LRPC Commissioners November 28, 2022

Transportation Updates

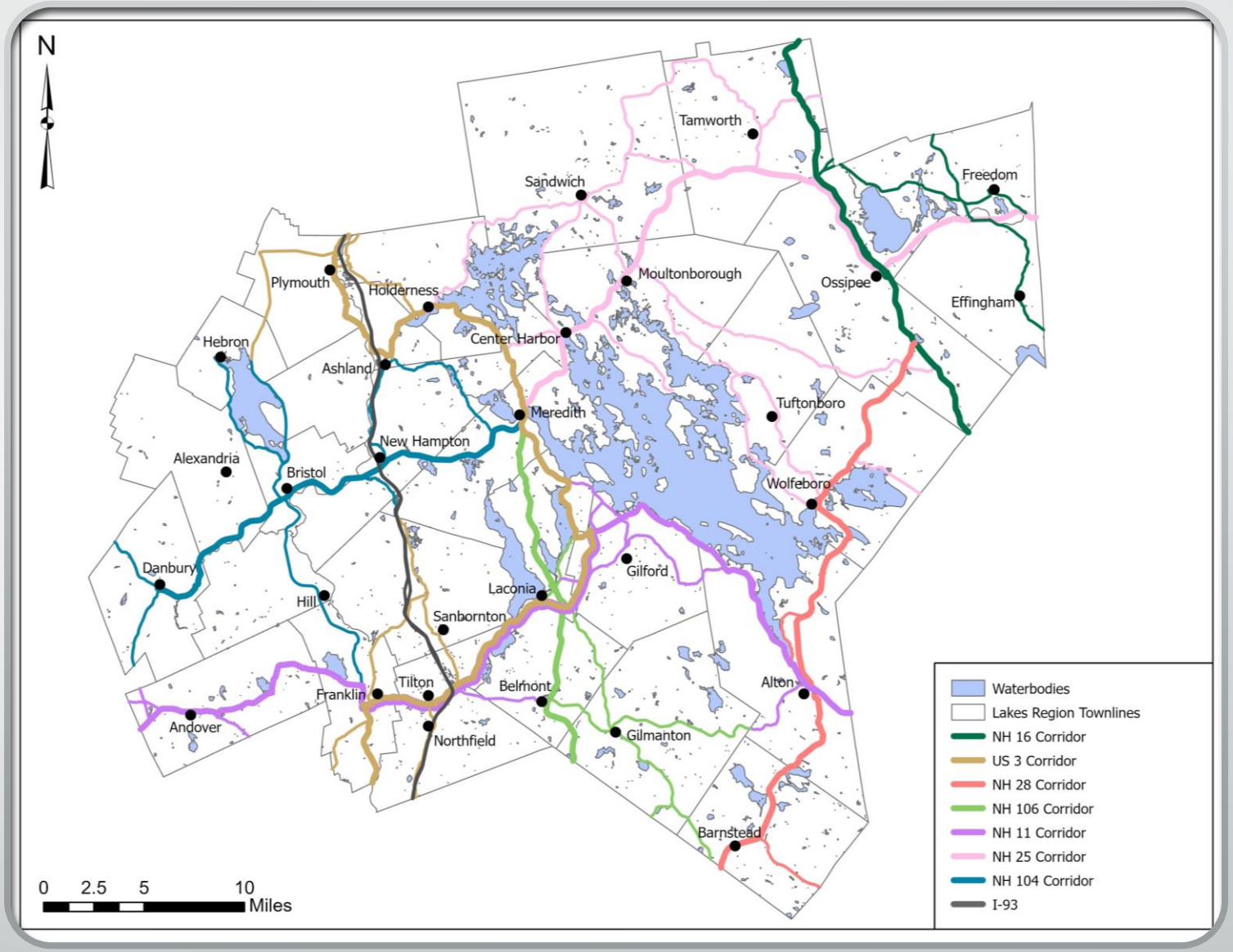
- Regional Transportation Plan
- Ten Year Plan Funding and Project Prioritization
- Bicycle and Pedestrian Plan
- Streetscaping
- Sidewalk Inventory Assessment
- Traffic Counts and Mapping
- Alternative Funding Opportunities
- Q&A with Commissioners on Transportation Topics

Regional Transportation Plan

Sean Chamberlin

Overview

- LRPC is updating the Regional Transportation Plan and will be focusing on completing the update by next Summer.
- Conducted Corridor Meetings in July to gather local ideas and concerns.
- The plan utilizes regional conditions and incorporates a variety of topics to develop a plan that looks at Lakes Region Transportation needs over 10 years into the future.



What Makes a Corridor?

Arterial Highway System is the group of roads constituting the highest degree of through traffic movement and largest proportion of total travel.

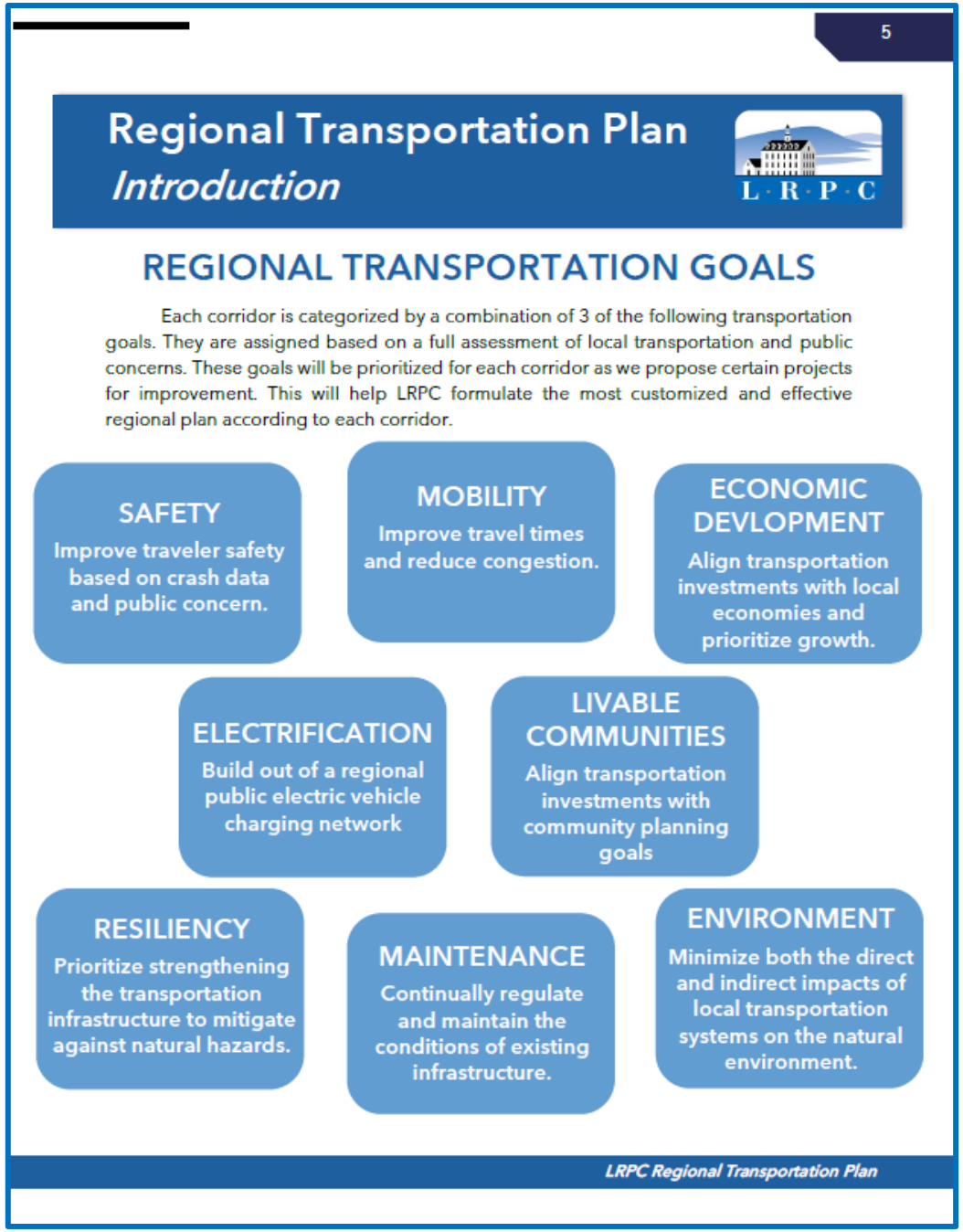
Collector Road System is the group of roads providing a link between through traffic movement and direct private property access functions.

US 3 –Corridor Network –NH 3A, NH 25 West, NH 175, NH 175A, NH 132, NH 127

Each Corridor section includes:

- Community Demographics
- Crash Data
- Roadway Conditions
- Current Projects and Project Recommendations
- Commuter Information
- Bicycle and Pedestrian
- Freight
- Rail & Air

...and more

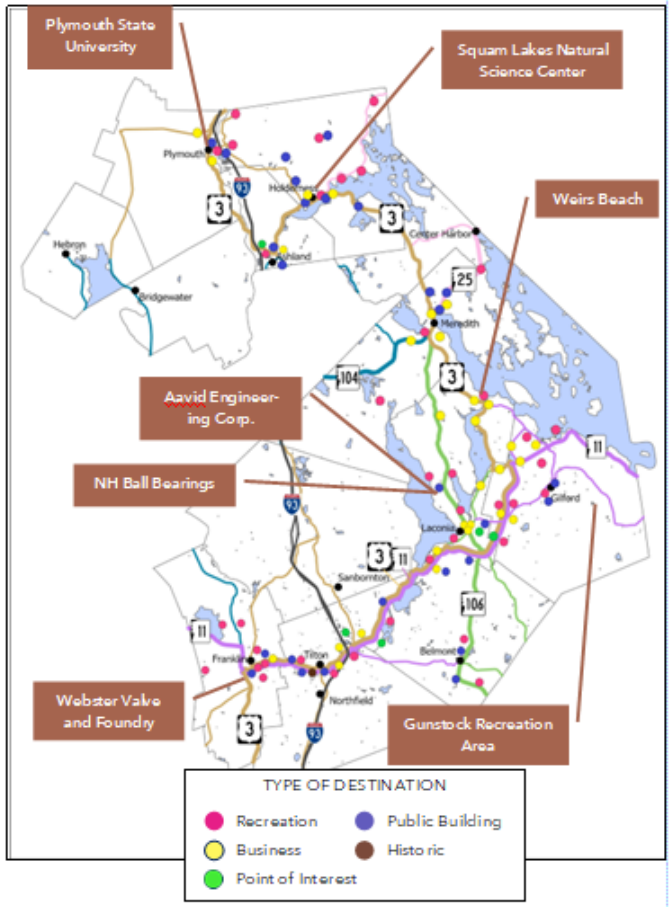


Corridor Overview

3 — Plymouth — Franklin

Plymouth, Ashland, Holderness, Meredith, Laconia, Gilford, Belmont, Tilton, Franklin

The U.S Route 3 highway is 277 miles in length stretching from Boston, Massachusetts through New Hampshire, to the Canada-US border. US 3 is one of New Hampshire's most well-known roads and is by far the longest local highway in the state, crossing two states (NH and MA) and stretching through a total of six counties (Middlesex, Hillsborough, Merrimack, Belknap, Grafton and Coos) and nine towns. Much of its routing resembles I-93, serving as an alternative north-south travelling corridor. This makes U.S 3 a popular route for tourists and seasonal travelers within the Lakes Region, as it passes through areas of famous sites, recreational sports, and multiple town centers. The map below outlines these major destinations along the U.S 3 corridor.



Corridor Population

16 — Tamworth — Ossipee

Town Populations

Communities	2020 Population (estimated)	2040 Population (projected)	Projected % Change in Population	Projected Total Population Change
Tamworth	2,812	3,085	9.71%	273
Ossipee	4,372	4,426	1.23%	54
TOTAL	7,184	7,511	4.55%	327

Source: NH Office of Strategic Initiatives – "County Population Projections, By Municipality"(September, 2016), 2020 American Communities Survey 5-Year Estimates

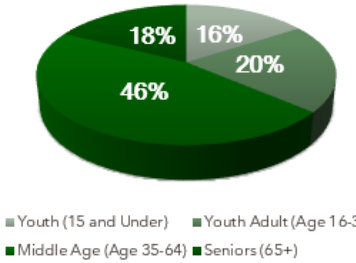
The towns of Tamworth and Ossipee are two small towns in the Lakes Region with only 3,085 and 4,372 people, respectively. Tamworth us predicted do grow a considerable 9.71% by 2040, and Ossipee is expected to grow very little at only 1.23%.

Special Populations

Category	Total	% Of Total
Racial Minorities	505	6.8%
Low Income (<150% of Poverty Level)	1500	20.3%
Working Individuals Without Cars	107	1.4%
Limited English Proficiency (by households)	122	3.7%

Source: 2020 American Communities Survey 5-Year Estimates

Age Demographics Across NH 16 Communities



Almost half of the NH 16 Corridor is middle-aged, and the percentage of seniors is slightly lower than in other Lakes Region Corridors. One fifth of individuals in this region are in living in poverty, which is significantly higher than the state and national average. 6.8% of the population are minorities, 1.4% do not have cars, and 3.7% of households have limited English proficiency.

1. INTRODUCTION

Chapter Design and Outcomes

A balanced and well-functioning transportation system is a key ingredient for successful regional planning and economic development. The regional transportation planning process in the Lakes Region is driven by bottom-up community participation through the Lakes Region Transportation Technical Advisory Committee (TAC) and supported by LRPC and NHDOT staffing. Transportation planning related recommendations are made by the TAC for consideration by the LRPC Commissioners, who approve the regional transportation policies. The TAC membership consists of representatives from LRPC communities who act as a liaison to local City Councils and Boards of Selectmen.

Key elements to the regional transportation planning process are the revised LR Transportation Mission Statement and the vision articulated in the regional bicycle and pedestrian plan as follows:

> To provide an integrated, all-mode transportation system in the Lakes Region which offers efficient, effective and safe movement of people and goods, and provides mode choice wherever possible while enhancing and preserving the character and livability of the neighborhoods, 'quality of water in our lakes and streams as well as' (added) the natural, socio/economic, and historical environments where transportation facilities are located.[1]

> "To provide a purposefully connected network of trails, sidewalks, road shoulders, and pavement markings promoting safe and enjoyable bicycle and pedestrian mobility. To provide design and maintenance of livable, complete streets that support transportation, recreation, health, and economic interests throughout the Lakes Region."[2] 'Complete Streets' are those where bicycle and pedestrian travel ways are accommodated in the planning, development, and construction of transportation facilities and incorporated into transportation plans and programs.

Several methods were used to capture public input during the development of this chapter including a statewide survey, comment cards at prominent locations in each community and through workshops and listening sessions. Common themes expressed fall into three general categories with specific areas of concern within each category as follows:

Transportation Costs	Transportation Options	Infrastructure
Personal	Walking/Biking	Condition
Environmental	Public Transportation	Connectivity
	Commuter Rail	

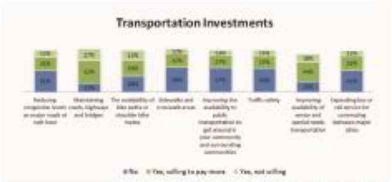
[1] LRPC, Lakes Region Transportation Plan, January 28, 2009

[2] LRPC, *Bicycling and Walking: Transportation Choices for New Hampshire's Lakes Region*, March 26, 2012

While these concerns were expressed, perhaps the strongest indication of transportation needs and willingness to contribute came from a statewide survey that was conducted by the Survey Center at the University of New Hampshire. As illustrated in Figure 1, more than 50 percent of respondents statewide indicated they would be willing pay more in taxes for maintaining roads, highways, and bridges with an additional 27 percent indicating that this should be a focus for transportation investment, but they are not willing to pay more in taxes. The statewide transportation results mirrored the combined results for the Central and Lakes regions.

The purpose of this chapter is to summarize and integrate information about the transportation planning structure, existing conditions, and public comments within the context of the regional mission and vision statements that lead to the development of recommendations and implementation strategies. A goal of the chapter is to provide information and insight useful for Lakes Region communities in the development of transportation improvement projects and local master plans.

Figure 1: NH Resident's Willingness to Pay for Transportation



Source: UNH Survey Center, Statewide Survey, 2013

2. MAJOR PROGRAMS AND LEGISLATION

Federal Transportation Funding

Established more than 50 years ago the Highway Trust Fund was created to finance the construction of the Interstate Highway System, which was built in partnership with state and local governments. Since its completion in the early 1980s this system is central to surface transportation in the United States. During the post-construction years surface transportation programs expanded broadening the federal role and mission. Today, while most federal surface transportation funds are used for highway infrastructure, a portion of the funding now serves additional transportation, environmental,

and societal purposes. For example, the 2005 federal transportation authorization called the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) authorized funds for programs beyond the construction and maintenance of highways and bridges. These programs included funding for highway safety, metropolitan and statewide transportation planning, transit, and transportation system enhancements such as pedestrian and bicycle facilities and mitigation of highway impacts to wetlands and wildlife.

Unlike other federal programs which are funded by general revenues such as education, national defense, and homeland security, surface transportation programs are primarily funded with Highway Trust Fund revenues. The revenues are predominately generated by federal motor fuel taxes (also known as the gas tax) and to a lesser extent sales taxes on tires, heavy trucks and trailers. A similar fund, the Airport and Airway Trust Fund (Trust Fund or AATF), was created in 1970 to fund aviation programs. Administered by the Federal Aviation Administration (FAA), this fund receives revenues from a series of excise taxes paid by users of the national airspace system. The purpose was to establish funding that would increase concurrently with the use of the system. It was designed to finance investments in the airport and airway system and to cover operating costs of the airway system to the extent funds were available. Since the creation of the Trust Fund revenues have generally exceeded spending leaving a surplus referred to as the Trust Fund's "uncommitted balance."

In comparison, the Highway Trust Fund has not fared as well as the Aviation Trust Fund. Where in Fiscal Year 2010 the Airport and Airway Trust Fund had an uncommitted balance of $770 million, Congress authorized the transfer of $35 billion from the General Fund of the US Treasury to keep the Highway Trust Fund solvent from 2008-2010. In 2008, for the first time, the Highway Trust Fund had insufficient revenues and cash balances to meet its obligations. As a result, Congress authorized an $8 billion cash infusion from the General Fund of the US Treasury into the Highway Trust Fund. By the end of 2014, a total of $54 billion will have been transferred from the General Fund into the Highway Trust Fund to maintain its solvency. This includes an $18.8 billion transfer authorized by Congress last year in MAP-21. Several key factors are associated with the recent and projected shortfalls including:

- Rising fuel efficiency standards, leading to more miles traveled on less fuel tax revenues;
- Exponential increases in highway construction and paving costs;
- Inflation eroding the value of the current fuel tax (gasoline $.184 per gallon, diesel $.243 per gallon) last increased by President Bill Clinton in 1993;
- Political environment highly critical of deficit spending;
- An aging transportation infrastructure reaching the end of life expectancy.

In part, the transportation funding debate in congress in 2012 that led to the presidential reauthorization of SAFETEA-LU, focused on 'alternative transportation' programs such as Transportation Enhancements, Transit – including light rail, trolleys, and buses, Safe Routes to School, the Scenic Byways Program, and others as diversions from the funding needed for motor vehicle infrastructure improvements and improved transportation safety. In 2013, the US Chamber of Commerce supported raising the federal gasoline tax to keep the fund solvent.

The Moving Ahead for Progress in the 21st Century Act (MAP-21) was signed into law by President

Obama on July 6, 2012 and will expire on October 1, 2014. MAP-21 reduces the number of discrete funding programs by two-thirds to roughly 30 programs. Most of this reduction is accomplished by absorbing formerly separate activities and eligibilities into the new core programs discussed below. The core programs also have many areas of overlapping eligibility. Under MAP-21, the five core programs plus metropolitan transportation planning are authorized at $37.5 billion for Fiscal Year 2013 and $37.8 billion for Fiscal Year 2014.

- **National Highway Performance Program (NHPP)**

  The NHPP has become the largest of the restructured federal-aid highway programs, with authorizations of $21.8 billion for Fiscal Year 2013 and $21.9 billion for Fiscal Year 2014. The program supports improvement of the condition and performance of the National Highway System (NHS), combining the former Interstate Maintenance Program (IMP), the NHS Program, and the Highway Bridge Program's on-system component. The NHPP includes projects to achieve national performance goals for improving infrastructure condition, safety, mobility, or freight movement, consistent with state or metropolitan planning; construction, reconstruction, or operational improvement of highway segments; construction, replacement, rehabilitation, and preservation of bridges, tunnels, and ferry boats and ferry facilities; inspection costs and the training of inspection personnel for bridges and tunnels; bicycle transportation infrastructure and pedestrian walkways; intelligent transportation systems; and environmental restoration, as well as natural habitat and wetlands mitigation within NHS corridors. If Interstate System and NHS bridge conditions in a state fall below the minimum conditions established by the Secretary of Transportation, certain amounts of funds would be transferred from other specified programs in the state.

- **Surface Transportation Program (STP)**

  The STP remains the federal-aid highway program with the broadest eligibility criteria. Funds can be used on any federal-aid highway, on bridge projects on any public road, on transit capital projects, on non-motorized paths, and on bridge and tunnel inspection and inspector training. MAP-21 authorized $10 billion for Fiscal Year 2013 and $10.1 billion for Fiscal Year 2014. Although Transportation Enhancements are funded under the new Transportation Alternatives program, these types of projects can also be funded under STP if a state wishes. Half of each state's STP funds are to be distributed within the state based on population. The remainder may be spent anywhere in the state. MAP-21 included a special rule allowing some STP funds reserved for rural areas to be used on minor collector roads.

- **Highway Safety Improvement Program (HSIP)**

  HSIP remains largely as it was under SAFETEA-LU, supporting projects that improve the safety of road infrastructure by correcting hazardous road locations, such as dangerous intersections, or making road improvements such as adding rumble strips. HSIP is funded at $2.39 billion for Fiscal Year 2013 and at $2.41 billion for Fiscal Year 2014. The Rail-Highway Grade Crossing Program was continued through a $220 million annual set aside.

- **Congestion Mitigation and Air Quality Improvement Program (CMAQ)**

Commute Times

The mean (average) travel time for commuters traveling from home to work has been increasing in the state of New Hampshire. A comparison of data from the American Community Survey suggests that the amount of time an average person living in New Hampshire spends commuting to work increased 5.6 percent between the years 2000 and 2012. Since 2006, the mean commuting time has increased by over one percent every year. A result of increased commute times is increased vehicle expenses, congestion, greenhouse gas emissions, and deterioration of infrastructure.

Vehicle Miles Traveled

Vehicle travel on New Hampshire's major highways increased 32 percent between 1990 and 2008, rising from 9.8 billion vehicle miles traveled (VMT) in 1990 to 13 billion vehicle miles traveled in 2008. The amount of VMT has a strong relationship to the state of the economy. As illustrated in Figure 9, from 2001 to 2011 the peak year VMT total was in 2006 the year that is generally associated with the height of the economy in NH followed by an economic down-turn and on-going period of recovery. Figure 9 also indicates that annual fuel consumption per registered vehicle has not returned to pre-2006 consumption levels. This could be associated with fuel economy improvements, conservation due to higher gas prices, and a recovering economy. In part, this trend illustrates decreasing gas tax revenues - a limiting factor for highway maintenance funds.

Figure 9: Vehicle Miles Traveled, Autos per Driver, Fuel Usage 2012

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
NH Vehicle Miles Traveled (billions)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Automobiles per Licensed Driver	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Fuel Use per Registered Vehicle (gallons)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Source: Office of Highway Policy Information, FHWA, 2013

Coordinated Trip Reduction Programs

Until recently, carpooling and ride sharing have been organized by the NHDOT through the Rideshare program. A recently formed group known as Commute Green New Hampshire (CGNH) has worked to organize statewide events to promote opportunities for NH residents to reduce fuel consumption by carpooling, biking, and walking to work. CGNH is a partnership of businesses, schools, transit agencies, regional planning commissions and other volunteers dedicated to encouraging people to choose transportation options other than driving alone. CGNH provides easy ways for people to try green commuting for the first time and to celebrate their efforts and those of people who already green commute.[14] One such campaign is "Don't Drive One-in-Five" which encourages NH residents to pledge not to drive one in five work days during specified time periods. For such programs to have a meaningful impact on emissions and reductions in VMT, requires complementary employer policies and effective tools for drivers to match commutes in order to share rides. As a result of funding cuts, NHDOT has recently stopped managing the statewide Rideshare program. Currently, the regional planning commissions

[14] http://www.commutegreennh.org

and CGNH are working cooperatively with NHDOT to explore the possibility of managing and expanding the Rideshare program. Envisioned is outreach to regional business leaders to explore their role and possible contributions to an effective program. Stay tuned for more information!

5. TRANSPORTATION AND THE ENVIRONMENT

It is important to understand the link between transportation and the environment. The effects of transportation infrastructure can impact stormwater drainage, air quality, and the introduction of chemicals and other materials that can be harmful to the environment. Also of importance is an understanding of the effects that the environment can have on transportation.

Salt Application

Winter road maintenance in the Lakes Region typically includes the application of road salt (sodium chloride). Applying road salt to pavement reduces the adherence of snow and ice and promotes public safety. Road salt is a popular choice for many Lakes Region communities because it is inexpensive and easy to handle, store and apply. However, road salt application can have adverse effects on the environment and on infrastructure. Chloride is toxic to aquatic life. The sodium in road salt can alter soil chemistry and release calcium, magnesium and potassium into groundwater and surface water.[15] In addition to these, many road salts include additives such as ferro cyanide which is listed as a toxic pollutant under section 307(a) of the Clean Water Act.

Chloride ions increase the conductivity of water and accelerate corrosion. Chloride can penetrate and deteriorate concrete on bridge decking and parking garage structures, and damage reinforcing rods, compromising structural integrity. It damages vehicle parts such as brake linings, frames, bumpers, and other areas of body corrosion. It impacts railroad crossing warning equipment and power line utilities by conducting electrical current leaks across the insulator that may lead to loss of current, shorting of transmission lines, and wooden pole fires.[16] The cost of corrosion damage and corrosion protection practices for highways and the automobile industry have been reported to cost a staggering $16-19 billion a year.[17]

At this time, the only way to prevent chloride from reaching surface and ground water without compromising safety is to reduce the amount applied to our roadways and parking lots. The Bureau of Highway Maintenance indicates a reasonable reduction would be two percent yearly with a total maximum reduction of 20 percent over the long term.[18] NHDOT recommends road salt application rates specific to parking lots and roads per lane mile. Reference guides have been published by NHDOT in cooperation with the Technology Transfer Center at UNH to help instruct and educate applicators on best management practices for winter road maintenance. The New Hampshire Green SnowPro Certification program offered by UNH provides courses focused on efficient and environmentally friendly winter maintenance practices including salt reduction.

[15] Road Salt and Water Quality, NHDES, 2011

[16] des.nh.gov/organization/divisions/water/wmb/was/, accessed November 21, 2013

[17] City of Madison Wisconsin, Report to Salt Use Subcommittee, Commission on the Environment, 2006

[18] Balanced Scorecard, NHDOT, 2011

Storm Water, Catch Basins, Treatment

Managing stormwater is an important consideration for any type of development and especially for transportation systems. Impervious surfaces such as roads and parking lots can prevent rain and snowmelt from soaking into the ground as they do in a natural environment. Without adequate drainage mechanisms in place, the damage to infrastructure can be costly and severe. The condition of drainage and stormwater protection should be monitored regularly and closely and upgraded whenever the opportunity arises. Improper stormwater management can also adversely affect public health and the natural environment. As stormwater drains from impervious surfaces it can become polluted by dirt, oil, fertilizers and other contaminants. If left untreated, these pollutants enter rivers, lakes and coastal waters impairing water quality.

In 2008, municipalities in New Hampshire were given legal authority to form stormwater utilities under RSA 149-I. Under the statute, stormwater utilities must address flood and erosion control, water quality management, ecological preservation, and annual pollutant loads contained in stormwater discharges. Utilizing catch basins can be an effective method of dissipating the energy of incoming runoff and provides an opportunity for coarse sediments to settle. Vegetated buffers are areas of natural or established vegetation allowed to grow with minimal to no maintenance. Buffers reduce the velocity of runoff as it flows through the vegetation. Buffers also provide a permeable area where runoff can infiltrate the soil. They promote groundwater recharge, filter out sediments, and create shade to maintain water temperatures. They can also provide wildlife habitat and connect habitat corridors.[29]

CO_2 Emissions

It is estimated nationally that transportation is responsible for 24 percent of these emissions.[30] The Environmental Protection Agency has identified greenhouse gases as responsible in part for changing climatic conditions. Strategies to slow or stabilize climate change might include reducing the number of vehicle miles travelled (VMT) which totaled over 13 billion miles statewide in 2010 and has increased by nearly nine percent per-capita since 1990.[31] This reduction can be accomplished through the promotion of existing programs such as NH Rideshare, which matches travelers for regular commutes as well as one time trips, and utilization of public transportation systems such as Winnipesaukee Transit System and Carroll County Transit, both of which offer regular flexible service in the Lakes Region.

NHDES has identified idling automobiles as a significant contributor to air pollution in New Hampshire. According to an estimate of the Federal Highway Administration motor fuel usage in the state totaled over 812 million gallons in 2010. Additionally, the number of registered vehicles in New Hampshire increased 20.6 percent between the years 2006 and 2011.[32] With such a drastic influx of

[29] New Hampshire Stormwater Manual, NHDES, 2008

[30] National Greenhouse Gas Emissions Data, US EPA, April 2013

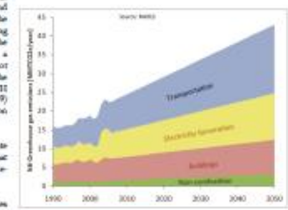
[31] United States Department of Highway Statistics, 2011

[32] Office of Highway Policy Information, FHWA, 2013

vehicles, maintaining reasonable levels of service on Lakes Region roadways becomes increasingly challenging. Congestion and capacity issues are a concern along certain transportation corridors in the Lakes Region. Travel demand management practices such as access controls and keeping capacity in harmony with development can help to reduce congestion and minimize CO_2 emissions. It has been a long time goal of the NH Department of Environmental Services (NHDES) to reduce pollution emissions to always meet air quality standards. In the summer of 2013, there were three days in New Hampshire when air quality exceeded ozone standards. Ozone is the principal ingredient of smog, is typically a warm weather air pollutant that forms when nitrogen and volatile organic compounds mix in the presence of strong sunlight and warm weather. It can have pronounced effects on healthy individuals and can aggravate respiratory conditions such as allergies, asthma, and emphysema.[33]

The US Environmental Protection Agency (EPA) estimates nearly 7.5 billion metric tons of greenhouse gases were emitted from fossil fuel combustion in 2011. This represents a downward trend since 2007 when 8.2 billion metric tons of greenhouse gases were emitted. The NH Department of Environmental Services (NHDES) indicates the transportation sector is the most significant single source of greenhouse gas emissions in New Hampshire, and its relative contribution is projected to increase further based on current trends (see Figure 10).

Figure 10: Greenhouse Gas by Sector 1990-2050



NH participates in The Greenhouse Gas Emissions Reduction Fund (GHGERF) as a partner with ten Northeast and Mid-Atlantic States. The program is aimed at reducing carbon dioxide emissions in the electric power sector. While a comparable program does not currently exist for the transportation sector, the NH Climate Action Plan (2009) contains several transportation recommendations including:

- Encourage appropriate land use patterns that enable fewer vehicle-miles traveled.
- Reduce vehicle-miles traveled through an integrated multimodal transportation system.

[33] NH Department of Environmental Services, *Environmental News*, November December, 2013

Regional Transportation Plan

Summer 2022

LRPC reformatted and drafted new regional transportation plan. Conducted corridor meetings

Winter 2022

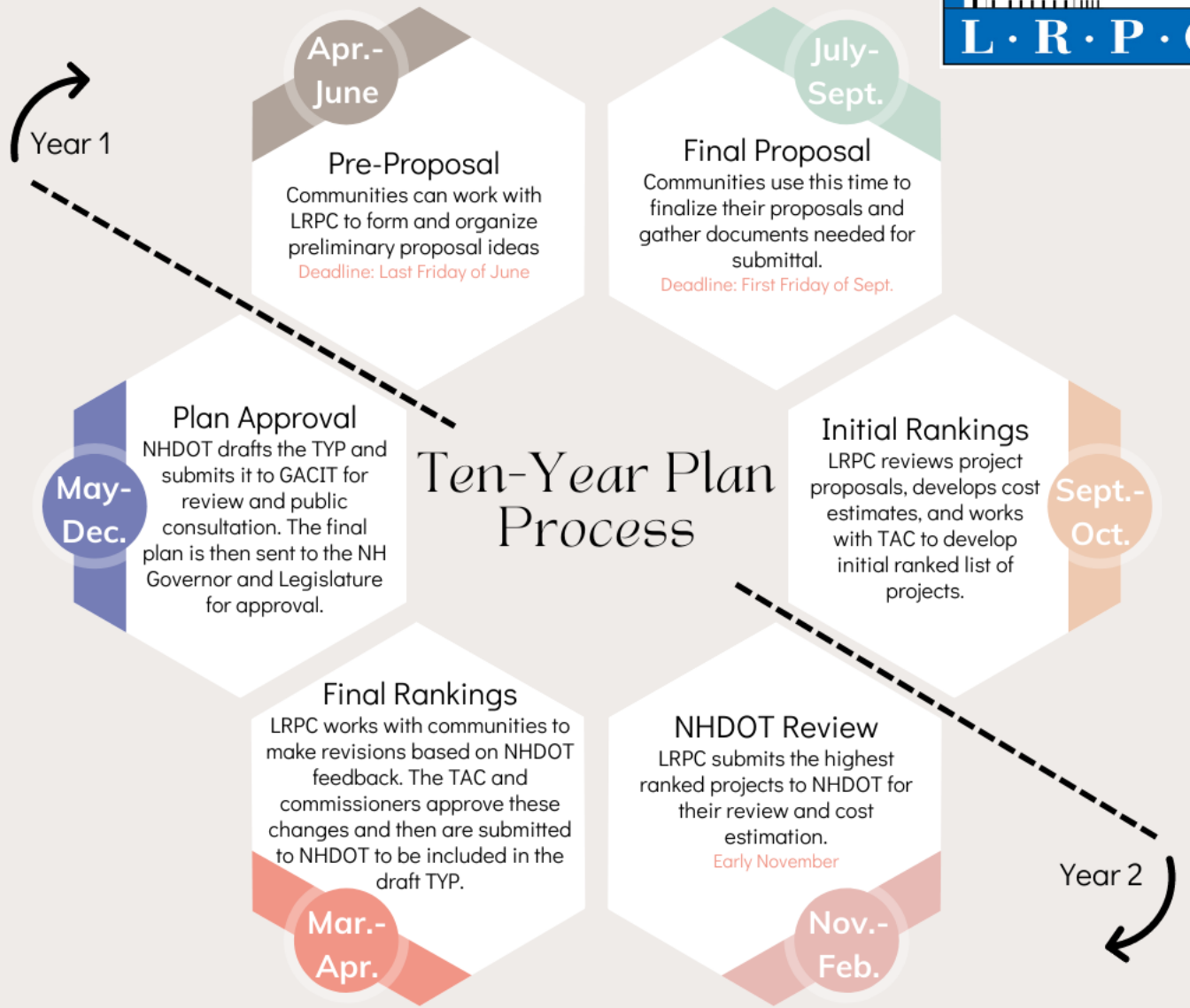
Update plan with more current information

Summer 2023

Release Regional Transportation Plan

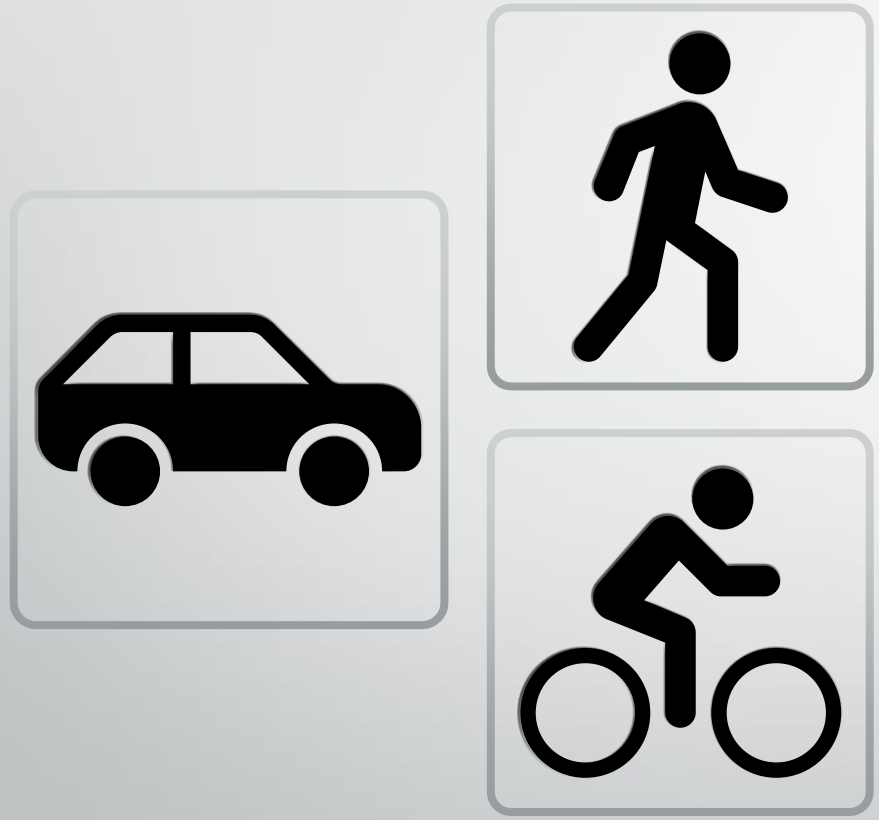
Ten Year Plan Funding and Project Prioritization

Ten-Year Plan Process



TYP: Ten-Year Plan; LRPC: Lakes Region Planning Commission; TAC: Transportation Advisory Committee; NHDOT: New Hampshire Department of Transportation; GACIT: Governor's Advisory Commission on Intermodal Transportation

TYP 2025-2034



- Regional Allocation ~$6.1 m
  - Based on population and No. of lane miles
- Fiscally constrained
- Highway segments and intersections
- Bicycle and pedestrian improvements
- Applications must be supported by engineering study

EXISTING LAKES REGION PROJECTS IN TEN YEAR PLAN 2021-2030

Municipality	Project #	Scope	Dates	Total Project Cost
Belmont	40635	NH 140 and Main Street – Improve intersection safety and congestion	ROW 2023 CON 2025	$0.7 m
Bristol	40636	NH 104 – Roadway widening and shoulders for Bike-Ped travel from School Street to west of Danforth Brook Road	PE 2021 ROW 2023 CON 2026	$2.9 m
Bristol	41579	Lake Street – Bike-Ped improvements	PE 2021 ROW 2023 CON 2026	$2.6 m
Gilmanton	42603	NH 140 and NH 107 – construct pedestrian islands and sidewalks at intersection and improve curb	PE 2025 ROW 2028 CON 2030	$1.9 m
Laconia	43845	NUS 3 and Weirs Boulevard bridge replacement	PE 2023 ROW 2024 CON 2026	$2.8 m
Meredith	43533	NH 25 – 4 intersection improvements	PE 2027 ROW 2030 CON 2032	$2.8 m
Moultonborough	40639	NH 25 and Lake Shore Drive – intersection safety improvements from just west of Lake Shore Drive (W) to just east of Lake Shore Drive (E)	PE 2022 ROW 2022 CON 2025	$2.4 m
Moultonborough	41580	NH 25 – Complete Streets improvements to Central Village	PE 2023, 2025 ROW 2025 CON 2027	$1.6 m
Moultonborough	41581	NH 25 and Sheridan Road – intersection improvements	PE 2023, 2025 ROW 2025 CON 2027	$0.8 m
Moultonborough	42602	NH 25 and Redding Lane – intersection improvements	PE 2025 ROW 2027 CON 2029	$0.8 m
Plymouth	41583	Highland Street – reconstruction and intersection improvements	PE 2022 ROW 2024 CON 2025	$1.4 m
Plymouth	43532	NH 25 and Smith Bridge Road – intersection safety improvements (roundabout)	PE 2027 ROW 2030 CON 2032	$2.8 m
Tilton	42600	Main Street and School Street – intersection safety improvements (roundabout)	PE 2024 ROW 2027 CON 2029	$2.9 m
Wolfeboro	29615	NH 28 – improvements from NH 109 to Alton town line	PE 2022 ROW 2024 CON 2025	$10.6 m

2025-2034 TYP Allocation ~$6.1 million

1. Meredith – Increase allocation to NH 25 intersection improvements project
   $2.4 million TAC Score: 74.4

2. Plymouth – N. Main St. New alignment, pedestrian expansion
   $4.5 million TAC Score: 64.8

3. Laconia – Union Ave Rehabilitation
   $2.2 million TAC Score: 67.8

Bicycle and Pedestrian Plan

State-Bike Ped Plan

Mar. 2022

LRPC is reviewing and providing comments in March of 2022.

Nov. 2022

Still waiting on State Bike-Ped Plan

Completion of State Bike-Ped Plan
DELAYED

May 2022

Bike/Trails Group round table

Jan. 2023

Next Steps

UPDATING PREVIOUS SECTIONS/CHAPTERS WITH NEW DATA AND INFORMATION

WORKING WITH TAC ON RECEIVING FEEDBACK ON GOALS AND VISION (STATE BIKE PED PLAN)

PLANNING A WORKSHOP WITH THE PUBLIC FOR FEEDBACK

ADOPTION OF LAKES REGION BICYCLING AND WALKING PLAN

Streetscaping and Sidewalk Planning

STREETSCAPING

Recognizes that streets are places where people engage in various activities, including but not limited to motor vehicle travel

COMPLETE STREETS

Designed for all roadway users, whether they are driving, riding, walking, rolling (wheelchair, stroller)

Streetscaping includes

- Inclusive transportation options
- Aesthetic design
- Vibrant centers of activity
- Pedestrian and bike friendly options

ELEMENTS OF A STREETSCAPE

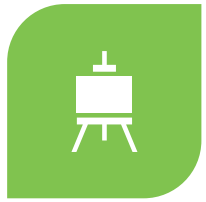
SIDEWALKS

CURB EXTENSIONS

LANDSCAPED BUFFERS

PLANTERS

SEATING



PUBLIC ART

LIGHTING

BIKE PARKING

Important Factors:

- Inclusive, accessible
- Boundaries
- Traffic Calming
- Physical Comfort

Photo Credit: NHDOT

Multi-modal main streets

- State highway as Main Street
- Speed management
- Winter weather and maintenance
- School connections

Planning & Zoning

- **Mixed Use Zoning**
  - Blends housing, offices, retail, entertainment, institutions, services, restaurants
  - Pedestrian-friendly
- **Form-based codes**
  - Development pattern similar to existing conditions
  - Relationship between buildings and the public realm (streets, sidewalks, etc.), and the form and mass of buildings in relation to one another

Technical Assistance

- Provide information on streetscaping concepts
- Offer sidewalk assessments and mapping
- Meet with town officials to discuss potential projects
- Provide information on potential funding sources

Ryan Paterson

Pedestrian Assessment

Lakes Region Sidewalk Assessments

Purpose – Sidewalks are an important part of a community's infrastructure. Developing a plan for maintenance and thoughtful expansion begins with assessing and mapping what you have.

Program – Assessment is a module of the Statewide Asset Data Exchange (SADES) program. With standardized attributes, assessments, and training the overall results are consistent and comparable.

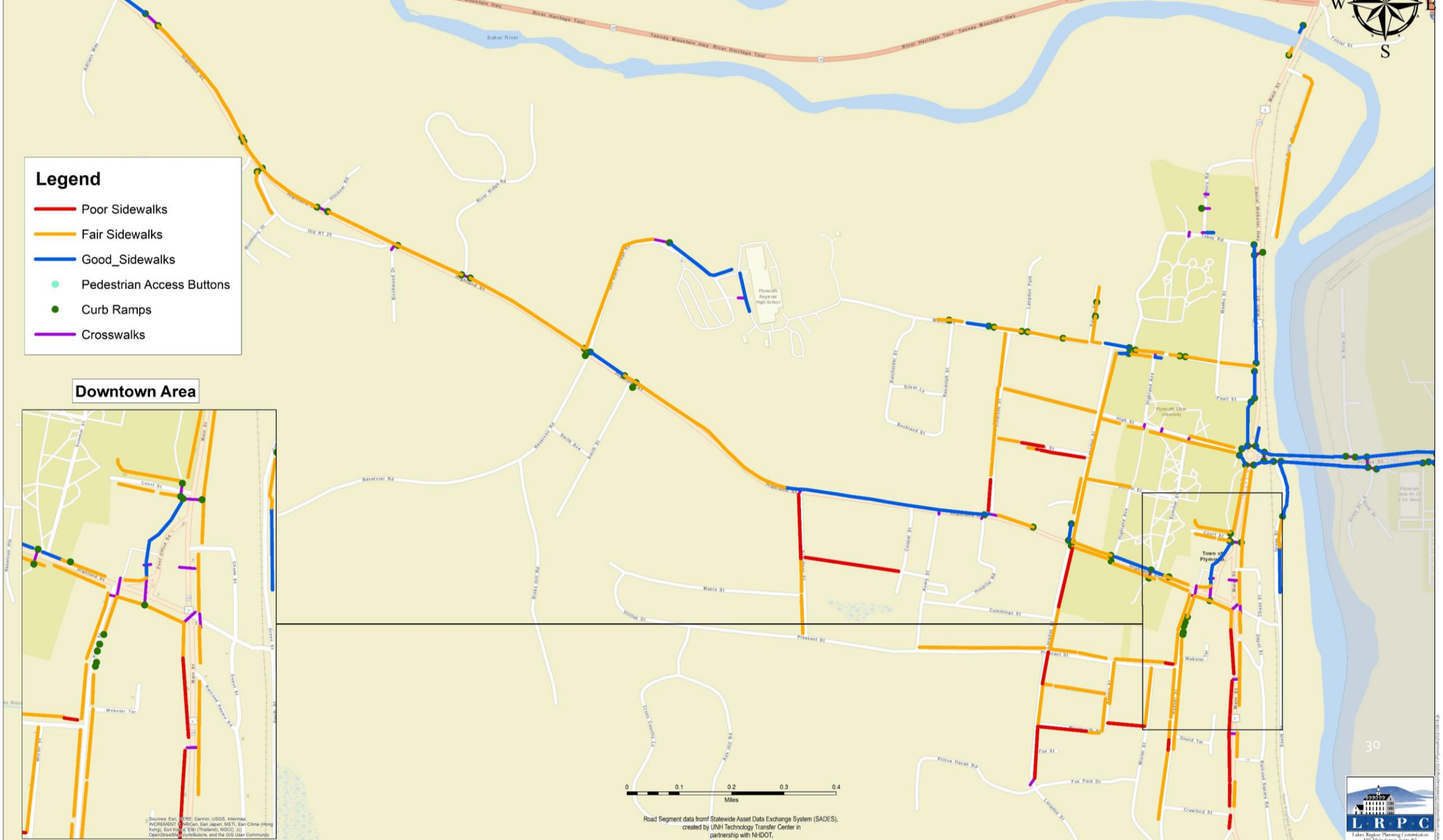
The SADES System was developed by UNH T^2 in cooperation with NH DOT, NH DES, and NH's Regional Planning Commissions.

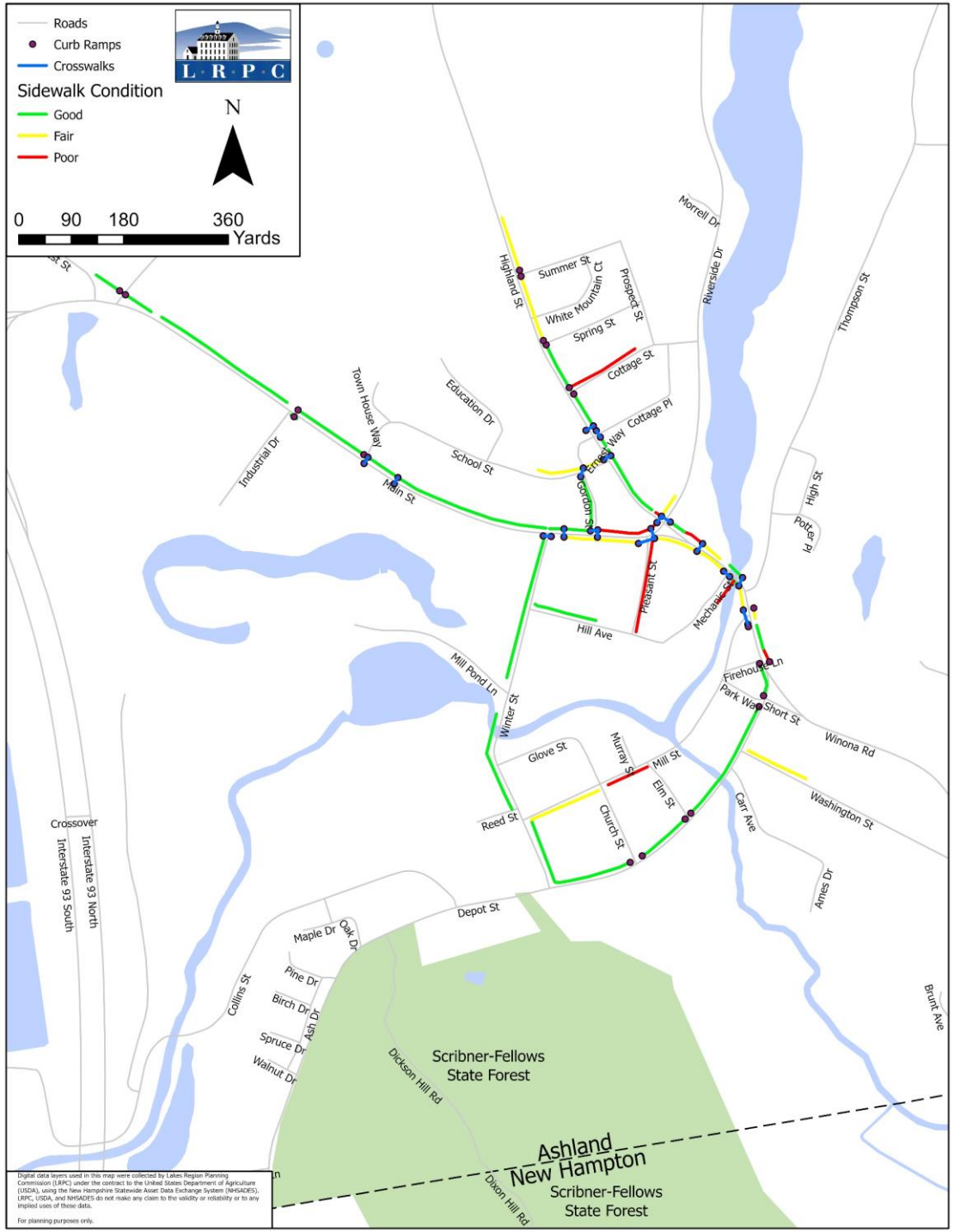
Lakes Region Sidewalk Assessments

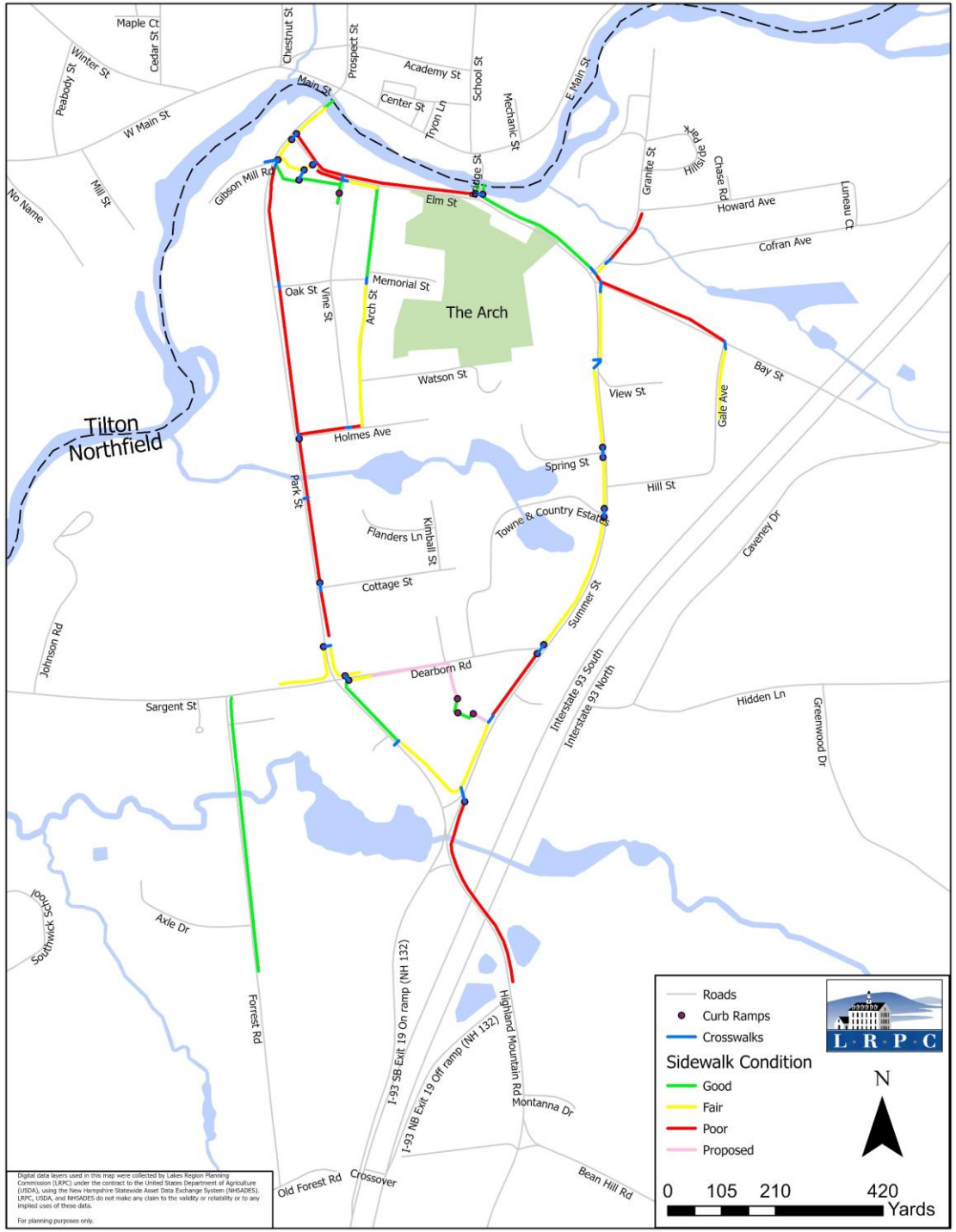
Pilot Program – As a supplement to our USDA Streetscaping project, we assessed the sidewalk infrastructure in a couple of communities.

Products – A full Sidewalk Assessment would result in maps, reports, a list of resources, asset spreadsheet, and GIS shapefile

Next Steps – Local prioritization and implementation


Legend
Poor Sidewalks
Fair Sidewalks
Good_Sidewalks
Pedestrian Access Buttons
Curb Ramps
Crosswalks
Downtown Area
0 0.1 0.2 0.3 0.4
Miles
Road Segment data fromf Statewide Asset Data Exchange System (SADES), created by UNH Technology Transfer Center in partnership with NHDOT,
Baker River
Plymouth Regional High School
Plymouth State University
Town of Plymouth
Lakes Region Planning Commission


Roads
Curb Ramps
Crosswalks
Sidewalk Condition
Good
Fair
Poor
N
0 90 180 360
Yards
L·R·P·C
Summer St
White Mountain Ct
Prospect St
Spring St
Cottage St
Cottage Pl
Highland St
Morrell Dr
Riverside Dr
Thompson St
Education Dr
School St
Town House Way
Industrial Dr
Main St
Ernest Way
Gordon St
High St
Potter Pl
Pleasant St
Mechanic St
Hill Ave
Mill Pond Ln
Winter St
Firehouse Ln
Park Way
Short St
Winona Rd
Washington St
Glove St
Murray St
Mill St
Elm St
Church St
Reed St
Carr Ave
Ames Dr
Depot St
Crossover
Interstate 93 South
Interstate 93 North
Maple Dr
Oak Dr
Pine Dr
Birch Dr
Ash Dr
Spruce Dr
Walnut Dr
Collins St
Dickson Hill Rd
Scribner-Fellows
State Forest
Ashland
New Hampton
Dixon Hill Rd
Brunt Ave
Digital data layers used in this map were collected by Lakes Region Planning Commission (LRPC) under the contract to the United States Department of Agriculture (USDA), using the New Hampshire Statewide Asset Data Exchange System (NHSADES). LRPC, USDA, and NHSADES do not make any claim to the validity or reliability or to any implied uses of these data.
For planning purposes only.


Maple Ct
Cedar St
Chestnut St
Prospect St
Academy St
School St
Mechanic St
E Main St
Peabody St
Winter St
Main St
Center St
Tryon Ln
W Main St
Mill St
No Name
Gibson Mill Rd
Elm St
Ridge St
Granite St
Ridgewood Park
Chase Rd
Howard Ave
Lumeau Ct
Cofran Ave
Oak St
Vine St
Arch St
Memorial St
The Arch
Watson St
View St
Bay St
Gale Ave
Tilton
Northfield
Holmes Ave
Spring St
Hill St
Park St
Flanders Ln
Kimball St
Towne & Country Estates
Cottage St
Caveney Dr
Johnson Rd
Dearborn Rd
Summer St
Sargent St
Interstate 93 South
Interstate 93 North
Hidden Ln
Greenwood Dr
Southwick School
Axle Dr
Forrest Rd
I-93 SB Exit 19 On ramp (NH 132)
I-93 NB Exit 19 Off ramp (NH 132)
Highland Mountain Rd
Montanna Dr
Old Forest Rd
Crossover
Bean Hill Rd
Roads
Curb Ramps
Crosswalks
Sidewalk Condition
Good
Fair
Poor
Proposed
N
0 105 210 420
Yards
L·R·P·C
Digital data layers used in this map were collected by Lakes Region Planning Commission (LRPC) under the contract to the United States Department of Agriculture (USDA), using the New Hampshire Statewide Asset Data Exchange System (NHSADES). LRPC, USDA, and NHSADES do not make any claim to the validity or reliability or to any implied uses of these data.
For planning purposes only.

Traffic Counting Program

Traffic Data is collected for NHDOT under the Unified Planning Work Program (UPWP)

- Short duration counts (7 days) at each site
- ~160 counts per year
- Data captured using pneumatic and radar traffic counters
- All data formatted and sent to NHDOT
- Purpose – to estimate average annual daily traffic (AADT) on roadways
- New Federal Highways Administration (FHWA) requirement – 30% of counts need classification data

FHWA Model Inventory of Roadway Elements (MIRE) Requirements

- FHWA Highway Safety Improvement Program (HSIP) Final Rule requires AADT available for all non-federal aid system (NFAS) public paved roads
- AADT for NFAS road network needs to be available by 2026
- LRPC working with NHDOT to secure funding to begin planning and implementing new traffic counts

Municipal Traffic Counts

- Counts can be requested by municipalities for various times and lengths
- Count is conducted and a report and map of location is delivered to the municipality
- Count can capture:
  1. Daily total traffic and peak times
  2. Class of vehicles
  3. Speed
  4. Direction of travel

SADES Road Surface Management System (RSMS) Assessment and Forecast

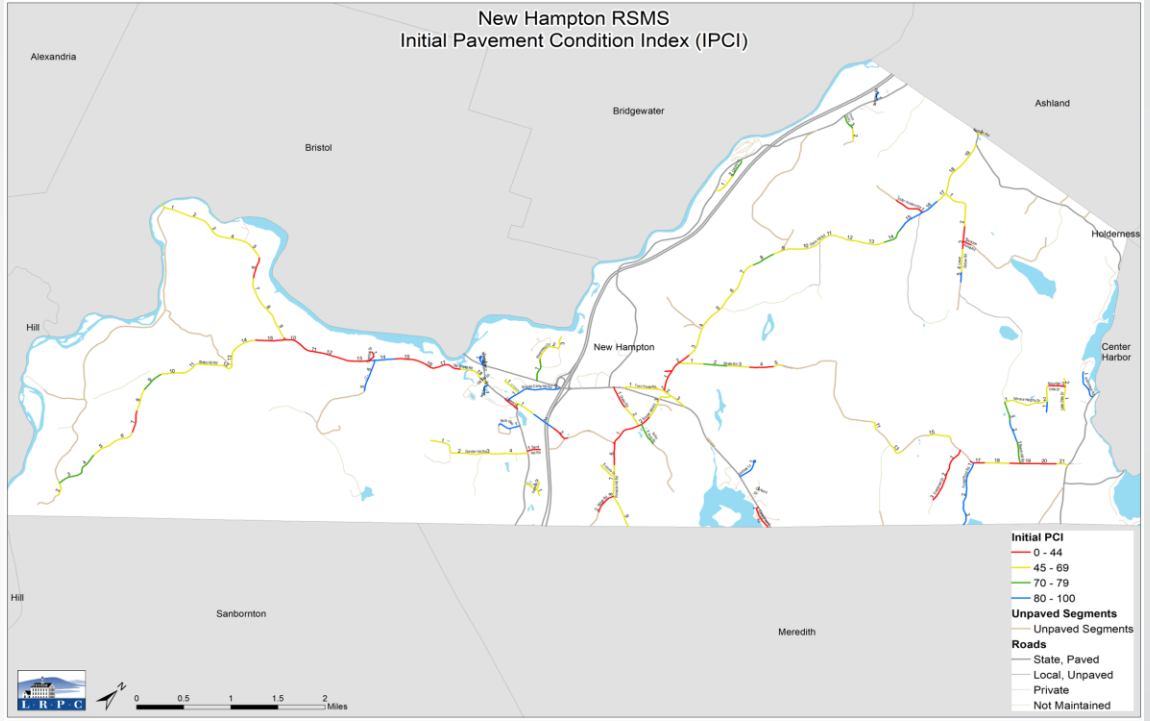
RSMS is a two-part process:

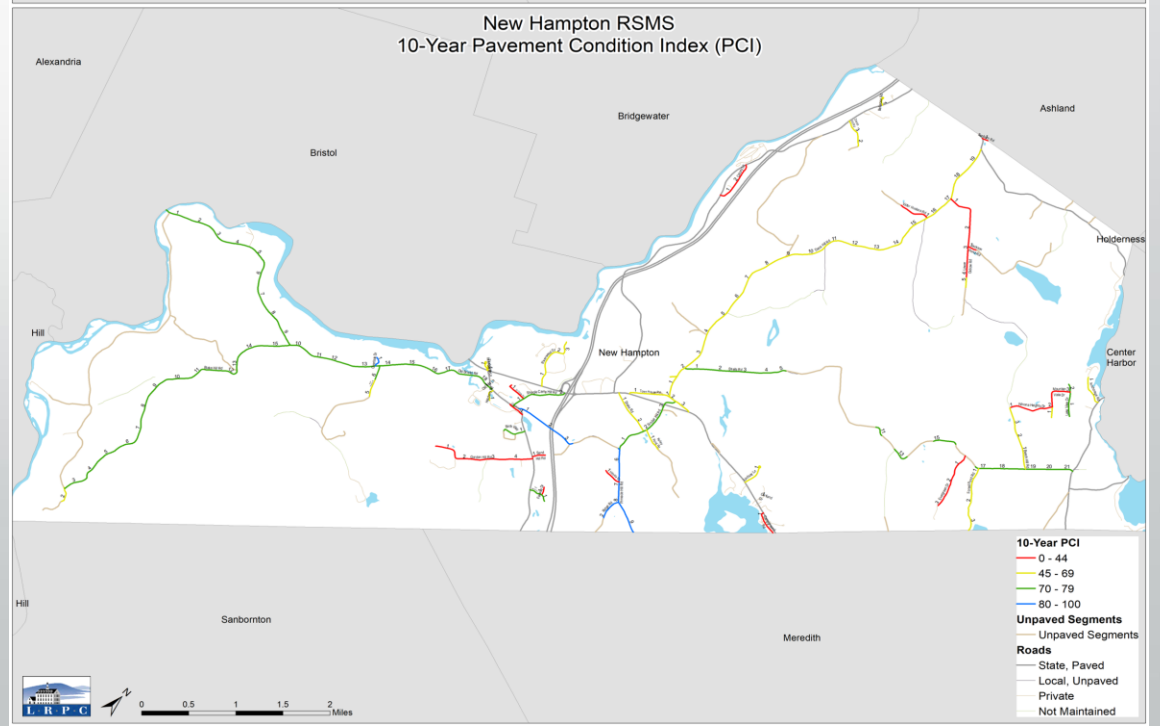
1. Assessment

- The assessment consists of mapping out all the roadways and separating them between paved and unpaved
- All paved roads are traveled and assessed following the NH SADES protocol guidelines

2. Forecast

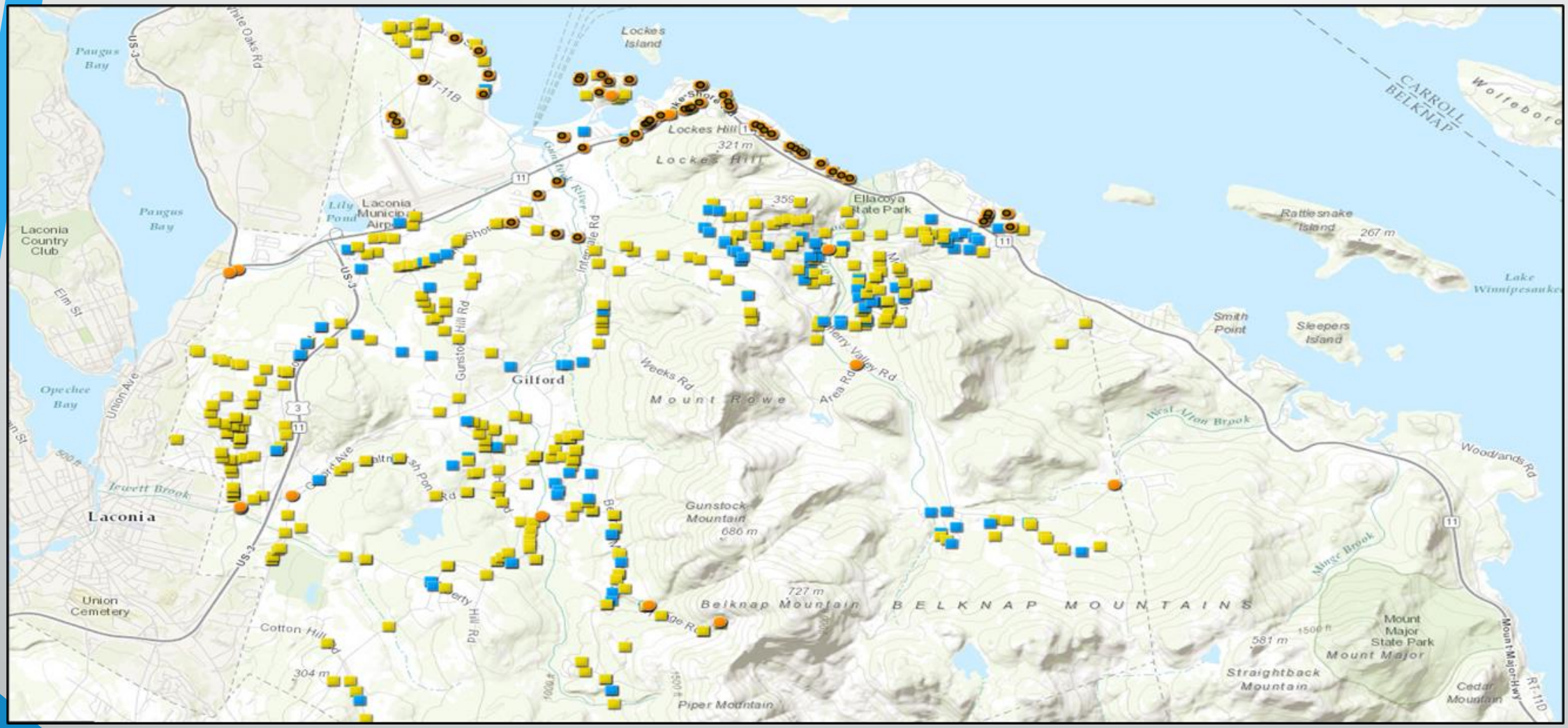
- The data is then processed and used to create a forecast for road repair
- LRPC works with local road agent or DPW director throughout this process
- RSMS forecasting will create a yearly cost estimate for the repairs selected, this can be used as a budgeting tool
- The forecast will show the road networks overall pavement condition index (PCI) and show it's increase/decrease every year after repairs are selected





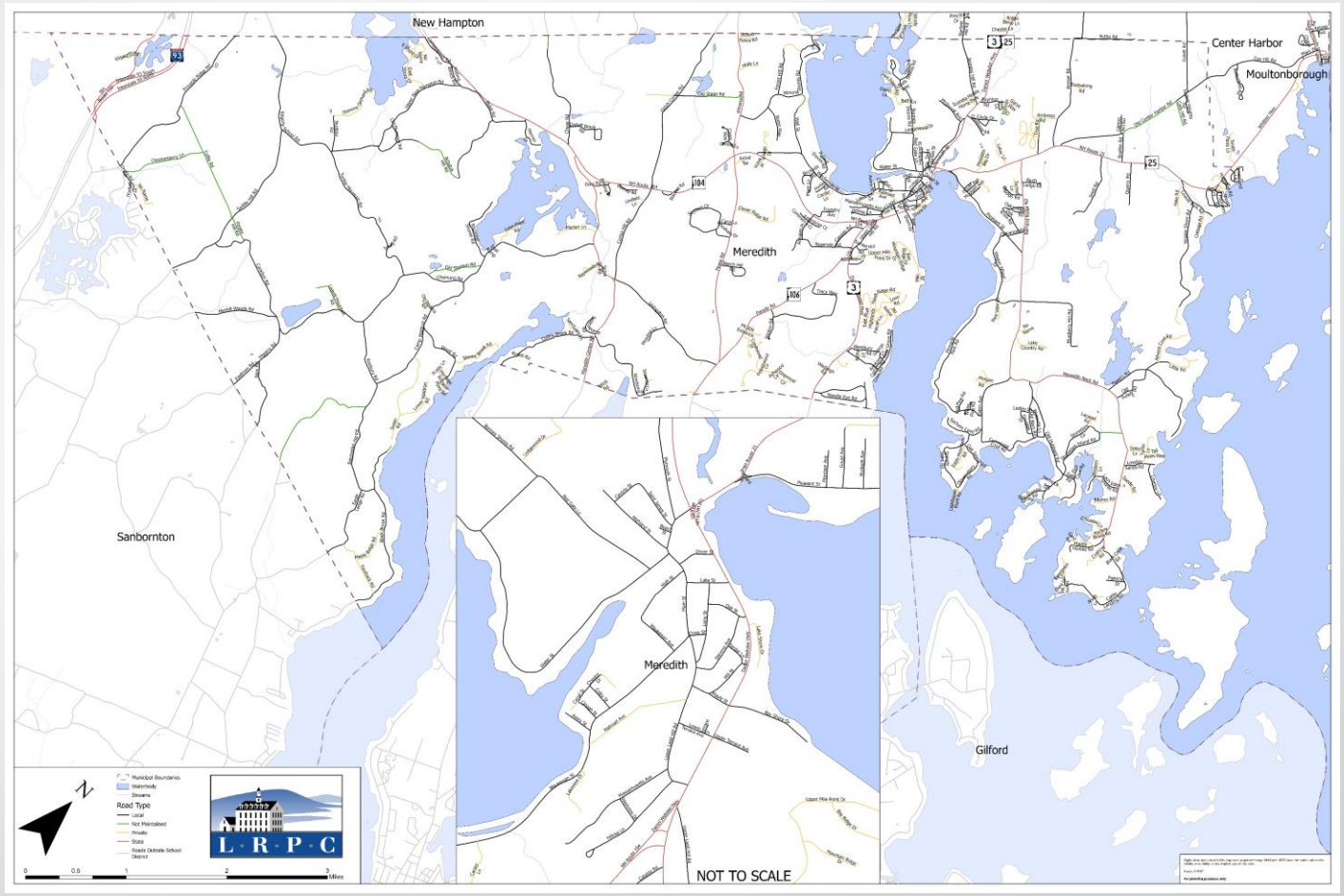
SADES Culverts and Closed Drainage System (CCDS) and Stream Crossing Assessments

- CCDS inventories, assesses, and maps all culvert and drainage systems in the municipality – basic condition assessment done
- Stream crossing assessment maps all stream crossings, which also includes culverts
- Stream crossing also includes condition assessment but mostly focuses on environmental conditions and factors


Lockes Island
Paugus Bay
US-3
White Oaks Rd
T-11B
Lockes Hill
321 m
Lockes Hill
11
Laconia Municipal Airport
Lily Pond
Laconia Country Club
Paugus Bay
Elm St
Opechee Bay
Union Ave
Irwett Brook
Laconia
US-3
Gunstock Hill Rd
Intervale Rd
Gilford
Weeks Rd
Mount Rowe
Area Rd
Belknap Mountain
727 m
BELKNAP MOUNTAINS
Gunstock Mountain
686 m
Union Cemetery
Cotton Hill Rd
304 m
Piper Mountain
Ellacoya State Park
Rattlesnake Island
267 m
CARROLL
BELKNAP
Lake Winnipesaukee
Smith Point
Sleepers Island
Perry Valley Rd
West Alton Brook
Woodlands Rd
Mirror Brook
Mount Major State Park
Mount Major
581 m
Straightback Mountain
Cedar Mountain
Mount Major Hwy
RT-11D

Geographic Information System (GIS) Mapping Technical Assistance

- LRPC can create maps and overlays of most anything that is requested
- Information can be made into paper and/or digital maps
- GIS shapefiles can be made and sent to municipality – these can be used by municipalities GIS software or sent to their contractors to be added to online maps on their websites.



LRPC Data Collection & SADES Programs

- Municipal Traffic Counts (PD)
- Bicycle and Pedestrian Counts
- Turning Movement Counts (PD)
- SADES
  - Road Surface Management System (RSMS) – Pavement assessment, forecasting, and budgeting (DPW, CIP, BoS)
  - Culvert & Closed Drainage Structure (CCDS) – Inventory along with basic structural measurement & assessment (DPW, HMP) https://nhsades.maps.arcgis.com/home/index.html
  - Stream Crossing Assessment – Inventory and detailed assessment of permanent stream crossings – structure and landscape with full Geofluvial and aquatic organism passage analysis (DPW, HMP, Cons. Comm.)
  - Guardrail inventory – inventory, assessment, and mapping of guardrails (DPW)
  - Sidewalk Assessment – inventory, assessment, and mapping of Sidewalks (DPW and PB)

- For more information and pricing on these programs, please contact:
- **David Jeffers, Regional Planner/GIS**
- **djeffers@lakesrpc.org** (603) 279-5341

Alternative Funding Opportunities

Sean Chamberlin

Grant Planning & Things to Consider

- **Project proposal/description** – utilize sidewalk assessments & traffic counting
- Determine **cost estimates**
  - Larger project vision? Assess in full in case a "phase in" approach is appropriate
- Sourcing **match funds**
- Schedule **pre-application meeting** with funders
- Plan funding and timeline of **preliminary assessments** – architectural design, engineering report, environmental assessments(s)

USDA Rural Development

Community Facilities

Direct Loan & Grant Program in NH

Applications accepted year round

State Pool Deadline (competitive) – mid-December each year
National Pool Deadline (more competitive) – mid-April each year

- Grants, low interest loans, and combinations of both are available to public bodies.
- Requirements for all applications, plus documentation for:
  Non-construction projects VS. Construction projects (architectural & environmental assessments)

CF Grant covers ___% of project costs when…

- Maximum of 75%
  - Population of 5,000 or fewer, and
  - MHI is 60% of SNMHI
- Maximum of 55%
  - Population of 12,000 or fewer, and
  - MHI is 70% of SNMHI

Maximum of 35%

- Population of 20,000 or fewer, and
- MHI is 80% of SNMHI

Maximum of 15%

- Population of 20,000 or fewer, and
- MHI is 80% of SNMHI

*SNMHI = State Non-Metropolitan Median Household Income

Current grant eligibility percentages set by USDA are based on 2010 census data – ***2020 update TBD*

CONTACTS

USDA Rural Development Community Programs

Eric Law, Community Programs Director
Eric.Law@usda.gov
(802) 828-6033
Contact Eric to set up a pre-application meeting

Jon Harries, State Engineer
Jonathan.Harries@usda.gov
(802) 828-6035

Tracy Montminy, State Architect
Tracy.Montminy@usda.gov
(802) 828-6057

NBRC GRANTS

Northern Border Regional Commission

Economic & infrastructure projects in Belknap, Carroll, Grafton Counties

Dependent on economic and demographic distress in each county.

- Poverty & Unemployment Levels = Distressed, Transitional, or Attainment** Counties
- Potential for up to an 80% matching grant

****Funding still available for Attainment Counties****

Isolated Areas of Distress, Multi-County/State Projects, Significant Benefits Waiver

"Distress" determination is based on 2022 NBRC Economic and Demographic Report – updated each year.

LAKES REGION

NBRC

ISOLATED AREAS OF DISTRESS

- **BELKNAP County**
- *Belmont*
- *Center Harbor*
- *Gilmanton*
- *New Hampton*
- *Sanbornton*
- *Tilton*

CARROL County

Freedom

Ossipee

Tuftonboro

GRAFTON County

Ashland

Hebron

Plymouth

CONTACTS

Northern Border Regional Commission

NH Business and Economic Affairs (BEA)
Representatives/NBRC State Program Managers

Janel Lawton
janel.m.lawton@livefree.nh.gov
(603) 545-1579

Contact NBRC about your project in advance of submitting an application

Transportation Funding

- TYP (TEN YEAR PLAN FUNDING)
- TAP(TRANSPORTATION ALTERNATIVES)
- CMAQ (CONGESTION MITIGATION AND AIR QUALITY)
- HSIP (HIGHWAY SAFETY IMPROVEMENT PROGRAM)

Discretionary Grants

Funding Available to a Range of Recipients

Program Examples	State	MPO	Local	Tribe	PA*	Territory	FLMA*
Apportioned programs (formula)	✓						
Bridge Program (formula)	✓			✓			
National Electric Vehicle Formula Program	✓		✓				
Safe Streets and Roads for All program		✓	✓	✓			
PROTECT Grants (discretionary)	✓	✓	✓	✓	✓		✓
Charging and Fueling Infrastructure Program	✓	✓	✓	✓	✓	✓	
Congestion Relief Program	✓	✓	✓				
Bridge Investment Program (discretionary)	✓	✓	✓	✓	✓		✓
Reconnecting Communities Pilot Program	✓	✓	✓	✓			
Rural Surface Transportation Grants	✓		✓	✓			
INFRA	✓	✓	✓	✓	✓		✓
Nat'l Infra. Project Assistance	✓	✓	✓	✓	✓		
Local and Regional Project Assistance	✓	✓	✓	✓	✓	✓	

Note: This table does not include all BIL programs or eligible entities, and there are additional nuances not represented in this table. Additional programmatic information is provided in later slides. FHWA will administer most, but not all, programs listed.

* "PA" means a special purpose district or public authority with a transportation function; FLMA means Federal Land Management Agency

- Question?