



# New Hampshire

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## State Trails Plan

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New Hampshire Department of Transportation

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## EXECUTIVE SUMMARY

New Hampshire has a significant number of multi-use facilities throughout the state. They include rail-trails, community paths, and other off-street facilities. These facilities are used for recreation, by both residents and visitors, as well as for transportation purposes, such as commuting and access to schools and village centers.

The New Hampshire Department of Transportation (NHDOT), in collaboration with the Department of Resources and Economic Development (DRED), has undertaken the development of the New Hampshire State Trails Plan. This plan is intended to identify existing multi-use trails and corridors with the potential to be developed or improved as multi-use trails, describe the conditions and potential of these trails and corridors for future trail use, and propose guidance for trail development.

### **The State Trails Plan has four principal components:**

- Identification and description of the abandoned railroad corridors that are owned by the State of New Hampshire
- Catalog of other (non-railroad) off-street trails and pedestrian / bicycle oriented projects throughout the state
- A summary of planning studies and documents that address off-street trails, pedestrian accommodations, and bicycle facilities
- Guidelines for developing trails

The State Trails Plan was developed under the direction of NHDOT and DRED, with the active participation of a study Advisory Committee, and with an inclusive public participation process. The study Advisory Committee included representatives of many important trail constituencies, including all of New Hampshire's Regional Planning Commissions (RPCs), the New Hampshire Statewide Trails Committee, the New Hampshire Bicycle and Pedestrian Transportation Advisory Board (BPTAB), the Granite State Wheelmen (statewide bicycle advocacy group), and the Granite State ATV Association. The Advisory Committee met five times and provided feedback over the course of the study. The public process included five public meetings throughout New Hampshire, at which the study's findings were presented, and public input was solicited, both at the meetings and in writing for about a month after the meetings.

### **State-Owned Rail Corridors**

Abandoned railroad corridors represent special opportunities for developing multi-use trails. The State of New Hampshire has purchased railroad corridors from rail companies that discontinued rail service and abandoned the corridors. NHDOT owns most of these corridors, and acquired them principally to protect the corridor for potential future railroad service.

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These corridors can also serve as multi-use trails, and provide transportation and recreation utility. Most of these NHDOT corridors are managed by DRED for interim trail use. Some of these corridors have been improved for use by a wide variety of user groups, while most of the abandoned railroad corridor mileage is unimproved.

The State Trails Plan has identified the state-owned railroad corridors throughout the state. There are a total of 23 such corridors, totaling over 300 miles. The plan includes detailed information on each corridor, including location, length, condition, surface type, allowed uses, nearby destinations and natural features, and future plans, including the potential for rail service restoration and trail development. These rail corridors have also been mapped and provided to NHDOT in a geographic information system (GIS) format.

### **Other Off-Road Trail Projects**

The state-owned abandoned railroad corridors are not the only existing or potential multi-use trails in New Hampshire. There are other off-road trail projects that have been proposed or completed in the state. These trail projects include abandoned or inactive rail corridors owned by entities other than the state, trails that have been improved to accommodate transportation and recreation uses, facilities that provide off-street access to special facilities such as schools or libraries, and bridges and tunnels for non-motorized users.

The majority of these projects have been developed using federal funds allocated through the Transportation Enhancement (TE) and Congestion Mitigation and Air Quality (CMAQ) programs. Working with NHDOT, other state agencies, RPC representatives, and representatives from municipalities, the appropriate off-road trail facilities were identified, described, and mapped in a GIS format.

### **Planning Context**

The State Trails Plan includes a summary of relevant plans and studies, and their findings and recommendations related to off-road trails, as well as planning for bicycle and pedestrian facilities. The plans and studies reviewed and summarized include the *NH Statewide Bicycle and Pedestrian Plan, the 2003 – 2007 Statewide Comprehensive Outdoor Recreation Plan (SCORP)*, *A Plan for Developing New Hampshire's Statewide Trail System for ATVs and Trail Bikes 2004 – 2008*, the *Comprehensive Statewide Trails Study*, the current plans for each Regional Planning Commission (RPC) or Metropolitan Planning Organization (MPO) (depending upon which entity has the governing plan for a given region of the state), and the *Salem to Concord Bikeway Feasibility Study*.

These plans and studies provide background information and describe the planning context, both regionally and at a statewide level, relative to planning and developing multi-use trails. The statewide planning documents include policy recommendations that are designed to improve pedestrian and bicycle access, and enhance outdoor recreational resources throughout the state. The regional and metropolitan plans include more detailed descriptions of existing pedestrian and bicycle facilities, pedestrian and bicycle needs, and recommendations for specific bicycle and pedestrian projects.

### **Guidelines for Facility Development**

The State Trails Plan proposes a set of guidelines for future facilities development, maintenance, and management, based on the study research, the planning context, and input from NHDOT, DRED, other state agencies, the Advisory Committee, and the general public. The public input came through the five public meetings held throughout the state (in Keene, Bethlehem, Lebanon, Portsmouth, and Concord), as well as through a total of 257 written comment forms and letters. These public comments were reviewed carefully and taken into consideration in drafting the trail development guidelines. The guidelines were drafted using the public input as a basis, while still ensuring that the interests of all parties and interest groups are reflected.

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The following are the key issues that were reviewed in establishing the facility development guidelines:

- **Facility use and user type.** As the name suggests, multi-use facilities may be traversed by a wide variety of user types, including walkers, joggers, bicyclists, equestrians, snowmobilers, cross-country skiers, wheelchairs, all terrain vehicle (ATV) riders, dog sleds, and in-line skaters. Many different user types can coexist on multi-use trails, however, there may be some conflicts among user types related to surface type, trail design, environmental considerations, seasonal issues, and enforcement. When multi-use trails are developed, different user groups should be involved in planning the trail design, regulations, and enforcement.
- **Facility design.** Facility design will vary according to corridor condition, user types, and expected usage patterns. Facility designs should safely accommodate all users that are permitted, and should also be sensitive to cost of trail development and ongoing maintenance. The State Trails Plan includes guidelines and typical sections for the design of a variety of facility types, including paved paths, unpaved paths, separate tread paths, and rail-with-trail.
- **Corridor ownership, management and maintenance.** Facilities throughout New Hampshire have a variety of ownership, management, and maintenance structures. Most of the major state-owned abandoned rail corridors in New Hampshire are owned by NHDOT, and managed by DRED, which has experience and institutional structures for trail management. In its role of providing for safe and efficient transportation in all modes, NHDOT should retain ownership of these corridors, and be actively involved in the development and improvement of trails, as well as the preservation of the corridors for potential future rail needs. DRED should remain involved in trail management, and RPCs and municipalities should participate in trail planning, development, and enforcement.
- **Future needs.** A principal objective in acquiring abandoned rail corridors has been NHDOT's goal of maintaining corridors for future rail use. However, multi-use trail development serves important transportation and recreation functions as well. The state-owned abandoned rail corridors should be improved where possible for trail use, either as an alternate use to future rail service, as an interim use, or as an adjunct use (i.e. future rail-with-trail). Regional planning commissions, municipalities, and private sector partners should be involved in trail development in state-owned rail corridors as well as other linear corridors that could support multi-use trail development.

# 1. INVENTORY OF ABANDONED RAIL CORRIDORS

Abandoned rail corridors offer excellent opportunities for developing multi-use trails. After railroad service has been discontinued, the abandoned railroad corridors have ideal characteristics for multi-use trails: they provide continuous linear corridors, often for many miles, with relatively flat grades, bridges over water bodies and roads, and track beds that can be converted to trails. In addition, these corridors typically provide connections to population centers, but between the population centers the corridors may pass through areas that are undeveloped and appealing for recreation and transportation.

The State of New Hampshire owns over 300 miles of abandoned railroad corridors, in 23 different railroad corridors. These were acquired by the State in most cases to preserve the corridors for future rail use. ‘Abandonment’ is a legal proceeding through which the US Surface Transportation Board relieves a railroad of its obligation to provide freight rail service. Most of the corridors are owned by the New Hampshire Department of Transportation and are currently managed for interim recreation use by the Department of Resources and Economic Development (DRED). The corridors are used at present primarily as snowmobile trails. Other recreation uses such as hiking take place but generally the corridors have not been improved to the extent that they can serve as non-motorized transportation facilities. A list of the major state-owned abandoned railroad corridors is provided in Table 1. Several of these corridors have strong potential for future rail use, which limits their potential for active recreational trail development.

**Table 1-1 State-owned Abandoned Rail Corridors**

No.	Railroad Name	Limits	Length (miles)
1	Berlin Branch, Southern section	Haverhill to Littleton	18.9
2	Berlin Branch, Northern Section	Jefferson to Gorham	18.3
3	Upper Coos Railroad	Whitefield to Jefferson	1.9
4	Upper Coos Railroad – Beecher Falls Branch	Colebrook to Beecher Falls	8.7
5	Profile Railroad	Bethlehem	2.0
6	Conway Branch	Ossipee to Conway	21.3
7	Wolfeboro Railroad	Wakefield to Wolfeboro	11.4
8	Northern Railroad, Eastern Section	Boscawen to Danbury	34.0
9	Northern Railroad, Western Section	Danbury to Lebanon	25.0
10	Sugar River Railroad	Newport to Claremont	10.5
11	Manchester and Lawrence Branch*	Salem to Manchester	23.0
12	Portsmouth Branch	Newfields to Manchester	27.4
13	Fremont Branch, Southern Section	Hudson to Fremont	22.1
14	Fremont Branch, Northern Section	Fremont to Epping	4.5
15	Hampton Branch	Seabrook to Hampton	4.2
16	Lakeport Branch	Rochester	1.5
17	Farmington Branch	Rochester to Farmington	6.8
18	Ashuelot Branch	Hinsdale to Keene	21.5
19	Cheshire Branch	Fitzwilliam to Walpole	42.0
20	Fort Hill Branch	Hinsdale	8.7
21	Hillsborough Branch	Hillsborough to Bennington	7.8
22	Monadnock Branch	Rindge to Jaffrey	7.2
23	Greenville Branch	Mason to Greenville	2.2
		Total Rail Corridor Mileage	330.9

\* mileage of this corridor includes some municipal and railroad owned segments

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These 23 state-owned abandoned railroads are shown on an overall state map in Figure 1-1. There are also six larger scale maps of different regions of the state, with more detailed representations of the rail corridors and the connections that they make. These regional maps precede the detailed descriptions of the rail corridors within each region.

Research was conducted on each of the 23 state-owned abandoned railroads. This included an examination of railroad valuation plans, most of which were prepared in the early 20<sup>th</sup> century. These ‘val plans’ show the surveyed railroad right-of-way and key features including railroad structures and road crossings. A one-page summary sheet was prepared for each of the 23 state-owned abandoned rail corridors. Each sheet lists the following information:

### **Summary of Existing Conditions**

Railroad Name  
Trail Name (if any)  
Begin Station (railroad stationing system)  
Begin Location  
End Station (railroad stationing system)  
End Location  
Length in miles  
Region(s) in which railroad is located  
Town(s) in which railroad is located  
Owner  
Management agreement with DRED (if any)  
Non-winter uses allowed  
Winter motorized uses allowed (Non-motorized-Transportation-NMT, All Terrain Vehicles-ATVs)  
Parallels State Bicycle Route (US, State Highway, or local roads)  
Corridor surface (description of surface condition)  
Connects to [trail name if any]  
Number of rail bridges  
Maintained by (often snowmobile or trail organization)  
Typical right-of-way (ROW) widths  
Lake(s) abutting railroad (if any)  
River(s) crossed by railroad (if any)

### **Railroad History**

Summary of historically significant events

### **Possible Future Rail Use**

Passenger or Freight Rail Service listed (if applicable)

### **Plans for Trail Development**

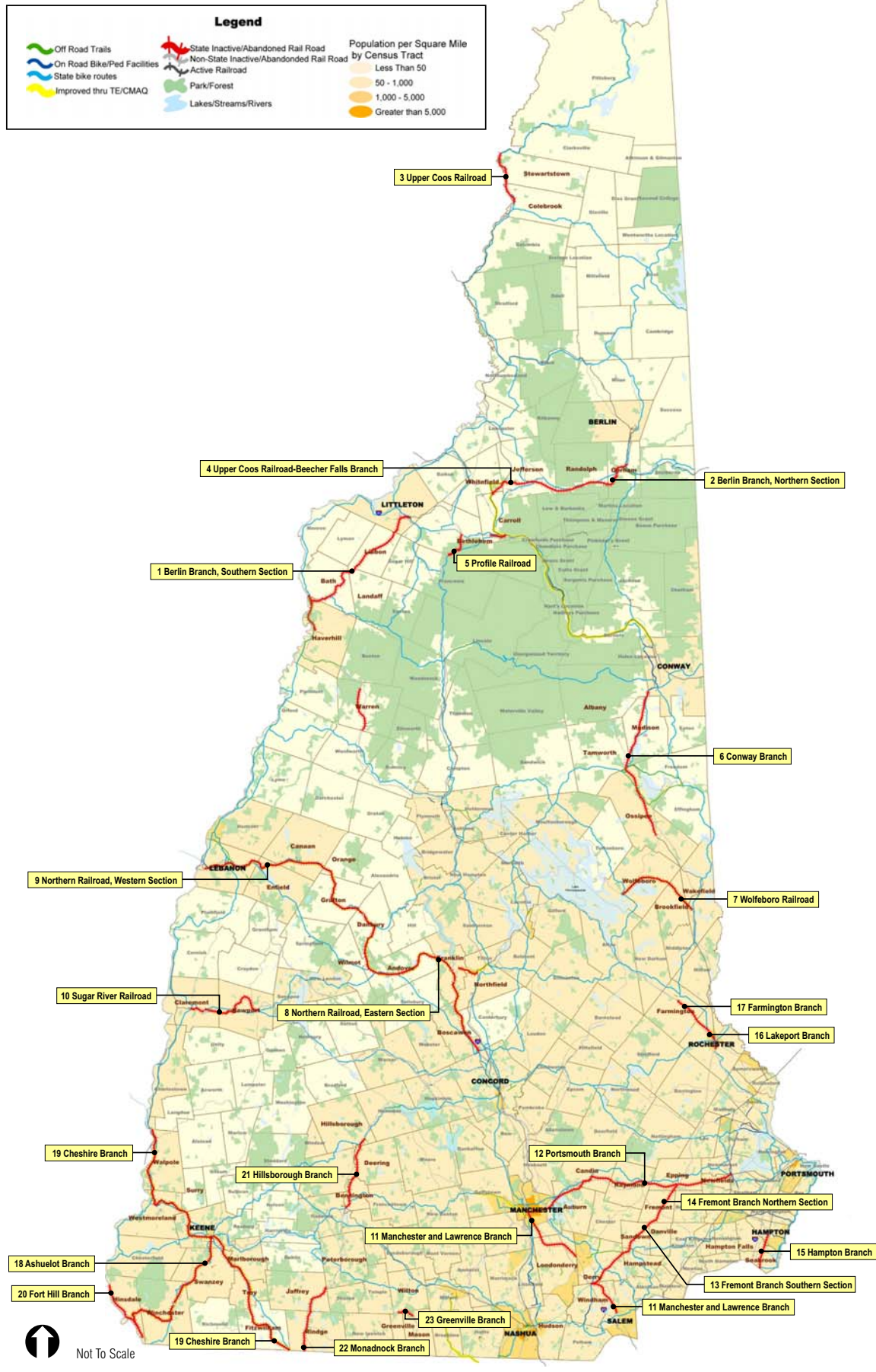
Summary of any local, regional or state plans to improve trail (if applicable)

These rail corridors vary widely in condition and current use. Some of these corridors have been improved, and even have paved segments, such as the section of the Cheshire Branch in Keene. Most of the corridors, however, have not been improved significantly since they were abandoned by the railroads. When the railroads abandoned these corridors, the rails were typically removed and used for scrap, and the wooden ties were usually removed, although even the ties remain in some corridors.

Most of the rail corridors currently have unimproved railroad ballast surfaces. This railroad ballast is the surface that the rail ties sat in to keep them stable, and it is typically gravel from the surrounding area. These gravel trails

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provide a good surface for snowmobiles (when covered with snow), but generally not for non-motorized users. However, this gravel ballast would serve as a good trail foundation if covered with compacted stone dust or asphalt pavement (where appropriate). Some trails have sections where the ballast has been covered with stone dust or packed dirt; these trails provide better surfaces for pedestrians and mountain bikes.

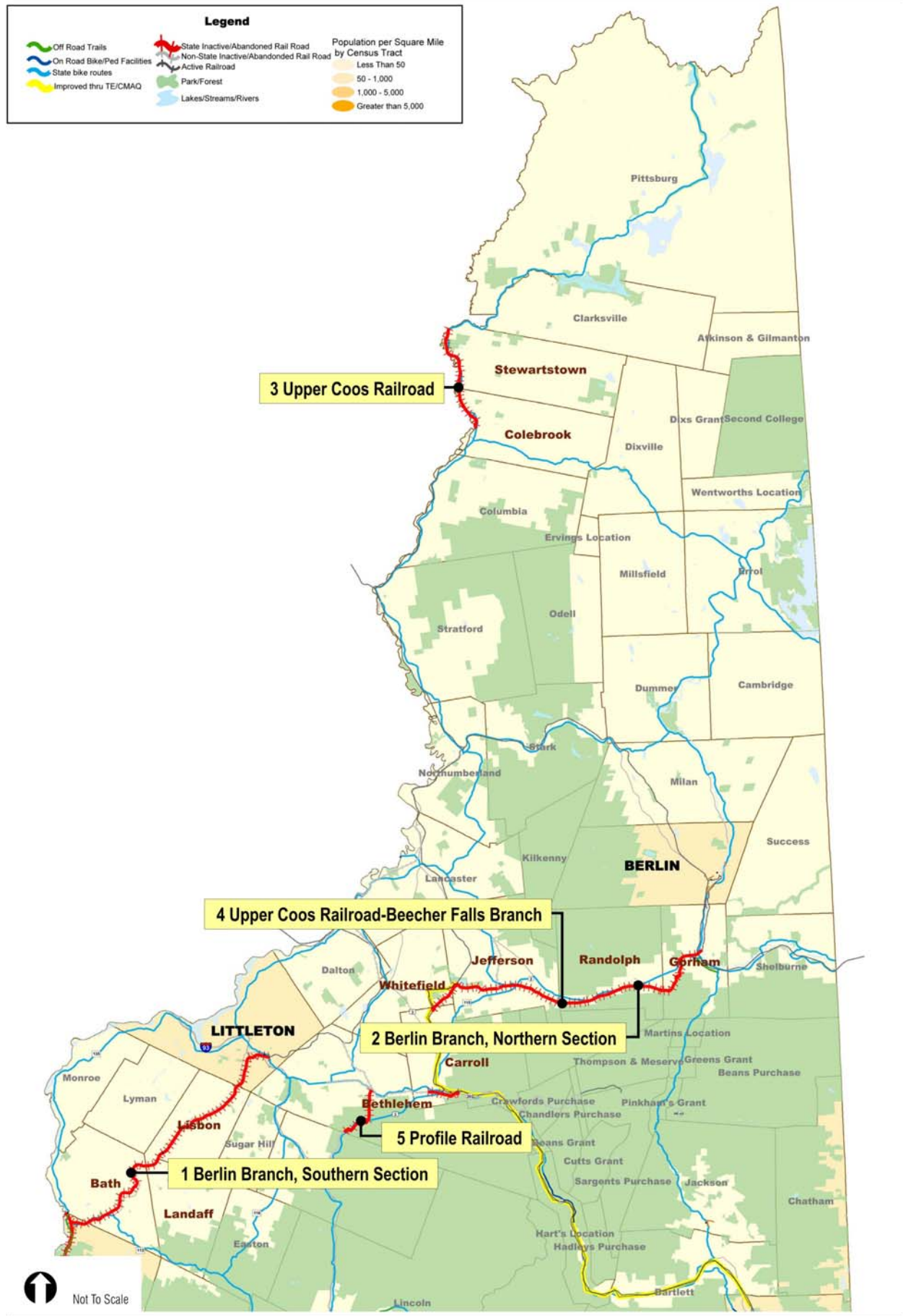


New Hampshire State Trails Plan



**Legend**

Off Road Trails	State Inactive/Abandoned Rail Road	Population per Square Mile by Census Tract
On Road Bike/Ped Facilities	Non-State Inactive/Abandoned Rail Road	
State bike routes	Active Railroad	
Improved thru TE/CMAQ	Park/Forest	Less Than 50
	Lakes/Streams/Rivers	50 - 1,000
		1,000 - 5,000
		Greater than 5,000



↑ Not To Scale

New Hampshire State Trails Plan

## 1: Berlin Branch, Southern Section

### Summary of Existing Conditions

Railroad Name	Berlin Branch, Southern Section
Trail Name	Ammonoosuc Rail Trail
Begin Station	00+00
Begin Location	Woodsville
End Station	995+66
End Location	Littleton
Length (mi)	18.9
Region 1	North Country
Town 1	Haverhill
Town 2	Bath
Town 3	Landaff
Town 4	Lisbon
Town 5	Littleton
Owner	NHDOT
Management agreement with DRED	Yes
Non-winter uses allowed*	All NMT uses + ATVs
Winter motorized uses allowed	snowmobiles and ATVs
Parallels State Bicycle Route	Rt. 302; local roads
Surface	ballast, gravel, dirt
Connects to	
Number of rail bridges	14
Maintained by	Littleton Off Road Riders
Typical ROW widths	66 and 99 ft
River 1	Ammonoosuc River

\*The existing trail is not good for bicycling because of the predominant gravel surface.

### Railroad History

- Opened 1853
- Abandoned 1995

### Possible Future Rail Use

- no

### Plans for Trail Development

- None at present.
- North Country Council is updating their Regional Transportation Plan and will identify needs and develop a plan of action and projects.



Rail bridge over Ammonoosuc River in Lisbon



Rail trail under covered road bridge in Bath



Ammonoosuc Rail Trail in Woodsville

## 2: Berlin Branch, Northern Section

Railroad Name	Berlin Branch, Northern Section
Trail Name	Presidential Rail Trail
Begin Station	325+03
Begin Location	Jefferson
End Station	1291+20
End Location	Gorham
Length (mi)	18.3
Region 1	North Country
Town 1	Jefferson
Town 2	Randolph
Town 3	Gorham
Owner	NHDOT
Management agreement with DRED	Yes
Non-winter uses allowed*	all NMT uses
Winter motorized uses allowed	snowmobiles and ATVs
Parallels State Bicycle Route	US 2; Rt. 115; Rt. 115A
Surface	ballast, gravel, dirt
Connects to	Pondicherry Rail Trail
Number of rail bridges	14
Maintained by	DRED
Typical ROW widths	99 to 120 ft
River 1	Israel's River South
River 2	Moose River

\*The existing trail is not good for bicycling because of the predominant gravel surface.

**Railroad History**

- Opened 1851
- Abandoned 1996

**Possible Future Rail Use**

- No

**Plans for Trail Development**

- None at present.
- North Country Council is updating their Regional Transportation Plan and will identify needs and develop a plan of action and projects.
- Advisory Committee members noted that trail improvements to better accommodate bicycles would provide an alternative to Route 2 which is not a good road for cycling in part due to heavy truck traffic, a lack of shoulders in some sections, and steep grades.
- An improved trail may provide a boost to area economy through increased tourism.



Presidential Range Rail Trail



Boxed Pony Truss Bridge on Rail Trail



Presidential Range Rail Trail

### 3: Upper Coos Railroad

<p>Railroad Name                      Upper Coos Railroad                  Trail Name                          Pondicherry Rail Trail                  Begin Station                      Whitefield                  Begin Location                    33+00                  End Station                        Jefferson                  End Location                      133+69                  Length (mi)                        1.9                  Region 1                            North Country                  Town 1                              Whitefield                  Town 2                              Jefferson                  Owner                                NHDOT                  Management agreement with                  DRED                                Yes                  Non-winter uses allowed*        none                  Parallels State Bicycle Route    US 3; Rt. 116                  Winter motorized uses allowed    snowmobiles and ATVs                  Surface                              rail                  Connects to                        Presidential Rail Trail                  Number of rail bridges            0                  Maintained by                      DRED                  Typical ROW widths                99 ft</p> <p>*railroad is active in non-winter months.</p> <p><b><u>Railroad History</u></b></p> <ul style="list-style-type: none"> <li>➤ Opened 1889</li> <li>➤ Abandoned 1977</li> </ul> <p><b><u>Possible Future Rail Use</u></b></p> <ul style="list-style-type: none"> <li>➤ Freight rail</li> </ul> <p><b><u>Plans for Trail Development</u></b></p> <ul style="list-style-type: none"> <li>➤ None at present.</li> <li>➤ North Country Council is updating their Regional Transportation Plan and will identify needs and develop a plan of action and projects.</li> </ul>	
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### 4: Upper Coos Railroad - Beecher Falls Branch

Railroad Name	Upper Coos Railroad – Beecher Falls Branch
Trail Name	
Begin Station	Colebrook
Begin Location	2457+43.4
End Station	Stewartstown
End Location	2918+50
Length (mi)	8.7
Region 1	North Country
Town 1	Colebrook
Town 2	Stewartstown
Owner	NHDOT
Management agreement with DRED	Yes
Non-winter uses allowed*	walking
Winter motorized uses allowed	snowmobiles and ATVs
Parallels State Bicycle Route	Rt. 3
Surface	Rail
Connects to	
Number of rail bridges	1
Maintained by	DRED
Typical ROW widths	66
River 1	Connecticut River
<p>*Since the rail is still in place, the only significant non-winter use is walking.</p> <p><b><u>Railroad History</u></b></p> <ul style="list-style-type: none"> <li>➤ Opened 1891</li> <li>➤ Out of service 1989</li> </ul> <p><b><u>Possible Future Rail Use</u></b></p> <ul style="list-style-type: none"> <li>➤ no</li> </ul> <p><b><u>Plans for Trail Development</u></b></p> <ul style="list-style-type: none"> <li>➤ None at present.</li> <li>➤ North Country Council is updating their Regional Transportation Plan and will identify needs and develop a plan of action and projects.</li> </ul>	

## 5: Profile Railroad

Railroad Name	Profile Railroad
Trail Name	Profile Recreation Trail
Begin Station	
Begin Location	Bethlehem
End Station	
End Location	Franconia
Length (mi)	2.0
Region 1	North Country
Region 2	
Town 1	Bethlehem
Town 2	
Owner	DRED
Management agreement with DRED	n/a
Non-winter uses allowed	all NMT uses
Winter motorized uses allowed	snowmobiles and ATVs
Parallels State Bicycle Route	Trudeau Road
Surface	Dirt
Connects to	
Number of rail bridges	
Maintained by	DRED
Typical ROW widths	99 ft
Lake 1	
River 1	
<b><u>Railroad History</u></b>	
<ul style="list-style-type: none"> <li>➤ Opened 1879</li> <li>➤ Abandoned 1921</li> </ul>	
<b><u>Possible Future Rail Use</u></b>	
<ul style="list-style-type: none"> <li>➤ no</li> </ul>	
<b><u>Plans for Trail Development</u></b>	
<ul style="list-style-type: none"> <li>➤ None at present.</li> <li>➤ North Country Council is updating their Regional Transportation Plan and will identify needs and develop a plan of action and projects.</li> </ul>	



Profile Railroad corridor in Bethlehem





New Hampshire State Trails Plan

## 6: Conway Branch

Railroad Name	Conway Branch
Trail Name	
Begin Station	2321+92
Begin Location	Ossipee
End Station	3448+56
End Location	Albany/Conway town line
Length (mi)	21.3
Region 1	Lakes
Region 2	North Country
Town 1	Ossipee
Town 2	Tamworth
Town 3	Madison
Town 4	Albany
Owner	NHDOT
Management agreement with DRED	Yes
Non-winter uses allowed*	walking
Winter motorized uses allowed	snowmobiles and ATVs
Parallels State Bicycle Route	SR 41 and 113 in north
Surface	Rail in place
Connects to	
Number of rail bridges	11
Maintained by	DRED
Typical ROW widths	66, 82.5, 100, 130 ft
River 1	Beech River
River 2	Dan Hole River
River 3	Lovells River
River 4	Dead River
River 5	Chocorua River
River 6	Davis River

\*Since the rail is still in place, the only significant non-winter use is walking.

### **Railroad History**

- Opened 1872
- Abandoned in 1972 from Mt. Whittier to Conway and in 1998 from Ossipee to Mt. Whittier.

### **Possible Future Rail Use**

- Freight rail and passenger/excursion service (high potential)

### **Plans for Trail Development**

- None at present and unlikely due to high potential for return of rail service



Conway Branch at Silver Lake



Railroad Bridge on Conway Branch



## 7: Wolfeboro Railroad

Railroad Name	Wolfeboro Railroad
Trail Name	Cotton Valley Trail
Begin Station	9+50
Begin Location	Wakefield
End Station	611+84.2
End Location	Wolfeboro
Length (mi)	11.4
Region 1	Lakes
Town 1	Wakefield
Town 2	Brookfield
Town 3	Wolfeboro
Owner	NHDOT
Management agreement with DRED	Yes
Non-winter uses allowed	all NMT uses + speeder cars on RR
Winter motorized uses allowed	snowmobiles and ATVs
Parallels State Bicycle Route	Rt. 109; local roads
Surface	gravel, dirt, stone dust
Connects to	
Number of rail bridges	3
Maintained by	TRAC and Cotton Valley Rail Trail Club
Typical ROW widths	66 ft
Lake 1	Wentworth

### Railroad History

- Opened 1870
- Abandoned 1986
- The railroad's tracks are still in place (and owned by the State of NH). The Wolfeboro Railroad is the only place in New England where old "speeder" cars (antique railroad maintenance vehicles) are allowed to operate. A club helps maintain the tracks.

### Possible Future Rail Use

- No

### Plans for Trail Development

- None at present.
- Check on status of any planned improvements in Brookfield and Wakefield.



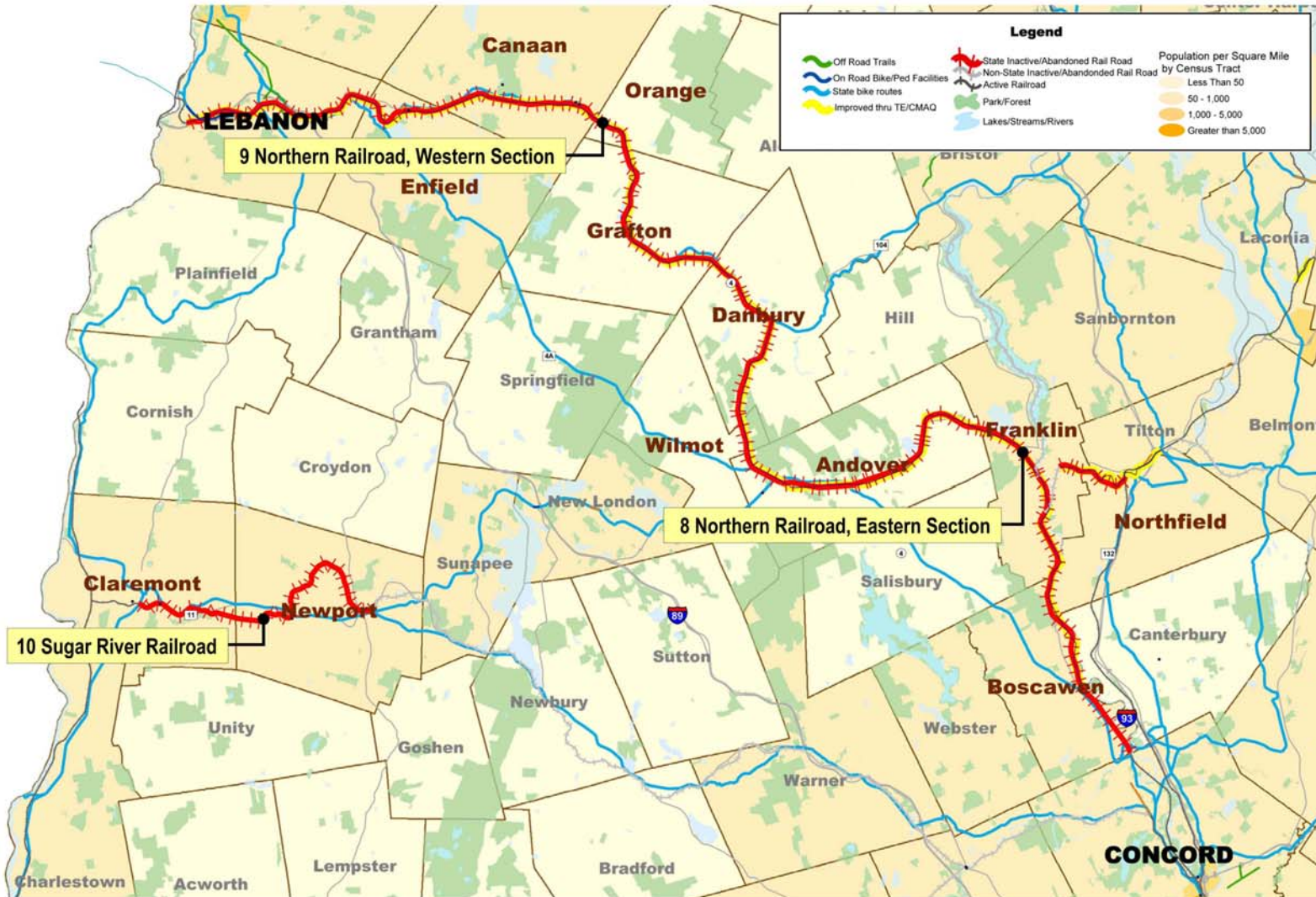
Rail with trail section in Wolfeboro



Area between rails filled in for trail use



Speeder car of the type that uses the Wolfeboro Railroad



**RIZZO ASSOCIATES**  
 A TETRA TECH COMPANY  
 New Hampshire State Trails Plan

## 8: Northern Railroad, Eastern Section

Railroad Name	Northern Railroad, Eastern Section
Begin Station	383+59.4
Begin Location	Boscawen
End Station	2190+15
End Location	Danbury
Length (mi)	34
Region 1	Lakes
Region 2	Central
Town 1	Boscawen
Town 2	Franklin
Town 3	Andover
Town 4	Danbury
Owner	NHDOT
Management agreement with DRED	Yes
Non-winter uses allowed*	all NMT uses
Winter motorized uses allowed	snowmobiles and ATVs
Parallels State Bicycle Route	US 4; Rt. 11; Rt. 132; local roads
Surface	Ballast, cinder, gravel
Connects to	
Number of railroad bridges	36
Maintained by	Mascoma Sno-Travelers, Andover Snowmobile Club, Mt. Cardigan Snowmobile Club, Townline Trail Dusters
Typical ROW widths	82.5 and 99 ft
River 1	Merrimack River
River 2	Blackwater River

\*The existing trail is not good for bicycling in sections with gravel surface, such as shown in Boscawen.

**Railroad History**

- Opened 1847
- Abandoned 1992

**Possible Future Rail Use**

- Boston – Montreal High Speed

**Plans for Trail Development**

- Existing trail could be extended south a short distance to serve Town of Boscawen recreational fields (Boscawen is in Central Region).



Northern Railroad, Boscawen



Railroad ballast, Northern Railroad, Boscawen



Rail corridor in Wilmot



Rail bridge over Roy Ford Road in Danbury

## 9: Northern Railroad, Western Section

Railroad Name	Northern Railroad, Western Section
Trail Name	Northern Rail Trail
Begin Station	2190+15
Begin Location	Danbury
End Station	3515+69
End Location	Lebanon
Length (mi)	25
Region 1	Upper Valley
Town 1	Danbury
Town 2	Grafton
Town 3	Orange
Town 4	Canaan
Town 5	Enfield
Town 6	Lebanon
Owner	NHDOT
Management agreement with DRED	Yes
Non-winter uses allowed*	all NMT uses
Winter motorized uses allowed	snowmobiles and ATVs
Parallels State Bicycle Route**	US 4
Surface	Ballast, cinder, gravel
Connects to	
Number of rail bridges	46
Maintained by	Friends of the Northern Rail Trail
Typical ROW widths	82.5 and 99 ft
Lake 1	Mascoma Lake
River 1	Smith River
River 2	Indian River
River 3	Mascoma River
River 4	Connecticut River

\*The existing trail is not good for bicycling in many sections esp those with soft surface/ballast  
 \*\*UVLSPC notes that Rt. 4 is a high-speed, high volume roadway, which greatly limits its utility to many potential users. In contrast, the Northern Rail Trail, and rail trails in general, are ideal facilities for children and less experienced cyclists.

**Railroad History**

- Opened 1847
- Abandoned 1992

**Possible Future Rail Use**

- Boston – Montreal High Speed

**Plans for Trail Development**

- Upper Valley Trails Alliance is studying the feasibility of developing a rail-with-trail on active portion of Northern Railroad including bridge over the Connecticut River.
- Upper Valley Lake Sunapee Regional Planning Commission (UVLSPC) notes that upgrading trail surface, width and drainage in Lebanon and between Lebanon and Enfield could increase transportation utility of trail. The connection along the rail corridor between downtown Lebanon and West Lebanon village / White River Junction (VT) would be a heavily used facility and that the connection would help to address some of the goals in the City of Lebanon Pedestrian and Bicycle Plan.
- Any major investment in trail improvements must be weighed against the likelihood and timing of Boston – Montreal rail service.



Northern Rail Trail, Lebanon



Northern Rail Trail, Lebanon

## 10: Sugar River Railroad

Railroad Name	Sugar River Railroad
Trail Name	Sugar River Trail
Begin Station	2231+86
Begin Location	Newport
End Station	2784+90
End Location	Claremont
Length (mi)	10.5
Region 1	Upper Valley
Region 2	
Town 1	Newport
Town 2	Claremont
Owner	NHDOT
Managed by DRED	Yes
Non-winter uses allowed*	all NMT uses + ATV
Winter motorized uses allowed	snowmobiles and ATVs
Parallels State Bicycle Route**	Rt. 11/103
Surface	Gravel, sand and cinder
Connects to	
Number of rail bridges	7
Maintained by	Shugah Valley Sno Riders and DRED
Typical ROW widths	66, 80, 110 ft
River 1	Sugar River

\*The existing trail is not good for bicycling in some sections with dirt or gravel surface.  
 \*\* UVLSPC notes that Rt. 11/103 is a high-speed, high volume roadway, which greatly limits its utility to many potential users, in contrast with the rail trail.

### Railroad History

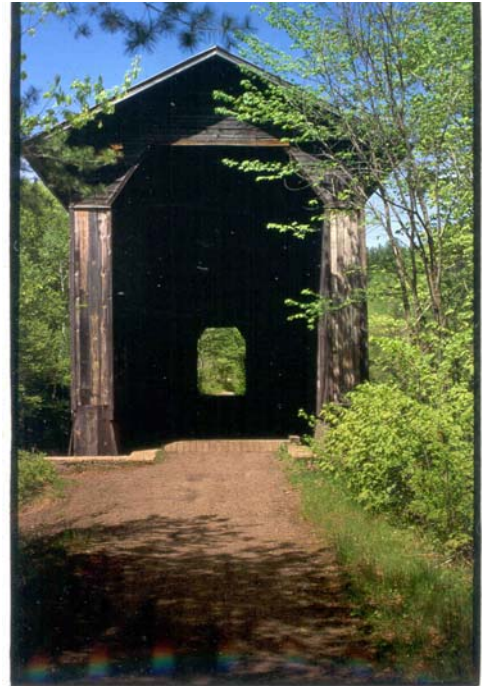
- Opened 1849
- Abandoned 1977
- Two of New England's last five remaining covered rail bridges are on this branch line

### Possible Future Rail Use

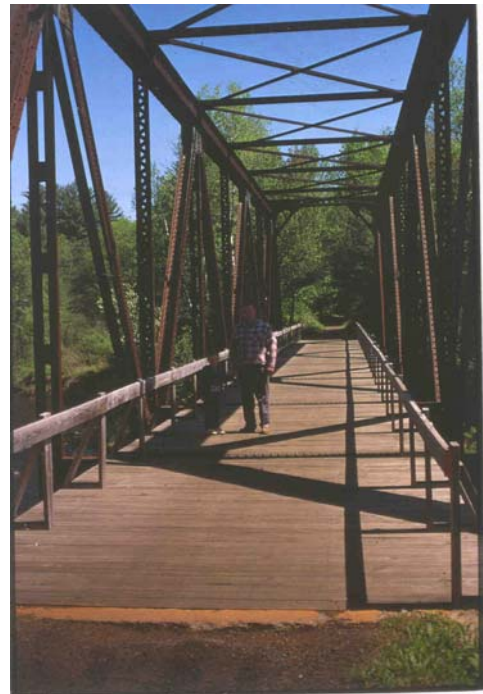
- No

### Plans for Trail Development

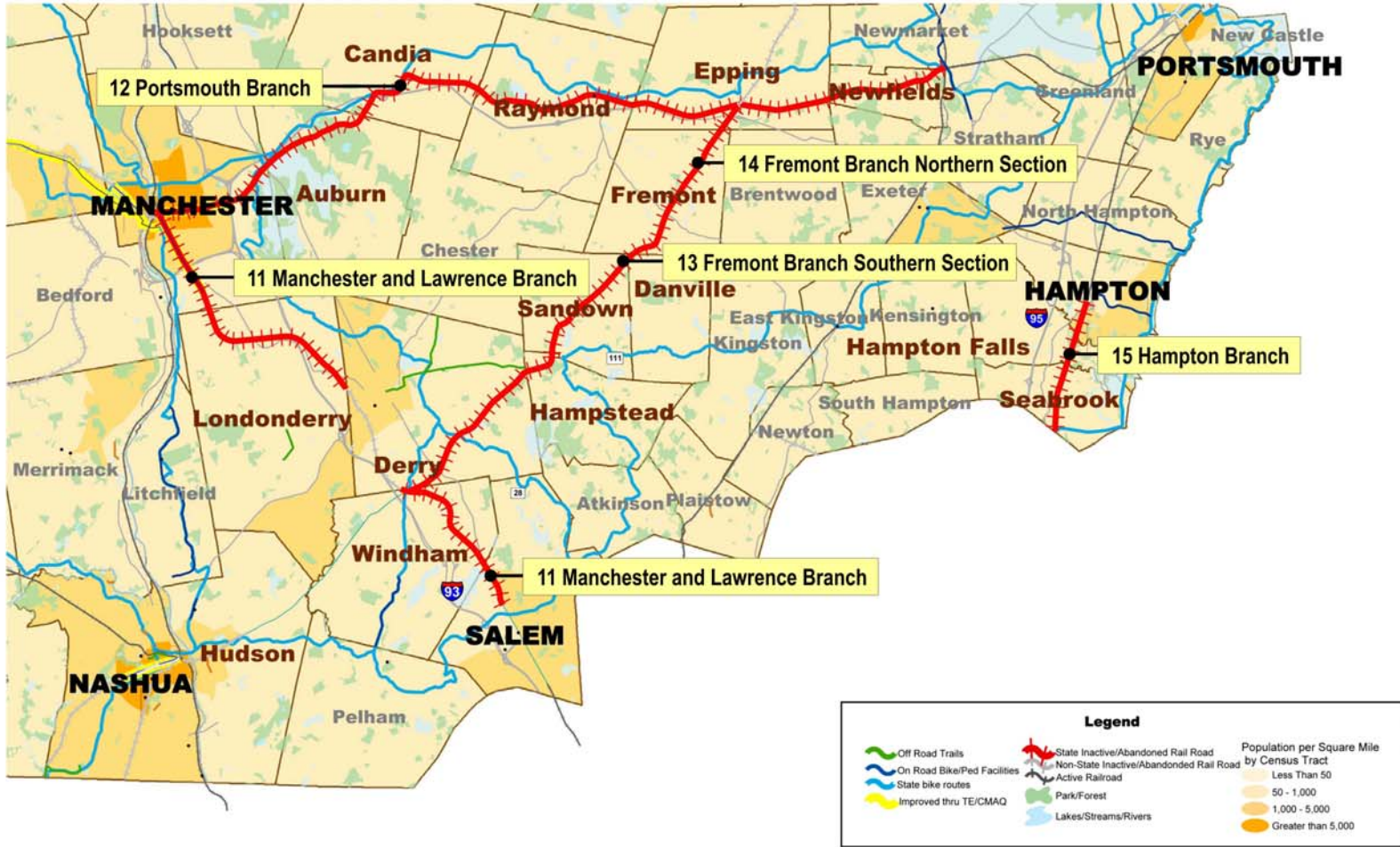
- none at present
- Upper Valley Lake Sunapee Planning Commission notes that trail is very soft in places and would benefit from surface improvements. Improvements near Newport High/Middle School and within Claremont urban area could serve transportation trips.



Kellyville Covered Rail Bridge over Sugar River



Sugar River Truss Bridge



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## 11: Manchester and Lawrence Branch

Railroad Name	Manchester & Lawrence Branch
Trail Name	
Begin Station	1567+28
Begin Location	Salem
End Station	2780+36
End Location	Manchester
Length (mi)	23.0
Region 1	Rockingham
Region 2	Southern
Town 1	Salem
Town 2	Windham
Town 3	Derry
Town 4	Londonderry
Town 5	Manchester
Owner 1	NHDOT
Owner 2	Town of Derry
Owner 3	City of Manchester
Owner 4	Guilford
Owner 5	Private Quarry Owner
Management agreement with DRED	parts in Windham, Salem and Londonderry
Non-winter uses allowed*	all NMT uses
Winter motorized uses allowed	snowmobiles and ATVs
Parallels State Bicycle Route	Local roads
Surface	Rail, gravel, sand, dirt, paved, grass
Connects to	
Number of rail bridges	11
Maintained by	Derry Pathfinders
Typical ROW widths	82.5 and 99 ft
River 1	Massabesic River
River 2	Spickett River (Salem)

\*The existing trail is not good for bicycling in some sections especially those with soft surface, ballast or rails.

### Railroad History

- Opened 1851
- Abandoned 1983

### Possible Future Rail Use

- commuter rail and freight rail

### Plans for Trail Development

- State is in process of acquiring last remaining section owned by Guilford in Salem.
- Trail improvements in this corridor are recommended in Salem – Concord Bikeway Feasibility Study and supported by most of the municipalities involved. Segments in City of Manchester are funded and in design. Sections in Derry are built.



Manchester and Lawrence Branch in Windham



Stone Rail Bridge, Windham



Rail Bridge over Massabesic River, Manchester

## 12: Portsmouth Branch

Railroad Name	Portsmouth Branch or Manchester – Portsmouth Branch
Trail Name	Rockingham Recreation Trail
Begin Station	522+57
Begin Location	Newfields
End Station	1967+15.5
End Location	Manchester
Length (mi)	27.4
Region 1	Rockingham
Region 2	Southern
Town 1	Newfields
Town 2	Epping
Town 3	Raymond
Town 4	Candia
Town 5	Auburn
Town 6	Manchester
Owner 1	NHDOT
Owner 2	City of Manchester (west of Page St)
Management agreement with DRED	Yes
Non-winter uses allowed*	all NMT uses
Winter motorized uses allowed	snowmobiles only
Parallels State Bicycle Route	Rt. 27; Rt. 87; local roads
Surface	gravel, dirt
Connects to	Fremont Branch Trail
Number of rail bridges	11
Maintained by	So. NH Snow Stickers, Rockingham Rec Trail and Massabesic Musers Association
Typical ROW widths	66 ft
Lake 1	Massabesic Lake
River 1	Pawtuckaway River
River 2	Lamprey River
River 3	Scribner's River

\*The existing trail is not good for bicycling in some sections with dirt or gravel surface.

**Railroad History**

- Opened 1862
- Abandoned 1982
- Though regular passenger service ended in 1954, passengers were allowed in the cabooses of freight trains until the early 1960's.

**Possible Future Rail Use**

- No

**Plans for Trail Development**

- City of Manchester has plans to improve its section of the trail.
- Town of Candia supports protection of corridor and development of town wide trail system.



Rail Bridge over Lamprey River



Rockingham Trail between Epping and Raymond



Rockingham Trail at Raymond Station



### 13: Fremont Branch, Southern Section

Railroad Name	Fremont Branch, Southern Section
Trail Name	Rockingham Recreation Trail
Begin Station	2508+40
Begin Location	Hudson
End Station	3672+90
End Location	Fremont
Length (mi)	22.1
Region 1	Rockingham
Region 2	Nashua
Town 1	Windham
Town 2	Derry
Town 3	Hampstead
Town 4	Sandown
Town 5	Danville
Town 6	Fremont
Owner	DRED
Management agreement with DRED	NA
Non-winter uses allowed	All NMT uses. All Terrain Vehicles (ATVs) permitted in non-snow seasons on segment of Fremont Branch from Route 28 (Derry) to Route 107 (Fremont)
Winter motorized uses allowed	snowmobiles and ATVs
Parallels State Bicycle Route	Local roads
Surface	
Connects to	Rockingham Trail
Number of rail bridges	8
Maintained by	Derry Pathfinders and So. NH Trail Blazers
Typical ROW widths	82.5 and 99 ft
River 1	Exeter River

**Railroad History**

- Opened 1874
- Abandoned 1982

**Possible Future Rail Use**

- no

**Plans for Trail Development**

- None at present.
- The segment of the Fremont Branch west of I-93 is no longer owned by the State of NH.
- Three miles of the trail from I-93 to Route 111 is owned by the Town of Windham and is designated for non-motorized uses.
- West of Route 111, the rail corridor has been used for the realignment of Route 111, and is no longer available for trail use.



**Junction of Fremont and Portsmouth Branch Railroads in Epping**

## 14: Fremont Branch, Northern Section

Railroad Name	Fremont Branch, Northern Section
Trail Name	Rockingham Recreation Trail
Begin Station	3672+88
Begin Location	Fremont
End Station	3907+93
End Location	Epping
Length (mi)	4.5
Region 1	Rockingham
Region 2	
Town 1	Fremont
Town 2	Epping
Owner	NHDOT
Management agreement with DRED	Yes all NMT uses + ATVs [Rt 28 to Rt 107]
Non-winter uses allowed	
Winter motorized uses allowed	snowmobiles and ATVs
Parallels State Bicycle Route	Rt. 125; local roads
Surface	gravel, dirt
Connects to	Rockingham Trail
Number of rail bridges	1
Maintained by	Derry Pathfinders and So. NH Trail Blazers
Typical ROW widths	82.5 and 99 ft
Lake 1	Spruce Swamp
River 1	Piscassic River



Fremont Branch looking north approaching junction with Rockingham Trail in Epping

### **Railroad History**

- Opened 1874
- Abandoned 1982
- This was a short segment of the famed Worcester, Nashua & Portland Division of the Boston & Maine Railroad, and the route of the famous “name train” Bar Harbor which took passengers to that resort. It was also the busiest unsignaled single track line in the U.S.

### **Possible Future Rail Use**

- no

### **Plans for Trail Development**

- none at present
- Fremont Corridor runs through the Spruce Swamp in Fremont (immediately north of Route 107). The Town of Fremont has approved and applied to the state for designation of the Spruce Swamp as a “Prime Wetland.” Fremont residents have expressed concern about ATVs (which are permitted on the trail south of Route 107, but not in the Spruce Swamp) seeking to operate in the Spruce Swamp.
- The Town of Epping is investigating improving the section of trail between downtown Epping and the Route 125 commercial corridor.

## 15: Hampton Branch

Railroad Name	Hampton Branch
Trail Name	
Begin Station	2188+85
Begin Location	Seabrook
End Station	2412+50
End Location	Hampton
Length (mi)	4.2
Region 1	Rockingham
Town 1	Seabrook
Town 2	Hampton Falls
Town 3	Hampton
Owner	NHDOT
Management agreement with DRED	No
Non-winter uses allowed*	all NMT uses
Winter motorized uses allowed	snowmobiles only
Parallels State Bicycle Route	Rt. 1A; local roads
Surface	Rail
Connects to	
Number of rail bridges	7
Maintained by	none known
Typical ROW widths	66 ft
River 1	Mill Creek
River 2	Browns River
River 3	Hampton River
River 4	Taylor River

\*Since the rail is still in place, the only significant non-winter use is walking.

### **Railroad History**

- Opened
- Abandoned

### **Possible Future Rail Use**

- Commuter rail

### **Plans for Trail Development**

- Rockingham Planning Commission is conducting a study of commuter rail in the corridor.
- Some have suggested this corridor as part of the East Coast Greenway.
- Rail and/or trail may pose security threat at Seabrook Nuclear Power Plant.



Hampton Branch in Hampton center near start of active rail line



Hampton Branch corridor through wetlands as seen from Route 1



Not To Scale

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Trail Opportunities in the Rochester Area Figure 1-6

## 16: Lakeport Branch

Railroad Name	Lakeport Branch
Trail Name	Lilac City Greenway
Begin Station	434+69
Begin Location	Rochester
End Station	512+90
End Location	Rochester
Length (mi)	1.5
Region 1	Strafford
Town 1	Somersworth
Town 2	Rochester
Owner	NHDOT
Management agreement with DRED	No
Non-winter uses allowed	all NMT uses
Winter motorized uses allowed	snowmobiles only
Parallels State Bicycle Route	Rt. 108; Rt. 125; local roads
Surface	asphalt, gravel
Connects to	Farmington Branch
Number of rail bridges	1
Maintained by	DRED
Typical ROW widths	66 and 99 ft

### **Railroad History**

- Opened 1851
- Abandoned 1993

### **Possible Future Rail Use**

- no

### **Plans for Trail Development**

- Shared-use path in center of Rochester, parallel to Route 125 to Main Street; construction is nearing completion. Paved from Upham Street to Lowell Street; packed gravel from Lowell Street to Old Dover Road.



**Paved section of the Lakeport Branch parallel to Route 125 in Rochester**

## 17: Farmington Branch

Railroad Name	Farmington Branch
Trail Name	Lilac City Greenway
Begin Station	525+00
Begin Location	Rochester
End Station	884+51
End Location	Farmington
Length (mi)	6.8
Region 1	Strafford
Town 1	Rochester
Town 2	Farmington
Owner	NHDOT
Management agreement with DRED	Yes
Non-winter uses allowed	all NMT uses
Winter motorized uses allowed	snowmobiles and ATVs
Parallels State Bicycle Route	Chestnut Hill Road; local roads
Surface	gravel, dirt
Connects to	Lakeport Branch
Number of rail bridges	3
Maintained by	none known
Typical ROW widths	66 and 82.5 ft
River 1	Cochecho River
River 2	Rattlesnake River
River 3	Pokamoonshine Brook

### **Railroad History**

- Opened 1862
- Abandoned 1995

### **Possible Future Rail Use**

- no

### **Plans for Trail Development**

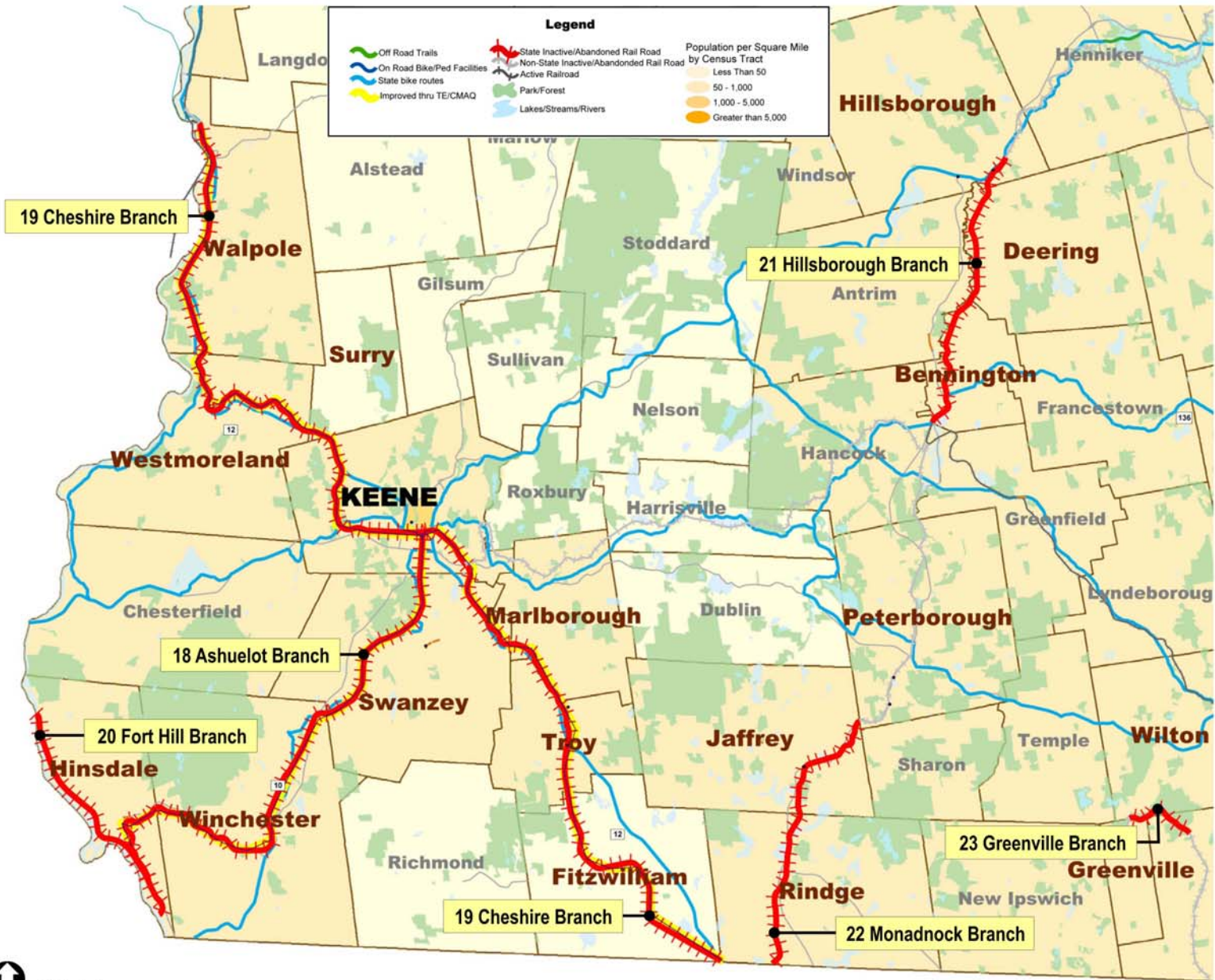
- The southern section connects to downtown Rochester, and is currently being paved in the southern section along Columbus Avenue from Wakefield Street to South Main Street.
- Outside of downtown Rochester and further north, the trail is currently unimproved, and it has a very soft surface due to the area's sandy soil. This makes the trail poor for warm weather use, even by walkers and mountain bikes. As a result, there is very little activity on this part of the corridor; the principal users of the corridor are snowmobiles.



The Farmington Branch (aka Lilac City Greenway) runs through downtown Rochester with some paved segments



While other segments of the Lilac City Greenway in Rochester are unpaved



Not To Scale

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Trail Opportunities in Southwestern NH Figure 1-7

## 18: Ashuelot Branch

Railroad Name	Ashuelot Branch
Trail Name	
Begin Station	3+20
Begin Location	Hinsdale
End Station	1134+65
End Location	Keene
Length (mi)	21.5
Region 1	Southwest
Town 1	Hinsdale
Town 2	Winchester
Town 3	Swanzy
Town 4	Keene
Owner	NHDOT
Management agreement with DRED	Yes
Non-winter uses allowed	all NMT uses
Winter motorized uses allowed	snowmobiles and ATVs
Parallels State Bicycle Route	Rt. 119; local roads
Surface	ballast, gravel, dirt, cinder, sand
Connects to	
Number of rail bridges	8
Maintained by	Keene Sno-Riders, Winchester Trail Riders, Pisgah Mt. Trail Riders
Typical ROW widths	66 ft
River 1	Ashuelot River

### Railroad History

- Opened 1851
- Abandoned 1983
- Hinsdale, NH is one of a few places in the U.S. where the railroad station sits on a hill overlooking the town it served.

### Possible Future Rail Use

- no

### Plans for Trail Development



**Rail bridge abutment**



**Station on Ashuelot Branch**



## 19: Cheshire Branch

Railroad Name	Cheshire Branch
Trail Name	
Begin Station	569+58.5
Begin Location	Fitzwilliam
End Station	2784+05
End Location	Walpole
Length (mi)	42
Region 1	Southwest
Town 1	Fitzwilliam
Town 2	Marlborough
Town 3	Swanzey
Town 4	Keene
Town 5	Surry
Town 6	Westmoreland
Town 7	Walpole
Owner 1	NHDOT
Owner 2	City of Keene
Management agreement with DRED	Yes
Non-winter uses allowed	all NMT uses
Winter motorized uses allowed	snowmobiles and ATVs
Parallels State Bicycle Route	SR 12
Surface	gravel, dirt
Connects to	
Number of rail bridges	36
Maintained by	Monadnock Sno-Moles, Keene Snow Riders, Hooper Hill Hoppers
Typical ROW widths	82.5 and 99 ft
River 1	Ashuelot River

### **Railroad History**

- Opened 1849
- Abandoned 1972
- Due to its lack of overhead obstructions, it was the preferred hi and wide (over-dimensional) route from Boston to Montreal.

### **Possible Future Rail Use**

- no

### **Plans for Trail Development**



Rail Station and Trail on Cheshire Branch (above)



Cheshire Branch Rail Trail in Keene



**20: Fort Hill Branch**

Railroad Name	Fort Hill Branch
Trail Name	
Begin Station	2651+48
Begin Location	Hinsdale
End Station	3120+79.4
End Location	Brattleboro, VT
Length (mi)	8.7
Region 1	Southwest
Town 1	Hinsdale
Owner	NHDOT
Management agreement with DRED	Yes
Non-winter uses allowed	all NMT uses
Winter motorized uses allowed	snowmobiles and ATVS
Parallels State Bicycle Route	Rt. 63; Rt. 119
Surface	gravel, dirt
Connects to	Ashuelot Trail
Number of rail bridges	8
Maintained by	Pisgah Mt. Trailblazers
Typical ROW widths	66 ft
River 1	Ashuelot River
River 2	Connecticut River



**Rail bridge over Connecticut River**

**Railroad History**

- Opened 1913
- Abandoned 1983
- One of the last railroads to be built in the northeast.

**Possible Future Rail Use**

- no

**Plans for Trail Development**

## 21: Hillsborough Branch

Railroad Name	Hillsborough Branch
Trail Name	
Begin Station	787+77
Begin Location	Hillsborough
End Station	1197+06
End Location	Bennington
Length (mi)	7.8
Region 1	Southwest
Town 1	Hillsborough
Town 2	Deering
Town 3	Bennington
Owner	NHDOT
Management agreement with DRED	Yes
Non-winter uses allowed	all NMT uses + ATVs
Winter motorized uses allowed	snowmobiles and ATVs
Parallels State Bicycle Route	Rt. 202
Surface	gravel, dirt
Connects to	State Bicycle Route
Number of rail bridges	3
Maintained by	TriCounty OHRV summer and Knight Riders, Inc Snowmobile Club.
Typical ROW widths	66 ft
River 1	Contoocook River
<b><u>Railroad History</u></b>	
<ul style="list-style-type: none"> <li>➤ Opened 1878</li> <li>➤ Abandoned 1979</li> </ul>	
<b><u>Possible Future Rail Use</u></b>	
<ul style="list-style-type: none"> <li>➤ no</li> </ul>	
<b><u>Plans for Trail Development</u></b>	
<ul style="list-style-type: none"> <li>➤</li> </ul>	

## 22: Monadnock Branch

Railroad Name	Monadnock Branch
Trail Name	
Begin Station	2014+62
Begin Location	Rindge
End Station	2395+67
End Location	Jaffrey
Length (mi)	7.2
Region 1	Southwest
Town 1	Rindge
Town 2	Jaffrey
Owner 1	NHDOT
Owner 2	Town of Jaffrey
Management agreement with DRED	Yes
Non-winter uses allowed	all NMT uses
Winter motorized uses allowed	snowmobiles and ATVs
Parallels State Bicycle Route	Rt. 202
Surface	gravel, dirt, stone dust
Connects to	
Number of rail bridges	1
Maintained by	Monadnock Sno-Moles
Typical ROW widths	80 ft
Lake 1	
River 1	Contoocook River
<b><u>Railroad History</u></b>	
<ul style="list-style-type: none"> <li>➤ Opened 1870</li> <li>➤ Abandoned 1984</li> <li>➤ Line was the location of the last scheduled service steam locomotives in New England in the 1950's. Photographers came from far and wide.</li> </ul>	
<b><u>Possible Future Rail Use</u></b>	
<ul style="list-style-type: none"> <li>➤ no</li> </ul>	
<b><u>Plans for Trail Development</u></b>	

**23: Greenville Branch**

<p>Railroad Name                      Greenville Branch</p> <p>Trail Name</p> <p>Begin Station                      1094+32</p> <p>Begin Location                      Mason</p> <p>End Station                        1208+16</p> <p>End Location                        Greenville</p> <p>Length (mi)                        2.2</p> <p>Region 1                            Southwest</p> <p>Town 1                              Wilton</p> <p>Town 2                              Mason</p> <p>Town 3                              Greenville</p> <p>Owner                                NHDOT</p> <p>Managed by DRED                Yes</p> <p>Non-winter uses allowed        all NMT uses + ATVs</p> <p>Winter motorized uses allowed   snowmobiles and ATVs</p> <p>Parallels State Bicycle Route   Rt. 31</p> <p>Surface                              gravel, dirt</p> <p>Connects to</p> <p>Number of rail bridges            0</p> <p>Maintained by                      DRED</p> <p>Typical ROW widths              80 ft</p> <p><b><u>Railroad History</u></b></p> <ul style="list-style-type: none"> <li>➤ Opened 1850</li> <li>➤ Abandoned 1979</li> </ul> <p><b><u>Possible Future Rail Use</u></b></p> <ul style="list-style-type: none"> <li>➤ no</li> </ul> <p><b><u>Plans for Trail Development</u></b></p>	
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## 2. OTHER TRAIL PROJECTS

New Hampshire’s State-owned abandoned rail corridors, described in detail in the last chapter, have the potential to form the backbone of New Hampshire’s off-road multi-use trail system. However, these State-owned abandoned rail corridors are not the only off-road corridors that have been improved as multi-use trails, or have the potential to be improved in such a manner. There are many other off-street trail projects that are proposed, designed, or complete throughout New Hampshire. This chapter briefly describes other types of off-street trail projects, and the data gathering and mapping effort that has been undertaken for this study.

These other multi-use trails encompass a variety of different types of facilities, including the following:

- Abandoned or inactive railroad corridors owned by entities other than the state (such as a municipality or a private owner)
- Trails or informal paths that have been improved to accommodate a range of transportation and recreational users
- Right-of-way adjacent to roadways, but separate from the roadway
- Bridges dedicated for non-motorized use, or vehicular bridges that have been enhanced to provide dedicated non-motorized accessibility

The majority of these trail projects have been developed using Federal Highway Administration (FHWA) funds that are made available by NHDOT through two specific funding programs: Transportation Enhancements (TE) and Congestion Mitigation and Air Quality (CMAQ).

The TE program is designed to fund transportation-related projects that improve quality of life and community livability. A large portion of TE funding is used for bicycle and pedestrian projects, although the TE program funds transportation-related scenic, educational, historic, and cultural projects as well. The CMAQ program is intended to reduce automobile travel, congestion, and air pollution by funding a range of projects that includes bicycle and pedestrian improvements, traffic and roadway improvements that reduce congestion without encouraging increased traffic, travel demand management measures, and public transit operational improvements. Most of the off-road bicycle and pedestrian projects included in the state trail database have been developed through the TE program. The TE program is a more typical source of funding for bicycle and pedestrian projects, and CMAQ funding is typically used for other types of projects.

The State Trails Plan process developed a database of off-street trail projects by researching and soliciting input from a variety of sources. The NHDOT database of TE and CMAQ projects was reviewed, and all projects that include an off-street component were identified. Then, input was solicited from state agency representatives, regional planning commission (RPC) representatives, and municipal representatives about these projects and any other critical off-street trail projects. These representatives provided information about project characteristics,

## NEW HAMPSHIRE STATE TRAILS PLAN

trail ownership and management, trail locations and connections, universal access, surface type, trail condition, and project status.

Once the appropriate database of projects was identified, geographic information for these projects was obtained from many different sources, including NHDOT, the RPCs, and municipalities. If geographic information was not readily available for a given project, that project was researched, and the location of the trail project was approximated. The geographic information for each project was linked to that project record, and all of the projects were mapped in a Geographic Information System (GIS) that was submitted to NHDOT.

A total of approximately 200 projects are included in the non-rail corridor database. These projects are shown in the map in Figure 2-1. Most of these projects are relatively small-scale projects that do not create a trail of significant length to be visible in the statewide map; other projects are not shown yet in the statewide map because they are still in the planning or design stage. Some of the projects, however, are of a significant length. Table 2-1 summarizes the characteristics of some of the major off-street trails that have been completed in the state. This is not a comprehensive list, but instead offers a sampling of some of the major off-street facilities.

NEW HAMPSHIRE STATE TRAILS PLAN

**Table 2-1 Sample of Trail Improvement Projects**

State #	Town	Description	LOCATION	Status	Owner	Surface Type	Maintenance	RPC
11918	Nashua	Pedestrian bike path on Nashua Branch RR corridor [93-36TE]	Pedestrian/ Bike path	Construction complete				Nashua
NRPC_4	Milford	Shared-use trail connecting Milford and Brookline (3 miles)	Granite Town Rail Trail	Construction Complete, Improvements Needed	Town of Milford	Gravel	Conservation Commission	Nashua
NRPC_4 B	Brookline	Shared-use trail connecting Milford and Brookline (6 miles)	Granite Town Rail Trail Ext	1.5 miles of easements in place	Town of Brookline / Various	Gravel	Conservation Commission	Nashua
12641	Wolfeboro	Trail along the Wolfeboro branch line railroad from Fernald Station to Cotton Valley. This is a portion of a larger project to connect Wolfeboro, Brookfield and Wakefield [96-34TE]	Multi-use Path		State of New Hampshire	Unpaved	Town of Wolfeboro	Lakes
12273	Wolfeboro	Alternative transportation path along abandoned RR corridor from Whitten Neck Rd to NH 109 [94-14TE]	Multi-use Trail		State of New Hampshire	Unpaved	Town of Wolfeboro	Lakes
12140	Laconia	3600' of 5' wide sidewalk along Union Ave and 1300' of 8' wide bike path on abandoned RR corridor [94-46TE]	Union Avenue	Construction complete	City of Laconia	Paved	City of Laconia	Lakes Region
12138	Bath	13.5 mile bike / ped transportation corridor connecting 5 villages, residential and commercial areas [94-23TE]						North Country
12652	Manchester	Acquisition of abandoned RR corridor in Manchester, part of Manchester – Lawrence Branch for recreational purposes [96-02TE]						Southern NH
13093	Goffstown	Purchase approximately 5.0 miles of abandoned B&M RR corridor [98-48TE]						Southern NH
13103	Manchester	2.0 miles of 8' wide path within RR corridor owned by NHDOT [98-47TE]	Pedestrian/ Bike path	Under construction				Southern NH
13493	Manchester	Refurbish utility bridge for trail connection [00-59TE]						Southern NH
12133 B	Fitzwilliam to Walpole	Cheshire Branch Railroad corridor acquisition from Fitzwilliam through Troy, Marlborough, Swanzey, Keene & Surrey to Walpole - 43.2 miles [94-03TE]		Acquisition complete	State of New Hampshire	unpaved	State of New Hampshire	Southwest
12133 C	Keene to Hinsdale	Ashuelot Railroad corridor acquisition from Hinsdale through Winchester & Swanzey to Keene [94-03TE]		Acquisition complete	State of New Hampshire	unpaved	State of New Hampshire	Southwest
12166	Keene	Bike / ped path through downtown Keene [94-02TE]	Gilbo Avenue	Construction complete	City of Keene	paved	City of Keene	Southwest
12680	Peterborough	Construct Riverwalk to be used as multi-use transportation pathway connecting businesses to outlying areas [96-67TE]		Construction complete	Town of Peterborough	paved / unpaved	Town of Peterborough	Southwest
11922	Rochester	Construct bike / ped path on acquired B&M RR corridor [93-11TE]						Strafford
12296	Portsmouth	Construct bike / ped bridge spanning Spaulding Turnpike from Ashland Road Ramp [94-62TE]	Rockingham Bridge	Completed in 1998				Rockingham Planning Commission



### 3. PLANNING CONTEXT

This chapter summarizes selected state and regional plans and other documents as they relate to bicycle, pedestrian and trail systems generally and rail trails specifically where appropriate. This review of key planning documents provides background and context for the State Trails Plan by describing some of the state planning priorities, and the regional and local projects and implementation goals.

#### State of New Hampshire Documents

##### *New Hampshire Statewide Bicycle and Pedestrian Plan:*

###### Introduction

The New Hampshire Statewide Bicycle and Pedestrian Plan was adopted in May of 2000 as an element of the State’s Long Range Statewide Transportation Plan. One of the goals of the New Hampshire Department of Transportation—and the overriding goal of the New Hampshire Statewide Bicycle/Pedestrian Plan—is to recognize, support and encourage bicycling and walking as alternatives to motorized forms of transportation.<sup>1</sup> The plan was developed through public input and the recommendations of the Bicycle Pedestrian Transportation Advisory Board.

###### Development Process

The NHDOT has been purchasing abandoned railroad rights of way using federal/state funds for the preservation of rail corridors for future transportation needs. One of the identified uses for these rail corridors is for bicycle and pedestrian use. A Rails to Trails program to convert abandoned railroad corridors to usable trails is being developed. The New Hampshire Statewide Bicycle and Pedestrian Plan does not incorporate many of these trails since the trails are still under development.<sup>2</sup>

###### Funding Categories, Levels, and Availability

Surface Transportation Program (STP) funds can be used for basically the same types of projects as the National Highway System (NHS) monies. Within the program, 10 percent of the funds are required to be used for Transportation Enhancements (\$ 3.2 million each year) ...this portion of the STP funds can be used for:

- Bicycle and Pedestrian facilities
- Preservation of abandoned railway corridors

Projects under the Transportation Enhancement program are not limited to construction of bicycle lanes or paths or pedestrian walkways. These funds can also be used to provide shelters, lockers, and other amenities to accommodate bicyclists or pedestrians. In addition, these funds can be used for bicycle/pedestrian planning activities.<sup>3</sup>

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<sup>1</sup> New Hampshire Statewide Bicycle and Pedestrian Plan May 2000, pg. 2

<sup>2</sup> Ibid, pg. 14

<sup>3</sup> Ibid, pg. 15

## ***New Hampshire Outdoors, 2003-2007 Statewide Comprehensive Outdoor Recreation Plan (SCORP):***

### **Introduction**

*New Hampshire Outdoors, 2003-2007* is New Hampshire's Statewide Comprehensive Outdoor Recreation Plan (SCORP). It serves as the State's official plan for outdoor recreation for the ensuing five years. The SCORP identifies major issues and challenges concerning the state's recreation and natural resources and offers a series of recommendations to address those issues. In some cases, the recommendations are guidelines; in others, they give direction for specific action, particularly for State agencies.<sup>4</sup>

### **Stewardship of the Natural Resource Base for Outdoor Recreation**

- Protection of existing greenways and trail corridors has become an increasing challenge due to changes in land ownership, private land closures, and increased development (*Comprehensive Statewide Trails Study, 1997*).<sup>5</sup>

#### **Recommendations:**

- Insure that the quality and quantity of the natural resource base is maintained or enhanced as recreation pressures increase.<sup>6</sup>
- Continue to support efforts to identify and protect open space lands.
  - Support comprehensive statewide and regional planning for open space, recreation corridors, and greenways (e.g. State, regional, and local open space plans, trail plans etc.)<sup>7</sup>

### **Providing Different, Sometimes Competing, Recreational Opportunities**

- The 1997 Comprehensive Statewide Trails Study completed by the Office of State Planning found that existing trails are inadequate to meet the current range of recreational activities.<sup>8</sup>

### **Impacts of Existing Land Use Patterns on Recreational Opportunities**

- Many current land use development patterns negatively impact local and regional opportunities for trails and recreation corridors.<sup>9</sup>
- Respondents in the *Statewide Outdoor Recreation Needs Assessment* (UNH, 1997) said that about 50 percent of their outdoor recreational activity takes place within 10 miles of home.<sup>10</sup>
- Recreation corridors can also serve as alternative transportation corridors.<sup>11</sup>
- An important part of growing smarter includes preserving open space and parks, creating networks of trails and greenways that link community resources, and promoting bicycle/pedestrian friendly communities. All of these goals have a positive effect on local recreational opportunities and have solid links to transportation, health and land use planning goals.<sup>12</sup>

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<sup>4</sup> New Hampshire Outdoors, 2003-2007 Statewide Comprehensive Outdoor Recreation Plan (SCORP) March 2003, pg. 1

<sup>5</sup> New Hampshire Outdoors, 2003-2007 Statewide Comprehensive Outdoor Recreation Plan (SCORP) Summary Report June 2003, pg. 9

<sup>6</sup> Ibid, pg. 10

<sup>7</sup> Ibid.

<sup>8</sup> Ibid, pg. 12

<sup>9</sup> Ibid, pg. 21

<sup>10</sup> Ibid.

<sup>11</sup> Ibid.

<sup>12</sup> Ibid.

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### Recommendations:

- Promote interagency coordination to address regional recreation, trail and open space needs (e.g. explore expanding the role of the Statewide Trails Advisory Committee in addressing regional trail needs).<sup>13</sup>
- Encourage Regional Planning Commissions to coordinate and develop multi-community recreation and open space plans (e.g. Central New Hampshire Regional Planning Commission open space and trail planning assistance).<sup>14</sup>
- Promote local development that is sensitive to protecting and enhancing local land and water-based recreation and natural and cultural resource protection opportunities.
  - Support efforts to create local and regional networks of trails and greenways.
  - Support efforts that link community resources via trails and improve the overall connectivity of trails.
  - Better incorporate open space and trails planning efforts into local and regional planning and land use decisions.
  - Promote “Walk to School” and other “Walk to” or “Bike to” programs.<sup>15</sup>
- Educate communities about the importance and economic and non-economic benefits of local, close to home recreational opportunities.
  - Educate the public about the economic value of recreational opportunities in local communities.<sup>16</sup>

### Importance of Local Outdoor Recreation Opportunities and Open Space Protection in Promoting Increased Health and Wellness

- Providing open space, parks, trails, and greenways for "recreation" can be an important part of larger community efforts to develop more livable/walkable communities.<sup>17</sup>
- Providing outdoor recreation opportunities within neighborhoods and communities and providing better access to information about recreational opportunities have been identified as important tools to address obesity and lack of physical activity.<sup>18</sup>
- Nationwide initiatives and partnerships are also in place to promote use of trails as 'pathways to health' and to promote community partnerships aimed at encouraging physical fitness. Promoting trails and trail use is seen as a way of reaching the largest segments of the community. Walking/trail activities are the most popular recreational pursuits in the US, even among those 60 + years of age.<sup>19</sup>

### Recommendations:

- Build connections with the NH Department of Transportation, local public works departments, and local boards to promote bicycling and pedestrian connectivity and non-motorized transportation networks.<sup>20</sup>
- Improve existing and new recreation opportunities by enhancing non-motorized (bicycle/pedestrian) accessibility and connectivity. Non-motorized access is particularly important to youth, elderly and disabled populations.<sup>21</sup>

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<sup>13</sup> Ibid, pg. 22

<sup>14</sup> Ibid.

<sup>15</sup> Ibid, pg. 23

<sup>16</sup> Ibid.

<sup>17</sup> Ibid, pg. 24

<sup>18</sup> Ibid.

<sup>19</sup> Ibid.

<sup>20</sup> Ibid, pg. 25

<sup>21</sup> Ibid, pg. 26

### Friends of the Northern Rail Trail

Volunteer groups often make up the difference between a good idea and a success story. In 1996, the State acquired 60 miles of the old Boston & Maine Railroad Northern Line for recreation purposes. But acquiring the corridor proved to be just the beginning. The old rail line needed a great deal of work before it could be transformed into a year-round rail trail. The State had funds available to assist in such efforts but lacked the staffing or resources to undertake the necessary trail directly. That is where the Friends of the Northern Rail Trail in Grafton County (FNRT) stepped in. Using state recreational trail grant monies, private fundraising and foundation grants, FNRT paired these funds with a great deal of volunteer time and effort to start the corridor's transformation into a recreation trail. So far, through an impressive volunteer effort, a 23 mile section of trail starting in Lebanon is open to foot traffic, bicycling, skiing, horseback riding, and snowmobiling. Volunteers removed rail ties, decked bridges, re-graded existing surface, and in some cases resurfaced sections of the trail to make it accessible to year round use. The group has also prepared a Rail Trail brochure for distribution and will continue to work on the remaining sections of trail down to Boscawen. Without such a coordinated volunteer effort, the Northern Rail Trail would still be in its infancy.<sup>22</sup>

## ***A Plan for Developing New Hampshire's Statewide Trail System for ATVs and Trail Bikes 2004 - 2008 December 2003:***

### Introduction

In the span of a few short years, the use of all-terrain vehicles (ATVs) and trail bikes, otherwise known as wheeled off-highway recreational vehicles (OHRVs), has come to the forefront of New Hampshire's recreational management issues. Concerns expressed by both wheeled OHRV supporters and opponents are warranted as the number of participants is expected to increase in the coming years. In recognition of both its popularity and its accompanying controversy, public land managers have consequently determined that providing safe and well managed wheeled motorized recreation in New Hampshire is an appropriate task and in alignment with statewide recreational goals. This document serves as the New Hampshire Department of Resources and Economic Development's Statewide Trails Plan for ATVs and Trail Bikes (the Plan). As such, it calls for providing designated seasonal trails for ATVs and trail bikes, identifies major issues relayed to developing and managing these trails for use by wheeled OHRV during the snow-free months, and offers suggestions for addressing these issues.<sup>23</sup>

### Plan Purpose and Need

All-terrain vehicle (ATV) users and non-users often disagree over management of ATV use on public lands. Supporters of their use feel that the current trail availability in New Hampshire does not adequately provide for the current number of participants. According to the report, ATV users also feel that the state has expended insufficient effort toward increasing and improving trail access, despite an annual wheeled ATV registration fee that is one of the highest in the country. Concerned opponents of this form of recreation offer a different view and regard ATV use as an increasing problem. As its popularity continues to grow, non-users contend that ATV use is a significant source of negative impacts on the environment, trail conditions, the outdoor experiences of others, and on adjoining property owners. In addition, there is an overall concern for other issues such as trespassing and regulatory enforcement. It can be argued that ATV users, unlike other trail user groups, have not enjoyed extensive trail systems on public land in New Hampshire. For example, well-maintained hiking trails are found throughout the state on both state and federally owned land. Also for comparison, snowmobile trails make up the majority of trail mileage in the state. There are more than 6,830 miles of snowmobile trails providing roughly 0.12 miles for each of the 55,000 registered snowmobiles. The relatively few managed ATV facilities in the state are receiving increased use and subsequent impacts, to the extent that these areas are

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<sup>22</sup> New Hampshire Outdoors, 2003-2007 Statewide Comprehensive Outdoor Recreation Plan (SCORP) June 2003, pg. 91

<sup>23</sup> A Plan for Developing New Hampshire's Statewide Trail System for ATV's and Trail Bikes 2004-2008 December 2003 Woodlot Alternatives, pg. i

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determined by some users to no longer provide enjoyable riding opportunities. This is particularly true of the most popular trails in the southern part of the state, such as the Rockingham Recreational Trail.<sup>24</sup>

**Existing Conditions: Trails Designated for ATV Access**

ATVs have access to all snowmobile trails on DRED lands and those federal lands under DRED recreation management during full snow cover except one railroad grade (see Table 2).<sup>25</sup>

**Table 3-1 Summary of ATV Trails Designated by the State of New Hampshire<sup>26</sup>**

Trail	Town	County	Ownership	Trail Maintenance Organization	Surface and Use Description	Total Mileage	Estimated Wheeled ATV use	Trail Condition
Ammonoosuc River Rail Trail	Littleton, Haverhill, Bath, Lisbon	Grafton	State-DOT	Ammonoosuc Valley ATV Club; the Bureau	Multi-use rail trail, open year-round	29	Moderate	Fair
Greenville Rail Trail	Greenville, Wilton	Hillsborough	State-DOT	The Bureau	Multi-use rail trail, open year-round with mud season restriction	3	Light	Good
Hillsborough-Bennington Rail Trail	Hillsborough, Bennington	Hillsborough	State-DOT	Tri-County ATV Club, Hillsborough; the Bureau	Multi-use rail trail, open year-round with mud season restriction	8	Moderate	Good
Rockingham Recreational Trail	Derry, Sandown, Hampstead, Fremont	Rockingham	State-DOT	Rockingham County ATV Assn., Sandown; NH ATV Club, Auburn; the Bureau	Multi-use rail trail, open year-round	12	Heavy	Fair
Sugar River Trail	Newport, Claremont	Sullivan	State-DOT	Sullivan County ATV Club; the Bureau	Multi-use rail trail, open year-round	8	Heavy	Good
Warren Rail Trail	Warren	Grafton	State-DOT	The Bureau	Multi-use rail trail, open year-round with mud season restriction	7	Light	Poor

**Designing the Finite Trail System**

To provide sizeable riding networks, the Bureau should seek to link two or three riding areas within each region. The first locations to investigate possible trail connections would be within existing municipal, state, and federal

<sup>24</sup> Ibid, pg. 2

<sup>25</sup> Ibid, pg. 7

<sup>26</sup> Ibid, pg. 9-10

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holdings. Gaining and designating access to parcels that are in proximity to each other and existing ATV trails have high potential for improving trail opportunities, particularly those parcels with historical pathways. Previously created corridors, such as old roads or paths, should be evaluated for their potential to provide linkages between existing trails to prevent the occurrence of new disturbances.<sup>27</sup>

Abandoned railroad beds are ideal locations for developing trail networks. They provide unique transects of the landscape and remarkable scenery. Railroad rights-of-ways also tend to link communities so riding rail beds is often compatible with other activities. Although abandoned rail beds are trails, they were not constructed for recreation, especially wheeled motorized recreation, and would need to be enhanced to prevent damage to the bed. It is a common fallacy that an abandoned rail bed will eventually become a trail; however, adopting rail corridors for public trails is not as easy as it seems. These public rights-of-way are preserved to retain the bed for the possibility of returning rail service. Also, the railroad corridors are a unique contribution to New Hampshire's historical legacy. Any rail bed adoption procedure should consider carefully their value as cultural resources.<sup>28</sup>

Suggested sites with potential for adding riding opportunities to the existing state trail system are listed in Table 3-2. Linking the existing systems in the South and Central Regions would provide large networked areas to sites with heavy riding pressure.<sup>29</sup> In New Hampshire, a specialized ATV riding area would be ideally located near another heavily used trail, such as the one at Pisgah State Park or the Rockingham Recreational Trail. This situation could potentially relieve some of the riding pressure that these two trails currently experience.<sup>30</sup>

**Table 3-2 Suggestions for ATV Trail Expansion Locations for Years 2004-2008.**<sup>31</sup>

Site	Towns Possibly Affected	Benefits to Expansion	Increased Opportunities	Facilitators	Obstacles
<i>Linking Existing Systems</i>					
Sugar River and Claremont Trails	Claremont, Newport	Connect a single segment with a large contained system	Diverse terrain	One organized club currently maintains both trails	None known
Warren Line to Ammonoosuc Rail Trail	Benton, Haverhill	Connect a shorter trail with longer trail	Flat terrain	Existing railroad corridor could serve as link	Few facilities; possibly need participation of an additional club
<i>Expanding Existing Trails</i>					
Rockingham Trail	Freemont, Epping	Lengthen a heavily used trail	Popular trail; flat, safe riding	Existing rail bed	Residential areas
Greenville Line	Wilton, Mason	Lengthen a short trail	Needed trail expansion in South Region	Existing rail bed	Few facilities; high potential for public opposition; may require participation of a club

<sup>27</sup> Ibid, pg. 24

<sup>28</sup> Ibid.

<sup>29</sup> Ibid, pg. 29

<sup>30</sup> Ibid.

<sup>31</sup> Ibid, pg. 31

## *Comprehensive Statewide Trails Study, June 1997, New Hampshire Office of State Planning:*

### Introduction

The Office of State Planning (OSP) in cooperation with the Department of Resources and Economic Development (DRED), Division of Parks and Recreation (DPR), and the Bureau of Trails (BT) conducted a year long study of the state trail system focusing on existing and potential trails throughout the state. The study was conducted under the guidance of Statewide Trails Advisory Committee representing public and private trail organizations. The primary purpose of the 1997 Statewide Comprehensive Trails Study is to address future trail needs, establish a recreation planning framework, analyze economic impacts and funding, discuss management and maintenance problems, identify priorities for protection and make recommendations.<sup>32</sup>

### Background

Despite maintenance setbacks, interest in trails across New Hampshire continues to grow. While hiking in the mountain regions has a long history, multi-use trails closer to urban centers continue to gain in popularity. In the future, trail users would like to find trails within a 15 minute drive from town. In order to accomplish this, trails should be planned as part of the state's infrastructure, in the same category as highways and utilities and should be accessible to users' homes and workplaces...Another effective tool to meet this objective is to convert abandoned rail beds and river ways into an expanded trail system. The State has been active in acquiring rail beds since the 1974 study [1974 Statewide Trails Study].<sup>33</sup>

### Trail User Survey

Most respondents to the 1996 questionnaires stated that multi-use trails were a wise investment and noted they felt 'comfortable' with other classes of users particularly when the rights-of-way is wide enough to accommodate other users.<sup>34</sup>

While several trails exist in the central and northern section of the State...there is a need for some dog sled trails in the southern section of the state, which the New England Sled Dog Association (NESDA) has recommended. Currently, dog sled operators in the southern section of the State are using the Rockingham Recreational Trail.<sup>35</sup>

### Developing Trails

The 1974 Statewide Trail Study discussed the potential use of abandoned railroad rights-of-way as links in the trail system. As noted in the study, these rights-of-way, 'lend themselves to a wide variety of trail uses even if these uses are not compatible for all trail uses.' Since the last study was completed, the State of New Hampshire, Bureau of Railroads has obtained title to thirteen lines...the 1974 Study recommended that each rail bed be 'Trail Zoned' for the various uses to be served, and provisions be made for trail maintenance, access, and linkage to other trails. In some instances a management agreement has been instituted between the Department of Transportation and the Department of Resources and Economic Development for the management of these rights-of-ways for recreational purposes. Potential discontinued rail lines that could be converted into rail-trails include the following:

- Ashuelot Branch – The local rails to trails group, Ashuelot Rails-to-Trails (ARTA), has been active in planning and surveying the line for recreational use.
- Manchester and Lawrence Branch – ...there are no immediate plans for its development into a multi-use trail.

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<sup>32</sup> Comprehensive Statewide Trails Study, June 1997, New Hampshire Office of State Planning, pg. VII

<sup>33</sup> Ibid, pg. 2-3

<sup>34</sup> Ibid, pg. 17

<sup>35</sup> Ibid, pg. 20

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- Northern Branch – It has potential to become a major spur of the New Hampshire Heritage Trail. Of all the available rail beds this line has the greatest potential for development primarily because of its location in relation to existing trails.
- Sugar River Recreation Trail – The 1974 Statewide Trail Study identified the entire 42 miles of rail bed as a potential trail corridor.<sup>36</sup>

Some examples of existing linkages could include connecting the old Concord to Claremont line, which includes the Sugar River section, with the Monadnock-Kearsage-Ragged Greenway. These linkages would assure recreational access for future generations as well as corridors for wildlife and plants.<sup>37</sup>

The acquisition of rail beds for multi use trails would provide an excellent mountain bike resource.<sup>38</sup> Yet another possibility might be to harden one side of the abandoned North Branch rail bed to accommodate touring bikes. This same technique might also be applied to the Rockingham Recreation Trail.<sup>39</sup>

### Issues, Goals, and Recommendations

#### Issue 1: Protection of Resources

DRED should continually work toward developing multi-use trails on abandoned rail lines as they become available. Coordination should be established and maintained with the New Hampshire Department of Transportation, Bureau of Rail and Public Transit.<sup>40</sup>

### Summary

One of the more important findings of the chapter on economic impacts was that significant revenue and jobs are created as a result of trails activities.<sup>41</sup>

Hiking has a long and honored tradition in the more remote mountain regions of the state. However, close-to-home multi-use trails are increasingly being recognized by the trails community that envisions trail within 15 minutes of home. Rails-to-trails, and greenway projects appear to be the primary approach for expanding the growing network of trailway systems. Community based trails projects are evidence of a strong grass roots trails movement in the state.<sup>42</sup>

## Regional Planning Commissions (RPCs)

The following are summaries of the regional plans, as they relate to pedestrian, bicycle, trail, and off-street transportation and recreation planning. These plans are executed by the regional planning commissions (RPCs), the officially designated planning entities for each region of New Hampshire.

### *Lakes Region Planning Commission*

The LRPC is currently working with an advisory committee on a Regional Bicycle and Pedestrian Plan. The plan will be the first of its type and primarily focus on policy. Goals and objectives will be developed and opportunities for trail development will be identified. LRPC staff and the advisory committee see a direct tie in between bicycling and walking and the region's primary industry—tourism. They envision a network of existing and improved roads and off-road paths encircling Lake Winnepesaukee with spur routes to the village centers

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<sup>36</sup> Ibid, pg. 26-28

<sup>37</sup> Ibid, pg. 32

<sup>38</sup> Ibid.

<sup>39</sup> Ibid, pg. 33

<sup>40</sup> Ibid, pg. 61

<sup>41</sup> Ibid, pg. VII

<sup>42</sup> Ibid.



and other destinations. The plan will also document existing municipal bicycle and pedestrian path projects including rail-to-trail and rail-with-trail projects in Northfield, Tilton, Franklin, Belmont and Laconia.

### ***Southwest Region Planning Commission***

There is strong support for designated bicycle routes to serve recreational and commuting traffic in the Southwest Region. The NH DOT in conjunction with the Regional Planning Commissions and interested citizens has developed a state bike route system that routes cyclists on a network of state highways and little used back roads. Keene has an established bicycle network used for recreational and daily trips by residents. Peterborough is also developing a bike path through town. These village systems are integral with the region's Rails-to-Trails network.

Opportunities for recreational hiking and biking within the region are numerous with the presence of an extensive Rails-to-Trails system and several long distance trails, most notably, the Appalachian Trail. The Southwest Region Rails-to-Trails network comprises the abandoned Cheshire, Ashuelot, Fort Hill, Monadnock and Chesham railroad. This network connects 16 Southwest Region towns. Rail Trail development is undertaken by NH DRED, area trail user groups such as snowmobilers and cyclists, regional conservation organizations and municipalities.<sup>43</sup>

While the Hillsboro Branch rail line is inactive, the physical condition of the track as rated in the 1991 New Hampshire State Rail Plan is as follows:

- Ties: Fair to Good
- Surface: Fair to Good
- Ballast: Cinder, stone, gravel – good
- Drainage: Fair – good
- Track Bridges: Fair to good
- Abutments: Fair to good
- Culverts: good
- Crossings: fair<sup>44</sup>

### **Local Pedestrian and Bicycle Planning**

Pedestrian and bicycle planning at the municipal level is administered through Municipal Master Plans. Master Plans ideally summarize the extent and condition of facilities and articulate the municipalities' policy regarding pedestrian and bicycle opportunities within the community. Municipalities are responsible for maintaining the municipal sidewalk network (on state and local roads) and municipal trail networks. Local Recreation Committees and Conservation Commissions are often active in planning and promoting enhanced pedestrian and bicycle access. Municipal budgets serve as the primary funding source for maintaining pedestrian and bicycle facilities. In the past several decades, pedestrian and bicycle access has been incidental to road development. Recently, there has been a noticeable increase in the demand for designated safe bicycle and pedestrian facilities in many Southwest Region towns. Many communities in the Southwest Region have identified this system deficiency in their Master Plans and are committed to finding ways to improve the system.

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<sup>43</sup> Southwest Region Transportation Plan 2001 Update, Southwest Region Planning Commission, pg. 26

<sup>44</sup> Ibid, pg. 29

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The Southwest Region population, employment and service centers support the development of a local network of sidewalks and bike trails using municipal funds, volunteer organization fund-raising and Transportation Enhancement funding. The City of Keene has established a bicycle network for recreational and commuter activity. The towns of Peterborough and Jaffrey are developing bike paths through town and enhancing pedestrian facilities in the town center. The towns of Antrim, Greenfield and Hinsdale are also improving pedestrian access in their town centers.<sup>45</sup>

### Rail Corridors

NHDOT has committed to a policy of preserving New Hampshire's extensive network of abandoned railroad corridors for possible active rail use in the future and assisting in securing funding for the rehabilitation of remaining active lines. Abandoned rail lines acquired by the State in the Southwest Region for interim recreational trail use are the Cheshire Line, the Ashuelot Line, the Fort Hill Line, and the Monadnock Line.

### 1992 Southwest Region Transportation Plan

The Planning Commission developed the 1992 Southwest Region Transportation Plan at the request of NH DOT and the Governor's Advisory Committee on Intermodal Transportation in fulfillment of the requirements under ISTEA, as the Region's contribution to the statewide transportation plan. Among the high priority recommendations identified in the 1992 Plan is to

- Support analysis and development of pedestrian and bicycle systems in the Region's population and village centers<sup>46</sup>

The mobility needs of the Southwest Region are served almost exclusively by personal motorized passenger vehicles and commercial trucking of freight. There is an increasing demand for facilities to support pedestrian and bicycle transportation both within densely developed centers and between. Several communities (e.g. Greenfield, Hinsdale, Jaffrey, Keene, and Peterborough) have undertaken comprehensive design and reconstruction projects to provide safe and meaningful connections in their centers for pedestrians and bicycles – both as an alternative to automobiles and in conjunction with car trips (a park-and-walk environment).<sup>47</sup>

## ***Southern New Hampshire Planning Commission***

The Southern New Hampshire Planning Commissions main purpose is to increase communication, cooperation and coordination among the local governments in the 13 communities that comprise the SNHPC. The Southern New Hampshire Planning Commission promotes inter-municipal cooperation between planning boards and local officials; promotes coordinated development of the region; prepares and adopts regional plans, including policies and strategies for the region; and performs other acts or functions as it deem appropriate to fulfill its duties.

### ***Regional Transportation Plan***

In response to the provisions of the Transportation Equity Act for the 21<sup>st</sup> Century (TEA-21), the Southern New Hampshire Planning Commission has prepared a long range, multi-modal transportation plan. The plan was recently updated in the spring of 2004.

The *Southern New Hampshire Regional Transportation Plan* includes a Bikeways and Pedestrian Facilities component. The goal of this component is to create a transportation system that incorporates bicycles and the accommodation of pedestrians throughout the region.

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<sup>45</sup> Ibid, pg. 42-43

<sup>46</sup> Ibid, pg. 49-50

<sup>47</sup> Ibid, pg. 57

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### The Objectives:

- Increase the use of bicycles for people movement throughout the region.
- Provide pedestrian-way and encourage their use.

### The Policies:

- Provide bicycle/bicyclist facilities associated with routes.
- Provide maps (guides) and publicity as to bicycle routes and their advantages.
- Coordinate planning and transportation projects with bicycle interests.
- Pursue funding opportunities.
- Incorporate pedestrian-way planning (circulation) in the transportation element of the municipal master plans.
- Establish a local greenway/pedestrian corridor task force/committee in each municipality to oversee a pedestrian-way development program.
- Provide technical planning and construction detailing assistance to municipalities by state and regional agencies.

In addition, within the Railroad component, there is a policy that states that abandoned railroad right-of-ways should be acquired and preserved for other public users.

### *Regional Bicycle and Pedestrian Plan*

The Southern New Hampshire Planning Commission updated the Regional Bicycle and Pedestrian Plan in the spring of 2003. The plan offers an overview of how the Southern New Hampshire Planning Commission region can become a safer, more inviting, and more practical place for people to walk ride bicycles. It serves as an update of the 1994 SNHPC region *Bikeway and Pedestrian Master Plan*, responds to a growing demand for bicycle and pedestrian facilities, and fulfills requirements specified in the federal Transportation Equity Act for the 21<sup>st</sup> Century.

The plan's overriding goal is to facilitate and encourage bicycling and walking as convenient, safe and practical forms of transportation throughout the Southern New Hampshire Planning Commission region. The goal is supported by a series of objectives that emphasize the regional biking and walking network, safety, appropriate design, education and promotion, and planning and maintenance.

The goals and objectives of the plan envision the region's future as one where many people walk and bicycle for both utilitarian and recreational purposes. It is a healthy and safe place to live, with vibrant city and town centers and calm rural areas. The long-range goal and objectives of the region's pedestrian and bicycle strategy follow below. The objectives and policies reflect those of the current *Regional Transportation Plan* and further clarify the pedestrian and bicycle goals therein.

The Regional Network Goal as stated in the *Regional Bicycle and Pedestrian Plan*:

To establish a continuous and coordinated regional bikeway and pedestrian walkway system, ensuring that this regional system is well linked with local systems in municipalities and abutting towns and regions.

- Accommodate bicycle lanes on roads of sufficient width.
- Modify sidewalks and intersections to facilitate pedestrian circulation.
- Construct separate (dedicated) facilities where desirable and possible, and link new and existing trails with on-street facilities.
- Coordinate the design and construction of routes between local jurisdictions and adjacent regions to ensure continuity.
- Design the regional system to function as part of the overall transportation system; include appropriate bicycle and pedestrian facilities in every project.

## *Upper Valley Lake Sunapee Regional Planning Commission*

### *Regional Plan Volume 2 Regional Transportation Plan (Feb. 5, 2004)*

The Upper Valley Lake Sunapee Regional Bikeway System Plan recommends a network that incorporates bicycle lanes and paths along highways and abandoned railroad rights-of-way, based on available right-of-way widths and traffic conditions. The Plan provides a fairly well integrated bike system that should be augmented in urban and village areas with additional local routes. State and local transportation projects should provide the necessary infrastructure improvements on all highway and trail projects to support Regional and local bikeway system plans, where feasible.<sup>48</sup>

A number of recommendations in the Regional Bikeway System Plan have been implemented. For instance, numerous roadway projects throughout the Region have included shoulder widening to encourage greater bicycle accessibility. A number of Transportation Enhancement-funded projects have added bicycle infrastructure in communities in this Region and other improvements are planned for the future. In addition, inactive rail corridors have been turned into multi-use paths that serve as great recreational and transportation assets to residents of this Region. However, much work is needed to provide continuity of existing bicycle routes, linking existing facilities to the communities and providing bicycling infrastructure for children and less experienced cyclists who will not ride on highways. Particular consideration should be given to connecting important civic places, such as schools, recreation centers and libraries, with residential areas. Cycling should also be considered as a viable form of transportation for employee commutes and the appropriate on-site facilities should be provided by employers to encourage such behavior. In addition, it is important to provide good bicycling access to tourist destination.<sup>49</sup> The overarching goal is to provide a safe, integrated network of bikeways throughout the Region for transportation and recreation.<sup>50</sup>

Bicycle facility planning should consider design features to encourage safe use. For instance, many highway corridors with more than 8000 Average Daily Traffic (ADT) would benefit from paths segregated from the roadway with a sufficient landscaped buffer to separate the bike path from the roadway. The Vermont Pedestrian and Bicycle Facility Planning and Design Manual contains suggestions for appropriate facility type based on average daily traffic and motor vehicle travel speed.<sup>51</sup>

### Abandoned Rail Corridors

Inactive rail corridors should be preserved for future use and for other uses, as has been the case with the Northern Rail Trail and the Sugar River Rail Trail. Unlike an air route, for example, which can be abandoned and reestablished without difficulty, selling parcels of a rail corridor results in the effective loss of that line. Thus, keeping these corridors intact should be given a high priority. As these corridors close or reopen, consideration should be given to sharing the line with recreation and other transportation modes when appropriate. Rail with Trail options should be considered along all rail corridors that can support such multi-use while not precluding current or future rail operations. VTrans recently evaluated the feasibility of a rail-with-trail along the Berlin line route which spans from Wells River to White River Junction, Vermont. The Region and individual communities can benefit from the recreation and transportation use of these shared rail lines.<sup>52</sup>

#### Northern Railroad: Boston and Maine Railroad

The line was abandoned by Guilford Industries, the owner of the Boston and Maine Railroad, and purchased by NHDOT with Enhancement Funds, in order to assure preservation of this corridor. The abandonment of this

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<sup>48</sup> Regional Plan Volume 2 Regional Transportation Plan (Feb 5, 2004), Upper Valley Lake Sunapee Regional Planning Commission, pg. 21

<sup>49</sup> Ibid, pg. 21

<sup>50</sup> Ibid, pg. 23

<sup>51</sup> Ibid.

<sup>52</sup> Draft Regional Plan 2003 Volume 2 Regional Transportation Plan, Upper Valley Lake Sunapee Regional Planning Commission, pg. 44

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line does not include a one mile section in Lebanon east from the Vermont line to approximately the Glen Road bridge. This section is currently operated by the Claremont-Concord Railroad with freight service.<sup>53</sup>

Sugar River: Claremont-Concord Railroad

The Claremont-Concord Railroad right-of-way, from Pleasant Street in Claremont east to downtown Newport, was abandoned several years ago, with the State acquiring the right-of-way for rail banking purposes and converting it into a recreational trail. The remainder from Newport through Newbury was abandoned at an earlier date and was not preserved.<sup>54</sup>

### Railroad Goals, Policies, and Recommendations

Urge that NHDOT and VAOT actively preserve the integrity of all railroad rights-of-way indefinitely for transportation purposes. Preservation of intact rail corridors, even if temporarily abandoned to public uses such as recreation, should be given a high priority.<sup>55</sup>

UVLSRPC and state agencies should encourage multiple uses of rail corridors where appropriate.<sup>56</sup>

Preserve all existing railroad rights-of-way, whether abandoned, inactive or in service. NHDOT and VTTrans should actively preserve the integrity of all railroads rights-of-way indefinitely for transportation (rails-with-trails and rails-to-trails), recreation and utility purposes.<sup>57</sup>

### *North Country Council*

The North Country Council recognizes the challenges in trying to increase and diversify economic development while balancing any land use changes with the existing transportation infrastructure. New, high draw commercial ventures such as industrial parks or national retailers provide jobs and income for host communities. Seasonal fluctuations in numbers of visitors to our scenic North Country swell the number of vehicles on the roads, slowing traffic and increasing safety concerns. Bicyclists often have to vie with four-wheeled traffic for a piece of pavement on shoulder-less roads. Former rail corridors seek new incarnations as rail/trails and local airports are poised for expansion.

North Country Council's long-term relationship with the New Hampshire Department of Transportation and local officials provides hands-on partnering to solve current transportation problems and identify future mobility challenges.

### Regional Transportation Plan Update

The Regional Transportation Planner and the North Country Transportation Committee have begun working on the rewrite of the North Country's Regional Transportation Plan. The plan will include statistics and accounts of existing conditions, the unmet needs regarding our transportation systems and services, and a plan of actions and projects to be included in future Transportation Improvement Programs and Transportation Enhancement Programs that will address those needs. The update will occur within the next two years. The Regional Transportation Planner and the Transportation Committee have already begun researching pertinent data and are working on a format for public information gathering meetings to be held in the spring of 2004.

### Ten Year Plan Priorities

Due to the funding constraints explained to the region by the New Hampshire Department of Transportation, the North Country Transportation Committee voted to not solicit for new projects this year to be included in the Ten Year Plan. The Committee instead focused on the review and prioritization of projects currently existing in the Ten Year Plan. The following projects received high priority from the Transportation Committee

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<sup>53</sup> Ibid, pg. 43

<sup>54</sup> Ibid.

<sup>55</sup> Ibid, pg. 42

<sup>56</sup> Ibid, pg. 24

<sup>57</sup> Ibid, pg. 45

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and were submitted as high priorities to the New Hampshire Department of Transportation in the Regional Transportation Improvement Program.

Milan to Dummer and Dummer to Erroll – Rt. 16 projects – road is in dire need of improvements. It is banned in the spring time every year providing no north to south traffic from Erroll south to Berlin.

Conway Bypass – This bypass has been in the plan for 20+ years. There are phases that have been completed and they are in the process of beginning new phases but the overall completion of the bypass is a top priority.

Warren - Wentworth Bridge – very dangerous bridge. There is a sharp corner going into and coming out of the bridge which makes it difficult for large trucks to stay on their side of the striped line. There was a fatal accident at this bridge involving two state troopers and the prisoner in their car. It is on schedule to be done in the next two – three years.

Bath and Lisbon Rt. 302 projects – there are several projects along Rt. 302 from Littleton down to Haverhill. The Committee ranks the improvement project high but prefers to see the bypass projects considered at a later date due to the fact that they need to be redesigned. The Committee feels the safety improvement projects should be done while NHDOT redesigns the bypass options.

Gorham Intersection of Rt.2 and Rt. 16 – currently there is no signalization at this intersection. These are two of the most significant roads in the North Country and they intersect in downtown Gorham. There is no light there and you have people turning in all directions, south and north on Rt. 2 and from the south and north of Rt. 2 turning onto Rt. 16. This project has been put off into "Future Considerations" and the committee feels there will be some terrible and possibly fatal accidents there if something is not done sooner.

Jefferson – Randolph Rt. 2 project – not only has a corridor study been done for the entire length of Rt. 2 but the design work for this project is nearly complete. NHDOT and other state agencies have held several public meetings and plan on hold their public hearing this spring. This section of Rt. 2 is narrow and dangerous for automobiles facing logging trucks at the posted speed limit.

### ***Central New Hampshire Regional Planning Commission***

A major component of the CNHRPC work program is transportation planning. Generally speaking, most analysis related to trail development done by the CNHRPC has been part of the transportation planning effort. The following two recent studies have addressed trails in the Central region:

#### ***The Regional Multi-Use Trail System Plan***

This plan, completed in February 2003, was intended to be used as an advisory guide for creating new trails and expanding and maintaining existing trails. It was designed to be a resource for Selectmen, Conservation Commissions, municipal planners, Recreation Departments, and other citizens interested in trail development.

The plan:

- Defines trail types
- Summarizes trail planning efforts in the Central New Hampshire Region
- Outlines steps in developing a local multi-use trail system
- Explains trail etiquette
- Relates the trail planning process to other municipal planning efforts such as master plans
- Describes municipal authority to create designated trails
- Explains the legal issues surrounding municipal trail development
- Provides trail design and construction standards
- And, suggests funding sources for trails projects.

### *Regional Bicycle and Pedestrian Plan*

This plan, completed in April 2001, proposes a regional bicycle network for the Central New Hampshire Region and suggests ways that communities can implement bicycle and pedestrian projects. The goals of the plan are to:

- Encourage the planning and development of a safe and accessible regional bicycle/pedestrian system for recreational and commuting purposes
- Establish a continuous, coordinated non-motorized transportation network that will increase the incidence of bicycling and walking
- Reduce the number of bicycle and pedestrian accidents, injuries, and fatalities, particularly those that involve motorist.
- Create a traveling environment in which bicycling and walking are attractive alternatives.
- Promote public awareness of bicycling and walking as modes of transportation for all destination-oriented trips
- Encourage organizations with appropriate interests or authority to improve traffic safety education and enforcement
- Integrate the consideration of the needs of pedestrians and bicyclists with other travel modes into the regular routines and programs of all agencies involved in the transportation planning process
- Recommend the development of a system that promotes the use of non-motorized modes of transportation that do not pollute the environment
- And, help communities in the planning, implementation, and evaluation of local bicycle and pedestrian plans and projects.

Work will begin on the transportation element of the Regional Master Plan in summer 2004. This will likely be the next CHRPC endeavor that will address potential trail development in the Central New Hampshire Region.

### Railroad Corridors

In the mid-1850's, the industrial age was beginning to take shape throughout the country with the advent of the railroad. New Hampshire was home to 1,200 miles of newly-constructed railroad track by the mid-1880's. Not only did the arrival of the train era bring the ability to export local timber resources and textiles, it also allowed for the convenient moving of people. After the arrival of the automobile, the dependency on railroads in New Hampshire diminished. Due to the decline in railroad use, many railroad corridors were abandoned or dismantled; the State of New Hampshire has claimed some of these former rights-of-way and so have abutting landowners. By design, these corridors are ideal for multi-use recreational trails. They are typically flat, hard-packed, straight beds that run continuously for miles. Railroad corridors provide a good resource for developing networks of trails and greenways. The right-of-way is compatible with a variety of activities and also has the advantage of linking up many communities. After abandonment, the railroad owner is sometimes willing to sell their land or grant trails easements for recreational and transportation uses. The Rails-to-Trails Conservancy keeps track of abandoned railroads and soon to be abandoned railroads.

Abandoned railroad corridors are also good locations for the state to consider for trail development. For example, in 1996, the State of New Hampshire acquired 60 miles of the Boston and Maine Northern Line using Federal Transportation Enhancement funds. Community groups in Grafton County converted 23 miles of the corridor into the Northern Rail Trail, a recreational trail open to hiking, bicycling, horse back riding, cross country skiing and snowmobiling. The trail begins in Lebanon and follows the abandoned railroad bed of the Northern Line along scenic rivers, lakes and historic villages. Rails with Trails (RWT) describes a shared use path located on or directly adjacent to an active railroad corridor. About 60 Rails with Trails are in existence in the United States and range from trails located next to active rail lines that have a few slow-moving short haul freight trains weekly to over 100 Amtrak trains per day. In New Hampshire, there is a Rail with Trail segment

between the towns of Tilton and Laconia. The trail segment is fenced in order to keep it separate from the railroad.<sup>58</sup>

## *Nashua Regional Planning Commission*

### *Nashua Metropolitan Area Long-Range Transportation Plan (2003 - 2022)*

The Nashua Metropolitan Area Long-Range Transportation Plan (the “Plan”) is guided by nine goals, six of which mention pedestrians and/or bicycles. Although none explicitly address trail facilities, several address bicycle and pedestrian access, open space preservation, promoting non-motorized travel, and economic development, all of which are applicable to trail development.

1. New highways and new road connections should establish shorter routes to cross natural boundaries, relieve traffic congestion, and create a logical progression in increasing the connectivity of the existing road network. The road network should provide for the most efficient circulation of vehicles. Response time for fire apparatus and emergency vehicles at the local and regional level should be reduced through improvements in the road network. The expansion of the road network should be achieved in ways that respect neighborhood cohesiveness, conserve open space (including woodlands and wetlands), and encourage pedestrian and bicycle travel. Consideration should be given to lessen the impact of secondary growth due to new highways, which in turn can lead to the re-emergence of traffic congestion.
2. Promote transportation demand management practices and the development of a transportation management association to relieve traffic congestion and increase circulation and efficiency in the existing highway network.
3. Encourage the use of access management techniques in commercial highway corridors to preserve capacity, increase safety, and improve the aesthetic environment. Support and encourage the redesign of areas and highway corridors that have experienced strip mall development so that they can better accommodate bicycle, pedestrian, and transit use.
4. Encourage transportation improvements in urban centers and town centers away from the urban fringe to improve transportation efficiency. Improve convenience and service, and therefore the ridership, of the transit system through the targeting of segments of the market that are not currently part of Citybus patronage. Promote the extension of transit service to urbanized areas in the towns and the expansion of sidewalk and pedestrian facilities in town centers.
5. Encourage multi-modal use and the integration of alternative modes, coordinated with land use and zoning practices that reduce dependency on the automobile and encourage pedestrian oriented and transit oriented development.
6. Encourage local planning that supports an efficient and cost effective transportation system including the development of site review regulations that encourage access management techniques and the inter-connection between sites and the accommodation of cars, bicycles, and pedestrians.
7. Establish inter-city transit connections including passenger rail service.
8. Promote access to transportation for the under-served and include plans and projects that ensure that the needs of transit users, bicyclists, and pedestrians are met. Promote plans and projects that link the jobless with jobs on a regional level. Improve the safety and quality of life in low-income areas and minority neighborhoods by reducing traffic congestion and implementing traffic calming techniques.

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<sup>58</sup> Central New Hampshire Regional Planning Commission 2002 Multi-Use Trail System Report, pg. 4-5



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9. Encourage public/private sector partnerships and private sector participation in the financing of transportation projects and services. Establish a transportation system that provides for orderly economic growth while preserving the environmental and cultural resources of the region.

The Plan observes that in recent years, there has been an increase in construction of sidewalks and bicycle paths, especially in urban centers, but that many inter-city roadway facilities that might be appropriate for non-motorized transportation access do not have adequate sidewalks or shoulders for bicycles or pedestrians.<sup>59</sup> The Plan also reports that the Nashua RPC is currently updating its 1995 regional bicycle and pedestrian plan.

Municipalities in the Nashua RPC region have also participated in the Transportation Enhancements (TE) and Congestion Mitigation and Air Quality (CMAQ) programs, and have developed bicycle and pedestrian projects through these programs. Projects in the Nashua RPC region that have been completed include:

- The Nashua segment of the statewide Heritage Trail, built on the Nashua Branch railroad
- Shared-use path along Albuquerque Avenue in Litchfield
- The Granite Town Rail Trail linking Milford and Brookline – Extension of the Nashua/Worcester Rail Trail from the Massachusetts/New Hampshire state line to NH 111A in Nashua

Applications for extensions to these trails, and for other bicycle and pedestrian projects, have been submitted to the NHDOT.

### ***Salem - Plaistow - Windham Metropolitan Planning Organization***

The Salem – Plaistow – Windham Metropolitan Planning Organization (MPO) is the recognized planning entity for this three-town area. The MPO is staffed by the Rockingham Planning Commission, the RPC which contains these three towns.

#### ***2003 - 2022 Long-Range Transportation Plan***

The Salem – Plaistow – Windham MPO’s Long-Range Transportation Plan (Draft: November 27, 2002) includes chapters on bicycle facilities and pedestrian access. The Plan includes a series of overall goals, several of which relate to bicycle and pedestrian facilities, including the following goals:

- Goal 1. Develop a transportation system that affords mobility for all and provides good access to employment, housing, services, and recreation areas
- Goal 3. Develop, maintain, and encourage the use of viable alternatives to the single occupant vehicle.
- Goal 4. Promote transportation policies and improvements that support protection of cultural and natural resources, and provide mitigation for unavoidable impacts.
- Goal 5. Encourage better integration of land use and transportation planning.
- Goal 6. Establish a transportation system that facilitates economic development.
- Goal 9. Assure adequate transportation funding.

The Plan states that some of the major roadways in the MPO area, notably NH Route 125 and NH Route 111, have adequate shoulder width for bicycle travel, and Route 111 is designated as a state bicycle route. However, these roadways also have high traffic volumes and frequent curb cuts. At the same time, less congested roadways have inconsistent and/or substandard shoulder widths.<sup>60</sup>

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<sup>59</sup> Nashua Metropolitan Area Long-Range Transportation Plan 2003 – 2022, p. 2-8.

<sup>60</sup> Salem – Plaistow – Windham MPO 2003 – 2022 Long-Range Transportation Plan, Draft 11/27/02, p. 6-2.

The Plan also states that there are currently no off-road shared-use paths in the MPO region, but that the abandoned rail line from Salem Depot to Derry could be developed as a trail.<sup>61</sup> This abandoned rail line is a segment of the state-owned Manchester and Lawrence Branch, which has been designated as a segment of the recommended Salem to Concord bikeway.

The plan also includes a series of recommendations for supporting the development of bicycle and pedestrian facilities; non-motorized transportation education, outreach and enforcement; and appropriate design of roadways, pavement markings, and signage. The Plan also recommends a series of specific bicycle and pedestrian projects. These recommended projects are principally on-road facilities: improved shoulders for better bicycle access, and new or improved sidewalks for pedestrian access. There are no specific recommendations for off-street trails.

### ***Seacoast Metropolitan Planning Organization***

The Seacoast Metropolitan Planning Organization (MPO) covers the Strafford Regional Planning Commission area and most of the Rockingham Planning Commission area. The Seacoast MPO is staffed by these two RPCs.

#### ***2003 - 2022 Long-Range Transportation Plan***

The Seacoast MPO's January 2003 Draft Long-Range Transportation Plan (the "Plan") includes components that bicycle facilities and pedestrian facilities.

The Plan includes a series of pedestrian and bicycle objectives, and makes recommendations to support the development of bicycle and pedestrian facilities; non-motorized transportation education, outreach and enforcement; and appropriate design of roadways, pavement markings, and signage.

The Plan identifies bicycle and pedestrian improvements that have been completed in the Seacoast MPO area. These include bicycle improvements in Dover and shoulder widenings on NH Route 108 in Dover and NH Route 27 in Exeter, along with two principal off-street trail projects:

- The 1.5-mile Lakeport Branch rail-trail in downtown Rochester
- The Pease Tradeport bicycle path

In addition, the Plan identifies future bicycle and pedestrian improvements in the Seacoast MPO, including shoulder widenings on NH Routes 108, 111, 27, and 1A and sidewalk projects in town centers throughout the Seacoast MPO area. The Plan also identifies proposed off-road shared-use trails, including:

- The Newington Branch Rail Trail in Dover. This 2.1 mile trail will run along the abandoned Newington Branch from the Dover Transportation Center in downtown Dover south to Central Avenue. It is an approved CMAQ project that is expected to be in design in the fall of 2004, and begin construction in spring 2005. The City of Dover is also pursuing funding for a 1.5-mile extension of the trail across the Bellamy River, where it will connect to Bellamy Park, Dover High School, and the shoulder widening project on Route 108 from Back River Road to the Madbury town line.
- The Wagon Track Bicycle Route in Durham and Madbury, a shared-use trail connecting Route 108 to Route 4.

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<sup>61</sup> Ibid, p. 6-2.

## Salem to Concord Bikeway Feasibility Study

As part of the I-93 widening project, it was suggested that bicyclists and pedestrian travel between Salem and Concord be accommodated. NHDOT executed a feasibility study to identify potential alignments, and recommend the most promising alignment for a multi-use path in the general I-93 travel corridor between Salem and Concord. Such a bikeway would run through New Hampshire’s most populous communities, and connect to Manchester and Concord, two of the state’s most important employment and commercial centers. Therefore, this project has special statewide significance that should be recognized in the State Trails Plan.

### Public and Agency Involvement

Public involvement was extensive throughout the course of the study and included the formation of a Citizen’s Advisory Committee (CAC). The CAC included members from nine communities within the Salem-Concord corridor and representatives from the Bicycle/Pedestrian Transportation Advisory Board, Rockingham, Central New Hampshire and Southern New Hampshire Planning Commissions, Department of Resource and Economic Development, Department of Historical Resources and the New Hampshire Department of Transportation. The CAC guided the study process and meet on four occasions. Additionally four public information meetings were held. At these meetings presentations of the options were made and representatives from the CAC and the consultants listened to public comments on the project. Based on recommendations and technical data provided by the consultants, the CAC made the final selection of an option to be considered for further development for a bicycle/pedestrian connection between Salem and Concord.

Options evaluated as part of this study included both off road and on road alternatives such as the proposed I-93 shared use path, the abandoned Manchester and Lawrence Railroad Corridor, the abandoned Concord – Portsmouth Railroad Corridor, segments of the New Hampshire Heritage Trail and on-road options.

**Recommended Route.** A recommendation for a preferred route was based on a comprehensive evaluation of each option based on criteria set forth by the CAC. The criteria included determining how well the option met the goals of the purpose and need statement, design and construction issues, costs, resource impacts and compatibility with community plans. As part of this process the “Rail Trail Alternative” was developed and is a combination of the other three options. It encompasses the two abandoned rail corridors, connected by an on-road option in Manchester and portions of the proposed Hooksett Heritage Trail. It was this combination alternative that was found to most strongly meet the criteria of the CAC. A detailed description of the route follows:

**Table 3-3 Proposed Salem to Concord Bikeway Alignment**

Segment Name	Facility Type	From	To
Manchester-Lawrence Railroad	Shared use path(rail to trail) and on-road segment around Manchester Airport	Hampshire Road, Salem	Depot Street, Manchester
Depot Street, Canal Street and River Road (Manchester)	Bicycle route (on road) and sidewalk	Concord Railroad crossing of Depot Street (Manchester)	Hooksett Town Line
Heritage Trail	Shared use path	Depot Road, Hooksett	Merrimack Street, Hooksett
Merrimack Street (Hooksett)	Bicycle route (on road)	Heritage Trail at proposed crossing of Merrimack River	Southerly end of Concord – Portsmouth Railroad
Concord – Portsmouth Railroad	Shared use path (rail to trail)	Merrimack Street, Hooksett	Westerly bank of Merrimack River
Hall Street	Bicycle route and sidewalk (on road)	Merrimack River, Concord	Downtown Concord

**Phasing**

Phasing for the development of the Salem – Concord Bikeway is broken into short-term, mid-term and long-term components. In the short term effort should be made to secure land not currently owned by municipalities or the state. Design and construction of the portion of the trail located within the Manchester–Lawrence abandoned rail corridor would follow. Lastly, the design and construction of the portions of the trail north of Manchester including the Concord –Portsmouth corridor and Hooksett Heritage Trail would be completed.

## 4. GUIDELINES FOR FACILITY DEVELOPMENT

New Hampshire has a considerable network of multi-use trails, community paths, and corridors with the potential for use as recreational and transportation systems throughout the state. The previous chapters describe the status of many of these corridors, with a particular focus on state-owned abandoned rail corridors. The condition and use of these corridors vary widely in terms of level of improvement, surface material, drainage and soil conditions, maintenance, and types of users, including what types of uses are permitted, feasible, and actually present in the corridor.

The data and findings from the previous chapters have been reviewed by the New Hampshire Department of Transportation (NHDOT), Department of Resources and Economic Development (DRED), and the Advisory Committee. It was also presented to the general public at a series of five public meetings conducted throughout the state, and was available through the study website.

This chapter includes a set of guidelines for future trail development, maintenance, and management. The guidelines are based on the current status of the trails and potential trail corridors, as well as input from NHDOT, DRED, the study Advisory Committee, and the general public, through comments made at public meetings and written comment forms. The following are the key issues that were reviewed in establishing the trail development guidelines:

- Facility use and user type
- Facility design
- Corridor ownership, management and maintenance
- Future needs

The following is a brief discussion of the public participation process and a summary of the comments received. This is followed by a discussion of each of the facility development topics, the study's findings and recommended guidelines for facility development, and related considerations.

### **Public Participation and Comments**

The information on the state-owned abandoned railroad corridors and other off-street trails was assembled and presented to the general public at five meetings, held at various locations throughout the state:

- Keene – May 3, 2004 (attendance = 100+)
- Bethlehem – May 5, 2004 (attendance = 31)
- Lebanon – May 6, 2004 (attendance = 17)
- Portsmouth – May 11, 2004 (attendance = 27)
- Concord – May 13, 2004 (attendance = 47)

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At these meetings, members of the public were encouraged to provide information regarding condition and usage of the trails and potential trail corridors with which they are familiar. In addition, members of the public were invited to make comments at these meetings, and to submit written comments either in person at the meetings, by mail, or by e-mail.

A total of 257 written comment forms or letters were received. The written comments are fairly representative of the issues that were raised and the comments that were made at the public meetings. A wide variety of user groups were represented at the meetings, and among the written responses. The following are some of the key findings from reviewing the public comments.

- Most respondents expressed an opinion on the general type of vehicle that should be allowed on multi-use trails
  - Non-Motorized Vehicles, Snowmobiles, and ATVs (49 respondents). These respondents support leaving the facilities open to a broad range of users, including motorized users. Many of these respondents were ATV owners who feel that they should also be able to use a public resource such as a multi-use facility.
  - Non-Motorized Users and Snowmobiles, NO ATVs (38 respondents). These respondents supported allowing snowmobiles on multi-use facilities during the winter months, but reserving the facilities for non-motorized users during non-winter months. Many of these respondents stated that ATVs tear up the trail surfaces, while snowmobiles do not. In addition, due to the seasonal use patterns, snowmobiles do not interfere with most non-motorized users. Some snowmobile riders who responded opposed ATV use because the snowmobile clubs do trail maintenance, and ATV use makes maintenance more difficult.
  - Non-Motorized Users ONLY (168). These respondents oppose any motorized use of the facilities at any time. The principal reasons cited for opposing motorized use of the trails are that motorized vehicles make too much noise; generate pollution; cause physical damage to the trails (creating ruts, “tearing up” the trail surface); and create conflicts and safety problems due to high vehicle speeds. Many of these respondents supported creating separate trails for motorized users (perhaps adjacent to highways and major roads), to be maintained by the motorized users.
- All respondents expressed support for developing and improving trails, as would be expected from people who take the time to attend meetings of the State Trails Plan and submit comments on the plan. Most respondents (163) favor improving corridors throughout the state. Other respondents cited specific trails where they favor improvements. The following trails were identified specifically by the following number of respondents:
  - Cheshire and Ashuelot (27) – commonly cited together; high number of respondents reflects high attendance at Keene meeting
  - Seacoast Area Trails (14)
  - Northern Rail Trail (11)
  - President Rail Trail (10)
  - Manchester to Seacoast (6)
  - Pondicherry Rail Trail (5)
  - Lebanon to Concord (4)
  - Concord Area Trails (3)
  - Keene Area Trails (3)
  - Conway Branch (2)
  - Profile Railroad (2)
  - Gorham to Whitefield (2)

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- Lebanon to Boscawen (2)
- Rockingham Recreation Trail (1)
- Pisgah Trail (1)
- Lakes Region / Wolfeboro (1)
- Warren Railroad Bed (1)
  
- Most respondents observed that many trails and potential trail corridors have physical shortcomings that should be addressed in order to improve the facilities and encourage higher levels of transportation and recreational use. Respondents raised the following issues related to physical condition of trail corridors; each issue is followed by a response based on the study findings:
  - Issue: Should facilities be paved or unpaved?
  - Response: The majority of public comments indicated that in most cases the facilities should be kept in a more natural, unpaved state using crushed stone, packed dirt, or small gravel for the trail surface. It may be preferable to pave facilities through more populated areas, to make connections with schools and village centers, or in heavily-used recreational areas to encourage walking and biking.
  
  - Issue: Existing bridges will need to be evaluated to ensure they are safe. For underpasses or culverts what is the minimum clearance needed?
  - Response: Horse owners suggested at least 15 feet is needed for head clearance.
  
  - Issue: Are drainage improvements necessary along abandoned railroad corridors?
  - Response: Most rail corridors have gravel/ballast foundations that provide some drainage benefits. However, drainage improvements are still needed along most trails to provide year-round accessibility and to prevent erosion.
  
  - Issue: Should railroad ties be removed?
  - Response: Railroad ties have been removed from some of the abandoned rail corridors, but they still remain along other corridors. Removing the ties would make travel, maintenance and grooming easier throughout the year. However, disposal of railroad ties is costly.
  
- Respondents also noted regulatory and enforcement issues with existing facilities and corridors, including:
  - Issue: Do ATVs have speed limits, and how are ATV speed limits enforced?
  - Response: ATVs have speed limits which are enforced by the Department of Fish & Game. Public comments indicate there is a need for more enforcement.
  
  - Issue: How can people be better informed about the type of uses allowed on different facilities?
  - Response: Better signage is needed to inform ATVs and snowmobiles when and where they can and cannot ride on the facilities.
  
  - Issue: How can noise from motorized vehicles on trails be reduced in populated areas?
  - Response: Some respondents have proposed installing sound barriers between homes and the facility where motorized vehicles would travel. However, these barriers are expensive, and many people find them unattractive.
  
  - Issue: Where should motorized off-road vehicles be permitted to operate?
  - Response: As the discussion in the previous section suggests, this is a contentious issue with a disparity of opinions. Some users favor prohibiting all motorized vehicles from multi-use facilities, and proposed creating separate facilities for them adjacent to highways (where cars already create noise and pollution). Other respondents, in contrast, favored allowing ATVs and

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snowmobiles on a broad range of facilities, and cited the licensing fees that motorized users pay, and the maintenance work that they perform.

- Some respondents cited procedural issues with the development of the State Trails Plan, including:
  - Issue: The public comment period was not long enough.
  - Response: The public comment period after the public meetings was extended to June 4, 2004. This gave members of the public a minimum of three weeks to respond after the final public meeting held on May 13, 2004 in Concord. The comment deadline was more than a month after the first public meeting held on May 3, 2004 in Keene.
  - Issue: Did the study's Advisory Committee adequately represent all people and trail interest groups? Were all of the parties specified under HB 748 for the Statewide Trails System Advisory Committee represented on the Advisory Committee?
  - Response: The study Advisory Committee represented a wide variety of trail users, interest groups, and people throughout the state (through RPC representation). Not all of the groups on the Statewide Trails System Advisory Committee were on study Advisory Committee, but many of them were. In addition, the Statewide Trails System Advisory Committee Chair was on the study Advisory Committee.
  - Issue: Is there a law that mandates that the state provide additional riding opportunities on state lands for ATV groups?
  - Response: Through HB 1273, and the HB 717 study committee, it is the Legislature's intent that additional recreational opportunities be made available for public ATV use on public lands, if appropriate.
  - Issue: Will DRED's management of the corridors result in fair treatment of non-motorized users, since DRED works closely with motorized users (ATV's and snowmobiles) of the corridors.
  - Response: DRED and NHDOT have an agreement to jointly review any improvements proposed to the corridors that DRED manages and NHDOT owns.

The public comments were taken into consideration in drafting the facility development guidelines. However, it is important to note that these comments were used in an advisory capacity, and were put in the context of the research and technical analysis, as well as the input from NHDOT, DRED, other state agencies and the Advisory Committee. The proportion of comments favoring different guidelines (e.g. motorized vehicles permitted versus motorized vehicles prohibited) were noted, but were not recognized as "votes" in a referendum. This is due to the fact that the public comments were submitted by a self-selected group that may not be representative of the general population, and the fact that the state must also protect the legitimate interests of all groups, whether or not they constitute a majority.



## **Facility Use and User Type**

### **Discussion**

The public identified a diverse number of potential trail users. The three principal reasons for using trails are for recreation, transportation, and exercise. Tourism is also identified as a purpose for using the Facilities. These different purposes may imply different ways of using the trails, and different types of users. Many different uses have been identified as well, including:

- Walking/Jogging
- Universal Accessibility
- Mountain biking
- Road biking (with narrow tires)
- Horseback riding
- Cross country skiing
- Dog sledding
- Snowmobiling
- Riding All Terrain Vehicles (ATVs)
- In-line skating

Comments generally support allowing as many different users access to facilities as is feasible and appropriate. However, combining some of these user types can create conflicts. These include:

### **Surface and Type**

Certain types of users prefer specific surface type. Road bikers and in-line skaters prefer paved surfaces. However, paved surfaces may be less desirable for equestrians, joggers, and snowmobilers, who prefer unpaved surfaces. Snow melts more quickly on paved trails than on unpaved trails, which is problematic for snowmobilers and skiers.

### **Environmental**

All Terrain Vehicles (ATVs) and Snowmobiles are louder and faster than non-motorized uses and could have air quality impacts, which may create a conflict for some non-motorized users and trail abutters. The discussion at many of the public meetings focused largely on these conflicts.

### **Seasonal Conflicts**

There is also the potential for wintertime motorized – non-motorized conflicts between cross country skiers and snowmobiles or ATVs.

### **Enforcement**

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Comments from ATV users and non-motorized users indicated that many conflicts result from misuse of machines, such as riding on sections of trail where they are prohibited.

### Guidelines

1. All facilities (new and/or improved) should accommodate as many user types as possible. However, recognizing that there may be some conflicts (both perceived and real), the entity that develops or improves the facility should involve representatives of all user types.
2. The types of users that are permitted and accommodated will vary by trail. Permitted trail usage should be prescribed by land owners/managers. Facility development will depend on several factors, including:
  - Financial constraints
  - Public input
  - Physical constraints (width, existing trail condition, soil conditions, drainage)
  - Abutters and adjacent uses
  - Environmental considerations
  - Potential for facility to make a critical link for certain user types (e.g. connection to the state bicycle network, or a link to motorized use areas).
  - In addition to the differences between user groups, there is also considerable diversity in usage characteristics within a given user group.
3. Associations and clubs are encouraged to work with entities that are developing or improving a facility in order to identify key segments that provide links to high use areas.

## Facility Design

### Discussion

Facility use is currently limited by poor conditions, including drainage, foliage encroachment, continuing presence of railroad ties and/or large diameter ballast. These conditions make facility use difficult for universal accessibility and users such as pedestrians and bicyclists. The public identified a number of locations where facility improvements are needed.

### Guidelines

1. Municipalities, Regional Planning Commissions (RPCs), local user groups, and other trail proponents are encouraged to build upon the facility inventory included in this study, and work with NHDOT and DRED to pursue trail improvements.
2. Facilities should be designed to safely accommodate all users that are permitted on the trail. Recommended references for safe and appropriate design guidelines are the American Association of State Highway and Transportation Officials (AASHTO) *Guidelines for Design of Bicycle and Pedestrian Facilities* and the Federal Highway Administration (FHWA) *Designing Sidewalks and Trails for Access*.

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3. Rail-with-trail may be pursued on state-owned railroad corridors in appropriate circumstances (e.g. where rail traffic is light and adequate corridor width is available). Developing rail-with-trail requires the permission of the railroad owner and close coordination with NHDOT. The NHDOT will provide detailed requirements for such projects with input from operating railroads. Sponsors of these projects must address issues such as safe clearance and separation for trail users, railroad, maintenance requirements that may include temporary trail closure, maintenance and policing of trails, reimbursement of added railroad costs, and insurance, bonding, and indemnification of the state and operating railroads. This report includes typical sections for rail-with-trail, but the dimensions and topography of railroad corridors vary and designs must be adjusted accordingly.
4. Proposed improvements to a trail in a rail corridor that may have rail service restored in the future should be fully evaluated since that trail could have many years of use that would justify the expenditure. This evaluation should include a feasibility study and an order-of-magnitude cost estimate for rail-with-trail or an alternate trail location in the event that the rail service is restored, so that the trail connection is not lost.
5. Maintenance of the facility must be a key component of any design.
6. NHDOT and DRED may provide technical and institutional support for development and improvement of multi-use trails. This report proposes design guidance for development and improvement of multi-use trails, including typical cross-sections addressing differing corridor conditions, trail requirements, and constraints. Typical sections have been included for several general cases, which are shown in Figures 4-1, 4-2, and 4-3. These typical sections address the following critical design issues.

### Trail Design Guidelines - Typical Sections

- Unpaved Path – A trail with a stone dust / crushed stone surface.
- Paved Path – A trail with a bituminous asphalt surface.
- Separate Path Trail – A trail with two parallel surfaces: a hard surface (pavement or stone dust) for users such as bicyclists and wheelchair users, and a soft surface (grass or compacted soil) for users such as horseback riders and joggers. It is desirable to provide separate paths where there is user demand for an alternate surface, and where width is available.
- Rail with Trail, Unconstrained Width – A trail that runs parallel to an active rail line, through a corridor that has adequate width to provide optimal separation and buffering between the rail line and the path (34 feet between the track center line and the edge of the trail shoulder).
- Rail with Trail, Constrained Width – A trail that runs parallel to an active rail line, but has physical width constraints that reduce the buffer between the rail line and the path to a minimum width (20 feet between the track center line and the edge of the trail shoulder).

The following are some of the key issues and design considerations for shared-use paths. All facilities are assumed to support two-way travel. These guidelines are based principally on the American Association of State Highway and Transportation Officials (AASHTO) *Guidelines for Design of Bicycle and Pedestrian Facilities*.

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- Trail width
  - 10 feet recommended (where site constraints preclude 10-foot width, 8-foot minimum width may be acceptable on a case by case basis)
  - 12 – 14 feet recommended in areas of high demand
  - Parallel unpaved path (where applicable): 6 feet minimum, 8 feet recommended – where parallel unpaved path is present, width of paved path may be reduced where overall trail width is adequate
- Vertical clearance
  - 10 feet minimum for horseback riders
  - Other uses may require higher clearances – local conditions and uses should be evaluated for vertical clearance requirements
- Trail foundation design
  - 6 to 12-inch gravel foundation. Thicker foundation is recommended in areas where there will be frequent access by motor vehicles, such as maintenance vehicles, park patrols, and/or emergency vehicles, or where soil conditions are poor
  - 6-inch gravel foundation minimum (acceptable in areas where motor vehicle traffic will be infrequent and soil conditions are good)
- Trail surface
  - Unpaved
    - Hard Surface - 4-inch thick compacted stone dust (available from quarries, typically  $\frac{3}{4}$ -inch maximum diameter prior to compaction)
    - Soft Surface – Grass or packed dirt
  - Paved – 2-inch thick bituminous concrete
- Trail shoulders
  - Width
    - 2 feet minimum
    - 3 feet recommended
    - 3 feet minimum to horizontal obstruction (e.g. sign, fence, tree)
    - 5 feet minimum to vertical hazard (i.e. vertical drop of 2.5 feet or more, top of vertical slope exceeding 3:1) – if less than 5 feet is available, a fence is recommended (with a 3-foot clearance)
  - Slope
    - 20:1 (run : rise) recommended
    - 12:1 acceptable for limited trail segments
    - 6:1 maximum
    - 3 feet minimum to horizontal obstruction (e.g. sign, fence, tree)
    - 5 feet minimum to vertical hazard (i.e. vertical drop of 2.5 feet or more, top of vertical slope exceeding 3:1) – if less than 5 feet is available, a fence is recommended (with a 3-foot clearance)

General cost estimates for trail construction have also been developed. These cost estimates focus on the costs of converting a typical abandoned rail corridor (no major obstructions, rails and ties already removed, ballast in place, no major drainage issues) to a typical multi-use trail (10-foot width, 3-foot shoulders, unpaved with crushed stone surface). The unit costs are based on NHDOT Weighted Average Unit Prices for projects bid in 2003. This cost estimate uses costs from urban projects, which tend to have somewhat higher costs than rural projects. Therefore, these cost estimates are somewhat conservative.

**Table 4-1 Typical Rail to Trail Conversion Cost Estimate**

Item	Description	Unit Cost	Unit	Trail Cost per Linear Foot
201.1	Clearing	\$ 5,692.31	acre	\$ 2.09
207.3	Earthwork and Excavation	\$ 11.65	cubic yd	\$ 6.90
209.4	Granular Backfill (Gravel Base)	\$ 11.50	cubic yd	\$ 6.81
304.3	Crushed Gravel	\$ 18.23	cubic yd	\$ 2.25
	Slope Stabilization			\$ 2.00
	Subtotal			\$ 20.06
	Contingency (35%)			\$ 7.02
<b>Total</b>				<b>\$ 27.08</b>

This results in a cost of approximately \$27 per linear foot for an unpaved trail, or \$145,000 per mile. For a paved trail, the cost would increase to about \$42 per linear foot, or \$225,000 per mile. This does not include the cost of any structures, which may be significant; bridge structures for a multi-use path could cost approximately \$1,000 per linear foot.

## Corridor Ownership, Management and Maintenance

### Discussion

The ownership and management structure of trails and corridors that could be developed or improved are important in determining what uses are permitted on a trail, how the trail is developed or improved, and how it is maintained. The trail system in New Hampshire has a variety of owners, management structures, and maintenance arrangements.

NHDOT owns the majority of the state-owned abandoned railroad corridors: 20 of the 23 corridors listed in Table 1 and described in Chapter 1 of this report. DRED owns the remaining three abandoned railroad corridors: the Profile Railroad, the Fremont Branch (the southern portion from Windham to Fremont), and the Greenville Branch.

Because DRED has the historical role and institutional structure for overseeing trails, it supervises the administration and maintenance of recreational uses along these inactive railroad corridors, including the NHDOT-owned corridors. A cooperative agreement between the two agencies spells out their respective roles. Most of the trail maintenance is done by local user groups and clubs, in particular snowmobile and ATV clubs. DRED programs that are supported by snowmobile and ATV licenses fund much of this maintenance, as well as minor trail improvements.

### Guidelines

1. The State of New Hampshire should work to ensure that the state owned abandoned rail corridors are reserved for current and future transportation and recreation uses. These uses may include multi-use trail functions as well as future rail service. In order to achieve this, the state-owned corridors should not be sold off to abutters: the State should retain ownership.

## NEW HAMPSHIRE STATE TRAILS PLAN

2. NHDOT should continue to allow the abandoned railroad corridors to be managed by DRED (through a cooperative agreement) for recreational use when there is no present need for transportation use. NHDOT and DRED should continue to coordinate on planning, design, and usage issues for these corridors where there is a cooperative agreement.
3. The NHDOT should remain involved in trail planning for the abandoned rail corridors. For those corridors where there is a cooperative agreement between NHDOT and DRED, and the latter agency provides recreational management, any proposed improvements by a Town will be reviewed with DRED Trails Bureau. The Trails Bureau will review the proposal for consistency with Statewide Trails program, and a supplemental agreement would be executed between the Town and both state agencies.
4. State and local enforcement must be a consideration of facility management.

## Future Needs

### Discussion

In its early stages, the State Trails Plan study process included a discussion of identifying “high priority” corridors on a statewide basis for development and/or improvement as multi-use trails. However, as research and discussion revealed the complexity of the issues and the variability of corridor conditions, it became apparent that this type of priority setting was not a realistic expectation at this time. The inventory developed as part of this plan will be updated as appropriate and will assist in future facility planning.

The State Trails Plan includes general information about each corridor gathered through the nine regional transportation plans and the knowledge of the state agencies, Advisory Committee and the general public. Some responses suggested improvements to specific rail corridors. Many focused on washouts and other drainage problems, which impede trail use. Others focused on conflicts in facility uses – between motorized and non-motorized modes. A general need is to make surface improvements to better accommodate different uses. Where ballast remains in the rail bed, many recommended a surface of crushed stone. In areas where the ballast was mined, a gravel base would also be needed to make the trail accessible to a full array of users.

The NHDOT Bureau of Rail and Transit has identified the following corridors having potential for the resumption of rail service:

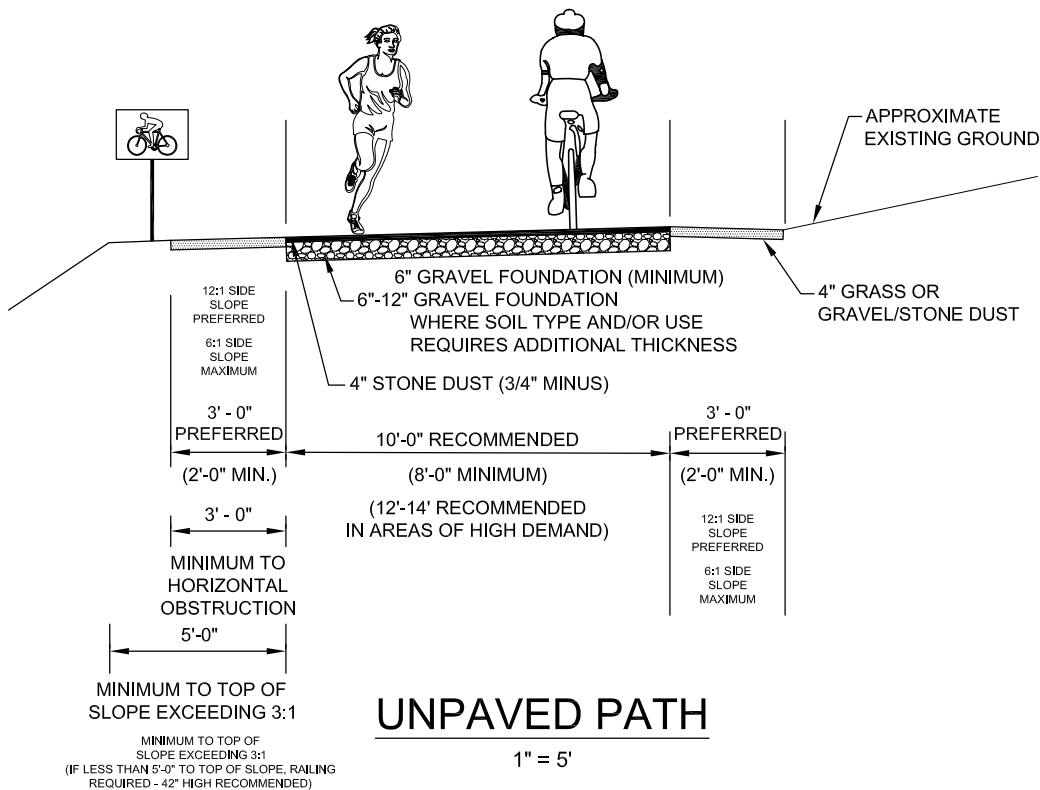
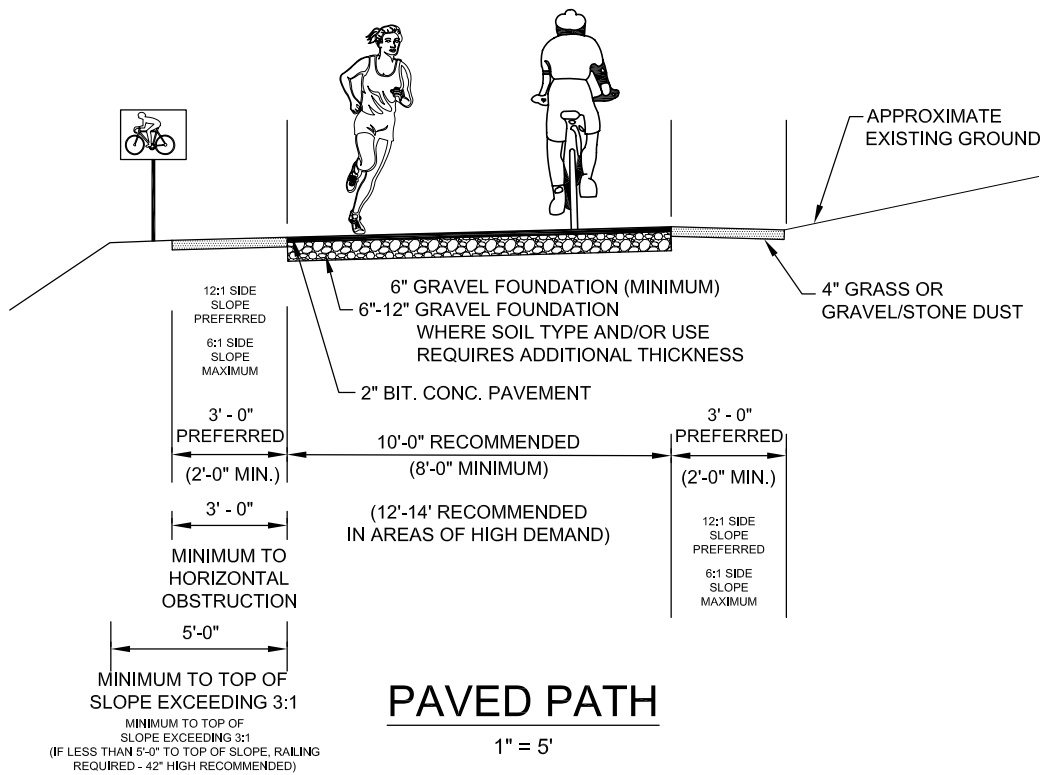
- Upper Coos Railroad (Whitefield to Jefferson) – freight rail
- Conway Branch – freight and passenger (excursion)
- Northern Railroad – Boston to Montreal High Speed passenger rail service
- Manchester and Lawrence Branch – freight and passenger (commuter)
- Hampton Branch – passenger (commuter)

### Guidelines

1. Regional planning commissions, municipalities, trail user groups, and the general public are encouraged to collectively assess the transportation, tourism and recreation potential of each of the state-owned abandoned rail corridors with the State. The process should include site walks of the corridors by state and local officials and interest groups. Public input should be considered.

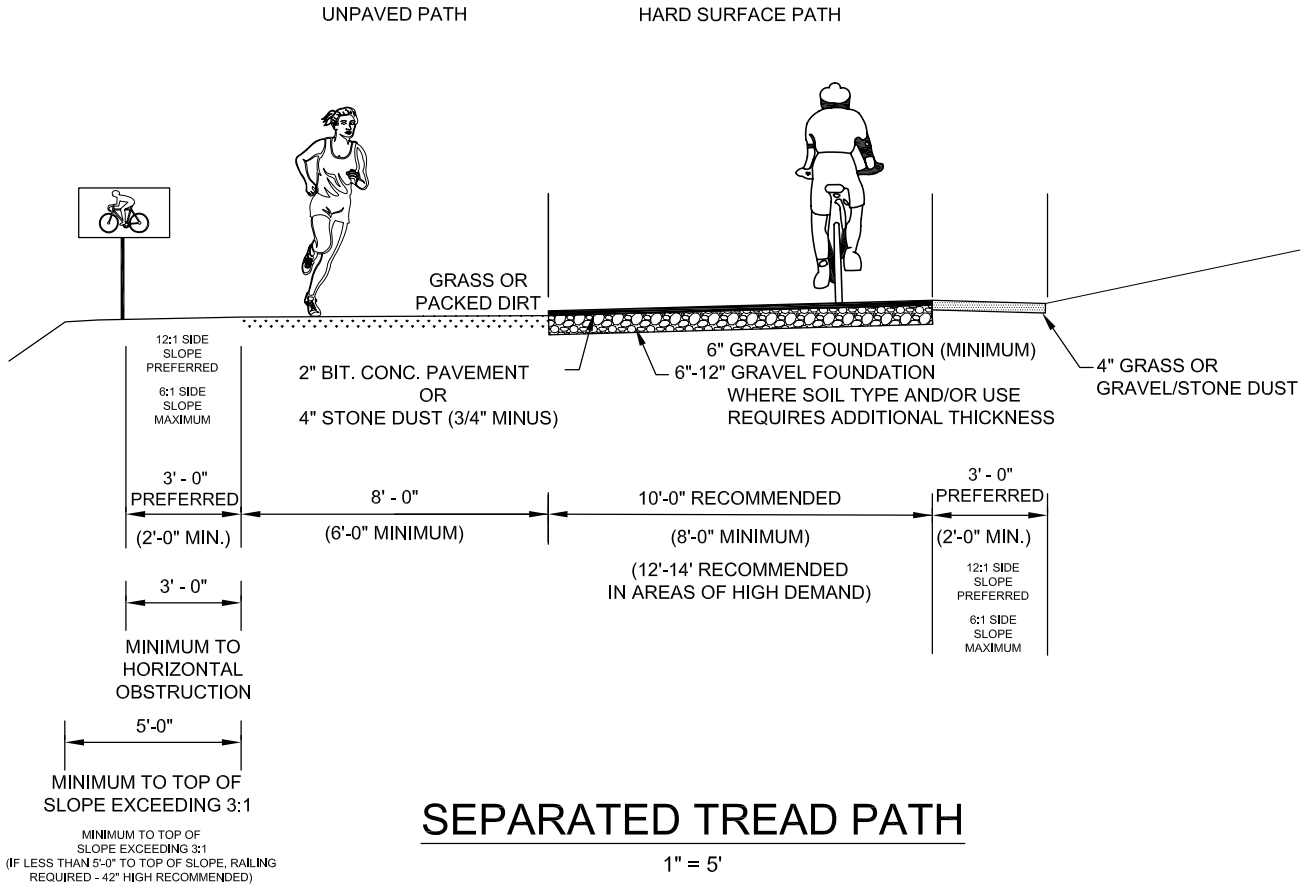
## NEW HAMPSHIRE STATE TRAILS PLAN

2. Trail improvements should focus on areas with the greatest potential for use and value to users, including:
  - a. Trails within villages (example: Blackmount Branch in Woodsville)
  - b. Trails between communities
  - c. Trails to important scenic and recreational areas (example: Berlin Branch)
  - d. Linkages to existing networks
3. NHDOT/DRED should help to facilitate trail development in abandoned rail corridors especially where the trail involves multiple jurisdictions and is of regional or statewide significance.
4. 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.
5. Funding alternatives for involving local private/public partnerships for facility development and other bicycle and pedestrian transportation projects should be found. Currently the primary funding sources Transportation Enhancement (TE) and Congestion Mitigation and Air Quality (CMAQ) are available in limited amounts.
6. As and when future rail corridors become available, the State should consider them for state ownership or assist communities in purchasing them.
7. Future facility planning should consider conflicts between different user groups and address their varying needs.



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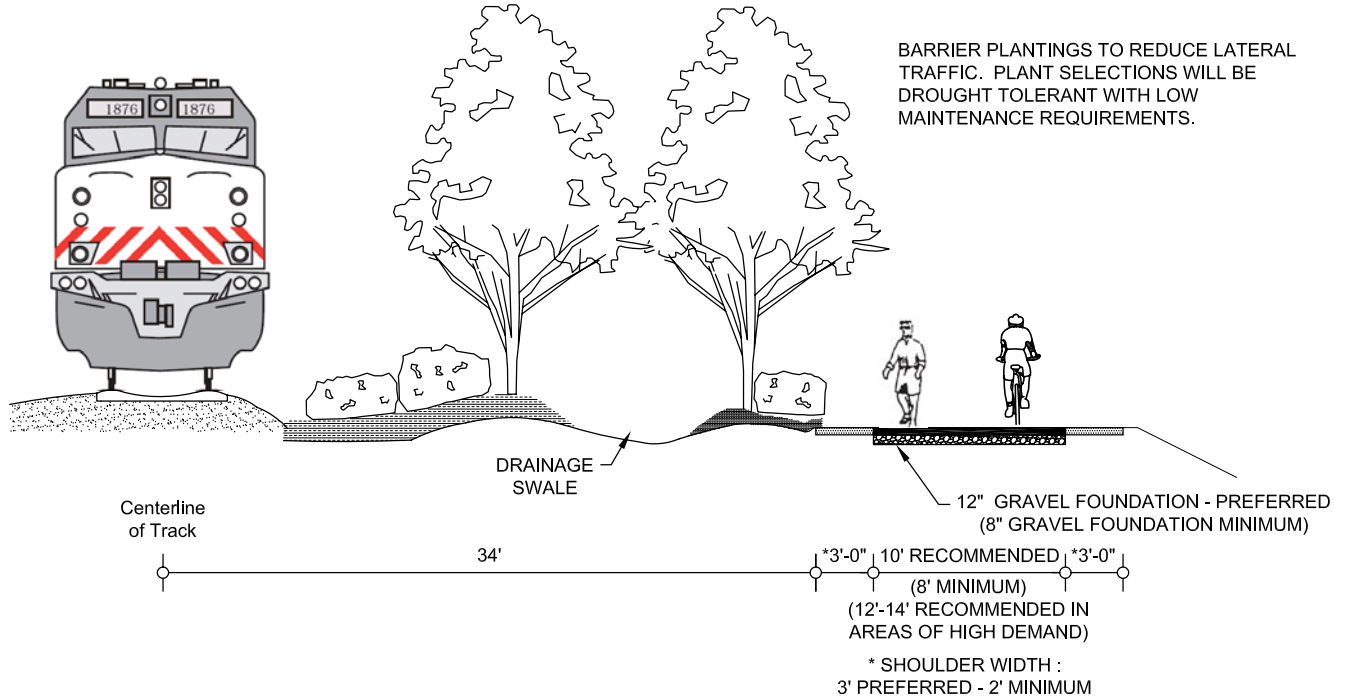




NEW HAMPSHIRE

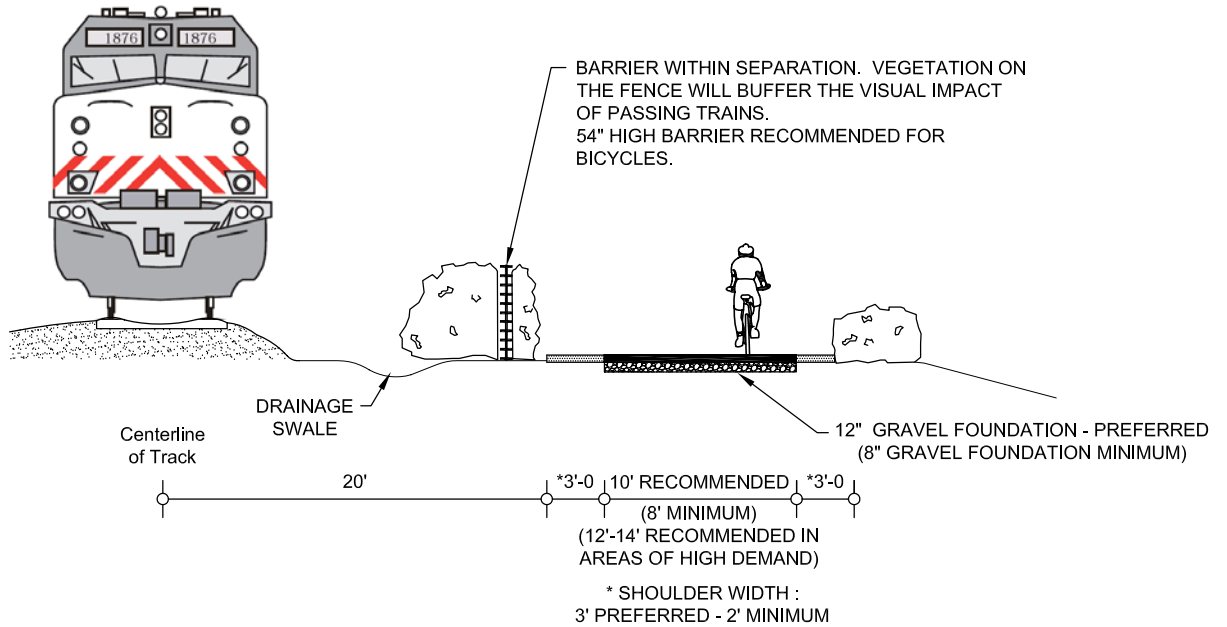
Off-Road Trails  
Typical Sections

Figure 4-2



## RAIL WITH TRAIL UNCONSTRAINED WIDTH

1" = 10'



## RAIL WITH TRAIL CONSTRAINED WIDTH

1" = 10'

Note: Rail-with-Trail development requires railroad company permission, and must be done with NHDOT cooperation. Rail-with-Trail design and development must be done in accordance with guidelines in Chapter 4.