community Logation Scone TotalCost Design Design France							
Project Number	Community	Location	Scope	TotalCost	Project Focus		
43537	Hampton- Hampton Falls	Hampton Branch RR	Construct rail trail on 2.3 miles of the abandoned Hampton Branch rail corridor (Phase III of ECG)	\$6,841,303	Safety, Non-Motorized		
44879	Hampton- North Hampton	I-95/ Route101	AET Fesibility Study at Hampton Interchange (I-95/101).	\$2,000,000	Congestion, Safety		
26485A	Hampton- Portsmouth	Hampton Branch Rail Corridor	Construct the NH Seacoast Greenway, from Drakeside Rd north to the Hampton/North Hampton Town line	\$2,814,363	Safety, Non-Motorized		
42610	Kensington	NH107/ NH150	Intersection re-alignment and upgrades	\$2,581,280	Safety, Congestion		
44355	Londonderry/ Windham/ Seabrook	NH 102/NH 111/US 1	Implement improvements on 3 signalized corridors in Londonderry NH102 ,Windham NH111 & Seabrook US1	\$927,338	Congestion, Emissions Reduction		
16127	New Castle-Rye	NH 1B	Bridge replace, Single Leaf Bascule Bridge, NH 1B over Little Harbor (Red List) Br No 066/071	\$14,959,885	Infrastructure Condition		
44493	New Castle	NH Route 1B	Modifications to the portion of Route 1B that runs from Goat Island to New Castle Island	\$7,826,935	Resilience, Safety, Non- Motorized		
41713	New Castle-Rye	NH 1A & 1B	Bike shldrs Svy Creek-OSP/ NH1B-NH1A/Sdwlks Wild Rose-Beach Hill/Shldrs Wild Rose-USCG (~4.2m)	\$2,926,922	Safety, Infrastructure Condition		
28393	Newfields- Newmarket	NH 108	Bridge Replacement for bridges carrying NH 108 over BMRR lines Br No 127/081 & 125/054	\$651,860	Infrastructure Condition, Safety, Non-Motorized		
42879	Newington	New Hampshire Ave/Arboretum Dr/Pease Blvd	Construct right turn lane on the Northbound direction of New Hampshire Ave Intersection	\$665,479	Congestion, Safety		
112385	Newington- Dover	Spaulding Tpk / Little Bay Bridges	Remove the superstructure General Sullivan Br & provide the most cost effective bike/ped connection	\$66,287,691	Safety, Non-Motorized, Infrastructure Condition		
44287	Newton	Wilders Grove Rd	Replace Wilders Grove Rd bridge over Country Pond (Brg#053/105)	\$741,468	Infrastructure Condition		

Rockingham Planning Commission MPO • Long-Range Transportation Plan 2025-2050

TIP Proje	TIP Projects (2025-2028)								
Project Number	Community	Location	Scope	TotalCost	Project Focus				
24457	North Hampton	US Route 1	Superstructure replacement of bridge carrying US 1 over Boston & Maine RR (Red List Br No 148/132)	\$8,709,140	Infrastructure Condition				
42312	North Hampton- Rye	NH 1A	Reconstruct NHDOT Stone Revetment seawalls/Berms	\$30,445,300	Resilience				
42312C	North Hampton- Rye	NH 1A	Reconstruction of revetment sea walls	\$23,242,912	Resilience				
42312A	North Hampton- Rye	NH 1A	Reconstruction of revetment sea walls	\$20,392,694	Resilience				
42312B	North Hampton- Rye	NH 1A	Reconstruction of revetment sea walls	\$14,571,081	Resilience				
40641	Plaistow	NH 121A / Main Street	Traf Calm & Sfty Imprves to NH121A from Library Dr just south of Pollard Rd to the RR xing.(~1.6m)	\$1,482,399	Safety, Non-Motorized				
40645	Plaistow	NH 125	Signal coordination and control along corridor from Mass S/L to Old County Road	\$1,482,994	Congestion, Safety				
10044E	Plaistow- Kingston	NH 125	Reconstruct NH 125: anticipated 3 lanes, from south of town line northerly approx 1.8 mi	\$27,317,089	Congestion, Safety				
44411	Portsmouth	NH 33	Address condition of bridge carrying NH 33 over PAR (Br. No. 144/115)	\$3,749,196	Infrastructure Condition				
42608	Portsmouth	Market St/ Russell St	Market St / Russell St Intersection Improvements	\$1,449,837	Safety, Congestion				
42611	Portsmouth	Grafton Drive	Intersection improvements on Grafton Drive by Portsmouth Transportation Center & Pease Golf Course	\$675,623	Congestion, Safety				

TIP Projects (2025-2028)								
Project Number	Communit y	Location	Scope	TotalCost	Project Focus			
42612	Portsmouth	International Dr/ Manchester Sq/ Corporate Dr	Signalization of Intersection - International Drive / Manchester Square / Corporate Drive	\$405,889	Congestion, Safety			
42874	Portsmouth	VARIOUS	Purchse & install 8 e-charging stations for EVs (2 @ Pease Tradeprt 2@Pease GC 4 @ Pease Airprt)	\$52,972	Emissions Reduction			
41752	Portsmouth	Elwyn Road	Add a multi-use path for bike/ped along Elwyn Rd extending from Rt1 to Harding Rd.	\$1,452,066	Safety, Non-Motorized			
44636	Portsmouth	Lafayette Road	Install (2) DCFC dispensers with charge rates up to 200kW at Market Basket Grocery Store	\$1,063,487	Emissions Reduction			
40644	Portsmouth	Market Street - RR	Railroad crossing upgrade on Market Street	\$735,480	Safety			
20258	Portsmouth	Peverly Hill Rd.	Const. new sidewalk and striped bicycle shoulders and associated drainage along Peverly Hill Road.	\$7,831,635	Safety, Non-Motorized			
29640	Portsmouth	US 1	Corridor improvements from Constitution Av to Wilson Rd & from Ocean Rd to White Cedar Blvd (~1.7m)	\$18,801,179	Safety, Congestion, Non Motorized			
44358	Portsmouth	Rte1/Coakley Rd/Cottage St	Remove traffic signal,install median, const a connector Rd&Cons multi-use path to reduce emissions	\$2,792,653	Congestion, Safety, Emissions Reduction			
15731C	Portsmouth, NH- Kittery, ME	US ROUTE 1 BYPASS	Functional replacement for the PDA-DPH side barge wharf, SML Bridge ROW Mitigation.	\$44,602,033	Freight			
MTA5339	PROGRAM	Manchester Transit Authority (MTA)	Funding for capital vehicles and equipment for CART area. Annual FTA Section 5339 apportionment.	\$995,999	Transit, Transit Asset Mgmt, Congestion Reduction			
COAST53 07	PROGRAM	Various	COAST operating, ADA, capital PM, planning, FTA 5307 funds plus pending CMAQ-to-FTA transfer.	\$71,735,946	Transit, Transit Asset Mgmt, Congestion Reduction			
MTA5307	PROGRAM	Manchester Transit Authority (MTA)	MTA operating, ADA, capital PM, planning utilizing FTA Section 5307 funds. Includes CART area.	\$107,878,571	Transit, Transit Asset Mgmt, Congestion Reduction			

TIP Projects (2025-2028)								
Project Number	Community	Location	Scope	TotalCost	Project Focus			
MTA5310	PROGRAM	Manchester Transit Authority (MTA)	Funding for seniors and individuals w/ disabilities. Annual FTA Section 5310 apportionment - CART.	\$3,347,977	Transit, Transit Asset Mgmt, Congestion Reduction			
44630	Raymond	Old Manchester Rd, Scribner Rd	Install 3 ChargePoint electric vehicle DC fast chargers close to high volume corridors	\$606,717	Emissions Reduction			
43002	Rye	NH Route 1A	Replacement of 4 ft x 5.5 ft stone walled, concrete deck culvert just north of Locke Rd.	\$1,785,427	Infrastructure Condition, Resilience			
44309	Salem	Bridge Street	Replace Bridge St Bridge over Spicket River (Brg #115/097)	\$4,925,000	Infrastructure Condition			
44628	Salem	South Broadway	Install (2) electric vehicle DC fast charging stations at 135 South Broadway, Salem	\$526,036	Emissions Reduction			
14800A	Salem to Manchester	I-93	MAINLINE, EXIT 1-Sta 1130 & NH38 (Salem), BRIDGES 073/063 & 077/063 Both Red List-DEBT SERV 13933D	\$49,770,743				
41712	Seabrook	US 1	Capacity Improvements on US 1 between New Zealand Road and the Hampton Falls Town Line.	\$6,517,718	Congestion Reduction, Safety			
42609	Seabrook	Seabrook Branch Rail Corridor	Multi-use path on former B & M Railroad tracks.	\$1,457,349	Safety, Non-Motorized			
44362	Stratham	Portsmouth Avenue	Signal coordination on four traffic signals located on Portsmouth Avenue	\$346,926	Congestion Reduction, Safety, Emissions Reduction			
41711	Stratham	NH108/Bunker Hill Avenue	Signalization, Turn Lanes and Intersection Realignment at the NH108/ Bunker Hill Intersection.	\$1,302,393	Safety, Congestion Reduction			

Rockingham Planning Commission MPO • Long-Range Transportation Plan 2025-2050

TYP Project	TYP Projects (2025-2034)							
Category	Community	Location	Scope	TotalCost	Project Focus			
44559	DURHAM - T2 UNH	Technology Transfer Center	Funding for the Technology Transfer Center @ UNH	\$519,475	Education			
ADA	PROGRAM	Various	Upgrades to side walks, curb ramps, and signals to be compliant with ADA laws.	\$2,490,000	Accessibility, Safety			
BRDG-HIB- M&P	PROGRAM	Various	Maintenance and preservation efforts for High Investment Bridges	\$40,240,000	Infrastructure Condition			
BRDG-T1/2- M&P	PROGRAM	Tier 1-2 Bridges	Maintenance & preservation of tier 1 & 2 bridges.	\$100,530,000	Infrastructure Condition			
BRDG-T3/4- M&P	PROGRAM	Tier 3-4 Bridges	Maintenance and preservation of tier 3 & 4 bridges.	\$59,412,000	Infrastructure Condition			
СВІ	PROGRAM	Various	Complex Bridge Inspection (PARENT)	\$3,560,000	Infrastructure Condition			
CORRST	PROGRAM	Various	Corridor Studies Statewide	\$7,700,000	Planning			
CRDR	PROGRAM	Various	Culvert Replacement/Rehabilitation & Drainage Repairs (Annual Project)	\$64,326,030	Infrastructure Condition, Resilience			
DBE	PROGRAM	Disadvantaged Business Enterprise	In House Administration of the FHWA Supportive Program: "DBE Compliance Monitoring (Annual Program)	\$930,980	Equity			
ENV-POST- CON	PROGRAM	STATEWIDE	Environmental commitments for post-construction obligations.	\$1,870,000	Mitigation			
EV_INFRA	PROGRAM	Various	Electric Vehicle Infrastructure Program	\$16,608,000	Carbon Reduction			
FLAP	PROGRAM	Various	Impr. transportation facilities that access Federal Lands {FLAP} (Application to EFL required)	\$4,703,000	Infrastructure Condition			
FTA5310	PROGRAM	Various	Capital, Mobility Mgmt, and Operating for Seniors & Individuals w/ Disabilities - FTA 5310 Program	\$28,592,232	Transit			
FTA5339	PROGRAM	Various	Capital bus and bus facilities - FTA 5339 Program for statewide public transportation.	\$81,395,662	Transit			

Rockingham Planning Commission MPO • Long-Range Transportation Plan 2025-2050

TYP Project	TYP Projects (2025-2034)							
Category	Community	Location	Scope	TotalCost	Project Focus			
GRR	PROGRAM	Various	GUARDRAIL REPLACEMENT [Federal Aid Guardrail Improvement Program] (Annual Project)	\$20,350,000	Safety, Infrastructure Condition			
HSIP	PROGRAM	Various	HIGHWAY SAFETY IMPROVEMENT PROGRAM (HSIP)	\$115,175,070	Safety			
LTAP	PROGRAM	Local Tehnology Assistance Program	Local Technology Assistance Program (LTAP) administered by the Technology Transfer Center @ UNH	\$1,839,000	Education			
MOBIL	PROGRAM	Various	Muncipal Owned Bridge - Bipartsian Infrastructure Law 100%Rehabilitation and/or Replacement	\$31,235,347	Infrastructure Condition			
NSTI	PROGRAM	National Summer Transportation Institute	Programmatic project as a Cooperative Project Agreement (CPA) with the University of New Hampshire.	\$613,000	Education			
OHSS	PROGRAM	Various	Replacement or rehabilitation of overhead sign structure	\$10,000,000	Infrastructure Condition, Safety			
OJT/SS	PROGRAM	OJT/SS	On the Job training for minority and women to reach journeyman status in the construction industry.	\$367,800	Education			
PAVE-T1- RESURF	PROGRAM	Tier 1 Highways	Preservation of Tier 1 Highways	\$146,625,000	Infrastructure Condition			
PAVE-T2- REHAB	PROGRAM	Tier 2 Highways	Rehab of Tier 2 roads.	\$38,550,000	Infrastructure Condition			
PAVE-T2- RESURF	PROGRAM	Tier 2 Highways	Resurfacing Tier 2 Roadways	\$307,275,000	Infrastructure Condition			
PVMRK	PROGRAM	Various	Statewide Pavement Marking Annual Project	\$37,100,000	Safety			
RCTRL	PROGRAM	Various	Recreational Trails Fund Act - Projects Selected Annually	\$15,690,810	Non-Motorized, Accessibility			
RRRCS	PROGRAM	Statewide Railroad Crossings	Reconstruction of Crossings, Signals, & Related Work (Annual Project)	\$10,829,000	Safety, Infrastructure Condition			

Rockingham Planning Commission MPO • Long-Range Transportation Plan 2025-2050

TYP Projects (2025-2034)							
Category	Community	Location	Scope	TotalCost	Project Focus		
STBG-FTA	PROGRAM	Various	Funds transferred from STBG to FTA to supplement public/human services transportation statewide.	\$48,900,000	Transit		
STIC	PROGRAM	Varies	STIC Incentives	\$1,532,500	Travel Time Reliability		
ТА	PROGRAM	Various	Transportation Alternatives Program (TAP)	\$70,591,528	Non-Motorized, Accessibility, Safety		
TRAC	PROGRAM	Transportation And Civil engineering program	Implement and participate in AASHTO TRAC program in local high schools.	\$220,000	Education		
TRAFMON	PROGRAM	VARIOUS	Traffic data (vol/vehicle class/wght monitoring/wght safty) monitor & supprt FHWA reqs (TMG/HPMS).	\$22,310,000	Planning, Safety		
TRCK-WGHT- SFTY	PROGRAM	Various	Truck weight safety inspection & maintenance program	\$1,000,000	Safety		
TSMO	PROGRAM	Transportation Systems Management and Operations	Statewide Transportation Systems Management and Operations, ITS Technologies, Traveler Info	\$16,120,692	Travel Time Reliability, Safety		
UBI	PROGRAM	Various	Underwater Bridge Inspection (Annual Project)	\$704,000	Infrastructure Condition		
USSS	PROGRAM	Various	Project to update signing on state system	\$6,300,000	Infrastructure Condition, Safety		
44518	STATEWIDE 4R PROJECTS	Various	4R Pavement Rehab/Reconstruct on the NHS	\$210,215,152	Infrastructure Condition		

Rockingham Planning Commission MPO • Long-Range Transportation Plan 2025-2050

TYP Projects	s (2025-2034)				
Category	Community	Location	Scope	TotalCost	Project Focus
STBG-FTA	PROGRAM	Various	Funds transferred from STBG to FTA to supplement public/human services transportation statewide.	\$48,900,000	Transit
STIC	PROGRAM	Varies	STIC Incentives	\$1,532,500	Travel Time Reliability
ТА	PROGRAM	Various	Transportation Alternatives Program (TAP)	\$70,591,528	Non-Motorized, Accessibility, Safety
TRAC	PROGRAM	Transportation And Civil engineering program	Implement and participate in AASHTO TRAC program in local high schools.	\$220,000	Education
TRAFMON	PROGRAM	VARIOUS	Traffic data (vol/vehicle class/wght monitoring/wght safty) monitor & supprt FHWA reqs (TMG/HPMS).	\$22,310,000	Planning, Safety
TRCK-WGHT- SFTY	PROGRAM	Various	Truck weight safety inspection & maintenance program	\$1,000,000	Safety
TSMO	PROGRAM	Transportation Systems Management and Operations	Statewide Transportation Systems Management and Operations, ITS Technologies, Traveler Info	\$16,120,692	Travel Time Reliability, Safety
UBI	PROGRAM	Various	Underwater Bridge Inspection (Annual Project)	\$704,000	Infrastructure Condition
USSS	PROGRAM	Various	Project to update signing on state system	\$6,300,000	Infrastructure Condition, Safety
44518	STATEWIDE 4R PROJECTS	Various	4R Pavement Rehab/Reconstruct on the NHS	\$210,215,152	Infrastructure Condition

### Ten Year Plan (TYP): RPC Region Projects 2029-2034

Long Rang						
Project Number	Community	Project Name	Location	Scope	Total Cost	Project Focus
6055004	Brentwood	NH 125/South Rd Safety Improvements	NH 125/ South Rd	Funds transferred from STBG to FTA to supplement public/human services transportation statewide.	\$48,900,000	Transit
6197014	Hampton	Ocean Blvd Reconstruction - Phase II	Ocean Blvd	STIC Incentives	\$1,532,500	Travel Time Reliability
6197015	Hampton	Ashworth Ave Complete Streets	Ashworth Ave	Transportation Alternatives Program (TAP)	\$70,591,528	Non-Motorized, Accessibility, Safety
42312D	North Hampton- Rye	Revetment Sea Wall Reconstruction	NH 1A	Implement and participate in AASHTO TRAC program in local high schools.	\$220,000	Education
6375004	Plaistow	NH 121A/North Ave. Intersection improvements	NH 121A	Traffic data (vol/vehicle class/wght monitoring/wght safty) monitor & supprt FHWA reqs (TMG/HPMS).	\$22,310,000	Planning, Safety
6379012	Portsmouth	Coakley Road Bridge Replacement	Coakley Rd	Truck weight safety inspection & maintenance program	\$1,000,000	Safety
6379018	Portsmouth	Pierce Island bridge Replacement	Pierce Island Rd	Statewide Transportation Systems Management and Operations, ITS Technologies, Traveler Info	\$16,120,692	Travel Time Reliability, Safety
6379021	Portsmouth	US Route 1 Bypass	US 1 Bypass Traffic Circle Improve ments	Functional and operational Improvements to the US 1 Bypass traffic circle. Assumes at grade circle/roundabout or intersection	\$13,410,637	Safety, Congestion, Infrastructure Condition

#### Ten Year Plan (TYP): RPC Region Projects 2029-2034

Long Rang	e Transportatic	on Plan Years 2029	-2034			
Project Number	Community	Project Name	Location	Scope	Total Cost	Project Focus
6379036	Portsmouth	Multiple Local Streets	Elwyn Park Traffic Calming and Pedestrian Improvements	Install crosswalks, speed radar signs, curb extensions, & sidewalks along one side of McKinley Rd, Harding Rd, Van Buren, & Adams.	\$2,339,683	Safety, Non-Motorized
6383001	Raymond	NH102/ Blueberry Hill Rd	NH 102/Blueberry Hill Safety Improvements	Safety improvements at the NH 102 intersection with Blueberry Hill Road	\$2,177,125	Safety
6417001	South Hampton	Whitehall Rd	Whitehall Rd Bridge Replacement	Bridge Replacement on Whitehall Road over Powwow River [099/062]	\$855,577	Infrastructure Condition
44308	South Hampton	Hilldale Ave	Hilldale Ave bridge replacement	Bridge Replacement on Hilldale Avenue over Powwow River [069/066]	\$1,976,376	Infrastructure Condition
6431002	Stratham	Squamscott Rd	Squamscott Road Bicycle Shoulders	Shoulder Bike Lanes On Squamscott Road From NH 108 To NH 33	\$3,138,151	Safety, Non-Motorized

#### Long Range Transportation Plan: Project Years 2035-2040

Project	Community	Project Name	Location	Scope	Total Cost	Project Focus
Number						
6055002	Brentwood	NH 111A	NH 111A/ Pickpocket Rd. Intersection realignment	Reconfigure the intersection of NH 111A and Pickpocket Road from a "Y" to a "T" alignment	\$249,604	Safety
6055003	Brentwood	Brentwood Community Connections Project	NH 125	Roundabout at NH 125/Crawley Falls Rd/ Brentwood Rec Dept and improved bicycle and pedestrian crossings and facilities along Crawley Falls Rd	\$4,187,007	Safety, Non-Motorized
6147011	Epping	NH 27	Epping Five Corners Improvements	Reconfiguration of the intersection of NH 27 with Blake Road/Friend Street/Depot Road/School Street to improve safety and operations	\$12,095,520	Safety, Infrastructure Condition
6195002	Hampstead	NH 111	NH 111/Emerson Rd/Central St Intersection Improvements	Install right turn lanes on east and west sides of NH 111. Reconfigure stop bars on Central St & Webber Road	\$4,796,475	Safety, Congestion
6197004	Hampton	NH 27	NH 27 Bike Shoulders	Shoulder bicycle lanes on NH 27 from Exeter town line to US 1. Complete the Exeter-Hampton-North Hampton bicycle route loop, and work with NH DOT on developing and installing bike route markers.	\$4,322,825	Safety, Non-Motorized
6197016	Hampton	Ocean Blvd	Ocean Blvd Reconstruction - Phase III	Capacity and traffic flow improvements on Ocean Boulevard from Dumas Avenue to High Street	\$30,949,748	Safety, Congestion, Non- Motorized, Infrastructure Condition
6197023	Hampton	NH 27	NH 27 (High Street) coastal flooding mitigation	Address the impacts of sea-level rise and storm surge induced flooding on High Street	\$4,326,752	Resilience, Infrastructure Condition

#### Long Range Transportation Plan: Project Years 2035-2040

Project	Community	Project Name	Location	Scope	Total Cost	Project Focus
Number 6197027	Hampton	NH 101/I-95	I-95/NH 101 Interchange Improvements	Safety and operational improvements on NH 101 eastbound interchange with I95	\$9,072,697	Safety, Congestion
6327002	Newfields	NH 87	NH 87 shoulders and sidewalks	Widen shoulders and install sidewalks	\$640,972	Safety, Non-Motorized
6327003	Newfields	NH 85	NH 85 sidewalks and bike lanes	Rebuild roadway and sidewalks to include bike lanes and landscape features	\$3,475,858	Safety, Non-Motorized
6379006	Portsmouth	US Route 1 Bypass	Reconstruct US 1 Bypass from Lafayette Rd to Traffic Circle	reconstruct the US 1 Bypass to current standards between the split from Lafayette Road to just south of the traffic circle.	\$35,668,785	Safety, Congestion, Infrastructure Condition
6379015	Portsmouth	Cate Street	Cate Street Bridge Replacement	Replace bridge in collaboration with local development plans	\$4,164,980	Non-Motorized, Infrastructure Condition
6379033	Portsmouth	NH Ave /Exeter St/ Manch. Square	New Hampshire Ave/Exeter St/Manchester Square Roundabout	Install roundabout at intersection of New Hampshire Avenue with Exeter St and Manchester Square in the Pease Tradeport	\$2,326,033	Safety, Congestion, Non- Motorized, Infrastructure Condition
6379037	Portsmouth	South St.	South Street at Middle Road Traffic Calming and Pedestrian Accomodations	Reconfiguration of the intersection of South Street and Middle Road to limit the speed of vehicles turning onto South Street, construction of curbing and a sidewalk along the south side of Middle Road and South Street, and installation of a pedestrian crosswalk at the intersection.	\$507,142	Safety, Non-Motorized, Infrastructure Condition

#### Long Range Transportation Plan: Project Years 2035-2040

Long Rang	e Transportatio	on Plan: Project Ye	ears 2035-2040			
Project Number	Community	Project Name	Location	Scope	Total Cost	Project Focus
6383004	Raymond	NH 27	NH 27/NH 156 Intersection	Address safety and capacity issues at the intersection of NH 27 and NH 156	\$2,627,975	Safety, Congestion
6001014	Region	NH 125	Coss-border ITS Improvements	Route 125 and Interstate 495 Interchange Cross-Border ITS: Deployment of Advanced Traveller Information Services and Communications upgrades to coordinate traffic flow information across the MA- NH border.	\$1,617,745	Safety, Congestion
6397001	Rye	US 1	US 1 Shoulders Breakfast Hill to Portsmouth City Line	Improve shoulders on US 1 from Breakfast Hill Road to Portsmouth city line	\$3,608,080	Safety, Non-Motorized, Infrastructure Condition
6409006	Seabrook	NH 1A	NH 1A Sidewalk and Shoulders in Seabrook	Bicycle shoulders and curbed sidewalk linking Seabrook Beach community with Hampton Beach [future TE].	\$40,740,560	Safety, Non-Motorized
6001018	Seacoast Communities	NH 1A	Route 1A Evacuation ITS Improvements	Route 1A Evacuation ITS Improvements: Deployment of Route 1A contra-flow signage, VMS, surveillance, and communications upgrades. From Regional ITS Architecture	\$5,575,774	Safety, Congestion

#### Long Range Transportation Plan: Project Years 2041-2045

Project	Community	Project Name	Location	Scope	Total Cost	Project Focus
Number						
6001008	Greenland	NH 151	NH 151 Shoulders	Safety and bicycle shoulder improvements on NH 151 from NH 111 to NH 33 .	\$6,081,344	Safety, Non-Motorized
6187003	Greenland	NH 33	NH 33/Winnicut & Bayside Rd	Address Capacity issues at signalized intersection of NH 33 and Winnicut Rd/Bayside Rd. Includes widening of adjacent bridge	\$22,171,041	Congestion
6327004	Newfields	NH 108	NH 108 Shoulders	Add shoulders to NH 108 within town of Newfields	\$836,413	Safety, Non-Motorized
6331001	Newington	Pease Blvd/ NH Ave/ Arboretum Dr	Pease Blvd/Arboretu m Dr/ NH Ave Intersection Improvements	Install a signal and turning lanes at the intersection of Arboretum Drive, New Hampshire Avenue, and Pease Blvd.	\$4,824,989	Congestion
6331003	Newington	Gosling Road	Gosling Road Improvements	Full depth reconstruction of Gosling Rd & drainage improvements to improve load bearing capacity.	\$1,929,967	Safety, Non-Motorized
6331004	Newington	Shattuck Way	Shattuck Way Upgrades	Full depth reconstruction of Shattuck Way to improve load capacity and address flooding issues.	\$3,998,907	Infrastructure Condition
6345001	North Hampton	US 1	US 1 Capacity Expansion Hampton TL to Atlantic Ave	Widen US 1 from Hampton town line to Atlantic Avenue (NH 111) to five lanes.	\$30,879,746	Congestion, Non- Motorized, Infrastructure Condition
6345011	North Hampton	US 1	US 1/NH 111 Intersection Improvements	Capacity improvements at Intersection of US 1 and Atlantic Avenue (NH 111) including safety improvements for bicycle and pedestrian access	\$7,511,593	Safety, Non-Motorized

### Long Range Transportation Plan: Project Years 2041-2045

Project	Community	Project Name	Location	Scope	Total Cost	Project Focus
Number						
6379001	Portsmouth	NH Ave/ Durham St/ Corp. Drive/ International Dr	NH Ave/Corporate Drive intersection signalization	Installation of a traffic signal and construction of left turn lanes on the approaches to New Hampshire Ave, Corporate Dr & International Dr.	\$3,165,411	Congestion
6379003	Portsmouth	Corporate Dr/ Grafton Drive	Corporate Dr/Grafton Drive intersection signalization	Install traffic control signal at the intersection of Corporate Dr and Grafton Dr on the Pease Tradeport	\$4,195,212	Congestion
6379013	Portsmouth	Bartlett St	Bartlett St. Bridge Replacement	Bridge upgrade / replacement over Hodgson Brook	\$956,233	Non-Motorized, Infrastructure Condition
6379020	Portsmouth	US Route 1 Bypass	Reconstruct Northern US 1 Bypass	Reconstruct the Northern segment of the US 1 Bypass between the traffic circle and the Sarah Long Bridge to current standards	\$34,120,666	Safety, Congestion, Infrastructure Condition
6379029	Portsmouth	South St	South Street Reconstruction	This project will include a new road bed, underdrains and surface drainage, sidewalk reconstruction as well as in ground utility work.	\$783,181	Safety, Non-Motorized, Infrastructure Condition
6379031	Portsmouth	Junkins Ave	Junkins Avenue Reconstruction	Upgrade facility to address substandard conditions including improvements to the road bed, drainage, sidewalks, and bicycle lanes.	\$2,336,698	Safety, Non-Motorized, Infrastructure Condition
6379032	Portsmouth	Grafton Dr/Aviation Ave	Grafton Drive/Aviation Ave Intersection improvements	Interim improvement to construct NB Left Turn lane on Grafton Dr.	\$2,609,508	Congestion, Infrastructure Condition

### Long Range Transportation Plan: Project Years 2041-2045

Long Rang	e Transportatio	on Plan: Project Ye	ears 2041-2045			
Project Number	Community	Project Name	Location	Scope	Total Cost	Project Focus
6001016	Region	Multiple	ITS Improvements at Park and Rides	Deploy ITS improvements such as surveillance, parking sensors, and signage at Park-and-Ride facilities.	\$2,832,746	Safety
6397002	Rye	US 1	US 1 Washington Rd. Intersection improvements	Improve capacity at and sight distance at the Washington Rd/Breakfast Hill Rd intersection with US 1.	\$8,730,122	Safety, Infrastructure Condition
6397003	Rye	Dow Lane	Realign Dow Lane connection to US 1	Realign Dow Road to 90 degree approach with US 1	\$2,596,099	Safety, Non-Motorized, Infrastructure Condition
6409001	Seabrook	US 1	US 1 Capacity improvements at the Seabrook Rotary	Reconfigure rotary on US 1 at the MA state line to a four way intersection as per the US 1 Corridor Study. Widen US 1 to 5 lanes	\$10,777,544	Safety, Congestion, Infrastructure Condition
6409002	Seabrook	US 1	US 1 Capacity Improvements Walton Rd to Gretchen Rd.	Widen US 1 to 5 lanes between Walton Road and Gretchen Road From US 1 Corridor Study.	\$9,933,705	Safety, Congestion, Infrastructure Condition
6431004	Stratham	NH 108	Signalize NH 108/Frying Pan Lane intersection	NH 108/ Frying Pan Lane/ River Rd Signalization And Realignment And Lane Improvements. Source: 2001-2003 TIP Proposal	\$3,149,933	Safety, Congestion, Infrastructure Condition
6431006	Stratham	NH 111	Marin Way/NH- 111 Intersection Improvements	Install a roundabout to address intersection operation and safety issues	\$1,941,293	Safety, Infrastructure Condition

#### Long Range Transportation Plan: Project Years 2046-2050

Project Number	Community	Project Name	Location	Scope	Total Cost	Project Focus
6147005	Epping	NH 125	NH 125/North River Rd Intersection	Signalize the southern intersection of NH 125 with North River Rd. Realign North River Rd to eliminate skewed angle approaches to NH 125	\$2,789,917	Safety, Congestion
6147006	Epping	NH 125	NH 125 with Lee Hill Road Intersection	Signalize intersection of NH 125 with Lee Hill Road	\$3,650,457	Safety, Congestion
6147007	Epping	NH 125	NH 125 Expansion - NH 87 to Lee Hill Road	Widen NH 125 from NH 87 to Lee Hill Road	\$19,197,915	Congestion
6197002	Hampton	US 1/NH 27	US 1/NH 27 Intersection	Realignment of Exeter Road (Route 27) to the south so as to align directly opposite High Street, including bridge over NH Seacoast Greenway.	\$26,653,003	Safety, Congestion, Non- Motorized
6197013	Hampton	NH 101/ US 1	Intermodal Facility at NH 101/US 1 Interchange	Construct an intermodal facility in the vicinity of the interchange of NH 101 and US 1 in Hampton	\$19,506,406	Safety, Transit Asset Mgmt, Non-Motorized
6199002	Hampton Falls	US 1	US 1 Shoulders Seabrook to NH 84	Full shoulders and access management improvements Route 1 from Seabrook Town line to NH 84.	\$5,380,746	Safety, Non-Motorized, Infrastructure Condition
6199003	Hampton Falls	US 1	US 1 Shoulders Lincoln Ave to Hampton	Full shoulder and access management improvements from Lincoln Ave to Hampton town line.	\$4,652,941	Safety, Non-Motorized, Infrastructure Condition
6341003	Newton	NH 108/New Boston Road	NH 108/New Boston Road Intersection Safety	Address safety issues at intersection of NH 108 with New Boston Road	\$1,686,869	Safety

#### Long Range Transportation Plan: Project Years 2046-2050

Droject	Community	Drojost Norma			Total Cost	Project Focus
Project Number	Community	Project Name	Location	Scope	Total Cost	Project Focus
6341004	Newton	NH108/ Peaslee Crossing Rd/ Wentworth Dr	NH 108/Peaslee Crossing/Went worth Intersection Safety	Address safety issues at intersection of NH 108 with Peaslee Crossing Rd/Wentworth Dr	\$1,686,869	Safety
6345003	North Hampton	US 1	US 1 Shoulders Glendale Rd to Hobbs Rd	Full shoulder and access management from Glendale Road to Hobbs road.	\$2,690,373	Safety, Infrastructure Condition
6345004	North Hampton	US 1	US 1 Hobbs Rd & Elm Rd Intersections	Connect Hobbs Rd to Elm Rd & discontinue north end of Elm Rd. Provide traffic signal connection from mid-point of Elm road to US 1.	\$13,352,998	Safety, Congestion, Infrastructure Condition
6345005	North Hampton	US 1	US 1 Shoulders Elm Rd to North Road	Provide full shoulder for 3 lane section from Elm Road to south of North Road.	\$2,075,505	Safety, Infrastructure Condition
6345008	North Hampton	US 1	US 1 Shoulders North Rd to Lafayette Terrace	Full shoulders for US 1 between North Rd & traffic signal in the vicinity of Lafayette Terrace.	\$2,690,373	Safety, Infrastructure Condition
6345009	North Hampton	US 1	US 1 Shoulders from North RD to Rye T/L	Shoulders from North Rd to the Rye town line. New signal and widen to five lanes in the vicinity of Lafayette Terrace.	\$11,057,167	Safety, Infrastructure Condition
6383003	Raymond	NH 156/Ham Rd/Harriman Hill Rd	NH 156/Harriman Hill/Ham Rd Intersection Safety	Address sight distance issues to improve safety at NH 156/Ham Rd/Harriman Hill Rd intersection	\$836,911	Safety

#### Long Range Transportation Plan: Project Years 2046-2050

Long Rang	e Transportatio	on Plan: Project Ye	ears 2046-2050			
Project Number	Community	Project Name	Location	Scope	Total Cost	Project Focus
6383005	Raymond	Onway Lake Rd	Onway Lake Road Culvert Replacement	Install new culvert to allow continued use of this important source of outdoor recreation.	\$1,749,283	Infrastructure Condition
6383006	Raymond	Lane Rd	Lane Road Culvert Replacement	Replace deteriorated culvert and road with an engineered, properly sized fixture, designed for both resilience and aquatic species movement in Fordway Brook.	\$1,814,007	Resilience, Infrastructure Condition
6383007	Raymond	Pond Rd.	Pond Road Culvert Replacements	Replacement of multiple culverts along Pond Road.	\$1,686,869	Infrastructure Condition
6001015	Region	Multiple	Bridge Security Video ITS Improvements	Establish a video distribution system to allow authorized municipal and transit organizations to view bridge conditions in real-time.	\$7,152,840	Safety, Congestion

Long Range Transportation Plan: Illustrative Projects (No Cost Estimates)					
Project Number	Community	Location	Project Name	Scope	Total Cost
6153010	Exeter	Water St	Water Street (NH 85) coastal flooding mitigation near Norris Brook	Address impacts of sea-level rise induced flooding on Water Street in Exeter	Resilience
6187002	Greenland	NH 33	NH 33 Capacity Improvements	Address Capacity Issues on NH 33 between Bayside Road and NH 151	Congestion
6197006	Hampton	NH 27	Exeter Road Reconstruction	Reconstruct Exeter Road (NH 27) within the urban compact area including drainage, sidewalks, replacing traffic signals and improved street lighting.	Infrastructure Condition
6197009	Hampton	High Street	High Street Reconstruction	Reconstruct High Street (NH 27) within the urban compact area including drainage, sidewalks, replacing traffic signals and improved street lighting.	Infrastructure Condition
6197010	Hampton	Winnacunnet Rd	Winnacunnet Road Reconstruction	Reconstruct Winnacunnet Road within the urban compact area including drainage, sidewalks, replacing traffic signals and improved street lighting.	Infrastructure Condition
6197011	Hampton	Church Street	Church Street Reconstruction	Reconstruct Church Street within the urban compact area including drainage, sidewalks, replacing traffic signals and improved street lighting.	Infrastructure Condition
6197022	Hampton	Cusack Rd	Cusack Rd coastal flooding mitigation	Address sea-level rise induced flooding on Cusack Road in Hampton	Resilience, Infrastructure Condition
6197024	Hampton	Winnacunnet Rd	Winnacunnet Rd coastal flooding mitigation	Address impacts of sea-level rise and storm surge induced flooding on Winnacunnet Road and NH 1A south of Winnacunnet Road	Resilience, Infrastructure Condition

Project Number	Community	Location	Project Name	Scope	Total Cost
6197024	Hampton	Winnacunnet Rd	Winnacunnet Rd coastal flooding mitigation	Address impacts of sea-level rise and storm surge induced flooding on Winnacunnet Road and NH 1A south of Winnacunnet Road	Resilience, Infrastructure Condition
6197025	Hampton	NH 101/ Brown Ave	NH 101/Highland Ave/Church St. & Brown Ave coastal flooding mitigation	Address impacts of sea-level rise and storm surge induced flooding on NH 101, Highland Avenue, Church Street, and Brown Avenue.	Resilience, Infrastructure Condition
6197026	Hampton	Ashworth Avenue	Ashworth Avenue (NH 1A SB) coastal flooding mitigation	Address impacts of sea-level rise and storm surge induced flooding on Ashworth Avenue and side streets	Resilience, Infrastructure Condition
6001028	Hampton- Hampton Falls	US Route 1	US 1 (Lafayette Road) coastal flooding mitigation through the Hampton- Seabrook Estuary	Address impacts of sea-level rise and storm surge induced flooding on US 1 through the Hampton-Seabrook Estuary	Resilience, Infrastructure Condition
6327005	Newfields	NH 87/ NH 85/ Summer Street	NH 87	Intersection operations study	Congestion
6001027	North Hampton- Hampton	NH 1A	NH 1A coastal flooding mitigation near North Hampton State Beach	Adress sea-level rise induced flooding on NH 1A in North Hampton and Hampton in the vicinity of North Hampton State Beach	Resilience, Infrastructure Condition
6379038	Portsmouth	Daniel St/State St	Daniel Street/State Street coastal flooding mitigation	Mitigate potential for flooding due to sea-level rise and storm surge on State St/Daniel St	Resilience, Infrastructure Condition
6379039	Portsmouth	Marcy St	Marcy Street coastal flooding mitigation	Mitigate potential for flooding due to sea-level rise and storm surge on Marcy Street adjacent to Prescott Park and vicinity	Resilience, Infrastructure Condition
6379040	Portsmouth	Junkins Ave/Parrott Ave	Junkins Ave/Parrott Ave coastal flooding mitigation	Address sea-level rise induced flooding on Parrott Ave and Junkins Ave adjacent to South Mill Pond.	Resilience, Infrastructure Condition

Long Range Transportation Plan: Illustrative Projects (No cost estimates)					
Project Number	Community	Location	Project Name	Scope	Total Cost
6379041	Portsmouth	US Route 1	US 1 coastal flooding mitigation	Address the impacts of sea-level rise and storm surge induced flooding on US 1 at Sagamore Creek	Resilience, Infrastructure Condition
6001026	Portsmouth- New Castle	NH 1B/ Marcy St	New Castle Ave/Marcy St/Portsmouth Ave (NH1B) coastal flooding mitigation	Mitigate flooding on NH 1B in Portsmouth and New Castle due to the impacts of sea-level rise	Resilience, Infrastructure Condition
6397007	Rye	NH 1A	NH 1A coastal flooding mitigation between Brackett Rd and Odiorne State Park	Address sea-level rise induced floodiing on NH 1A between Brackett Road and Odiorne Point State Park	Resilience, Infrastructure Condition
6397008	Rye	NH 1A	NH 1A coastal flooding mitigation between Odiorne State Park & Davis Rd	Address sea-level rise induced flooding on NH 1A between Odiorne State Park and Davis Road	Resilience, Infrastructure Condition
6397009	Rye	Marsh Rd/Parsons Rd	Marsh Road and Parsons Road coastal flooding mitigation	Resilience, Infrastructure Condition	Resilience, Infrastructure Condition
6397010	Rye	NH 1A/ Wallis Rd	NH 1A and Wallis Road coastal flooding mitigation	Address sea-level rise induced flooding on NH 1A and Wallis Road in Rye	Resilience, Infrastructure Condition
6397011	Rye	NH 1A/ Locke Rd/ Harbor Rd	NH 1A/Locke Rd/Harbor Road coastal flooding mitigation near Rye Harbor	Address sea-level rise induced flooding on NH 1A in the vicinity of Rye Harbor	Resilience, Infrastructure Condition
6397012	Rye	Brackett Rd	Brackett Road coastal flooding mitigation	Address sea-level rise induced flooding on Brackett Road in Rye	Resilience, Infrastructure Condition

Long Range Transportation Plan: Illustrative Projects (No cost estimates)					
Project Number	Community	Location	Project Name	Scope	Total Cost
6409021	Seabrook	South Main St	South Main Street coastal flooding mitigation	Address impacts of sea-level rise and storm surge induced flooding on South Main Street in Seabrook	Resilience, Infrastructure Condition
6409022	Seabrook	NH 286	NH 286 coastal flooding mitigation near the Blackwater River	Address impacts of sea-level rise and storm surge induced flooding on NH 286 in Seabrook.	Resilience, Infrastructure Condition
6431008	Stratham	Squamscott Rd	Squamscott Road coastal flooding mitigation near Jewell Hill Brook	Address impacts of sea-level rise induced flooding on Squamscott Road over Jewell Hill Brook and adjacent to the Squamscott River floodplain	Resilience, Infrastructure Condition

## **Plan Implementation** Environmental Impacts & Mitigation

Being a thriving region with a high quality transportation system in 2050 will depend on how decisions impacting our environment are made today. Although a transportation project may provide short-term benefits to the current demographic, the environmental impacts and associated risks to human health can have major consequences in the long term.

As such, the requirements of the Long-Range Transportation Plan include a discussion of the plans, policies, and strategies most likely to mitigate & prevent environmental impacts caused by transportation development in the region. The overall direction of the transportation system should aim towards ecological harmony with the surrounding environment and bridging disparities in public health.

Mitigating environmental impacts is not as simple as spill clean-up. True environmental stewardship involves steps before, during, and after planning, design, construction, implementation, operation, maintenance, and repair. "Since 1970, New Hampshire's average maximum temperatures have warmed by 1.9°F (annual) and 2.8°F (winter). Annual precipitation has increased 7–20%."

"Tidal gauge data indicates relative sea level at Portsmouth has been rising at about 0.7 inches per decade over the past eight decades."

"New Hampshire sea levels are expected to rise 0.6 – 2.0 feet by 2050 and 1.6 – 6.6 feet by 2100."

Source: University of New Hampshire Cooperative Extension

extension.unh.edu/nhnriguide/nri-components/climateconditions-projections



Rockingham Planning Commission MPO • Long-Range Transportation Plan 2025-2050

## Map: Wildlife Action Plan Areas, 2020

