

# **Transportation Observations, Considerations, and Recommendations for White Mountain National Forest**

**Provided by the Interagency Transportation Assistance Group (TAG)**

**Plymouth, New Hampshire  
June 27–29, 2007**

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A field investigation of the current transportation infrastructure and operations at White Mountain National Forest by the interagency Transportation Assistance Group (TAG) was conducted June 27-29, 2007, on behalf of the U.S. Forest Service (USFS). This TAG report was prepared subsequent to the site visit and documents the conditions observed, transportation issues and considerations, and recommendations arising from the TAG team's analysis. The site visit and the preparation of this report were facilitated and funded by USFS.

The TAG team concluded that White Mountain National Forest is experiencing transportation impacts stemming from peak visitation. Opportunities exist to improve the visitor experience, prevent resource degradation, and partner with surrounding businesses and communities to mitigate these impacts and improve the quality of life for all those who visit. The team recommended further planning studies in several areas, as well as exploration of partnership opportunities with the Appalachian Mountain Club, developing a relationship with tour bus operators, and creation of interpretive materials using new technologies.

## **I. BACKGROUND**

White Mountain National Forest (WMNF) is located in north-central New Hampshire and southwestern Maine, encompassing approximately 800,000 acres of spruce and northern hardwoods and paper birch. WMNF includes 157 miles of road open to passenger car travel, 1,200 miles of hiking trails, 400 miles of snowmobile trails, 160 miles of the Appalachian Trail, 23 developed campgrounds, and numerous Nordic and alpine ski areas.

Some of the most prominent physical features of WMNF include the Presidential Range of the Appalachian Mountains, which includes Mount Washington, the highest peak north of the Great Smoky Mountains and east of the Mississippi; Tuckerman Ravine, which provides spring backcountry skiing and hiking opportunities; and the Kancamagus Highway ("the Kanc"), the primary sightseeing roadway. WMNF provides year-round recreational resources, including hiking, camping, mountain biking, wildlife watching, fishing, hunting, picnicking, swimming, and canoeing/kayaking. During the winter, there is snowshoeing, snowmobiling, alpine and Nordic skiing, and ice climbing.

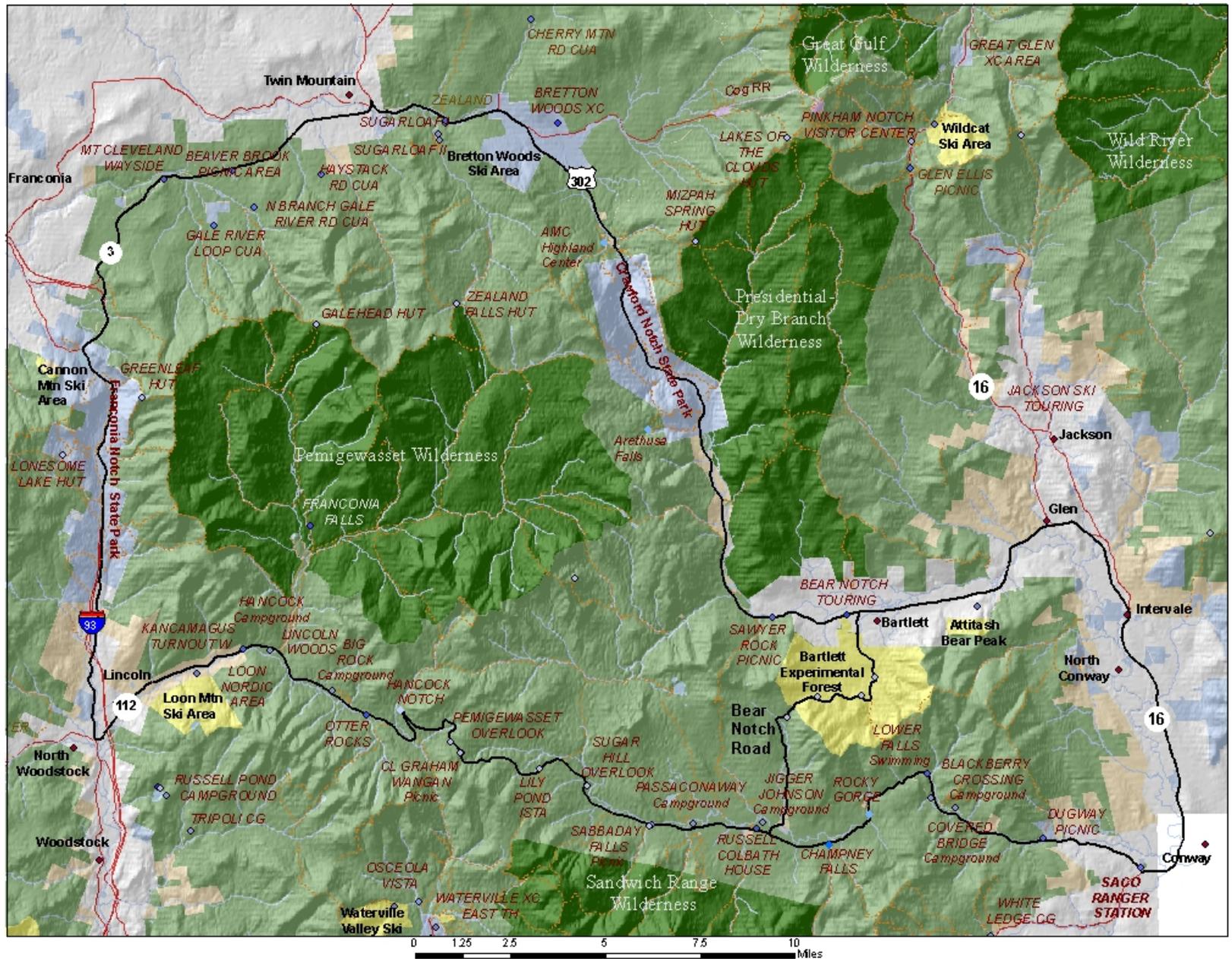
It is estimated that WMNF and surrounding area attracts 5-7 million visitors annually\*. There are two peak visitation periods: the summer months and the fall foliage season.

Access to WMNF is primarily via Interstate 93 and the U.S. and state highways that encircle and pass through. Forest roads connect within this network and provide access within and adjacent to WMNF. The primary communities in closest proximity to the major activity areas of WMNF, all in New Hampshire, are Lincoln and Franconia to the west; Conway and North Conway to the east; and Berlin and Gorham to the north.



\* The National Visitor Use Monitoring program estimated 1,692,000 visitors to WMNF itself for FY2005.

Although not within WMNF, a number of major activity centers are located immediately adjacent, which both generate their own visitation and share visitors with WMNF. Franconia Notch State Park, located along I-93, includes a number of popular tourist attractions, including the Cannon Mountain Aerial Tramway, the Flume Gorge, and the (former) Old Man of the Mountain Viewing Area. Crawford Notch State Park, located along U.S. 302, is a popular hiking and camping area and the location of the Appalachian Mountain Club's Highland Center at Crawford Notch, the site of a lodge and outdoor education center. The towns of Conway and North Conway are popular vacation centers with golf courses, outlet shopping malls, and numerous commercial tourist attractions. Additional commercial tourist attractions are located along U.S. 3 in the vicinity of Lincoln and U.S. 2 in the vicinity of Gorham.



### *Recent planning studies*

The “**Federal Lands Alternative Transportation Systems Study**,” a report sponsored jointly by the Federal Highway Administration and Federal Transit Administration and completed in 2003, assessed alternative transportation feasibility at WMNF. The study concluded that an extensive shuttle bus system is a possible alternative transportation measure that could help mitigate the impacts of future visitation to WMNF.

The **2005 Forest Plan** establishes direction for managing WMNF’s natural resources for the next 10-15 years. It outlines the goals and objectives of WMNF, a direction for management, and specific monitoring and evaluation protocols. WMNF transportation system goals are to provide a safe, efficient, seamless transportation and parking system in place, and to continue to look for and analyze alternative transportation opportunities.

### *Transportation infrastructure*

Access to and within WMNF is primarily by state, U.S., and interstate highways. Consequently, USFS is not able to monitor or control travel on the roadways. This contributes to difficulties in accurately monitoring visitation and also limits the ways in which the Forest Service is able to influence travel patterns.

### **National Scenic Byway**

The Kancamagus National Scenic Byway is a 26.5 mile section of the Kancamagus Highway designated as a National Scenic Byway by the U.S. Secretary of Transportation. As such it is eligible for, and has received in the past, grants for various improvement projects. The interpretive features highlight the natural elements and their relationship with development, telling an ongoing story of forest regrowth and ecology. WMNF’s transportation network also includes the White Mountain Trail National Scenic Byway, a 100-mile byway that connects with the Kancamagus Highway.

### **East-west connectivity**

In New Hampshire, and New England generally, north-south travel tends to be easier than east-west travel. The Kancamagus Highway is an important regional east-west link in the surface transportation network; there are no comparable links nearby.

### **Recreation enhancement fee**



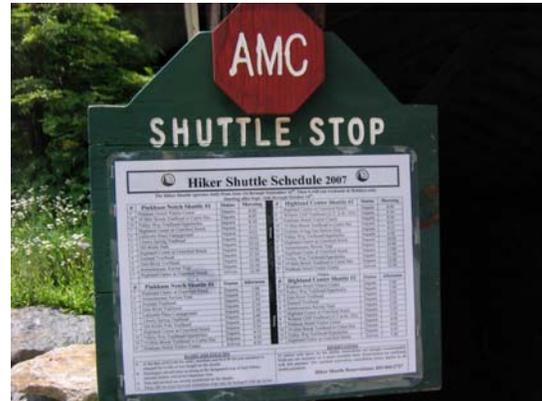
Motorists visiting WMNF are required to pay a recreation enhancement fee in order to park at designated lots along the Kancamagus Highway. At each of these sites, motorists are instructed to place \$3.00 into a special yellow envelope and deposit the envelope into a fee tube. They then affix a stub to their dashboard or vehicle that verifies their payment. The pass is good for the entire day at any WMNF site. The fee is on a per-vehicle basis and is the same for all vehicle types. Weekly and annual passes are also available from select vendors, USFS

offices, and information centers. According to USFS staff, this program generated approximately \$700,000 in 2002, its first year of operation.

### **Existing transportation services**

A patchwork of public and private transit and shuttle operators provide limited service in the WMNF area. These tend to target specific audiences and many operate only seasonally. For example, two private operators provide limited shuttle services in North Conway. Both are targeted to the tourist and outlet shopper. Other market segments include hikers and those needing human service transportation, as described below.

The **Appalachian Mountain Club (AMC)** operates a hiker shuttle from the beginning of June through mid-October along parts of the Appalachian Trail that run through WMNF. Two shuttle buses make a total of two loops each between AMC's visitor centers and lodges at Pinkham Notch and at Crawford Notch. A flat fare of \$12 is charged for AMC members and \$14 for non-members for any ride along the shuttle route. The service is designed so that hikers may park in one location and use the shuttle to return to their vehicle at the conclusion of their hike.



**North Country Transit (NCT)** operates public transportation services throughout Carroll, Grafton, and Coos Counties. NCT is also in the process of completing a public transportation feasibility study in Carroll County and received a grant from the Federal Transit Administration under their Public Transportation Participation (PTP) Pilot Program to develop an educational program on coordination of services among transit providers. NCT was also a co-sponsor, along with the North Country Council, of the Regional Coordinated Transit Plan for the North Country Council Planning Region, which was submitted to the New Hampshire Department of Transportation (NHDOT) in September 2006.

There are five **ski resorts** within WMNF and several more in the surrounding area. The resort areas generally own the land around their ground facilities but use the slopes (or upper slopes) under permit from USFS. These areas are major attractors during the winter months and at least two, Bretton Woods and Loon Mountain, operate and maintain internal shuttle systems. Loon Mountain shuttles also serve nearby hotels in the town of Lincoln. The shuttle buses are also used to take visitors on excursions to nearby attractions. During the summer months, these areas experience significantly less visitation. Due to the seasonal nature of activity at the ski areas, ski gondolas, buses, and parking areas seem to be much less used outside the winter months.

**Environment / resource use**

“Greening the White” is a USFS goal. WMNF has implemented a variety of measures to improve sustainability and is concerned about the environmental impacts of transportation to and within WMNF. As visitation grows, tailpipe emissions, runoff, and other impacts will increase.

**Growth in visitation**

As are many national forests and other public lands, WMNF is anticipating increased visitation in the coming years. As baby boomers retire, they are expected to drive growth in visitation to recreational areas. In addition, recent activity in the towns around WMNF will lead to increased facilities for tourists and could contribute significantly to increased visitation and related traffic. A new ski area expansion adjacent to Loon Mountain, called South Mountain, is being developed, outlet shopping has become an increasing attractor to Conway and North Conway, and the Bretton Woods ski resort is under new ownership by Celebration USA, which is expected to develop additional condominiums in the area.

**Economic development**

The local industrial economy has been in long-term decline, particularly in towns north of WMNF. Some towns around WMNF have come to rely increasingly on tourism and related services. In addition, New Hampshire’s tax structure—no sales tax or personal-income tax—makes the “rooms-and-meals” tax a particularly important source of local revenue.

**Partnerships**

WMNF has worked to establish a number of partnerships. Local stakeholders appear to know and respect the WMNF, and these relationships can serve as a launching pad for further discussions on transportation issues (as will be discussed later in this report).

**WMNF identity**

USFS has facilities at both ends of the Kancamagus Highway in both Lincoln and Conway, as well as limited signage along I-93. The new regional office currently under construction in Campton provides an opportunity to further advance the identity of USFS, particularly to those who may not be coming to the region specifically to engage with WMNF as a “U.S. Forest Service” experience. Many visitors may in fact not be aware that they are within a national forest, and even many locals seem to regard WMNF not as a “national forest” but as a local or regional recreation area, often confused with or perceived to be part of the New Hampshire state park system, especially since several state parks are adjacent or otherwise nearby.

## II. TRANSPORTATION ISSUES/PROBLEMS

### **Visitation peaks and associated transportation impacts**

While hard numbers are not available, WMNF staff and local stakeholders agree that visitation peaks on four holiday weekends: Memorial Day, 4<sup>th</sup> of July, Labor Day, and Columbus Day. The transportation impacts are primarily roadway congestion, parking facilities at or over capacity, and exceeding the capacity of the resources themselves.

- Heavy **traffic** at these times leads to congestion on surrounding roads, particularly on I-93 and Route 16, as well as negative impacts to the visitor experience and to increased emissions.
- As **parking** facilities reach capacity, visitors are more likely to park in unauthorized areas on the roadway shoulders. This creates a safety hazard, contributes to resource degradation, and can cause friction with local law enforcement.
- **Carrying capacity** of WMNF facilities becomes an issue, both in terms of visitor experience (especially the “wilderness” feeling) and resource impacts.



Figure 3: Spillover parking on the shoulder of the Kancamagus Highway

### **Understanding visitation patterns**

It is difficult to accurately estimate visitation, in part because there is no entrance station, and the primary roadways are controlled by the state. Traffic volumes along these

roadways should be available from NHDOT, although these data will not capture usage of the numerous parking areas and turnouts along the way, or average vehicle occupancy. Better understanding visitor demographics and visitation patterns is critical to understanding what kinds of transportation interventions will be successful.

One particular user type of interest is tour groups. Currently, tour bus drivers are not required to apply for any kind of permit from, nor register or coordinate with, WMNF. If tour buses make use of facilities, they are required to pay the recreation enhancement fee, but on a per-vehicle basis, not a per-passenger one. Compliance is believed to be low. As noted above, recreational sites are dispersed and there are no systems in place for ongoing data collection.

Since there is a lack of detailed visitation data, and of visitor survey data regarding transportation, it is unclear what the demand might be for expanded shuttle systems as suggested in the 2003 Federal Lands Alternative Transportation Systems Study. Understanding this is essential for WMNF to fully address transportation issues.

### **Potential conflicts among road users**

The roads in and around WMNF are used by WMNF visitors, other sightseers, commercial traffic, and resident commuters. Those visiting WMNF may be crossing the road on foot, cycling down the highway, or touring by private automobile. Especially during the fall foliage season, visitors may drive slowly to take in the views, even stopping in the middle of the highway to snap a photograph of the fall colors. In contrast are locals using the Kancamagus Highway as an east-west commuting route and commercial traffic; these groups merely want to reach their destinations as quickly as possible.

Recent and ongoing improvements to the Kancamagus Highway have added and are adding four-foot paved shoulders to each side of the road, where previously there may have been only gravel or no shoulder at all. It is hoped that these improvements will help alleviate conflicts between cyclists and vehicle traffic.

Pedestrian safety is also an issue, as visitors must sometimes cross the roadways on foot when navigating between trailheads, parking areas, and overlooks. There is the possibility of pedestrian and vehicle (car, truck, motorcycle, bicycle) conflicts, especially at popular activity nodes, where the circuitous highway alignments create limited sight distances.

### **Planning coordination**

Though stakeholders in and around WMNF seem to generally agree on the issues and concerns that exist in the region, until now there has been no active coordination among them. The Regional Coordinated Transit Plan for the North Country Council Planning Region, jointly sponsored by the North Country Council and North Country Transit and submitted to NHDOT in September 2006, may help achieve better consensus and, ultimately, positive action on transportation issues in the WMNF region.

### **Coordination of existing transportation services**

There is an existing patchwork of public and private transit and shuttle services. However, these tend to be limited in scope and many operate only seasonally. North Country Transit, through its Regional Coordinated Transit Plan, has begun to examine human service transportation in its service area.

### **Accessibility for non-motorists**

Connecting citizens to the land is a goal of USFS Region 9. However, visiting WMNF is difficult for those without access to an automobile. This issue arises in relation to travel to and from WMNF and within it. Given the WMNF's proximity to large urban centers, which in general have lower rates of car ownership and use than suburban or rural areas, there is a sizable population of those who cannot or prefer not to drive. Charter bus tours periodically bring visitors, including visitors from urban areas, but there is no regular service for the independent traveler. And, as noted above, even if visitors were able to arrive at WMNF without a private vehicle, they would have difficulty in traveling within WMNF and between the surrounding towns.

### **Recreational enhancement fee collection**

While the forest is currently working on a revised enforcement plan, many visitors may not be in full compliance, possibly because they do not understand the fee system. Enforcement is difficult for many reasons, including that the collection areas are dispersed, and many visitors may spend only a short time at a specific location. Because the current system is on a per-vehicle basis and does not discriminate between private and commercial vehicles, or by the number of axles, a single visitor in a car pays the same fee as the driver of a 45-passenger tour bus.

### **III. ANALYSIS AND RECOMMENDATIONS**

WMNF is experiencing transportation impacts stemming from peak visitation. Opportunities exist to improve the visitor experience, prevent resource degradation, and partner with surrounding businesses and communities to mitigate these impacts and improve the quality of life for all those who visit and utilize WMNF.

Based on site visit observations and discussion with local stakeholders, the TAG team offers the following recommendations. Overall, the recommendations are intended to help the Forest Service better define the problem, to strengthen transportation planning coordination regionally, and to improve the visitor experience.

Some recommended activities are sequential in nature. For example, it would make sense to obtain existing data before undertaking a transportation summit. Other activities, such as working towards tour bus management, would benefit from the implementation of other recommendations, but could stand alone. Several complementary recommendations could be incorporated into the larger study described in recommendation 4. They are also listed separately, however, as the TAG team believes that the Forest Service could benefit even if the larger study is not implemented.

#### **1. Obtain existing data and identify data needs and gaps.**

The first step in getting a better understanding of current conditions and the possible demand for enhanced services is collecting existing data and identifying data needs to be addressed. Potential sources are listed in the “supporting documents and resources section” in this report (below). Partners may be able to supplement information about visitor demographics and visitation patterns.

#### **2. Expand discussions with AMC.**

AMC already operates a shuttle service and may be a partner in any expanded transit service. Initiating a discussion with AMC about their organizational needs and possibilities for partnerships is a logical early step. AMC may find benefit in consolidating operations and expanding its focus to include not only its members, but also the communities that host its facilities in northern New Hampshire.

### **3. Co-sponsor a regional transportation planning summit.**

Many of the transportation issues impacting WMNF are outside of its (or any one agency's) control. By working with partner agencies, such as NHDOT, WMNF could bring together (or help to bring together) regional stakeholders to discuss issues such as traffic congestion, east-west connections, recreation, and economic development. The summit could be an opportunity to build on prior and ongoing studies and to work together to creatively develop approaches to the benefit of all. One outcome of the summit could be agreement, or movement toward agreement, on issues such as planning coordination, transportation management, and applications for transportation funding.

In addition to those mentioned earlier in this report, stakeholders may include ski areas and resorts, local retailers, Celebration USA, Storyland, and the various public transportation providers currently operating in the Mount Washington Valley.

### **4. Study transportation issues in WMNF and the surrounding area; consider a planning study centered on the Kancamagus Highway.**

A transportation planning study centered on the Kancamagus Highway may form the basis for an application for project funding. Such a study could focus on areas such as visitor management, transportation operations, and vehicle/bicycle/pedestrian conflicts, and would tie the results of previous and ongoing work to WMNF's management objectives and broader USFS regional and national policy goals.

Elements could include:

- Data needs and gaps (as described in recommendation 1).
- Partnership discussions regarding planning and/or alternative transportation services (as, for instance, in recommendation 2).
- An investigation of recreation fees (as in recommendation 5).
- Strategies specific to the Kancamagus Highway, including access control alternatives for sustainable accommodation of commuter, commercial, recreational, and alternative-transportation traffic, in line with regional economic development efforts. The National Scenic Byways designation could be used as an anchor to develop a community based marketing partnership tied to businesses in town centers, following the model of Acadia National Park and Bar Harbor, Maine.

Possible funding sources for such a study include:

- Alternative Transportation in Parks and Public Lands Program (estimated application date for FY 2008 is January 2008)
- Federal Lands Highway Program
- National Scenic Byways Program

WMNF would need to consider how best to integrate this recommendation with other recommendations. Timing of each phase—of an application, possible receipt of funding, actual execution of planning work—would be a critical issue.

#### **5. Study recreation enhancement fee structure.**

A study of the current fee structure and implementation method will help WMNF to understand how well it is working today and if steps could be taken to simplify the system for visitors, while improving compliance and increasing fee collections. Such a study would need to incorporate several related components, such as data regarding visitor travel patterns within WMNF, average length of stay, number of sites visited per stay, and visitor demographics. (In that sense, this recommendation overlaps with recommendation 1, above.)

#### **6. Work towards tour bus management by building relationships with companies and educating operators.**

Developing a stronger relationship with the tour bus industry will help WMNF to understand the viewpoint of visitors and can create opportunities for providing more and better interpretation to visitors arriving by tour bus. It will also enable more effective management of such visitation within WMNF.

WMNF could begin by working with the national professional associations; USFS regional and/or headquarters staff may be helpful as conduits to these groups. Other initiatives could include directing on-site staff to talk with drivers and hand out materials, encouraging off-peak visitation with enhanced interpretive opportunities (such as on-vehicle talks by WMNF staff), and developing incentives for drivers to “check in” with WMNF when arriving. Incentives might include on-vehicle DVDs or other interpretive materials (see recommendation 6, below) to enhance the experience for visitors.

In the future, WMNF might explore revising its recreation enhancement fee structure to better reflect the usage by tour buses, possibly including options such as annual or multi-year permits for tour buses using WMNF facilities. (See recommendation 5, above.)

**7. Develop an audio or video tour that takes advantage of new technologies, and creates a unique opportunity for visitors to fully experience WMNF and its surrounding communities.**

Due to the dispersed nature of WMNF recreational facilities, visitors may not always be aware of all that WMNF has to offer. Just as the Kancamagus Interpretive Plan developed strong narratives along the Kancamagus Highway, by taking advantage of new technologies, such as podcasting or GPS, USFS may be able to strengthen its own interpretive message.

An audio tour interpreting the Kanc could be used either in-vehicle or at sites along the highway. One applicable technology may be a podcast for download from the WMNF web site. Tour buses might be offered the loan of an audio tour that they could plug into their on-board sound systems, GPS-keyed to each site. In addition, a video tour could be distributed for patrons to watch before arriving at WMNF.

In addition to the visitor-experience benefits, such interpretive materials may contribute to better management by WMNF of visitors, as it could be possible to more closely track visitor circulation within and between recreational sites, along the lines of what is presented by those materials. The use of GPS technologies also creates opportunities for better data collection and understanding of visitation patterns.

If these materials were linked to the provision of alternative transportation, the result could be a system that provides a unique experience for users and creates an incentive to encourage transit use.

## **TAG PARTICIPANTS**

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### **U.S. Forest Service: White Mountain National Forest (WMNF)**

- Ken Allen, Landscape Architect
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- Tom Wagner, Forest Supervisor

### **Stakeholders**

- Henry Goode, New Hampshire Division of Travel and Tourism
- Thad Guldbrandsen, Plymouth State University Center For Rural Partnerships
- Jeff Hayes, North Country Council
- Tom Irwin, Conservation Law Foundation
- Tom Jameson, New Hampshire Department of Transportation, Bureau of Rail and Transit
- Steve Knox, Business Enterprise Development Co.
- Greg Placy, New Hampshire Department of Transportation, District 1
- Beverly Raymond, Tri-County CAP, Inc. (North Country Transit)

## **SUPPORTING DOCUMENTS AND RESOURCES**

1. WMNF 2005 Plan,  
[http://www.fs.fed.us/r9/forests/white\\_mountain/projects/forest\\_plan\\_revision/Downloads.php](http://www.fs.fed.us/r9/forests/white_mountain/projects/forest_plan_revision/Downloads.php).  
*The 2005 Forest Plan establishes direction for managing WMNF's natural resources for the next 10-15 years.*
2. WMNF 2005 Plan, Appendix D: Transportation,  
[http://www.fs.fed.us/r9/forests/white\\_mountain/projects/forest\\_plan\\_revision/pdf\\_documents/FEIS\\_PDF/D\\_FEIS\\_transportation.pdf](http://www.fs.fed.us/r9/forests/white_mountain/projects/forest_plan_revision/pdf_documents/FEIS_PDF/D_FEIS_transportation.pdf).  
*Defines various road classifications, current roads policy, decommissioning efforts, current conditions, and road system needs.*
3. WMNF Field Report from the Federal Lands Alternative Transportation Systems Study.  
*Field report completed by FHWA/FTA in 2003, which assesses alternative transportation feasibility at WMNF.*
4. WMNF Socio-Economic Assessment,  
[http://www.fs.fed.us/r9/forests/white\\_mountain/projects/forest\\_plan\\_revision/SocioEconomicAssessment.htm](http://www.fs.fed.us/r9/forests/white_mountain/projects/forest_plan_revision/SocioEconomicAssessment.htm).  
*This assessment characterizes the socio-economic environment of WMNF by investigating the relationship between WMNF and surrounding communities. Identifies four issues that have the potential to bring about accelerated socio-economic change in the WMNF region or its population of visitors: disparities within the region; changes in the forest products industries; changes in forest land ownership; and aging population effect on the demand for outdoor recreation.*
5. WMNF Monitoring Reports,  
[http://www.fs.fed.us/r9/forests/white\\_mountain/publications/monitoring\\_reports/index.php](http://www.fs.fed.us/r9/forests/white_mountain/publications/monitoring_reports/index.php).  
*Annual updates on progress made toward achieving goals set forth in the Forest Plan. A 2006 monitoring report is expected to be released in 2007.*
6. WMNF 2006 Year in Review,  
[http://www.fs.fed.us/r9/forests/white\\_mountain/publications/annual\\_reports/2006\\_annual\\_report\\_lo\\_res.pdf](http://www.fs.fed.us/r9/forests/white_mountain/publications/annual_reports/2006_annual_report_lo_res.pdf).  
*Project updates and successes from 2006. Includes 2006 budget allocations by program area.*
7. 2006 WMNF Recreation Fee Report.  
*Lists the many uses of the revenues obtained from recreation fees. The successes could help to highlight how much more the WMNF could benefit from better enforcement of the recreation fees.*

8. FHWA/FTA ATS Needs, WMNF Excerpt,  
[http://www.fta.dot.gov/documents/Fed\\_Lands\\_Forest\\_Service\\_SupplementATS\\_Needs.pdf](http://www.fta.dot.gov/documents/Fed_Lands_Forest_Service_SupplementATS_Needs.pdf), pg. 52 (4-19).  
*Highlights the importance of WMNF; the threat that the growth in visitation and associate automobile traffic have on forest resources, air quality, and parking; and a several possible options for a bus shuttle route through WMNF.*
9. TAG one-pager from Bill Dauer, 15 June 2007.  
*Outlines the purpose of the June 27-29 TAG meeting, which was to move forward on transportation, using the 2003 FHWA/FTA field report as a starting point.*
10. TAG Questionnaire.  
*Questionnaire filled out by Bill Dauer and WMNF as to the purpose of and need for the White Mountain TAG.*
11. “Regional Coordinated Transit Plan for the North Country Council Planning Region,”  
[http://www.tccap.org/nct\\_NCRT\\_Plan.pdf](http://www.tccap.org/nct_NCRT_Plan.pdf).  
*Jointly sponsored by NC Council and NC Transit, this 2006 coordinated planning effort was mandated by FTA. The plan includes an evaluation of all modes of transportation and identified needs of existing facilities. Recommendations fall into these five areas: Education, Data Gathering, State Initiatives, Planning and Analysis, and Marketing.*
12. Kancamagus Interpretive Plan Case Study,  
[http://www.bywaysresourcecenter.org/images/resources/projects/best2003/Case\\_Study\\_-\\_Kancamagus.pdf](http://www.bywaysresourcecenter.org/images/resources/projects/best2003/Case_Study_-_Kancamagus.pdf).  
*May 2003 report from the America’s Byways Resource Center. Noted elements of success include providing a quality experience for all ages, careful coordination of interpretation and facility design, engaging the public as an equal partner, and forging successful partnerships.*
13. WM Attractions Visitors Center Interpretive Plan,  
[http://www.fs.fed.us/r2/cdi/portfolio/interpretive\\_products/interp\\_plans\\_strategies/pdfs/WhiteMtn\\_GatewayVC\\_Interp\\_Plan\\_2004\\_comp.pdf](http://www.fs.fed.us/r2/cdi/portfolio/interpretive_products/interp_plans_strategies/pdfs/WhiteMtn_GatewayVC_Interp_Plan_2004_comp.pdf).  
*Discusses the interpretive goals of the Gateway Visitors Center, one of the “bookends” of the Kancamagus Highway, which provides insight into further interpretive opportunities along the Kanc.*
14. North Country Council Scenic Byways Meetings,  
[http://www.nccouncil.org/pdf/scenicby\\_minutes\\_010907.pdf](http://www.nccouncil.org/pdf/scenicby_minutes_010907.pdf),  
[http://www.nccouncil.org/pdf/scenicbymin3\\_20\\_07\\_2.pdf](http://www.nccouncil.org/pdf/scenicbymin3_20_07_2.pdf).  
*Discussions of 2007 Scenic Byways grant applications submitted by stakeholders of the WMNF.*

15. LSC Consultants Carroll County TAG Report, <http://www.lscs.com/projects/carroll/tml/Ch1.pdf>.  
*Looked at demographics and public transit needs for Carroll County, which includes the eastern half of the Kanc, North Conway, Conway, and points south. There is a high need for service along Route 16 through Conway and North Conway, though other areas scored lower on the needs assessment. See page V-12. Some good data dispersed throughout.*
16. AMC Comments re. WMNF Plan  
[http://www.outdoors.org/pdf/upload/deis\\_comments.pdf](http://www.outdoors.org/pdf/upload/deis_comments.pdf).  
*30-page letter offering comments on the Draft EIS and proposed Land and Resource Management Plan for WMNF. However, no direct mention of transportation or buses/shuttles.*
17. NH DOT 2007-2016 Ten-year Plan: Congestion.  
[http://www.nh.gov/dot/bureaus/planning/documents/05\\_congestion.pdf](http://www.nh.gov/dot/bureaus/planning/documents/05_congestion.pdf).  
*Study shows that Route 16 from the Kanc north through Conway, North Conway, to the 16/302 split in Glen is among the 310 miles of 2,730 miles of major state highways in the state that are congested (LOS E or F). The Kanc itself is moderately congested (LOS C or D).*
18. NH DOT Traffic Volume Reports.  
<http://www.nh.gov/dot/transportationplanning/traffic/index.htm>.  
*Traffic counts included for I-93, NH 112 (Kancamagus Highway), NH 16, US 302, and several other major roadways throughout WMNF.*
19. AMC Hiker Shuttle, <http://www.outdoors.org/lodging/lodging-shuttle.cfm>.  
*Shuttle running four times daily between Crawford Notch and Pinkham Notch; \$12 for AMC members, \$14 for non-members.*
20. Concord Trailways NH,  
[http://www.concordtrailways.com/new\\_hampshire\\_bus\\_schedule.htm](http://www.concordtrailways.com/new_hampshire_bus_schedule.htm).  
*Twice-daily service from Berlin and Conway to Boston South Station and Logan Airport; another line serves Littleton-Franconia-Lincoln once daily.*
21. North Country Transit, <http://www.tccap.org/nct.htm>.  
*Operates Berlin-Gorham Trolley and the Lancaster-Whitefield-Littleton Tri-Town Shuttle.*
22. Conway Village Trolley, <http://www.wmtransit.com/>.  
*Trolley loops every 30 minutes through Conway and North Conway.*
23. Conway Fast Taxi, <http://www.fasttaxi.net/>.  
*Hourly community shuttle through Conway and North Conway*

## **ACKNOWLEDGMENTS**

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