

Appendix 2: Plan Review

In the past ten years, the State of New Hampshire and the Regional Planning Commissions have developed a number of plans, studies and reports that aim to improve transportation, open space or development patterns in some way, shape, or form. Analysis and recommendations found in these reports reference ways to improve walking and bicycling in local communities, regions and statewide. This section provides a summary of the myriad policy, program and project recommendations that can inform the planning work and recommendations in the New Hampshire Statewide Pedestrian and Bicycle Transportation Plan.

1.1.1 Introduction

The state's nine Regional Planning Commissions (RPC) develop a regional Transportation Improvement Program (TIP) every two years using input from member municipalities, NHDOT, and each RPC's Transportation Advisory Committee (TAC). This occurs at the same time as the NHDOT State Transportation Improvement Program (STIP) as well as the Ten-Year Plan update (TYP).

The New Hampshire Ten Year Transportation Plan lists the transportation projects and programs for the state over a ten-year period. The Ten-Year Plan is revised on a two-year cycle with input from a variety of stakeholders. The Legislature then reviews the Ten-Year Plan prior to being approved by the Governor. The approved TYP provides the foundation for the first four years of project funding through the State Transportation Improvement Program (STIP).

1.1.2 Funding Stipulations

State and federal funding sources for local bicycle and pedestrian transportation are limited. The Transportation Enhancement (TE), Recreation Trails Program (RTP), and Safe Routes to Schools (SRTS) programs, have been consolidated into one program called Transportation Alternatives Program (TAP).

New Hampshire receives roughly \$7.5 million in TAP funding every two years. One third of that funding is set aside for Recreational Trail projects administered by the NH Department of Natural and Cultural Resources. Federal guidelines require another portion of the funding be set aside exclusively for the Nashua region. The remaining pot of funds is used to pay for TAP projects in each of the nine RPC's. Depending on project cost, each RPC typically receives funding for one or two TAP projects every two years.

Bicycle and pedestrian infrastructure projects may be eligible for funding through the Federal Highway Safety Improvement Program (HSIP). To be eligible, the project must be in a location with a documented history of fatal or severe crashes involving bicyclists or pedestrians. Road Safety Audits (RSA) should be completed as a precursor to potential HSIP funding. Another typical Federal program used is the Congestion Mitigation and Air Quality (CMAQ).

1.1.3 Report Summaries

A total of nine regional reports and four statewide plans and reports were analyzed and summarized in the pages below. They include:

| Jurisdiction | Summarized Reports |
|----------------------------------|---|
| 1. North Country Council RPC | 1: Regional Transportation Plan 2015 Update, June 2015 |
| 2. Lakes RPC | 2: Transportation Improvement Program, April 2015 2.1: Lakes Region Plan, 2015 - 2020 |
| 3. Upper Valley Lake Sunapee RPC | 3: UVLSRPC Regional Plan 2015, A Guide for The Future Development of The Upper Valley Lake Sunapee Region, June 2015 |
| 4. Southwest RPC | 4: Southwest Connects: Southwest Transportation Plan 2015 – 2035, January 2015 |
| 5. Central New Hampshire RPC | 5: Transportation Improvement Program FY 2019-2028, April 2017 5.1: Regional Trails Plan 2012, Salem-Manchester-Concord, January 2013 |
| 6. Southern New Hampshire RPC | 6: Southern New Hampshire PC, FY 2017 – FY 2040 Regional Transportation Plan, January 2017 |
| 7. Nashua RPC | 7: Metropolitan Transportation Plan, 2015 – 2050, December 2014 7.1: The Nashua Region: A Story Worth Telling |
| 8. Rockingham RPC | 8: 2040 Long Range Transportation Plan, October 2017 |
| 9. Strafford RPC | 9: Metropolitan Transportation Plan 2017 – 2040, December 2017 |
| 10. Statewide Plans | 10.1: NH Outdoors 2019 – 2023 Statewide Comprehensive Outdoors Recreation Plan (SCORP) 10.2: Granite State Future, The Statewide Snapshot, June 2015 10.3: NH State Development Plan, NH in The New Economy: A Vision for Expanded Prosperity 10.4: Your Guide to Promoting Walking and Bicycling Accommodations in New Hampshire 10.5: NH Long Range Transportation Plan, July 2010 10.6: NHDOT Strategic Highway Safety Plan, 2017 |

1. North Country Council RPC - Regional Transportation Plan 2015 Update, June 2015

The plan identifies the region's high priority needs and develops strategies to meet those needs. The plan is a policy document that acts as a guide for the North Country Council RPC, NHDOT, and member communities to allocate funding for transportation projects. More specifically, the Regional Transportation Plan will help their TAC prioritize projects for federal and state funding.

The report advises North Country communities to focus on projects that align with the priorities of the Federal Moving Ahead for Progress in the 21st Century Act (MAP-21) due to the increasing competitiveness of funding rounds in the future. The MAP-21 priorities included "improving safety, maintaining the condition of existing infrastructure, reducing traffic congestion, making improvements to make transportation systems more efficient, improving and protecting the environment, and improving bike and pedestrian options to improve livability in states and regions." (pg. 8)

Projects that were eligible for the 2014 application cycle included¹:

- Construction planning and design of on-road and off-road trail facilities for pedestrians, bicyclists, and other non-motorized forms of transportation
- Construction, planning, and design of infrastructure-related projects and systems that will provide safer routes for non-drivers, including children, older adults, and individuals with disabilities to access daily needs
- Conversion and use of abandoned railroad corridors for trails for pedestrians, bicyclists, or other non-motorized transportation users
- Eligible Safe Routes to School program infrastructure activities eligible under Section 1404 of SAFETEA-LU

During the public outreach process, participants were given twelve answers to rank under the question "What should be actively encouraged in your community?" Coming in second place, at 84%, was "Promoting safe places to walk or bike."

Fifteen goals were developed to promote bicycle and pedestrian infrastructure in the North Country:

1. Pedestrians and bicyclists should have safe and adequate access along public roads in villages and downtown areas as well as links to critical facilities such as schools and other destinations.
2. Local and regional organizations should enhance existing infrastructure and plan for future infrastructure that would allow for safe and comfortable bicycle and pedestrian travel.
3. Towns and schools should work with NCC and the NHDOT on programs and infrastructure to fund safe routes to schools.
4. When possible, municipalities and state agencies should acquire enough right-of-way during roadway construction and reconstruction projects to accommodate safer bicycle and pedestrian systems.
5. All sidewalks and crosswalks should provide safe mobility for all users and should be properly aligned and have sloped handicapped ramps.
6. All future development of retail and service centers should incorporate pedestrian access to minimize conflicts with vehicles.

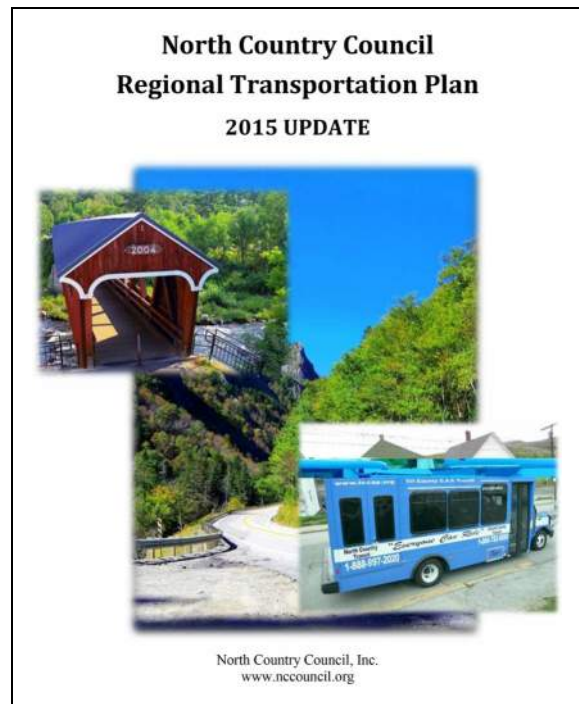
¹ Note that since 2014, the Fixing America's Surface Transportation (FAST) Act has now become law, supplanting previous legislation called MAP-21. The FAST Act's set-aside funding requires that some portion of funds be reserved for trails. Of the remaining non-trail funds, at least 50% must be distributed based on population density with the remainder able to be distributed anywhere in New Hampshire.

7. Educational programs should be offered through towns, schools, and other advocacy agencies to promote safer walking, bicycling, and driving.
8. NCC should work with towns, state agencies, and local organizations to coordinate bicycle and pedestrian facilities.
9. Transit providers should consider installing bicycle racks on vehicles.
10. State agencies should work with partners to maintain and continue to improve maps and brochures of bicycle routes that include enhanced information regarding which routes are “family friendly.”
11. State agencies should work with local partners to encourage multiple uses of rail corridors when appropriate, including recreational use with active rail.
12. Trail-related improvements to abandoned rail corridors should continue even if rail service may return in the future. Improvements such as drainage and brush clearing are consistent with state policy on rail preservation.
13. Federal and state agencies and local partners should work together to provide adequate access to recreational trails for bicycles and pedestrians, including parking where appropriate and necessary.
14. NCC will work with local planning boards to review and update master plans in order to accommodate bicycle and pedestrian travel.
15. NCC should stay abreast of the needs of the disabled and associated ADA requirements, including Segway use, and encourage integration into bike/pedestrian facilities (including paths/trails and access).

The report then breaks the NCC into Labor Market Areas, and each has a series of maps and other information including deferred projects, recommended projects, etc.

In the Issues, Needs, and Priorities write-ups, public comments related to walking + bicycling include:

- Sidewalks were not safe in the winter, and there are safety concerns about children walking to and from school.
- Many roads are not pedestrian friendly, have to drive from place to place.
- Desire for more bike paths.



Priorities include:

- Increasing shoulder width to 4 – 5 feet as part of repaving projects, particularly on:
 - US 3, NH 26, and NH 145, to accommodate bicycle and pedestrian safety
 - US 2, NH 16, NH 26, and NH 110 as part of future projects
 - all Arterials and NH 116 from Littleton to Whitefield
 - NH 10, NH 112, and NH 25 whenever possible as part of repaving projects
- Pedestrian safety improvements are needed in downtown Colebrook and West Stewartstown between residential neighborhoods and the school (TAP funding proposed)
- Establish sidewalks and crosswalks for patrons to move from Santa’s Village to the to overflow parking to the amusement park

- **Pedestrian / Bicycle related projects proposed by member communities include:**
- Rebuild 5,000 feet of US 3 / Main Street in Colebrook with ADA compliant sidewalks and drainage replacement and install a bike lane.
- Conway Village Streetscape project: including sidewalk upgrades, crosswalks, utility relocation, landscaping, lighting and gateway markers.
- Restructure traffic approaches at US 3 / Main Street at Church Street in Northumberland.
- Bike and pedestrian improvements are needed at the King’s Square area on US 3. The project includes construction of 1,650 feet of new sidewalk in Whitefield.
- Upgrade the geometry at the US 302/NH 135 intersection to improve safety.
- Plymouth/Lincoln sub-region: expand shoulders on NH 118, NH 112 east of NH 118, and all of NH 175, and portions of NH 25. (The “Plymouth Commuter shed Number of Unique Cyclists” map displays Strava data that indicates more than 100 bicyclists rode from Campton and Thornton to Plymouth and to Waterville Valley. The lack of adequate paved shoulders presents safety hazards to bicyclists and drivers.)

The Plan concludes with a recommendation to alter the sparse land use patterns (with some exceptions, e.g., the US 3 corridor) in Northern New Hampshire and move towards a Smart Growth orientation to development.

2. Lakes Region Transportation Improvement Program, April 2015

The Lakes Region RPC TAC voted in April, 2015 to maintain the region’s six existing TYP projects as regional priorities. The report notes that it is challenging to secure funding for even high priority transportation projects and acknowledges that funding through the TYP program does not satisfy the cost of the projects.

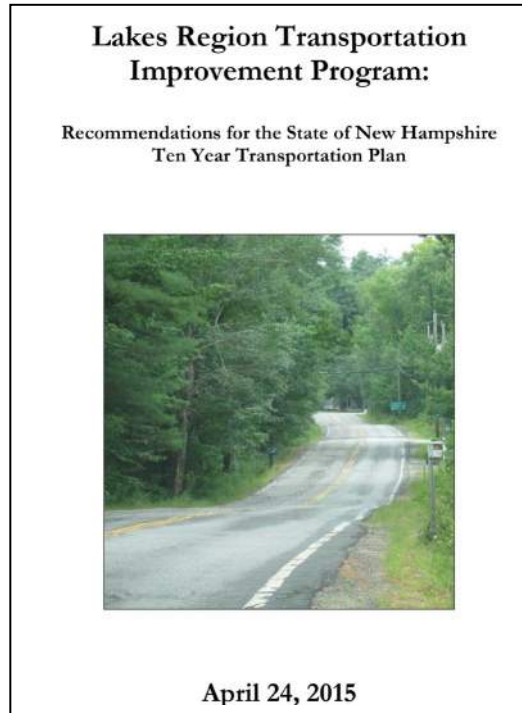
The Appendix A “Project Scoring Criteria and Weight” reveals that Alternative Modes receive 9.2% of the weight for project scoring.

Pedestrian and Bicycle Related Existing Ten-Year Plan Projects Include:

- NH28 – Need for improved pedestrian safety, scheduled for 2024 in Wolfeboro.

Pedestrian and Bicycle Related Priority Projects for Inclusion in the Ten-Year Plan include:

- Rte. 11 from Ellacoya State Park in Gilford to Minge Cove in Alton: reconstruction to include striped shoulders for bicycle / pedestrian use.
- NH 25 at Lake Shore Drive in Moultonborough: Address pedestrian safety issues through roadway rehabilitation.
- NH 25 at NH 109 North / Holland Street in Moultonborough: Include pedestrian crossing signal.
- NH 104 in Bristol from School Street east 3,400 feet: provide sidewalks for nursing home, apartments, businesses, etc. Includes intersection improvements at sharp turn.
- NH 25 Central Village in Moultonborough from Blake Road to Old Rte. 109: Implement traffic calming measures such as village gateway treatments, crosswalk refuge medians, street trees, narrowed travel way, village design street lighting, on-street parking, and speed limit reduction.
- NH 25 in Moultonborough's Central Village: Construction of Phase 1 of the Town's Sidewalk Plan, includes sidewalks, paths and at least one crosswalk.



2.1 Lakes Region Plan 2015 – 2020, Economic Opportunity, Environmental Quality

This comprehensive plan includes a Vision for the Lakes Region that contributes to a sense of community and sense of place. The Vision includes many references to maintaining the region’s environment and natural resources. Additionally, the Vision’s goals include “A balanced transportation system that has good roads, bridges, reliable public transit, mobility options for seniors and special needs, and available bike paths.” When the public was asked “What could make this area even better?” The second highest mentioned topic was more public recreation in the form of trails, bike paths, and beaches.

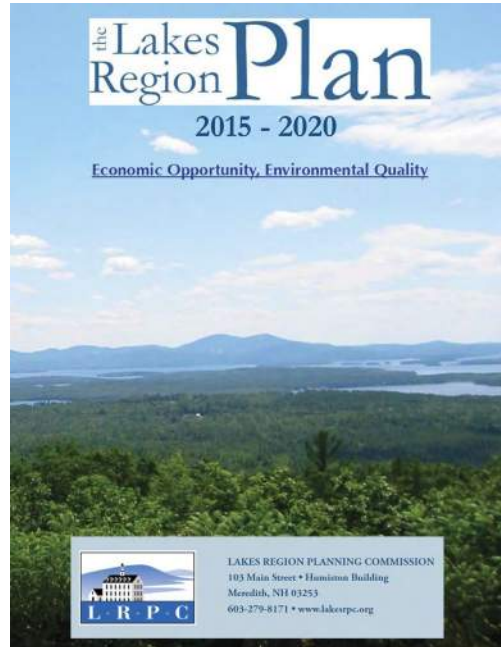
Dependence on the automobile as a sole means of transportation was considered a noteworthy trend in this report. The report cites that lower-income families living in automobile-dominated metropolitan areas, the costs of owning and maintaining an automobile can be as high as 25% of household income. The report mentions that the National Conference of State Legislatures (NCSL) reviewed state policies and statutes that promote walking and biking for physical activity. The five policies that are most likely to increase walking and bicycling include:

- Incorporating sidewalks and bike lanes into community design

- Providing funding for biking and walking in highway projects
- Establishing Safe Routes to Schools
- Fostering traffic calming measures
- Creating incentives for mixed-use development

At a Lakes RPC workshop in 2011 hosted by NHDOT to understand customer satisfaction, 66% of participants were dissatisfied or very dissatisfied with the level of accessibility for alternate modes. In the Local Transportation Planning and Land Use chapter, many projects are highlighted as successes that contribute to the livability and other transportation-related goals of the Lakes Region Plan:

- Belmont and Bristol Downtown Improvements – Both towns have upgraded roadways, parking, parks, and pedestrian accessibility in their downtowns.
- The WOW Trail – The proposed multi-use path in Laconia could extend 9 miles through Laconia from Meredith to the Belmont town line. The WOW Trail is a piece of a larger regional trail from Andover to Meredith with several pieces of the trail currently scheduled for construction.
- Northfield and Moultonborough Safe Routes to School – Both towns worked with the Lakes RPC to identify ways to improve walking and bicycling environment for K-8th grade students. Both plans include recommendations for sidewalk improvements downtown.
- Newfound Lake Pathways – The mission to build a 17-mile pathway around Newfound Lake to encourage walking and bicycling.
- Northern Rail Trail – The inn-to-inn bike tours offers a fun ride for all types of bicyclists that utilize seven historic inns in the Dartmouth-Lake Sunapee region.
- Meredith Planning Board – Working to install a Pedestrian Hybrid Beacon on NH25 in Meredith.



Other takeaways:

- 85% of all NH residents and 83% of Lakes RPC residents surveyed are in favor of “promoting safe places to walk or bike”

The comments included on the survey revealed that people want bike paths connecting town centers and more and higher quality sidewalks because their current commute feels dangerous.

3. Upper Valley Lakes Region Regional Plan, June 2015

The bicycle and pedestrian transportation in the “Region” chapter begins with the Vision outlined in the introduction of the report: A safe bicycle transportation network connects all the communities in the region and every community center can be accessed by a safe and appropriate pedestrian transportation network.

Crashes

The UVLSRPC has a disproportionately high number of bicycle fatalities. Fatal crashes in Croydon and Newbury have resulted in the development of an advocacy group to raise awareness of NH RSA 265:143-a which requires motor vehicles give a minimum of three feet while passing bicyclists.

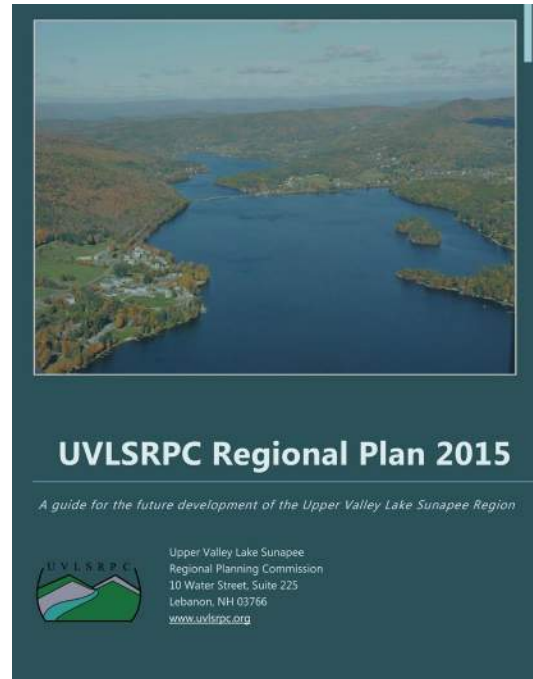
The report states that a combination of infrastructure improvements, public education campaigns, and increased law enforcement have contributed to a statewide decline in fatal crashes across New Hampshire. A multi-stakeholder group titled New Hampshire Driving Toward Zero Coalition has a goal to eliminate all highway fatalities in the state, with an initial goal of a 50% reduction by 2030.

A Safety Improvement Needs Map details safety-related projects in the region, including:

- Enfield: Reconfiguration of the US 4 / Maple Street / Main Street intersection.
- Lebanon: Pedestrian safety improvements at the NH 10 / Gould / Oak Ridge Road intersection.
- Newport: Reconfiguration of the intersection of Sunapee Street / Main Street.

Mode Share

- The percentage of commuters who commute to work by bicycle statewide: 0.3% and in the UVLS RPC: 0.4% (Target is 1%).
- The percentage of commuters who commute to work by walking statewide: 3.1% and in the UVLS RPC: 6.1% (Target is 7%).



Two maps depicting Bicycle Level of Service (BLOS) analysis and Pedestrian Level of Service (PLOS) analysis for each of the state and urban compact roads in the region follow the mode share portion. The maps show each of the aforementioned roads using colors indicating one of three categories:

- Good Conditions = LOS A/B
- Fair Conditions = LOS C/D
- Poor Conditions = LOS E/F

Bicycle Level of Service is a quantitative measure of a roadway’s suitability for bicycle traffic, through the lens of bicyclists’ perceived level of safety and comfort. The analysis requires inputs including vehicle speed, proportion of heavy vehicles, pavement condition, lane width, on-street parking, shoulder width, and traffic volume. Pedestrian Level of Service, similar to the explanation above, utilizes traffic volume, shoulder width, on-street parking, sidewalk presence, sidewalk width, and vehicle speed. The goals for the RPC include using Performance Measures to actively score each of the roads in the regions using BLOS and PLOS. The current score in the region for both modes of active transportation is a “D”, with the 2030 Target is for the average score to be a “C”.

The report includes a map of specific bicycle and pedestrian related improvements. Examples include:

- Claremont: Implement the improvements identified in the Bobby Woodman Rail Trail Action Plan.
- Enfield: Construct sidewalks along US 4 between Main Street and the Canaan Town Line.
- Lebanon: Construct multi-use path on east side of NH 120 between I-89 exit 18 and Hanover town line.
- New London: Complete Elkins Village transportation enhancement projects to improve sidewalks.

Due to the funding issues outlined in the introduction, improving the pedestrian and bicycle network in the UVLSRPC will require strong local funding commitments according to the report. Projects funded through public-private partnerships may have a higher probability of being realized. Two recent examples of public-private partnerships in the region include the Mascoma River Greenway in Lebanon and the new Riverwalk pedestrian bridge in Sunapee. Finally, Planning Boards can utilize the development review process to require that developers build sidewalks and bicycle infrastructure in all new development.



The plan includes a Pedestrian Level of Service Analysis map, highlighting the level of comfort along the roadways in the UVLS RPC

Funding Sources

A New Hampshire statute allows towns to charge \$5 on the vehicle registration fee for any transportation need in the community. Approximately 31 towns in the state are utilizing this fee as a funding source for investment in alternative transportation. For example, Lebanon uses the funds for public transportation while Hanover utilizes the revenue for bicycle and pedestrian facilities.

4. Southwest Connects: Southwest Transportation Plan 2015-2035, January 2015

The Transportation Planning Approach for the Southwest Region includes a variety of goals and objectives, some of which specifically include walking and bicycling:

Goal 3: The transport system will provide people of all ages and abilities timely access to goods, services, recreation, entertainment and companionship.

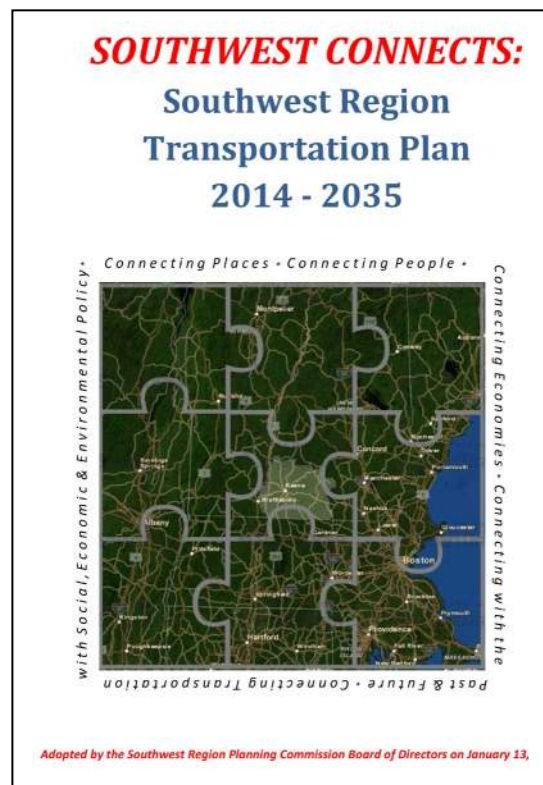
- Objective D: It will support and encourage local efforts to improve street, sidewalk, bicycle path and virtual connectivity as well as land use practices that reduce overreliance on building transportation capacity or requirements for long-distance transportation solutions

Goal 4: “The transport system will be designed and managed to eliminate fatalities and injuries as well as provide reassurance to the traveling public that they are safe.”

- Objective C: It will address “incomplete streets” and its effect on the traveling public’s comfort level while walking, biking or using transit.

According to the SWRPC and NHDOT, the region currently features:

- 103 miles of sidewalks
- 45 miles of hardpack or paved multiuse paths
- 193 miles of 4’ shoulders suitable for bicyclists
- 1 mile of bike lanes
- 36 miles of abandoned rail ROW
- Rail trails include:
 - Ashuelot Rail Trail
 - Fort Hill Branch Rail Trail + Fort Hill Recreation Trail
 - Cheshire Rail Trail
 - Manchester / Keene Branch Rail Trail
 - Jaffrey-Rindge Trail
 - Mason-Railroad Trail
 - Greenville Rail Trail
 - Peterborough’s Common Path
 - Hillsborough-Bennington Trail
 - Monadnock Branch Rail Trail



The plan breaks each of the region’s major transportation corridors into Corridor Profile Summaries -- sections of the report that summarize existing conditions, highlight issues, as well as discuss

demographic characteristics like jobs and housing trends. The following list summarizes challenges related to bicycle and pedestrian access and safety on primary corridors:

- Keene’s Multi-use path is currently broken up by parking lot development in the vicinity of Colony Mill (NH 9 West Corridor).
- Coordination required between Keene and NHDOT to find funds to provide a safer north-south crossing for Ashuelot Branch Rail Trail that parallel’s NH 10 south (NH 10 South Corridor).
- Downtown Winchester making efforts to expand sidewalk system for numerous walkers, challenges of ongoing maintenance and new sidewalk construction (NH 10 South Corridor).
- There is a segment of the Cheshire Rail Trail that is impassable due to neglected maintenance (NH 12 North Corridor).
- Safety improvements are needed at NH 101 where pedestrians cross from Marlboro Street to access the Ashuelot Branch Rail Trail (NH 12 South Corridor).
- There are administrative challenges maintaining the Cheshire Rail Trail near downtown Troy where there are sandpits, illegal dumping, and broken glass (NH East 101 Corridor).
- Coordination is required between Keene, Keene State College and NHDOT to perform maintenance of bicycle and pedestrian bridge underpass on NH 12 at Keene State College (NH East 101 Corridor).
- Peterborough is in need of a safe pedestrian crossing over US 202 for middle schoolers at South Meadow School (NH202 North Corridor).
- Peterborough Common Path is disconnected with rail trail continues in Jaffrey and Rindge. Coordination between towns would be beneficial (NH 202 South Corridor).

State policies and funding levels have profoundly shaped the transportation system, and affect bicycle and pedestrian facilities. The SWRPC report states that “state funding for walking, bicycling, and rail does not exist and these are traditionally paid for with federal and local funding.” (pg. 27)

The report lays out the ways that municipalities can improve walking, biking, and transit conditions in their community:

- Planning boards set land use and transportation goals and objectives, and integrate them into Master Plans, which can prioritize walking and bicycling facility projects.
- Zoning, site plan, and subdivision regulations can require new developments or existing infrastructure upgrades to implement walking and bicycling facilities.
- A municipality’s governing body can use its Capital Improvement Program to improve walking and bicycling facilities.
- More communities are officially adopting Complete Streets policies that require pedestrians and bicyclists are planned and designed for in all new infrastructure projects and roadway changes or upgrades.
- The NH RSA 261:153 VI is a \$5.00 vehicle registration fee that provides funding specifically for alternative modes of transportation.

5. Central New Hampshire RPC: Transportation Improvement Program, FY 2019-2028, April 2017

The FY 2019-2028 Transportation Improvement Program (TIP) consists of a list of transportation projects for the Central New Hampshire RPC (CNHRPC) region that are consistent with the goals and vision established in the comprehensive Regional Transportation Plan, adopted in April, 2015. The TIP was adopted by the CNHRPC Full Commission on April 13, 2017.

The importance of properly incorporating pedestrian and bicycle infrastructure in the design of all transportation infrastructure improvements is clearly stated in the report. Additionally, “there is also a great need for new and improved standalone bicycle and pedestrian infrastructure.” Four specific projects that were not funded from NHDOT’s 2016 Transportation Alternatives Program are highlighted:

| 2016 TAP Un-funded Projects | | | |
|-----------------------------|-----------------------------------|---------------|------------|
| Town/City | Location/Project Name | Regional Rank | State Rank |
| Concord | Merrimack Greenway Multi Use Path | 1 | 15 |
| Bradford | West Main St Sidewalks | 2 | 14 |
| Pembroke | US 3 Sidewalks and Multi Use Path | 5 | 40 |
| Henniker | Western Ave Sidewalks | 5 | 40 |

Pedestrian/Bike Related Regionally Significant Projects:

- Center turn lane, improved pedestrian / bicycle facilities: US 4 King Street, Boscawen. \$1.4m.
- Improved pedestrian / bicycle facilities / Complete Streets: NH 103/Main Street, Warner. \$0.91m.

Pedestrian/Bike Related Regional State Highway System Projects:

- Merrimack River Greenway Trail: Concord. Connects to the eventual terminus of the “Northern Rail Trail” at the Boscawen Town Line to the proposed “Salem to Concord Bikeway” at the Pembroke Town Line. Roughly 15 miles long. \$15m.

Pedestrian/Bike Related City of Concord Urban Compact Projects:

- Broadway Street/West Street Intersection: Improved pedestrian access and crosswalks, Concord. \$1.13m.

Pedestrian/Bike Related Ten Year Plan Projects (Considered Funded):

- NH28 and Main Street Intersection Improvements: Includes pedestrian signals. Town of Chichester. \$1.68m.
- NH106 and South Village Road Intersection Improvements: Includes sidewalks and pedestrian crossings, Town of Loudon. \$1.4m.

Urban Compact Highway System Project:

- US Rt. 3 Corridor Improvements: Includes defined shoulders and curbed sidewalks, Concord. \$7.87m.

5.1 Central New Hampshire RPC and Southern New Hampshire Planning Commission: Regional Trails Plan, 2012, Salem – Manchester – Concord (Adopted January 10, 2013)

This plan creates a vision for a regional trail network that offers non-motorized transportation and recreation opportunities and connects communities and open spaces between Salem and Concord. It was created jointly by the Southern NH Planning Commission (SNHPC) and the Central NH Regional Planning Commission (CNHRPC) under the guidance of the Regional Trails Coordinating Council (RTCC).

The plan identifies both individual trail projects as well as a needs assessment to help local groups develop their trails plan into a regional network.

The RTCC is made up of at least a dozen trail groups, agencies, non-profits, and folks who attend in RTCC meetings as well as others who share the goal of developing a regional trail network between Salem and Concord. Bringing local stakeholders, government agencies, non-profit groups, and private businesses together enables the RTCC to develop consensus on priorities of trail location and development.

The plan includes maps of the general study area, existing trails, and planned trails. The planned trail system maps show a clear north-south trail alignment that would become the “back bone” of the regional trail system. This alignment was envisioned in the 2003 Salem to Concord Bikeway Study. This proposed trail alignment, titled the “Granite State Rail Trail” will connect to existing trails in Methuen, MA as well as to the planned extension of the Northern Rail Trail – ultimately creating a connection from Lebanon to the NH/Mass. line in Salem, NH. Several east-west spurs will connect the trails to communities adjacent to the back bone.



Challenges to Implementation

Salem – Manchester: A gap in the abandoned Manchester and Lawrence (M&L) railroad corridor exists at the Manchester-Boston Regional Airport due to a runway that now extends across the former M&L alignment

Manchester – Concord: Administrative barriers have prevented the development of a rail-with-trail alongside an active rail corridor downtown Manchester to Hooksett District Court building.

Concord Northward: The absence of an abandoned rail corridor represents the primary challenge to implementation from Concord to the existing Northern Rail Trail in Boscawen.

East-West Spurs: The existing 40-mile-long Rockingham Trail currently ends in the outskirts of Manchester and does not link to other trails or Downtown Manchester.

Bridges: There are a number of locations where a bridge would be required to cross a busy road or a river. Several potential bridge locations include:

- Over the Piscataquog River to connect the Piscataquog Trail to the Goffstown Rail Trail
- In Manchester at Queen City Avenue
- In Londonderry at Mammoth Road and Rockingham Road
- In Salem at Rockingham Park Boulevard
- Crossing the Suncook, Soucook, and Merrimack Rivers

Catalyst Project Locations

The RTCC identified locations for potential new trails along abandoned railroad corridors or other routes with high potential for trail connectivity. These project locations are located in areas either without local trail groups moving the project forward, or where the existing local trail groups are more engaged on other projects:

- “A riverfront trail along the Merrimack River in Bedford, which could be continued south for a connection to Nashua. A trail here could have exceptional recreation and transportation value, and would be anchored by two large population centers.
- A trail along an abandoned railroad corridor from Suncook Village through Pittsfield and Barnstead, which once was the route for the “Blueberry Express” train.
- Development of a trail along the abandoned Portsmouth and Concord Railroad in Candia and Hooksett.
- Extension of the Goffstown Rail Trail on the abandoned corridor to connect to the developing New Boston Rail Trail.
- Development of the former Concord and Claremont Railroad through Hopkinton to Warner and beyond, or from Henniker and Hillsborough to the existing multi-use trail in Hillsborough and Deering.
- Further improvements to the Rockingham Recreational Trail east into Derry and beyond and west into Windham and beyond.” (pg. 13)

The plan includes a detailed table that identifies needs, including whether ROW changes are required, or if there are identified external funding sources. The plan further discusses trail funding sources, maintenance and user counts, and the enforcement of the use of all-terrain vehicles (ATV) on trails. In the section on funding sources, a noteworthy example of a non-federal funding source is the Windham Rail Trail, which “was begun by the developer of an adjacent housing development who recognize the value of a trail to his development.” (pg. 17.)

The remainder of the Regional Trails Plan 2012 includes maps that show trails within each community and a table that includes trail characteristics as well as information about the local trails group, contact information, and upcoming trail projects.

6. Southern New Hampshire Planning Commission, FY 2017 – FY 2040, Regional Transportation Plan, January 2017

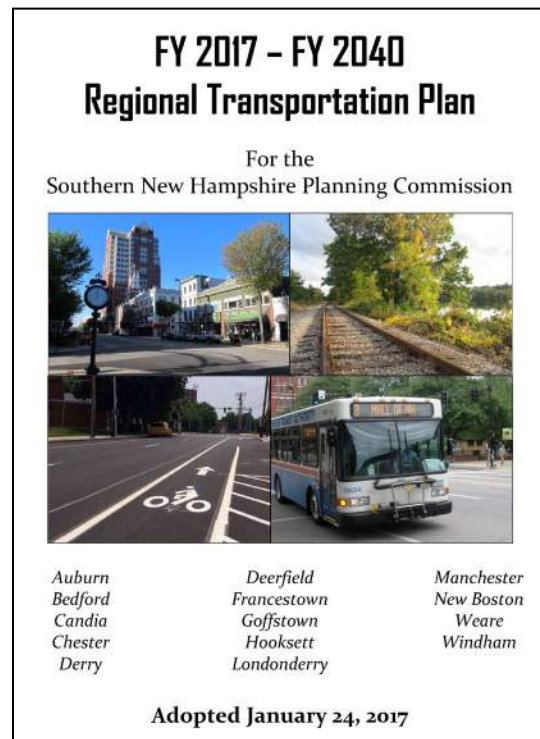
Chapter 2.7, titled Regional Goals for Alternative Modes of Transportation, lists the following five goals:

1. “To encourage the use of alternative modes of transportation such as walking and cycling through participation in a planning process that supports the development of a multi-modal transportation system for the region.”
2. “To facilitate the use of alternative modes of transportation and promote livable and sustainable communities by pursuing regional opportunities to plan for higher density mixed-use developments in town centers and other appropriate locations.”
3. “To ensure that pedestrian and bicycle transportation components are properly incorporated into the design of transportation infrastructure improvements.”
4. “To support investment in and assist member communities in pursuing funding for projects involving alternative modes of transportation improvements.”
5. “To encourage communities to adopt a Complete Streets policy, to routinely design and operate the entire right of way to enable safe access for all users, regardless of age, ability, or mode of transportation.”

The SNHPC has participated in various Safe Routes to Schools projects in member communities as well as demonstration projects. The SNHPC is also participating in the Regional Trails Coordinating Council (RTCC) with NHDOT and CNHRPC, among other stakeholder groups. Formed in 2010, the RTCC is tasked with assisting member organizations to develop a comprehensive trail plan (trail plan formally adopted January, 2013). The RTCC provides a forum for collaboration to connect existing and planned trail networks across municipal lines, and follows their adopted Strategic Plan, which is to:

1. Provide data and maps on existing trails;
2. Identify and map a planned regional trail network;
3. Catalog existing trails and active trail groups in the region;
4. Roughly outline funding opportunities for trails;
5. Recommend strategies for marketing trails and conducting outreach;
6. Recommend methods for continued coordination between trail groups;
7. Provide various recommendations to assist in implementation of the plan and the development of the regional trail network; and
8. Describe the RTCC’s origin, purpose, vision, mission, and goals.

Portions of the regional trails system remain incomplete. The RTCC identifies and pursues sources of funding, developing fundraising platforms, bike tours, and prioritizing trail sections to be completed. The



SNHPC appears dedicated to the promotion of pedestrian and bicycle infrastructure, and generally furthers those goals by supporting the following objectives:

- Establishing a continuous and coordinated regional bikeway and pedestrian walkway system, ensuring that this regional system is well linked with local municipal systems and adjacent systems in adjacent towns and regions;
- Making biking and walking safer;
- Creating a traveling environment that provides an inviting, viable alternative to motorized travel;
- Promoting public awareness and acceptance of bicycling and walking as attractive, viable transportation and recreation modes;
- Participating in and promoting SRTS activities in the SNHPC region; and
- Fully and meaningfully integrating bicycling and pedestrian needs into the land use planning, transportation planning, highway design, and highway maintenance process.

The report notes that existing land use patterns often create obstacles to implementing safer and comfortable pedestrian and bicycle facilities. The ability for individual municipalities to plan for safer and comfortable pedestrian and bicycle facilities varies widely across member communities. SNHPC proposes the following changes to policies and regulations pertaining to pedestrian and bicycle facilities:

- **Land Use** by making development more compact and reducing distances between origin and destination points;
- **Engineering** practice by supplying adequate facilities and seriously considering bicycle and pedestrian needs at every stage of the planning and development process;
- **Education** concerning automobile, pedestrian and bicycle safety;
- **Encouragement** by building community support and awareness, and by assisting private and public sector businesses to increase employee levels of biking and walking; and,
- **Enforcement** by more strictly implementing existing laws to strengthen the education element.

The report ends with the Fiscally Constrained Projects List:

- Manchester – 29811 – South Manchester Rail Trail – Construct multi-use path along the abandoned rail corridor from Gold St to Perimeter Rd. FY 2017 cost: \$1.42m (From the SNHPC TIP FY 2017-2020)
- Multiple Muni’s – 12881 – Transportation Alternatives Program - \$19.15 million (From the SNHPC Regional Transportation Plan FY 2021-2026)
- Deerfield – NH107 - \$0.65 million. Bicycle Lane. FY 2031. (From the SNHPC Regional Transportation Plan FY 2027-2040)
- Derry – Bike Path / Trail - \$0.75 million. Extend to Londonderry Town Line along B & M Rail corridor. (From the SNHPC Regional Transportation Plan FY 2027-2040)

7. Nashua RPC, Metropolitan Transportation Plan, 2015 – 2040, Adopted December 2014

The Transportation Technical Advisory Committee (TAC) Vision to guide the development of the Nashua Region Metropolitan Transportation Plan (MTP):

“The Nashua Region has a comprehensive and reliable multi-modal transportation system that enables universal access for all travelers, including disabled, youth, and seniors, to all points within and beyond the region. Our transportation system enables a highly mobile community and promotes economic growth, public health, and



enhances the natural environment. The Transportation system is adaptable to changes in demographics, economic conditions and energy related forces. Sufficient funding supports the operations, maintenance and expansion of our transportation infrastructure to continuously meet the needs of the region.”

The Bicycle and Pedestrian Facilities chapter highlights the existing conditions of the bike and sidewalk network in the Nashua RPC. 2% of residents of the region walk or bike on their commute trips. Across the region, 28% of residents and 27% of jobs are located within a half mile of downtowns or town centers. Municipal efforts to improve bicycle and sidewalk infrastructure have included:

- Nashua – expanded the Riverwalk along the Nashua River near downtown
- Brookline – Expanded sidewalk facilities in its village center
- Pelham Village – Two roundabouts will improve pedestrian comfort
- Amherst – Plans are in development to improve pedestrian conditions in the area surrounding local schools and the village center
- Merrimack – Recently completed a sidewalk and trail plan for the center of town
- Milford – Town-wide bicycle and pedestrian master plan in development

Overall, sidewalk networks are best developed throughout Nashua and in the town centers of Milford, Hudson, and Wilton. The Town of Merrimack has over 20 miles of sidewalks, but they are not well connected and primarily serve residential neighborhoods. Adjacent to the Sagamore Bridge is the only dedicated bicycle / pedestrian crossing of the Merrimack River in the region.

Many residents made it clear that the majority of roads in the region do not offer comfortable pedestrian or bicycle facilities. Further, they indicated a strong desire for investments in pedestrian and bicycle infrastructure and amenities, particularly along the 101A corridor due to the proximity to retail, residential areas, and jobs. While striped shoulders provide a basic level of bicycle accommodation, there are few intersections with crosswalks and no sidewalks. The corridor remains unattractive for walking and bicycling.

The 2014 plan references a specific goal from the 2005 plan to “Increase awareness of biking and walking as a viable means of transportation.” The 2005 plan recommended the establishment of a bicycle / pedestrian Technical Advisory Committee to ensure implementation of proposed facilities.

Crashes

Between 2003 and 2013, the majority of motor vehicle crashes involving pedestrians and bicyclists occurred in and around Nashua and Hudson's town center. Other high crash locations include Daniel Webster Highway in Merrimack, East Milford, and the eastern terminus of the Hudson Circumferential Highway.

7.1 Nashua RPC, The Nashua Region: A Story Worth Telling

Residents consistently said Downtown Nashua and the Milford Oval area are models for vibrant, mixed-use and walkable neighborhoods. The Oval serves as a local business hub and is home to many restaurants and other retail shops and offices. However, the region lacks an integrated pedestrian and bicycle network across communities.

During the plan's public outreach process, residents consistently advocated for greater investment in alternative transportation modes. The expansion of walking and bicycling options and the introduction of rail service connections was strongly advocated.

8. Rockingham Planning Commission, 2040 Long Range Transportation Plan, Adopted October 2017

The Rockingham LRTP includes an existing conditions chapter that summarizes land use patterns, demographic and commute level data, and information on highways, local roads, public transit, freight facilities, and bicycle and pedestrian facilities. Between 2000 and 2015, both Portsmouth and Exeter saw modest increases in the percent of people who commute by bicycle or walked to work. Additionally, between 2003 and 2015, there was a reduction in the number of crashes that resulted in injury to a pedestrian or bicyclist.



A key policy of the RPC is to improve the safety and convenience of non-motorized transportation and reduce the number of vehicle miles traveled. Additionally, the report acknowledges the needed investment in not just pedestrian / bicycle infrastructure but programs and enforcement as well.

An inventory of paved off-road paths includes:

- The Southern NH Rail Trail being developed between Salem and Concord
- The recently completed Pease Multi-Use Path at the south entrance to the Pease Trade Port
- A path connecting Fox Point Road in Newington to the Trade Port
- A side path in Odiorne State Park

Planning is underway for:

- The New Hampshire segment of the East Coast Greenway

- “The State plans to purchase a 9.7-mile segment of the Hampton Branch rail corridor between Hampton and Portsmouth for use as a rail trail. The State already owns the southern 4.5 miles of the corridor between Hampton and the MA border, on which the Town of Seabrook is actively pursuing rail trail development.”

The RPC has secured funding for and completed shoulder widening projects that helped to create:

- The Great Bay Bicycle Loop
- The Exeter-Hampton-North Hampton Bicycle Loop
- New Hampshire Coastal Byway

Success of these and other projects can depend on the level of involvement and match funding by the municipality. NHDOT has a formal policy to add shoulder width for *de facto* bicycle routes when state highways are repaved, and District 6 has narrowed some travel lanes from 12 feet to 10 - 11 feet to gain shoulder width as well.

The report highlights the support facilities to encourage bicycling, such as shower facilities, secure indoor bike parking, secure bike parking at bus stops and transit stations, along with bike racks on the front of buses.

9. Strafford Metropolitan Transportation Plan 2017 – 2040, December 2017

The report notes that improvement and expansion projects like ones along NH 108 and NH 16 are not a sustainable, long-term solution where a growing population is comprised mostly of drivers who commute by car, alone. Long term solutions need to look beyond of capacity and remove vehicles from the road. This can include designs for public transportation, safer and attractive bicycle and pedestrian infrastructure, and promotion of other choices other than personal automobiles.

- Newmarket – NH 108 at NH 125: Increase shoulder width on bridge to facilitate alternate modes. Grant Road over the Piscassic River: Increase shoulder width to provide safer conditions for pedestrians and bicyclists
- Rochester – NH 125 at Charles Street: Intersection realignments to improve safety for bike and pedestrian facilities. Rochester: Between Strafford Square roundabout and N. Main Bridge: Intersection and streetscape improvements to realign intersections and improve safety for bicyclists and pedestrians. US 202, east of NH 16: Sidewalk upgrades, streetscaping, bike lanes, and traffic calming to improve livability. Salmon Falls Road: Build sidewalks in residential areas, roadway improvements include bike lanes. Rochester: Old Dover Road, between 125 and Tebbetts Road: Widen shoulders and strip pedestrian lane / bike lane.
- Somersworth – Blackwater Rd between NH 108 and NH 9 – Improve safety, upgrade pedestrian infrastructure. Blackwater Rd and NH 9: Potential roundabout. Realign intersection and improve safety by adding facilities for pedestrians and bicyclists.

10. Statewide Planning Reports

10.1 New Hampshire Outdoors 2019 – 2023 Statewide Comprehensive Outdoors Recreation Plan (SCORP), NH Department of Natural and Cultural Resources

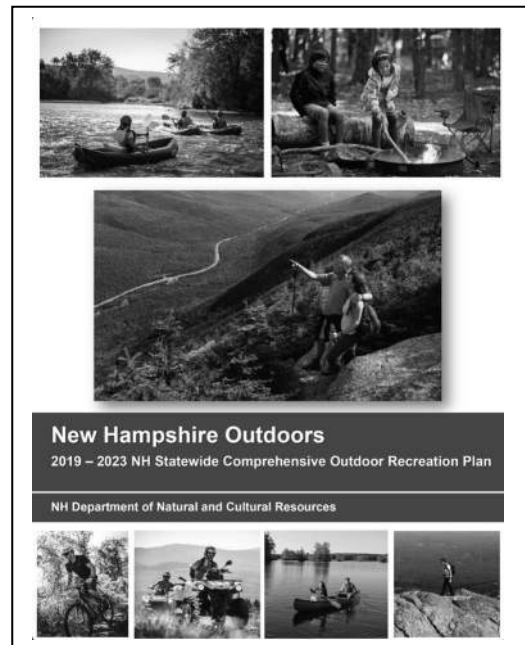
Outdoor Recreation Trends

In 2017, the Outdoor Foundation (OF) released its “Outdoor Recreation Participation Report.” The report notes a decline in participation by youth in outdoor activities, however economic changes and shifting demographics contributed to the following findings:

- Activities with the highest percentage of first-time participants in 2015 included traditional (on-road) road triathlons as well as off road triathlons, among other sports
- Among youth ages 6 to 17, bicycling is the most popular outdoor activity

The popularity of mountain biking has grown quickly in recent years in New Hampshire and throughout the country. The Outdoor Foundation’s 2017 Participation Report listed road, mountain, and BMX biking as the second most popular outdoor activity for those 6 and above. Data analyzed in Vermont indicated that just four trail networks in that state generated nearly \$30 million in economic impact from out-of-state visitors.

Many mountain biking trails exist throughout New Hampshire, including Highland Park, Parker Mountain, and Stratham Hill Park. Keeping tabs on the growth of these locations will help determine the likely economic contributions by a growing number of mountain bike visitors to the state in the future.



Expressed Demand for Outdoor Recreation in New Hampshire

Municipal officials in New Hampshire identified developed recreation facilities as areas of need within their communities. The 14 categories appear in order of the highest percent of a given facility that is “unavailable & inadequate.” The number one Outdoor Recreation Facility with the highest percentage Unavailable and Inadequate is “bike lanes / paths” at 65% unavailable. The fourth highest is “multi-purpose (non-motorized) trails” at 46% unavailable.

Municipal officials identified numerous priorities to help steer funding towards outdoor recreation projects. 60% of survey responders agreed that “Build pedestrian and cycling paths between places of work, parks, schools, and shopping areas” was important. 23% of responders were neutral, and 17% thought pedestrian and bicycling paths were unimportant.

Survey respondents were asked to rank Management Priorities for recreation service delivery in NH. 48% of respondents ranked “improving connectivity of community through pedestrian/bicycle linkages” as Medium or High Priority, while 52% of respondents ranked that category as No or Low Priority.

In summary, this report provides statistical evidence to help push municipal officials to steer funding towards pedestrian / bike projects to provide links to outdoor recreation opportunities (as well as serve as recreational outdoor opportunities in themselves.)

Priorities, Goals, Conclusion: Implementing the SCORP

Goal 3.3: Engage in dialogues with healthcare organizations and residents to further explore and explain the economic health benefits of an active community. The NH Dept. of Health and Human Services Obesity Prevention Program (OPP) receives funding from the national CDC that focuses on target areas for obesity prevention, including:

- Creating safe communities that support physical activity
- Improving access to outdoor recreational facilities
- Enhancing infrastructure that supports bicycling and walking
- Enhancing personal safety and traffic safety in areas where people are or could be physically active

This potential funding source should be investigated for getting more bicycle and pedestrian projects funded.

10.2 Granite State Future, The Statewide Snapshot, June 2015

This report is an integrated review of local and regional planning priorities across New Hampshire. The Statewide Snapshot highlights the input gathered from residents through discussions, online surveys, and paper submission. Residents from across the state shared their vision for the future of the state.

A few trends were apparent throughout the Statewide Snapshot, including:

- With limited transportation choices and concerns about the need for more funding to maintain infrastructure, New Hampshire residents expressed interest in expanded public transit networks and more walkable and bikeable communities. Survey respondents overwhelming support investment in bicycle infrastructure: 85% of respondents supported “promoting safe places to walk or bike.”

- Currently, 11.6% of residents commute to work via walk, bike, transit, or means other than single occupancy vehicle. Successful implementation of the identified opportunities within the report should increase that figure.
- State residents expressed a desire for a variety of housing choices in walkable neighborhoods. New Hampshire's existing housing supply (primarily large-lot, single family homes) is poorly aligned with projected demand of future consumer preferences based on changing demographics. Although compact homes and housing in highly walkable areas is increasingly popular, certain regulations either discourage or prohibit those options. The adoption of a more flexible regulations will help individual municipalities plan future land use in response to market needs.
- Encourage NHDOT to utilize multimodal traffic calming strategies while incorporating transit, pedestrian, and bicycle facilities in concert with reviewing land uses that create new traffic demand. This could tie in with the project scoping and driveway (curb cut) permitting process to plan for safe and attractive pedestrian and bicycle facilities on all new and reconstructed roadway projects.
- In order to foster more transportation choices, local municipalities should explore the following potential strategies:
 - Adopt a Complete Streets policy to ensure that roadway projects serve all transportation modes
 - Require streets, sidewalks, and walkways to connect to adjacent properties, including properties not yet developed
 - Require sidewalks on both sides of the street in new developments
 - Require bicycle parking facilities within 50 feet of primary and well-used entrances for all office, multi family, and freestanding commercial uses in appropriate zones.
 - Define appropriate zones where new subdivision roads would be accommodated with sidewalks and crosswalks where appropriate
 - In rural areas where sidewalks are not required, ensure adequate right-of-way widths to accommodate future sidewalks as needed
 - Require new subdivision developments that have sidewalks to connect with existing sidewalk facilities
 - Within new subdivision projects require road design and driveway locations that minimize the number of conflict points and hazards between automobiles and bicycles/pedestrians.
 - Ensure pedestrian walkways are clearly visible and delineated to assure the selection of effective walking routes to and within a site.
 - Ensure pedestrian facilities are designed for ease of maintenance



- Require appropriate amenities (e.g. landscaping, trees, benches) to enhance the walking experience
- Require street lighting and clear sightlines to maximize pedestrian safety.

10.3 NH State Development Plan, New Hampshire in The New Economy: A Vision for Expanded Prosperity, 2000

This report serves as the state’s overall planning document and acts as a guide for state agencies as they establish priorities to help allocated limited funding. The plan helps by accounting for the plans of local and regional government bodies and also reflects the vision of the state’s citizens. It also highlights the importance or interconnected, intermodal transportation, specifically mentioning bicycle and pedestrian modes of travel.

Chapter 7, titled Investing in Essential Infrastructure, includes a recommendation that the state “expand the availability of intermodal access points such as Park-and-Rides that connect to rail and/or bus systems or other public transit and incorporate bike paths and pedestrian walkways.” (pg. 41)

The remainder of the report focuses on strengthening the economy with targeted investments in the workforce, traditional motor vehicle-focused infrastructure, telecommunications, and managing the state’s population growth.

10.4 Your Guide to Promoting Walking & Bicycling Accommodations in New Hampshire

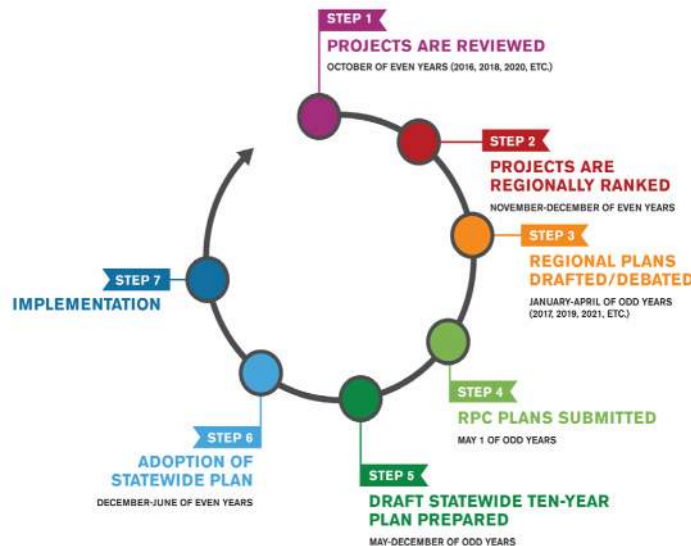
The New Hampshire Pedestrian and Bicycle Stakeholder Guide was developed on behalf of the New Hampshire Department of Transportation (NHDOT) and its Bicycle & Pedestrian Transportation Advisory Committee (BPTAC). The guide informs bicycle and pedestrian stakeholders on how to collaborate with transportation agencies to increase the profile of bicyclist and pedestrian transportation accommodations during the planning and design process for all transportation projects. The guide provides general best practices along with New Hampshire-specific information about transportation planning and funding. The document also includes a design guide focused on interventions for different contexts. The tone prioritizes accessible design and language for this public-facing document.

The plan includes helpful information on how the public can influence existing transportation plans and projects resulting in long-term changes. The plan includes specific steps involved in effectively promoting active transportation:

- Understanding the technical aspects
 - Funding processes, the differences between Capital Improvement Program projects and maintenance projects such as resurfacing program projects



- Understanding governmental processes
- Ability to engage the people with the potential to influence project designs and funding
 - Public Officials, Engineers & Planners, Local Businesses
- The various levels of representation for garnering interest in active transportation accommodations
 - Local Efforts: Towns and cities are in charge of constructing and maintaining their local roads and state numbered highways within Urban Compacts. Some key players may include The Town Manager, Select Board, or City Council, Planning Department, and Department of Public Works.
 - Regional Efforts: New Hampshire’s nine Regional Planning Commissions (RPC’s), four of which serve as federally required Metropolitan Planning Organizations (MPO’s). RPCs support transportation projects within and through their regions by collecting data and reviewing allocation of state funds. Each RPC also has a Transportation Advisory Committee (TAC), with a representative from each municipality serving on the TAC to ensure equal distribution of projects across the region.
 - State-level Efforts: To have a potential project move forward that would require some state or federal funding, it must be added to the state’s Ten-Year Plan. The Ten-Year Plan lists approved transportation projects, their costs, and funding sources. To have a project included in the plan, it must go through the seven steps shown in the adjacent graphic.



Ten years’ worth of projects and their funding sources are identified during a two-year process.

The remainder of the plan includes a Design Guide that provides a firm understanding of minimum widths, additional resources, vocabulary, and illustrated examples of a variety of conventional and innovative active transportation infrastructure options.

10.5 NH Long Range Transportation Plan, July 2010

The NH Long Range Transportation Plan outlines the strategic vision for the New Hampshire Department of Transportation and the State for a 20-year timeline. The document “articulates a future vision for the State in which transportation will play an active role” to preserve New Hampshire’s unique character, quality of life, enhance the quality of the natural environment, and promote economic development and land use. The Plan’s recommendations are supported by the four Strategic Outcomes that were the result of the Community Advisory Committee and public outreach process from Spring 2006. The four strategic outcomes are:

1. Unify transportation planning and investment with broader state goals and actions
2. Integrate planning and investment decision-making across all transportation modes, facilities, and services
3. Increase investment in the areas of transportation infrastructure preservation and maintenance, travel demand management, and travel choices
4. Establish new, more cost-effective collaborative partnerships to better leverage resources and to achieve long term goals

The New Hampshire Transportation Vision specifically mentions bike and pedestrian connections:

“Transportation in New Hampshire is provided by an accessible, multimodal system connecting rural and urban communities. Expanded transit and rail services, a well-maintained highway network and airport system provide mobility that promotes smart growth and sustainable economic development, while reducing transportation impacts on New Hampshire’s environmental, cultural, and social resources. **Safe bikeways, sidewalks, and trails link neighborhoods, parks, schools, and downtowns.** Creative and stable revenue streams fund and organization that uses its diverse human and financial resources efficiently and effectively” (pg. 4).



| Category | Maintenance | Preservation | Modernization | Expansion |
|------------------------|-------------|--------------|---------------|-----------|
| Bus Transit | | | | |
| Heavy New & Exp | | | | |
| Highway | | | | |
| Rail Freight | | | | |
| Bicycle | | | | |
| Prohibition | | | | |
| Non-motorized Facility | | | | |

The recommended strategy includes “actions, policies, programs, and investments specifically tailored to work in a coordinated fashion toward achievement of the plan’s Vision and Goals.” The strategy encompasses the realities of “travel needs and trends of today and recommends a shift in investments to better position the state to remain economically competitive and meet multiple challenges” (pg. 5). The strategy includes:

- “Place renewed emphasis on the preservation of existing transportation infrastructure over added capacity
- Create new opportunities for travel choices in tandem with transit and pedestrian-supportive land uses and travel demand management”

Key initiatives include reducing fatalities and serious injury, keeping existing transportation infrastructure in good operating condition before building additional capacity, and developing decisions based on rigorous discussion of problems, values, and priorities with stakeholders in the community.

In the Important System Issues portion of the plan, the lack of facilities to accommodate bicyclists and/or pedestrians is mentioned, followed by a lack of 'Complete Streets'.

In the Bicycle and Pedestrian Systems chapter, the plan indicates that:

- There are numerous Regional and Local On-Road Bicycle Routes or Networks along ~4,000 miles of roadway
- "The State owns 23 abandoned / inactive rail corridors totaling approximately 315 miles with many suitable for walking and hiking, but not bicycling due to unimproved surfaces"

Important Systems Issues include:

- "More effective integration of bicycle and pedestrian facilities is needed with the planning, design and construction of roadways through context sensitive solutions to create Complete Streets
- Local street networks with a high degree of connectivity are needed to provide low traffic volume bicyclist and pedestrian route alternatives from busier arterial and collector roads
- The level of bicycling and walking is dependent on land development patterns at sufficient density, proximity to destinations, a mixture of land uses, and the availability of safe, convenient and attractive facilities"

Livability

NHDOT recognizes that livability is a new topic of focus for understanding strategic transportation investments. The FHWA defines livability as "efforts that tie the quality and location of transportation facilities to broader opportunities such as access to well-paying jobs, affordable housing, quality schools and safe streets" (pg. 31). NHDOT is supporting the concept of livability by utilizing Context Sensitive Solutions (CSS) process for the design of transportation projects by engaging stakeholders and building consensus around the projects' design. The goal is to ensure that the project 'fits' the community and meets its needs, as well as the state's transportation system. The process "has led directly to the inclusion of bicycle and pedestrian elements in projects that may not have previously had them prior to CSS" (pg. 32).

NHDOT allocates funds to municipalities through the traditional Transportation Enhancements (TE) program, the Safe Routes to Schools (SRTS) program, and the Congestion Mitigation Air Quality (CMAQ) program to "oversee the design and construction of planned bicycle and pedestrian infrastructure" (pg. 32). The TE program provides federal funds to communities to implement planned bicycle and pedestrian improvements, and has been successful by allowing municipalities to manage the projects, overseeing design and construction.

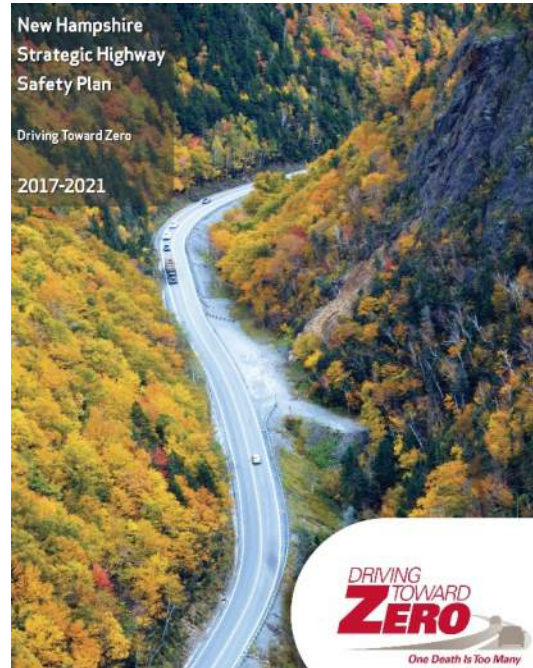
Bike-Ped Related Goals

The LRTP document has a variety of goals and objectives. Goal 2: Mobility & Modal Choice is described as to "provide mobility, accessibility, and modal choice to meet existing and future travel needs of people and goods" (pg. 44). The objectives for Goal 2 include "increase the use and availability of transit, rideshare, bicycle and pedestrian modes" (pg. 44).

10.5 NHDOT Strategic Highway Safety Plan, 2017

The Strategic Highway Safety Plan (SHSP) is a guide for “federal, state, and local agencies; planning commissions; the private sector; and concerned citizens working together to reduce crashes, injuries, and deaths on New Hampshire’s roads” (pg. 5). Since 2007, five-year traffic fatalities have been on a downward trend. The goal of the New Hampshire Driving Toward Zero Coalition is committed to reducing fatalities on New Hampshire’s roads. The strategies to achieve that goal include:

- Develop emphasis area action plans
- Link with other transportation plans
- Develop a communication plan and continue to identify ways to create outreach opportunities to raise awareness and to educate the citizens of New Hampshire about roadway safety
- Create targeted messaging and high visibility enforcement



Bike/Ped related emphasis areas addressed by the SHSP include:

- Impaired driving
- Distracted driving
- Speeding
- Teen traffic safety
- Older drivers
- Crash locations
- Vulnerable roadway users
- Education and public outreach

Impaired Driving + Distracted Driving

Between 2010 and 2014, New Hampshire and the U.S. have seen approximately 30% of traffic fatalities a direct result of alcohol. 2015 was “the first year that drug use was more prevalent than alcohol use in fatal crashes.” New Hampshire state law “bans the use of handheld electronic devices while driving or temporarily halted in traffic. Bluetooth or other hands-free electronic devices are allowed.” (pg. 20.) Distracted driving accounted for 10% of traffic fatalities in 2014.

Among the myriad continuing strategies for both emphasis areas, “Add centerline and shoulder rumble strips on New Hampshire roadways, where warranted” has the largest potential influence on the planning of pedestrian and bicycle facilities.

Speeding + Crashes

Among the strategies to achieve the goal of “eliminate speeding on New Hampshire roadways and the fatalities and serious injuries that occur as a result of crashes caused by speeding” (pg. 25). Similar to speeding, the goal to “reduce roadway crashes resulting in fatalities and serious injuries by 50% by 2030” (pg. 41) both include a focus strategy with potential influence on the planning of pedestrian and bicycle facilities. That goal is to “add curve warning signs on New Hampshire roadways per the Manual on Uniform Traffic Control Devices (MUTCD)” (pg. 25). An additional focus strategy under the speeding goal is to “Evaluate, standardize, and install delineation, signing, and pavement markings on curves” (pg. 42).

Jeff Brillhart, Former Assistant Commissioner of NHDOT, and Rick Schoefer, Hopkinton Fire Department Chief are both quoted in the report as linking the dramatic decrease in roadway departure crashes with the installation of rumble strips along State Routes 202 and 9.

Vulnerable Roadway Users

Challenge: “Between 2010 and 2014, 11 bicyclists and 46 pedestrians were killed on New Hampshire roadways” (pg. 46). Goal: The goal is to reduce crashes involving all vulnerable road users, including motorcyclists, pedestrians, and bicyclists and to improve crash data collection. Additional goals are to improve “education, training, and public awareness of vulnerable road users, leading to the elimination of fatalities and serious injuries for this group” (pg. 47).

Continuing strategies aimed at reducing crashes and increasing awareness include: (all from pg. 49)

- “Consider vulnerable road users in the design, construction, and maintenance of roadway infrastructure. Recommend the use of Complete Streets concepts in Designs.”
- “Encourage passing a Vulnerable Roadway User Law.”
- “Education and awareness of motorcycles, bicycles, and pedestrians:
- “Create a pamphlet of what has changed in laws over the last 20 years to be given to drivers when they renew their license”
- “Develop Public Service Announcements”
- “Education should focus on raising awareness of existing laws: 3-foot passing rule, helmets for those under 16 on bicycles:
- “Identify and implement best practices for improving pedestrian and bicycle safety”
- “Support vehicular cycling classes for 14 to 15-year-olds”
- “Encourage transit agencies to place bus stops on locations that can be safely accessed, and seek funding as needed to improve the safety of roadway crossings with lighting, flashing beacons, and HAWK beacons”
- “Increase funding for pedestrian safety infrastructure and non-infrastructure projects”
- “Improve collection, use, and analysis of data needed for pedestrian safety planning and programming”
- “Increase pedestrian safety-focused coordination among state, regional, and local agencies, including transportation planning and land use efforts”
- “Improve roadway and bikeway planning, design, operations, and connectivity to enhance bicycling safety and mobility to all destinations”
- “Encourage more bicycle travel by improving public attitudes about bicycling as a safe mode of transportation.

