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TRAVEL ANALYSIS

for the

Upper White River Project

**Prepared For
Rochester Ranger District,
Green Mountain National Forest**

**For Information Contact: John W. Kamb or Chad VanOrmer
Supervisors Office
Green Mountain National Forest
231 North Main Street
Rutland, VT 05701
802-747-6700**

TABLE OF CONTENTS

BACKGROUND AND PURPOSE	3
PROCESS	3
PRODUCTS	3
THIS REPORT	3
PROJECT SCOPE & OBJECTIVES	4
MANAGEMENT DIRECTION, DEFINITIONS, AND STANDARDS & GUIDELINES	5
EXISTING ROAD & TRAIL SYSTEM AND HISTORIC USE	10
ISSUES & ASSESSING BENEFITS, PROBLEMS, AND RISKS	18
OPPORTUNITIES AND PRIORITIES	30
RECOMMENDATIONS	37
LITERATURE SITED / REFERENCES	46

APPENDICES

A-1 MAPS OF TRAVEL ANALYSIS AREA

A-2 MAPS OF UPPER WHITE RIVER IRP PROJECT

A-3 VERMONT GENERAL HIGHWAY MAPS (HANCOCK & GRANVILLE)

A-4 GENERAL DEFINITIONS AND MANAGEMENT DIRECTION

UPPER WHITE RIVER INTERDISCIPLINARY TEAM MEMBERS AND TRAVEL ANALYSIS PARTICIPANTS

- John Kamb, Civil Engineer (Travel Analysis –Roads Lead)
- Chad VanOrmer, Recreation (Travel Analysis –Trails Lead)
- Jay Strand, NEPA Coordinator (Upper White River EA ID Team Leader)
- Donna Marks, Recreation Planner
- Chris Casey, Silviculturist
- Kathy Donna, Hydrologist

BACKGROUND AND PURPOSE

On January 12, 2001, the Forest Service published its final administrative transportation system policy in the Federal Register (Vol. 66, No.9). Decisions to decommission, reconstruct, construct, and maintain roads are to be informed by a science-based roads analysis. On November 2, 2005 the Forest Service announced release of their final travel management rule (36 CFR parts 212, 251, 262, and 295). This regulation governs the use of motor vehicles, including off-highway vehicles, on National Forest System Lands. One of the purposes of these policies and rules is to insure travel analysis is carried out for Forest roads and trails to provide information needed to ensure the forest transportation system will:

- provide safe access and meets the needs of communities and forest users;
- facilitate the implementation of the Green Mountain National Forest Land and Resource Management Plan (Forest Plan);
- allow for economical and efficient management within likely budget levels; meeting current and future resource management objectives;
- and begin to reverse adverse ecological impacts, to the extent practicable.

PROCESS

Travel analysis is a six-step process (see below). The steps are designed to be sequential with understanding that the process may require feedback among steps over time as an analysis matures. The amount of time and effort spent on each step differs by project, based on specific situations and available information. The process provides a set of possible issues and analysis questions for which the answers can inform choices about road and trail system management. Decision makers and analysts determine the relevance of each question, incorporating public participation as deemed necessary.

- Step 1. Setting up the Analysis
- Step 2. Describing the Situation
- Step 3. Identifying Issues
- Step 4. Assessing Benefits, Problems and Risks
- Step 5. Describing Opportunities and Setting Priorities
- Step 6. Reporting

PRODUCTS

The product of this analysis is a report for decision makers and the public that document the information and analyses to be used to identify opportunities and set priorities for future Forest system roads and trails. Included in the report is a map displaying the known road and trail systems for the analysis area, and the needs and opportunities for each road / trail, or segment of road / trail.

THIS REPORT

This report documents the travel analysis procedure used for the Upper White River Travel Analysis Area (analysis area). It was completed during the early development of the Upper White River Integrated Resource Project (IRP) and Proposed Action scoping document. The Upper White River IRP project area is the same as the Travel Analysis area. This report is a "living" document and

reflects the conditions of the analysis area at the time of writing. The document can be updated as the need arises and conditions warrant.

This report will:

- Identify needed and unneeded roads and trails;
- Identify road and trail associated environmental and public safety risks;
- Identify site-specific priorities and opportunities for road / trail improvements and decommissioning,
- Identify areas of special sensitivity or any unique resource values, and
- Any other specific information that may be needed to support project-level decisions.

PROJECT SCOPE & OBJECTIVES (Step 1)

The Upper White River Travel Analysis Area is located mainly north of Vermont State Route 125, east of the Breadloaf Wilderness, south of the Town of Warren, and mainly west of State Route 100. The analysis area is primarily within the towns of Hancock and Granville, with a small portion of the project area located in the Towns of Ripton, Braintree, and Rochester. The analysis area encompasses 36,364 acres with 12,519 acres (34%) in private ownership, and 782 acres (2%) State -Granville Reservation State Park. The remaining 23,063 acres (64%) is National Forest System (NFS) lands administered by the Green Mountain National Forest (GMNF). Elevations in the analysis area range from 3,700 feet along the Long Trail in the Wilderness management area to 900 feet near the White River on private lands. The northern portion of the area is part of the Upper White River watershed and the southern portion contains most of the waters flowing to the Hancock Branch of the greater White River watershed. The area has a small network of Forest Service and Town roads and trails. While development is heaviest around the village centers of Hancock and Granville, private residences (some seasonal) are scattered throughout the private lands.

The 2006 GMNF Land and Resource Management Plan (Forest Plan) designates different Management Areas (MAs) with each having a major emphasis and Desired Future Conditions (DFC), and provides specific management direction for activities needed to achieve Forest Plan goals and objectives. Eight (8) Forest Management Areas (MAs) are contained in the Upper White River Travel Analysis project area: 3.1 – Diverse Forest Use, 5.1 – Wilderness, 6.1 - Remote Backcountry Forest, 6.2 – Diverse Backcountry, 8.2 – Long National Recreation Trail, 8.7 – Ecological Special Areas, 9.4 - Eligible Wild, Scenic and Recreational Rivers, and 9.5 - Wilderness Study Area. The Upper White River EA area consists of all, or portions of, fourteen (14) Compartments (C) 34, 35, 37, 44, 45, 56, 57, 58, 59, 60, 73, 74, 75, and 76. Forest Compartments are land units averaging approximately 1,500 acres. Compartments are divided into stands which consist of similar vegetation and site conditions.

All existing or proposed roads and trails within this area were reviewed and opportunities regarding their future use are stated in accordance with Forest objectives. Other entities, such as towns, having joint, partial, or total road or trail jurisdiction will be consulted during NEPA analysis to coordinate any actions regarding subject roads / trails. Any access requirements off of Town or State roads will also be coordinated with the appropriate authority; and applicable permits obtained. The Towns of Hancock and Granville have roads / trails in the analysis area. Ripton, Braintree, and Rochester

have no roads / trails in the analysis area of consequence to National Forest access. The State has two roads (SR125 & SR 100) in the Upper White River area. There are a small number of private roads in the area off Forest land. There are also some unauthorized roads and old skid trails evident. Many of these are included in this analysis, but a complete inventory was not considered necessary for the analysis.

The focus of the analysis is limited to the Upper White River Travel Analysis Area for the following reasons:

- A forest scale roads analysis of the primary transportation routes has been completed for the Green Mountain National Forest, however it did not include lower level (4wd and closed) Forest roads, Forest trails, or unauthorized roads and trails as part of its analysis.
- This travel analysis is driven by a need to analyze management alternatives at the project scale and make recommendations for the minimum transportation system for the Upper White River EA Project area.

Main objectives of this travel analysis are:

- Identify the need for changes by comparing the current road / trail system to the desired condition;
- Balance the need for access with the need to minimize risks by examining important ecological, social, and economic issues related to roads and trails;
- Furnish narratives, tables, and maps that display transportation management opportunities and strategies that address future access needs, and environmental concerns.
- Make recommendations to inform travel management decisions in subsequent NEPA documents.

MANAGEMENT DIRECTION, DEFINITIONS, AND STANDARDS & GUIDELINES (Step 1 cont.)

Management Area Direction (see Appendices for General Forest Road & Trail Standards & Guidelines)

The Green Mountain National Forest Land and Resource Management Plan (Forest Plan) serves as the guiding document for all land management activities on the GMNF, including roads, trails and transportation systems. The Forest Plan provides programmatic direction in the form of Goals & Objectives, Standards & Guidelines as well as Management Area Standards & Guidelines.

Goal 14 of the Forest Plan (p. 16) states “Provide a safe, efficient, and effective Forest transportation system that meets both the needs of the Forest Service and the public.”

Goal 12 of the Forest Plan (p. 15) states “provide a diverse range of high-quality, sustainable recreation opportunities that complement those provided off National Forest System lands.”

Three objectives tiered to Goal 12 relate specifically to the trail transportation system.

1. Increase the effective use of partnerships in the improvement, maintenance, and operation of the Forest trails system.
2. Increase the number of miles of trail that are operated and maintained to full standard.

3. Reduce the total deferred maintenance on the GMNF trails system.

The Forest Plan Standards & Guidelines (S&G) also provide management direction for the trail and road systems. All Forest Plan S&Gs are applicable in project planning, but those that are most relevant to this analysis include:

1. Trail maintenance and improvement activities should focus on the reduction of deferred maintenance needs on existing trails before the development of new trails.
2. All trails should be monitored for resource impacts in accordance with an established monitoring plan. Responsibility for monitoring should be shared by the Forest Service and cooperators.
3. Multiple use trails should be emphasized over single use trails where the uses are compatible.
4. The Forest Service shall cooperate with State and towns governments and highway departments in managing town-maintained roadways through the Green Mountain National Forest.
5. Public access shall be controlled to meet 2006 Forest Plan management objectives such as achieving desired recreation opportunities and protecting wildlife habitats.

The Upper White River analysis area contains eight (8) Forest Plan Management Areas (MA's) as stated above. Each MA has standards & guidelines that provide management direction for the trails and roads transportation system. They are as follows:

MA 3.1 – Diverse Forest Use: Vegetation management emphasis is placed on production of high quality sawtimber and other timber products on a sustained yield basis. Management actions provide a mix of habitats for wildlife species, including deer wintering habitat. Habitat at the landscape level will include a sustainable mix of young and mature forests. Permanent upland and temporary openings will occur across the landscape in shapes and sizes that are consistent with visual objectives in the area. Public use is managed to provide a full range of recreation opportunities. Vistas of landscapes with a mosaic of vegetative patterns will be provided along roads and trails.

Roads (new and existing) are allowed to provide access to meet land management objectives. Forest-wide standards and guidelines for roads apply.

The desired future condition states that recreation management will be towards the desired ROS of Roded Natural. There are MA Standards & Guidelines that specifically restrict trail use and development.

MA 5.1 – Wilderness: The Wilderness Management Area emphasizes the management and protection of congressionally designated wilderness areas. Management emphasizes the maintenance of wilderness values consistent with the Wilderness Act of 1964 and subsequent legislation.

Roads shall be prohibited unless required by law to provide access to private land or easements. Decommissioned roads shall be restored to landscape level or converted to trails. Historically significant roads may be closed, rather than decommissioned, as determined through SHPO. Actions for closing roads shall follow Forest Service transportation policy. The use of horses,

pack animals, dog teams, bicycles, and motorized vehicles in Wilderness shall be prohibited, except for search and rescue operations with Forest Supervisor approval, fire suppression with Forest Supervisor approval, and motorized access to private in-holdings as authorized by law and permits.

The desired future condition states that recreation resources will be managed toward the desired Recreation Opportunity Spectrum (ROS) Class of Primitive. The use of horses, pack animals, dog teams, bicycles, and motorized vehicles in Wilderness shall be prohibited, except for search and rescue operations with Forest Supervisor approval, fire suppression with Forest Supervisor approval, and motorized access to private in-holdings as authorized by law and permits. Trails may be added or eliminated to protect wilderness values. Trails should be constructed, relocated, and maintained to a minimum standard necessary for the protection of the soil, water, vegetation, visual quality, user safety, and long-term maintenance. Emphasis should be placed on trails that appear to be part of the wilderness environment and not an intrusion on it.

MA 6.1 – Remote Backcountry Forest: This management area emphasizes large expanses of relatively natural landscapes where terrestrial and aquatic ecosystems develop under natural disturbance regimes. Management actions are limited to those that help restore or maintain natural processes, natural communities, and associated species within their natural ranges of variation in the landscape.

New road construction shall be prohibited unless required by law to provide access to private land. Existing roads shall be managed to the lowest traffic service and maintenance levels possible, and shall be closed to public motorized vehicle traffic.

MA 6.2 – Diverse Backcountry: This management area emphasizes relatively large landscapes that provide a mix of backcountry recreational experiences from low use foot trails to motorized use trails. The MA will also provide a mix of wildlife habitats supplied by more mature forests, early successional forests, and both permanent upland and temporary openings.

New permanent roads shall be prohibited unless required for administrative or designated special uses, or required by law to provide access to private land. Segments of old roads or skid trails, not on the Forest Service transportation system, and that are not necessary for managed recreation, vegetation, or timber purposes, should be closed and restored. Temporary roads may be permitted to achieve MA desired future conditions. Temporary roads will be rehabilitated after management objectives are complete.

MA 8.2 – Long National Recreation Trail: This management area will retain a natural, forested appearance shaped by both natural and human processes. Management practices will be modified to recognize the significant aesthetic and recreational values of these lands.

New roads (permanent or temporary) shall not be constructed to cross the Long Trail and should not be within the MA unless required by law to provide access to private lands.

MA 8.7 - Ecological Special Areas: Ecological Special Areas are characterized by physical or biological features of Forest-wide or regional significance. Management emphasizes the

protection of these values and opportunities for public use and interpretation. Ecological Special Areas may also provide opportunities as reference sites for research and monitoring.

New roads should not be constructed or relocated unless they protect or contribute to Ecological SA values, or are required by law to provide access to non-federal land. Construction of new trailheads and parking areas, and relocation of existing trailheads and parking areas, may occur only for visitor safety, resource protection, for education and interpretation enhancements. National Forest roads should be managed at the lowest traffic service and maintenance levels possible. Decommissioned roads may be demolished, dismantled, obliterated, or disposed of to eliminate the deferred maintenance needs of the fixed asset. Portions of the asset may remain if they do not cause problems nor require maintenance.

The desired future condition states that recreation management will be towards the desired ROS class of Semi-primitive Non-motorized. The special values of the Texas Falls Ecological Special Area include a series of low falls and cascades flowing through a small gorge that was scoured by sediment-laden glacial meltwater. New motorized trails shall be prohibited. Motorized trail vehicles except existing snowmobiles shall be prohibited. Development of new trails or trail systems, and relocation of existing trails may occur only for visitor safety, resource protection, or for education and interpretation enhancements. Trail use by horses, pack animals, dog teams, bicycles, and motorized vehicles may be permitted as long as such uses do not interfere with ESA objectives. Opportunities to relocate existing motorized trails outside of ESA should be considered.

MA 9.4 - Eligible Wild, Scenic and Recreational Rivers: The emphasis of this management area is to protect and enhance the “outstandingly remarkable values” (ORVs) that led those rivers and streams within this management area to be determined as eligible Wild, Scenic, and Recreational Rivers (Forest Plan p. 105). The project area includes a portion of an eligible Recreational River – the Upper White River.

Forest-wide standards and guidelines in the Forest Plan for roads and trails apply.

MA 9.5 - Wilderness Study Area: The focus would be on managing these areas to protect wilderness characteristics pending legislation as to their designation, and providing existing uses where compatible with protecting wilderness character. If the area is not designated it remains a WSA as specified in the 2006 Forest Plan until the Plan is amended to change the MA allocation.

Existing Forest Service system roads may continue to be maintained, with no increase in maintenance class. Historically significant roads may be closed, rather than decommissioned, thus allowing them to remain a semi-visible part of the landscape.

The desired future condition states that recreation management will be toward the desired ROS class of primitive. New trails for motorized or mechanized vehicles shall not be designated. Existing Forest Service system trails, both motorized and non-motorized may be maintained at their existing standard, width, and locations.

Road Maintenance Level Descriptions (FSH 7709.58, see Appendices for additional travel management definitions)

Maintenance Level 1 (OML 1). Assigned to intermittent service roads during the time they are closed to vehicular traffic. The closure period must exceed 1 year. Basic custodial maintenance is performed to keep damage to adjacent resources to an acceptable level and to perpetuate the road to facilitate future management activities. Emphasis is normally given to maintaining drainage facilities and runoff patterns. Planned road deterioration may occur at this level. Appropriate traffic management strategies are "prohibit" and "eliminate." Roads receiving level 1 maintenance may be of any type, class, or construction standard, and may be managed at any other maintenance level during the time they are open for traffic. However, while being maintained at level 1, they are closed to vehicular traffic, but may be open and suitable for nonmotorized uses.

Maintenance Level 2 (OML 2). Assigned to roads open for use by high clearance vehicles. Passenger car traffic is not a consideration. Traffic is normally minor, usually consisting of one or a combination of administrative, permitted, dispersed recreation, or other specialized uses. Log haul may occur at this level. Appropriate traffic management strategies are either to (1) discourage or prohibit passenger cars or (2) accept or discourage high clearance vehicles.

Maintenance Level 3 (OML 3). Assigned to roads open and maintained for travel by a prudent driver in a standard passenger car. User comfort and convenience are not considered priorities. Roads in this maintenance level are typically low speed, single lane with turnouts and spot surfacing. Some roads may be fully surfaced with either native or processed material. Appropriate traffic management strategies are either "encourage" or "accept." "Discourage" or "prohibit" strategies may be employed for certain classes of vehicles or users.

Maintenance Level 4 (OML 4). Assigned to roads that provide a moderate degree of user comfort and convenience at moderate travel speeds. Most roads are double lane and aggregate surfaced. However, some roads may be single lane. Some roads may be paved and/or dust abated. The most appropriate traffic management strategy is "encourage." However, the "prohibit" strategy may apply to specific classes of vehicles or users at certain times.

Maintenance Level 5 (OML 5). Assigned to roads that provide a high degree of user comfort and convenience. These roads are normally double lane, paved facilities. Some may be aggregate surfaced and dust abated. The appropriate traffic management strategy is "encourage."

Forest Service Manual & Handbook Trail Management Definitions

National direction for trail management is primarily found in FSM 2350 Trail, River and Similar Recreation Opportunities and FSM 2309.18 Trails Management Handbook Chapter 10 (Trail Planning) and Chapter 20 (Trail Development). The following are key definitions used in this analysis.

Trail Type. A trail type is a category that reflects the predominant trail surface and general mode of travel accommodated by a trail. There are three trail types for NFS trails: Standard Terra

Trail, Snow Trail and Water Trail. Trail types are to be identified for each NFS trail based on applicable land management plan direction, travel management decisions, trail-specific decisions, and other related direction.

Trail Class. The Trail Class is the prescribed scale of development for a trail, representing its intended design and management standards. Trail classes are general categories reflecting trail development scale, arranged along a continuum. There are five trail classes ranging from the least developed (Trail Class 1) to the most developed (Trail Class 5). Trail classes are to be identified based on the management intent in the applicable land management plan, travel management decisions, trail-specific decisions, and other related direction. Trail class assignments are to most closely reflect the management intent for the trail, which may or may not reflect the current condition of the trail.

Managed Use. Managed uses are the modes of travel that are actively managed and appropriate on a trail, based on its design and management. Managed use indicates management intent to accommodate a specific use. There can be more than one managed use per trail or trail segment. The managed uses for a trail are usually a subset of all the allowed uses on the trail, that is, uses that are allowed unless specifically prohibited. Managed uses are based on applicable land management plan direction, travel management decisions, trail-specific decisions, and other related direction.

Designed Use. Designed Use is the Managed Use of a trail that requires the most demanding design, construction, and maintenance parameters and that, in conjunction with applicable Trail Class, determines which Design Parameters apply to a trail. There is only one Designed Use per trail or trail segment. Although a trail or trail segment may have more than one Managed Use and numerous uses may be allowed, only one Managed Use is identified as the design driver or Designed Use.

Design Parameters. Design Parameters are technical guidelines for the survey, design, construction, maintenance, and assessment of a trail, based on its Designed Use and Trail Class. Design Parameters reflect the design objectives for NFS trails and determine the dominant physical criteria that most define their geometric shape. These criteria include Design Tread Width, Design Surface, Design Grade, Design Cross Slope, Design Clearing, and Design Turns.

EXISTING ROAD & TRAIL SYSTEM AND HISTORIC USE (Step 2)

The analysis area is primarily located in the Towns of Granville and Hancock. Primary access to the area is provided by the east/west State route –VT 125, which connects to north/south State (VT 100) and US (US 7) routes on either side of the Green Mountain range. There are also a few Class 2 and 3 Town Highways in the project area that provide collector access to the larger State routes. Several other NFS roads, Town Highways, and a few private roads; provide the remaining network of motor vehicle access to the project area. Forest roads providing the more significant access to Forest land in the analysis area include FR39, FR49, FR91 & FR100 in Hancock, and FR55 & 101 in Granville.

The area has a long history of settlement and land use. Many of the forest system roads, as well as the Town owned roads, have been used repeatedly over the years for timber management and

recreation activities. The Forest System and Town roads in the project area are all very low-volume local roads (ADT<400). The local road with the highest Average Annual Daily Traffic (AADT) is FR39 (TH2) Texas Falls with an AADT of 170 vehicles. VTrans estimated 2006 AADT's on VT State Route 100 are 2,400 near State Route 125 and 1,700 near Granville TH4 West Hill Road; and on VT State Route 125 near Ripton / Hancock town-line are 1,700.

Popular recreation activities within the Upper White River area include hiking, snowmobiling, skiing, fishing, dispersed camping, hunting, and viewing wildlife and natural features. Recreation users primarily access the area via Forest Roads 55, 39, 49, 91 and 93 off of VT State Highways 125 and 100. Roadside camping is popular along the White River (FSR55 & 101) and Texas Falls/Meadows (FSR 39). There are two managed portals to the Breadloaf and Joseph Battell Wilderness Areas including the Long Trail (FST 3) at Middlebury Gap (VT 125) and Clark Brook Trail (FST702) on FSR 55.

There are nine developed recreation sites within the area including trailheads, picnic areas, backcountry campsites, and an observation and interpretive site. Table TA-1 displays the recreation sites, PAOTs (maximum capacity of people at one time), primary access travel route, and recreation opportunities. Six of the seven road based recreation sites are accessed by either town or state highways.

Table TA-1 Developed Recreation Sites within the Upper White River Analysis Area.

Recreation Site	PAOTs	Primary Access (Travel Route)	Recreation Opportunities
Texas Falls Observation Site	20	FSR 39/ Hancock TH2	Provides viewing opportunities of a unique geological feature including a waterfall.
Texas Falls Picnic Area	95	FSR 39/ Hancock TH2	Provides opportunities for day use picnicking along a mountain brook. Site includes a picnic shelter, picnic tables and vault toilets. It also serves as a winter trailhead for FST 739.
Hancock Branch Trailhead	15	FSR 39	Provides parking and basic visitor information for FST 712.
Clark Brook Trailhead	15	FSR 55/ Granville TH4	Serves as a portal for the Breadloaf Wilderness. Provides parking and basic visitor information for FST 702.
Long Trail at Middlebury Gap Trailhead	25	SR 125	Serves as a portal for the Joseph Battell and Breadloaf Wilderness Areas. Provides parking and basic visitor information for FST 3. Parking area managed by state.
Hancock Overlook Interpretive Site	14	SR 100	Located on VT Route 100 and serves as one of the White River Travelway sites. Provides parking, interpretive signing and access to the White River.
Boyce Shelter Backcountry Campsite	15	Long Trail (FST 3)	Located along the Long Trail in the Breadloaf Wilderness Area. Provides a three-sided shelter, backcountry toilet and primitive camping.
Skyline Lodge and Tent Area	25	Long Trail (FST 3)	Located along the Long Trail in the Breadloaf Wilderness Area. Provides an enclosed cabin, backcountry toilet and primitive camping.

Recreation Site	PAOTs	Primary Access (Travel Route)	Recreation Opportunities
Emily Proctor Backcountry Campsite	15	Long Trail (FST 3)	Located along the Long Trail in the Breadloaf Wilderness Area. Provides a three-sided shelter, backcountry toilet and primitive camping.

The Forest Service uses a nationally recognized classification system called the Recreation Opportunity Spectrum (ROS) to describe different recreation settings, opportunities and experiences to help guide recreation management activities and inform visitors of experience expectations (USDA 1986). The 2006 Forest Plan refers to ROS in two different ways including the inventoried ROS and desired ROS (Forest Plan FEIS, p. 3-200). The inventoried ROS is the current inventory or existing condition of recreation settings. The desired ROS is the direction recreation management actions take to achieve the recreation setting objective. Each Management Area is assigned a desired ROS in the 2006 Forest plan. Table TA-2 displays the differences between the inventoried ROS (current condition) and desired ROS (desired future condition) of the Upper White River project area.

Table TA-2 Inventoried ROS and Desired ROS in the Upper White River Analysis Area.

Recreation Opportunity Spectrum (ROS) Class	Inventoried ROS acres (percent)	Desired ROS acres (percent)
Primitive (P)	0 (0%)	11,977 (52%)
Semi-Primitive Non-Motorized (SPNM)	9,688 (42%)	82 (<1%)
Semi-Primitive Motorized (SPM)	381 (2%)	1,116 (5%)
Roaded Natural (RN)	12,815 (56%)	9,890 (43%)
Rural (R)	98 (<1%)	0 (0%)

Data from GMNF GIS databases. Slight variations in total acres due to GIS data analysis.

Table TA-3 displays all known public roads in the analysis area, their current physical status, mileage, jurisdiction, management area located in, and operational maintenance level (Forest Service jurisdiction only). Information on Town Highways (TH) such as Town, Class, and mileage is provided, and is based on information contained in the State General Highway Map for each Town. Note: there are several numbered Forest Roads (FR) in the analysis area that are not under Forest Service jurisdiction. There are no Forest Highways (FH) in the analysis area.

Table TA-3 – Upper White River Travel Analysis Area Existing Public Roads

Road Name	Road ID#	Road Length, Miles	Open Road, Miles	Closed or Stored Road, Miles	Mgmt. Area	FS Jurisdiction, Miles	Local or Other Jurisdiction, Miles	OML (FS) Class (TH)
VT State Highway VT Rte 100	SR 100	8.67	8.67	0	3.1 / 9.4	-	8.67	N.A.
VT State Highway VT Rte 125	SR 125	6.25	6.25	0	3.1 / 5.1	-	6.25	N.A.
Texas Gap a.k.a Texas Falls	FR 39 TH 2	2.83	2.83	0	3.1 / 8.7	1.76 / 0.17 Hancock	- 0.90	OML 3 / 2 Class 3
Texas Gap Spur	FR 39A	0.20	0.20	0	3.1	0.20	-	OML 2
Texas Gap Spur	FR 39B	0.47	0.47	0	9.5 / 5.1	0.47	-	OML 2
Texas Gap Spur	FR 39C	0.27	0.27	0	3.1 / 5.1	0.27	-	OML 2

Road Name	Road ID#	Road Length, Miles	Open Road, Miles	Closed or Stored Road, Miles	Mgmt. Area	FS Jurisdiction, Miles	Local or Other Jurisdiction, Miles	OML (FS) Class (TH)
Texas Gap Spur	FR 39D	0.29	0.29	0	3.1	0.29	-	OML 3
Texas Gap Spur	FR 39E	0.30	0.30	0	3.1	0.30	-	OML 2
Boyden Brook	FR 49	2.70	2.70	0	6.1 / 6.2	2.70	-	OML 2
Patterson Brook	FR 50	4.15	4.15	0	3.1 / 9.4	4.15	-	OML 3
Patterson Brook Spur	FR 50A	0.10	0	0.10	3.1	0.10	-	OML 1
Patterson Brook Spur	FR 50B	0.10	0	0.10	3.1	0.10	-	OML 1
Patterson Brook Spur	FR 50C	0.10	0	0.10	9.5	0.10	-	OML 1
Patterson Brook Spur	FR 50D	0.10	0	0.10	9.5	0.10	-	OML 1
Patterson Brook Spur	FR 50E	0.30	0	0.30	9.5	0.30	-	OML 1
Patterson Brook Spur	FR 50F	0.20	0	0.20	3.1	0.20	-	OML 1
Granville a.k.a. West Hill	FR 55 TH 4 / 13	4.41	3.11	1.3	3.1 / 5.1 9.4	1.72 Granville	- 2.69	OML 3 / 1 Class 3
Granville Spur a.k.a TH 14	FR 55A TH 14	0.29	0.29	0	3.1 / 9.4	- Granville	Town Hwy. 0.29	Class 4
Granville Spur	FR 55B	0.15	0	0.15	3.1 / 9.4	0.15	-	OML 1
Granville Spur	FR 55C	0.04	0.04	0	3.1 / 9.4	0.04	-	OML 3
Granville Spur	FR 55D	0.02	0.02	0	3.1 / 9.4	0.02	-	OML 3
Granville Spur	FR 55E	0.01	0.01	0	3.1 / 9.4	0.01	-	OML 3
Deer Hollow	FR 56	0.50	0	0.50	9.5 / 5.1	0.50	-	OML 1
Fassett Hill	FR 91 TH 3	1.76	1.76	0	3.1	- Hancock	Town Hwy. 1.65 / 0.11	Class 3 / 4
Tucker Brook	FR 93 TH 5	1.25	1.25	0	3.1	- Hancock	Town Hwy. 1.25	Class 3
Taylor Brook	FR 100	3.19	3.19	0	3.1	3.19	-	OML 4
Taylor Brook Spur	FR 100A	0.10	0	0.10	3.1	0.10	-	OML 1
Taylor Brook Spur	FR 100B	0.10	0	0.10	3.1	0.10	-	OML 1
Taylor Brook Spur	FR 100C	0.10	0	0.10	3.1	0.10	-	OML 1
Taylor Brook Spur	FR 100D	0.20	0	0.20	3.1	0.20	-	OML 1
Gulf Brook	FR 101	4.42	4.42	0	3.1 / 9.4	4.42	-	OML 3
Gulf Brook Spur	FR 101A	0.10	0	0.10	3.1	0.10	-	OML 1
Gulf Brook Spur	FR 101B	0.10	0	0.10	3.1	0.10	-	OML 1
Gulf Brook Spur	FR 101C	0.05	0	0.05	3.1	0.05	-	OML 1
Gulf Brook Spur	FR 101D	0.06	0	0.06	3.1	0.06	-	OML 1
Gulf Brook Spur	FR 101E	0.50	0	0.50	3.1	0.50	-	OML 1

Road Name	Road ID#	Road Length, Miles	Open Road, Miles	Closed or Stored Road, Miles	Mgmt. Area	FS Jurisdiction, Miles	Local or Other Jurisdiction, Miles	OML (FS) Class (TH)
Gulf Brook Spur	FR 101F	0.03	0.03	0	3.1	0.03	-	OML 2
Gulf Brook Spur	FR 101G	0.10	0	0.10	3.1	0.10	-	OML 1
Gulf Brook Spur	FR 101H	0.04	0	0.04	3.1	0.04	-	OML 1
Comes	FR 176	0.10	0	0.10	6.2	0.10	-	OML 1
Rob Ford	FR 207 TH 11	0.73	0.73	0	3.1 / 9.4	- Granville	Town Hwy. 0.10 / 0.63	OML 3 / 4
West Hill Ext.	FR 208 TH 12	1.65	1.65	0	3.1 / 9.5 5.1	- Granville	Town Hwy. 0.40 / 1.25	Class 3 / 4
Hancock Branch	FR 212	0.07	0.07	0	3.1	0.07	-	OML 3
TH 15	TH 15	0.30	0.30	0	3.1 / 9.4	Granville	0.30	Class 4
Kennedy Road	TH 16	1.50	1.50	0	3.1	Granville	1.50	Class 4
Bagley Road	TH 24	0.34	0.34	0	3.1	Granville	0.34	Class 3
Mill Road	TH 26	0.03	0.03	0	3.1	Granville	0.03	Class 3
Shampney Hill Road	TH 4	0.60	0.60	0	3.1	Hancock	0.40 / 0.20	Class 3 / 4
Tucker Brook Ext.	TH 6	0.11	0.11	0	3.1	Hancock	0.11	Class 3
Blair Hill Road	TH 7	1.00	1.00	0	3.1	Hancock	0.33 / 0.67	Class 3 / 4
Comes Road	TH 15	0.10	0.10	0	3.1	Hancock	0.10	Class 3
TH 16	TH 16	0.06	0.06	0	3.1	Hancock	0.06	Class 3
Silver Street	TH 17	0.09	0.09	0	6.2	Hancock	0.09	Class 3
Killooleet Road	TH 20	0.25	0.25	0	6.2	Hancock	0.25	Class 3
Taylor Brook Road	TH 21	0.03	0.03	0	3.1	Hancock	0.03	Class 3
Windigo Road	TH 22	0.20	0.20	0	3.1	Hancock	0.20	Class 3
TOTAL (ROADS)	-	51.71	47.31	4.40	-	22.91	28.80	-

Table TA-4 displays the current number of acres, miles of existing road, and road density by management area for State, Town, and NFS roads.

Table TA-4 – Travel Analysis Area Road Density – Existing/Current, All & NFS Roads

MA	Approx. Acres	Sq. Miles	Existing Roads, miles	Existing Roads, mi./sq. mi.	Remarks
3.1	9,889	15.452	45.76 (ALL) 17.55 (NFS)	2.961 1.136	ALL = State, TH, & NFS NFS = FS jurisdiction

MA	Approx. Acres	Sq. Miles	Existing Roads, miles	Existing Roads, mi./sq. mi.	Remarks
5.1	11,891	18.580	2.06 (ALL) 1.88 (NFS)	0.111 0.101	NFS Roads prohibited unless required by law to provide access to private land
6.1	63	0.098	0.00	0.00	New NFS Roads prohibited. Existing NFS roads maintained to lowest OML
6.2	1,117	1.745	3.14 (ALL) 2.80 (NFS)	1.799 1.605	New NFS Roads prohibited unless required for administration or SUP
8.2	3	0.005	0.00	0.00	NFS Roads prohibited unless required by law to provide access to private land
8.7	15	0.023	0.00	0.00	NFS Roads prohibited unless required by law for pvt. access or to meet MA values
9.4	---	---	---	---	MA 9.4 acres overlap MA 3.1 & 5.1 data and most roads are Town or State Highways
9.5	85	0.133	0.75 (ALL) 0.69 (NFS)	5.639 5.188	Existing roads may continue to be maintained, with no increase in maintenance class

Table TA-5 displays the current annual operations and maintenance and overall deferred maintenance costs on the NSF road system within the UWR Project area. The Towns of Granville and Hancock also receive a small amount of maintenance funds from the Forest Service for Town roads that provide significant access to National Forest lands through Road Coop Agreements. The roads under these agreements are FR39 (TH2), FR91 (TH3), FR93 (TH5), FR55 (TH4&13), FR207 (TH11), and FR208 (TH12). The amount each Town receives in any one year is typically less than \$5,000.

Table TA-5: NFSR Operations & Maintenance (O&M) and Deferred Maintenance Costs

Road Number	OML Level	Miles	Annual O&M (1 grading & drainage only)	Deferred Maintenance (gravel & other)
NFSR 39	3 / 2	1.93	\$1,110	\$158,035
NFSR 39A	2	0.20	\$107	\$0
NFSR 39B	2	0.47	\$252	\$2,058
NFSR 39C	2	0.27	\$145	\$22,716
NFSR 39D	3	0.29	\$167	\$167
NFSR 39E	2	0.30	\$161	\$1,599
NFSR 49	2	2.70	\$1,445	\$8,900
NFSR 50	3	4.15	\$2,386	\$357,141
NFSR 50A	1	0.10	\$0	\$0
NFSR 50B	1	0.10	\$0	\$0
NFSR 50C	1	0.10	\$0	\$0
NFSR 50D	1	0.10	\$0	\$0
NFSR 50E	1	0.30	\$0	\$1,442

Road Number	OML Level	Miles	Annual O&M (1 grading & drainage only)	Deferred Maintenance (gravel & other)
NFSR 50F	1	0.20	\$0	\$0
NFSR 55	3 / 1	1.72	\$242	\$30,024
NFSR 55B	1	0.15	\$0	\$0
NFSR 55C	3	0.04	\$73	\$4,832
NFSR 55D	3	0.02	\$62	\$16
NFSR 55E	3	0.01	\$56	\$8
NFSR 56	1	0.50	\$0	\$0
NFSR 100	4	3.19	\$1,834	\$260,036
NFSR 100A	1	0.10	\$0	\$0
NFSR 100B	1	0.10	\$0	\$0
NFSR 100C	1	0.10	\$0	\$0
NFSR 100D	1	0.20	\$0	\$0
NFSR 101	3	4.42	\$2,542	\$439,499
NFSR 101A	1	0.10	\$0	\$0
NFSR 101B	1	0.10	\$0	\$0
NFSR 101C	1	0.05	\$0	\$0
NFSR 101D	1	0.06	\$0	\$0
NFSR 101E	1	0.50	\$0	\$0
NFSR 101F	2	0.03	\$66	\$0
NFSR 101G	1	0.10	\$0	\$1,180
NFSR 101H	1	0.04	\$0	\$0
NFSR 176	1	0.10	\$0	\$580
NFSR 212	3	0.07	\$90	\$570
TOTALS =		22.91	\$10,738	\$1,288,803
Dollar figures generated from Roads INFRA Database and existing annual maintenance contracts. Costs do not include flood damage (August 2008 Federal Disaster Declaration) on NFSR 39, 49, and 212 estimated at \$598,109.				

Trail based recreation activities are popular within the project area. There is a total of 50.88 miles of trails, of which 43.54 miles are under Forest Service jurisdiction and 7.34 miles are under town or private landowner jurisdiction (Table TA-6).

The Forest Service maintains a snowmobile trail network in cooperation with the Vermont Association of Snow Travelers within the analysis area. There are approximately 33 miles of snowmobile trails where 24 miles are Trail Class (TC) 4 groomed trails and 9 miles are Trail Class 3 ungroomed trails. The TC 4 groomed trails receive moderate use by snowmobiles averaging around 25-50 visits/day during the week and 100-125 visits/day during peak weekend and holiday periods. Visits are defined as the number of individual trail users passing a single point in a day. The TC 3 ungroomed trails receive very low use by snowmobiles averaging less than 25 visits/day during peak weekend and holiday periods. The only Forest Service managed winter trailhead in the project area is located at Texas Falls Picnic Area. It is not uncommon for this trailhead to be at or over capacity on weekends and holidays with snowmobile and cross-country ski trail users.

There is one trail, Hancock Branch Trail (0.93 miles), which is managed for skiing only. Skiing is allowed on all trails in the project area and it is not uncommon to see skiers using trails managed for snowmobile use. Skiing is also popular from the Town of Granville to the

expansive views of the White River Valley at Rob Ford meadows. Skiers typically park along the shoulder at the intersection of FR55 and West Hill Extension Rd. This informal parking area raises concerns from the town regarding it's ability to keep the roads plowed and unobstructed during periods of peak use.

There are approximately 16 miles of managed hiking trails within the area where 10.5 miles are part of the Long Trail System managed cooperatively with the Green Mountain Club. Hiking on the Long Trail System consists of overnight long-distance backpacking and day hiking. Day hiking is also popular along the Hancock Branch Trail, Texas Falls Nature Trail, and Clark Brook Trail. Hiking is allowed on all other trails within the project area. It is not uncommon to see summer trail users on the winter trail system for access to the general forest area for hunting, viewing nature and gathering forest products (berries, etc.). There are currently no managed horse or bicycle trails within the analysis area, although they are allowed on existing roads.

Table TA-6. Upper White River Travel Analysis Area Existing Public Trails

Trail Name	Trail #	Total Length	FS Jurisdiction, Miles	Local / other Jurisdiction, Miles	Trail Class	Designed* & Managed Uses	Desired ROS	Co-located with Road (Miles)
Patterson Brook	750	4.15	4.15	-	4	Snowmobile*	Roaded Natural	FSR 50 (4.15)
White River	755	2.4	0.4	2.0	4	Snowmobile*	Roaded Natural	FSR 55 (2.4) TH 4 (2.0)
Rob Ford	707	2.82	2.09	0.73	3	Snowmobile* Hike	Roaded Natural	FSR 207 (0.73) TH 11 (0.73)
Rice Tract	794	1.5	1.4	0.1	3	Snowmobile*	Roaded Natural	FSR 55A (0.1) TH 14 (0.1)
Baker Brook	795	0.6	0.6	-	3	Snowmobile*	Roaded Natural	FSR 55B (0.15)
Gulf Brook	701	4.44	4.44	-	4	Snowmobile*	Roaded Natural	FSR 101 (4.4)
Bowl Mill	772	1.5	1.4	0.1	3	Snowmobile*	Roaded Natural	TH 26 (0.1)
Texas Gap	739	4.78	3.95	0.83	4	Snowmobile*	Roaded Natural	FSR 39 (2.83) TH 2 (0.83)
Perry Basin	773	1.68	0.48	1.2	4	Snowmobile*	Roaded Natural	TH 16 (0.56)
Taylor Brook	700	5.25	5.01	0.24	4/3	Snowmobile*	Roaded Natural	FSR 100 (3.19)
Fassett Hill	791	2.19	1.15	1.04	3	Snowmobile*	Roaded Natural	FSR 39D (0.29) TH 3 (0.47)
Boyden Brook	749	4.1	4.1	-	4	Snowmobile*	Roaded Natural	FSR 49 (2.7)
Clark Brook	702	2.95	2.95	-	2	Hike*	Roaded Natural/ Primitive	-
Hancock Branch	712	0.93	0.93	-	3	Ski* Hike	Roaded Natural	FSR 212 (0.07)
Texas Falls Nature	703	0.9	0.9	-	4	Hike*	Roaded Natural	-
Long Trail	3	10.3	9.2	1.1	2	Hike*	Primitive	-
Silent Cliff	167	0.39	0.39	-	2	Hike*	Primitive	-
TOTAL	-	50.88	43.54	7.34	-	-		21.68

Table TA-7 displays the annual operations and maintenance costs for the trail system, as well as the deferred maintenance costs. Deferred maintenance is defined as maintenance that was not performed when it should have been or when it was scheduled and which, therefore, was put off or delayed for a future period. When allowed to accumulate without limits or consideration of useful life, deferred maintenance leads to deterioration of performance, increased cost to repair, decrease in asset value, potential resource impacts and possible decreases in visitor satisfaction of the trail system.

Table TA-7: Annual Operations & Maintenance (O&M) Costs and Deferred Maintenance Costs by trail.

Trail Number/Name	Managed Uses	Annual O&M	Deferred Maintenance	Trail Partner
700 Taylor Brook	Snowmobile	\$638	\$1,347	VAST
701 Gulf Brook	Snowmobile	\$975	\$0	VAST
702 Clark Brook	Hike	\$702	\$3,914	GMC
703 Texas Falls Nature	Hike	\$294	\$0	N/A
707 Rob Ford	Snowmobile/hike	\$165	\$859	N/A
712 Hancock Branch	Hike/ski	\$292	0	N/A
739 Texas Gap	Snowmobile	\$1,426	\$2,721	VAST
749 Boyden Brook	Snowmobile	\$975	\$12,382	VAST
750 Patterson Brook	Snowmobile	\$911	0	VAST
755 White River	Snowmobile	\$62	0	VAST
772 Bowl Mill	Snowmobile	\$227	\$6,513	VAST
773 Perry Basin	Snowmobile	\$405	\$833	VAST
791 Fassett Hill	Snowmobile	\$404	\$1,916	VAST
794 Rice Tract	Snowmobile	\$121	\$2,302	VAST
795 Baker Brook	Snowmobile	\$221	\$1,805	VAST
TOTAL		\$7,818	\$34,592	
Data collected during summer 2008 (prior to 8/6/08 flood) for all trails except Boyden Brook, Long Trail and Silent Cliffs. Long Trail and Silent Cliffs are not included in this analysis due to the inability to extract site specific data. Dollar figures generated from Trails INFRA Database.				

ISSUES & ASSESSING BENEFITS, PROBLEMS, AND RISKS (Steps 3 & 4)

During the Upper White River IRP project development, USFS staff held several public meetings to identify issues and opportunities for all resource areas including roads and trails. The Travel Analysis process was reviewed during one of these meetings and the public was specifically asked to comment on the existing system of roads and trail in the project area, and provide input into the process. Records and any notes from these meetings are available as part of the Upper White River IRP project record.

Issues associated with management of Forest roads and trails in the project area identified from public and local government input and Forest Service management goals included:

- Safety risks from motorized mixed use on FR39 & SR125
- Improvement of parking available on FR39 (summer and winter) and FR55 (winter)

- Improvement of roads and trails to provide better access for vegetation management and the general public for recreation
- Plan for Aquatic Organism Passage (AOP) on project area culverts
- Closure of NFS and unauthorized roads in the area to prevent unmanaged motorized use and promote better management of the Wilderness MA (5.1)
- Access improvements for maintenance of existing and proposed wildlife openings
- Ancient Roads (Vermont Act 178)
- Decommissioning of public roads
- Review gate needs and repair and replace as needed
- Update road signing plans and roadside signing

A complete listing and content analysis of public comments on the Upper White River IRP proposed action relating to Forest roads and trails will be available in the Upper White River IRP Project document files.

GENERAL ISSUE STATEMENTS/QUESTIONS (FS-643 ROADS ANALYSIS GUIDE, 1999)

Some of the above issues are addressed in the following assessment of benefits, problems, and risks (please also reference the Forest-wide Roads Analysis Process Report, Step 4, pp 29-74 from which these standard set of general issue statements/questions came). Many may also to be addressed in the Upper White River Project Environmental Analysis and this Reports' list of Opportunities (Step 5) and Recommendations (Step 6).

Ecosystem Functions and Processes (EF)

EF (1): What ecological attributes, particularly those unique to the region, would be affected by roading / trailing of currently unroaded / untrailed areas?

No roading / trailing of currently unroaded (Roadless) areas are planned. Please reference the Forest-wide Roads Analysis Process Report, Step 4, pp 29-30. An Environmental Analysis is planned for the Upper White River Travel Analysis project area which will address this question more specifically if relevant.

EF (2): To what degree does the presence, type, and location of roads / trails increase the introduction and spread of exotic plant and animal species, insects, diseases, and parasites? What are the potential effects of such introductions to plant and animal species and ecosystem function in the area?

Proposed activities will take necessary precautions according to Forest standards and guidelines to minimize the potential for contamination from outside sources. This includes, but is not limited to; road / trail construction, maintenance, and logging equipment. An Environmental Analysis is planned for the Upper White River project area which will address this question more specifically if relevant.

EF (3): To what degree does the presence, type, and location of roads and trails contribute to the control of insects, diseases, and parasites?

Road and trail access facilitates human-conducted controls of pests, but is often not critical to the operation as much of it involves aerial applications. Please also reference the Forest-wide Roads Analysis Process Report, Step 4, pp 33-35.

EF (4): How does the road / trail system affect ecological disturbance regimes in the area?

Please reference the Forest-wide Roads Analysis Process Report, Step 4, p 35. An Environmental Analysis is planned for the Upper White River project area which will address this question more specifically if relevant.

EF (5): What are the adverse effects of noise, caused by developing, using, and maintaining roads / trails?

Noise from road construction, logging, and maintenance equipment can be distracting when present, but the infrequent and brief activities expected in the project area are not considered to present a significant adverse effect. Noise from long term maintenance for the small number and type of roads and trails on Forest land in this area will be negligible. Please also reference the Forest-wide Roads Analysis Process Report, Step 4, pp 35-36. An Environmental Analysis is planned for the Upper White River project area which will address this question more specifically if relevant.

Aquatic, Riparian Zone, and Water Quality (AQ)

AQ (1): How and where does the road / trail system modify the surface and subsurface hydrology of the area?

On most road and trail surface water is captured in ditches and transported to culverts or water bars, usually located in grade sags. When built properly and maintained occasionally these provide little change to surface and subsurface hydrology on the type of terrain and road / trails within this project area. An Environmental Analysis is planned for the Upper White River project area which will address this question more specifically if relevant.

AQ (2): How and where does the road / trail system generate surface erosion?

Surface erosion and associated sedimentation are related to the effectiveness of road / trail design, construction, and maintenance. Insufficient road / trail maintenance is often accountable for disruptions in harmonious water/road and trail interaction. These disruptions lead to subsequent and more critical disruptions, sometimes resulting in sediment deposits to streams. An Environmental Analysis is planned for the Upper White River project area which will address this question more specifically if relevant.

AQ (4): How and where do road/trail-stream crossings influence local stream channels and water quality?

Several crossings over live water are noted to exist within the analysis area on Forest roads and trails. New crossings over live water would only occur during road/trail bridge or culvert construction, and would be coordinated with approval of the State ANR. Any new permanent stream crossings over water will be designed to pass aquatic species. An Environmental Analysis is planned for the Upper White River project area which will address this question more specifically if relevant.

AQ (5): How and where does the road/trail system create potential for pollutants, such as chemical spills, oils, de-icing salts, or herbicides to enter surface waters?

Forest roads and trails within the analysis area pose negligible pollution potential. Forest roads are not typically open to public travel in the winter, are not salted, and do not typically transport commercial traffic (except for occasional timber sales). An Environmental Analysis is planned

for the Upper White River project area which will address this question more specifically if relevant.

AQ (6): How and where is the road/trail system hydrologically connected to the stream system? How do the connections affect water quality and quantity?

Shorter runoff relief intervals ensure more dispersed runoff, which helps reduce channeling. Outsloped roads and trails are also an effective means of dispersal, but can present safety problems. An Environmental Analysis is planned for the Upper White River project area which will address this question more specifically if relevant.

AQ (7): What downstream beneficial uses of water exist in the area? What changes in uses and demand are expected over time? How are they affected or put at risk by road/trail-derived pollutants?

Many projects and changes in management techniques have been directed toward improving aquatic species habitat for more than a decade. Road maintenance activities have been adjusted to minimize the potential for siltation. Continued vigilance, adherence to Forest Plan standards and guidelines, and efforts to enhance water quality within the analysis area will ensure future enjoyment of its downstream beneficial uses. An Environmental Analysis is planned for the Upper White River project area which will address this question more specifically if relevant.

AQ (8): How and where does the road/trail system affect wetlands?

Wetlands exist in the analysis area. The Forest road system within the analysis area is not near enough to any identified large wetland areas that it would have a significant affect on them. Forest system roads are built and maintained to avoid effects on wetlands. An Environmental Analysis is planned for the Upper White River project area which will address this question more specifically if relevant.

AQ (9): How does the road/trail system alter physical channel dynamics, including isolation of floodplains; constraints on channel migration; and the movement of large wood, fine organic matter, and sediment?

Not an issue for this project. Please also reference the Forest-wide Roads Analysis Process Report, Step 4, p 41. An Environmental Analysis is planned for the Upper White River project area which will address this question more specifically if relevant.

AQ (10): How and where does the road/trail system restrict the migration and movement of aquatic organisms? What aquatic species are affected, and to what extent?

This issue is being addressed in a forest-level program that has identified and prioritized barrier problems. Funding has been secured to begin the program to design and implement solutions to the problems. Some of these barriers have been identified within the analysis area (though they are not of the highest priority on the Forest). An Environmental Analysis is planned for the Upper White River project area which will address this question more specifically if relevant.

AQ (11): How does the road/trail system affect shading, litter fall, and riparian plant communities?

Road maintenance activities are directed toward minimum disturbance of vegetation to meet maintenance objectives. This does not seem to be an issue within the analysis area. Please also reference the Forest-wide Roads Analysis Process Report, Step 4, p 42. An Environmental

Analysis is planned for the Upper White River project area which will address this question more specifically if relevant.

AQ (12): How and where does the road/trail system contribute to fishing, poaching, or direct habitat loss for at-risk aquatic species?

This is not an issue within the analysis area. An Environmental Analysis is planned for the Upper White River project area which will address this question more specifically if relevant. See also the Forest-wide Roads Analysis Process Report, Step 4, pp 42-43.

AQ (13): How and where does the road/trail system facilitate the introduction of non-native aquatic species?

This does not seem to be an issue within the analysis area. An Environmental Analysis is planned for the Upper White River project area which will address this question more specifically if relevant. See also the Forest-wide Roads Analysis Process Report, Step 4, p 43.

AQ (14): To what extent does the road/trail system overlap with areas of exceptionally high aquatic diversity or productivity, or areas containing rare or unique aquatic species or species of interest?

This is not an issue within the analysis area. An Environmental Analysis is planned for the Upper White River project area which will address this question more specifically if relevant. See also the Forest-wide Roads Analysis Process Report, Step 4, pp 43-45.

Terrestrial Wildlife (TW)

TW (1): What are the direct effects of the road/trail system on terrestrial species habitat?

Assuming no new roads would be constructed in the project area, the majority of existing roads within the UWR are gravel roads of narrow width and low use which would have a minimal impact on mortality due to roads, habitat fragmentation or movement of wildlife (other than possibly amphibians). VT State Route 100, 125, and some of the larger roads to the east of Route 100 are main roads, which are wider and have higher traffic, have the potential to cause higher mortality rates, modify wildlife movements, and/or contribute to habitat fragmentation. An Environmental Analysis is planned for the Upper White River project area which will address this question more specifically if relevant. See also the Forest-wide Roads Analysis Process Report, Step 4, pp 45-48.

TW (2): How does the road/trail system facilitate human activities that affect habitat?

The road system would facilitate increased activities such as timber harvesting during project implementation. The implementation has the potential to increase wildlife disturbance / displacement during the short term but would have minimal negative impacts over the long term. Recreational activities, mostly day use, is also facilitated by the road and trail system which also has the potential for creating seasonal or short term displacement of wildlife. An Environmental Analysis is planned for the Upper White River project area which will address this question more specifically if relevant. See also the Forest-wide Roads Analysis Process Report, Step 4, pp 45-48.

TW (3): How does the road/trail system affect legal and illegal human activities (including trapping, hunting, poaching, harassment, road kill, or illegal kill levels)? What are the effects on wildlife species?

Roads and trails allow access for hunters within the analysis area. While this is generally not an issue this access can be used for poaching. An Environmental Analysis is planned for the Upper White River project area which will address this question more specifically if relevant. See also the Forest-wide Roads Analysis Process Report, Step 4, pp 48-49.

TW (4): How does the road/trail system directly affect unique communities or special features in the area?

This is not an issue within the analysis area. An Environmental Analysis is planned for the Upper White River project area which will address this question more specifically if relevant. Please also reference the Forest-wide Roads Analysis Process Report, Step 4, pp 49-51.

Economics (EC)

EC (1): How does the road and trail system affect the agency's direct costs and revenues? What, if any, change in the road and trail system will increase net revenue to the agency by reducing cost, increasing revenue, or both?

See Tables TA-5 and 7 above. The annual road budget for the GMFL NF is not sufficient at the current time to reduce deferred maintenance in any significant way. Keeping up with annual maintenance is also very difficult. The GMNF trails program has a well established history of partner groups assisting in operations and maintenance. Cost sharing on trail maintenance projects helps expand the capacity of normal GMNF trail maintenance appropriation dollars. There are opportunities to add new use types, such as mountain bikes and horses, to the trails with the understanding that those user groups will assist in maintaining the system. The GMNF has been working with the horse and bicycle communities in developing relationships and capacity to help assist in trail maintenance, therefore reducing the burden on the FS to maintain the trail system alone.

EC (3): How does the road and trail system affect the distribution of benefits and costs among affected people?

Users of the trail system receive the direct benefits of the infrastructure. Currently the managed trail uses in the UWR Analysis Area include skiing, snowmobiling, and hiking. The hiking and snowmobile communities currently assist in the cost of maintaining the system through partnerships with the Green Mountain Club and the Vermont Association of Snow Travelers. Both of these organizations rely heavily on volunteers to assist in trail maintenance activities. There is no partnership with the ski community to assist with maintenance costs in the project area. The benefits enjoyed by these user groups come at a cost to their organizations to assist in maintaining the trail system.

Road based recreation users also benefit from the road system through access to the NF for activities such as hunting, fishing, gathering forest products, camping and enjoying scenery. These types of users do not normally assist in the operations and maintenance of the transportation system.

Timber Management (TM)

TM (1): How does road/trail spacing and location affect logging system feasibility?

Efficient and economical road spacing for ground based logging systems on terrain found in the project area utilize an average 1,500 to 2,500 feet skid distance to the farthest harvest unit in order to balance economical yarding cost with road density. In general, close road spacing

results in quick turn times and higher production that reduces yarding cost and increases stumping value. Although closer road spacing can increase the total road cost due to more roads, this cost can be reduced with the use of temporary roads. An Environmental Analysis is planned for the Upper White River project area which will address this question more specifically if relevant. Please also reference the Forest-wide Roads Analysis Process Report, Step 4, pp 52-53.

TM (2-3): How does the road system affect managing the suitable timber base and other lands? How does the road/trail system affect access to timber stands needing silvicultural treatment?

An Environmental Analysis is planned for the Upper White River project area which will address this question more specifically if relevant. Please also reference the Forest-wide Roads Analysis Process Report, Step 4, pp 53-54.

Minerals Management (MM)

MM (1): How does the road/trail system affect access to locatable, leasable, and salable minerals?

There are no known significant mineral deposits in the project area. An Environmental Analysis is planned for the Upper White River project area which will address this question more specifically if relevant. Please also reference the Forest-wide Roads Analysis Process Report, Step 4, p 54.

Water Production (WP)

WP (2): How does road/trail development and use affect water quality in municipal watersheds?

Municipal watersheds exist in the analysis area, and are very unlikely to be affected by activities in the project area. An Environmental Analysis is planned for the Upper White River project area which will address this question more specifically if relevant.

Special Forest Products (SP)

SP (1): How does the road/trail system affect access for collecting special forest products?

Permits for collecting special forest products are issued to utilize the existing transportation system. Policy dictates that use of a closed road is permitted only if the objective of the closure is not compromised and the task cannot be otherwise accomplished. An Environmental Analysis is planned for the Upper White River project area which will address this question more specifically if relevant. Please also reference the Forest-wide Roads Analysis Process Report, Step 4, pp 55-56.

Special-Use Permits (SU)

SU (1): How does the road/trail system affect managing special-use permit sites?

Special use permits have, and will continue to exist within the project area, but have not typically been an issue relative to the Forest road system. An Environmental Analysis is planned for the Upper White River project area which will address this question more specifically if relevant. See also the Forest-wide Roads Analysis Process Report, Step 4, p 56.

General Public Transportation (GT)

GT (1): How does the road/trail system connect to public roads and primary access to communities?

None of the NFS roads in the analysis area directly connect the two communities of Hancock and Granville. Access between the two towns depends on State Highway 100.

The trail network in the analysis area does provide access across NFS lands between the communities of Hancock, Granville and Rochester. FS Trails 749, 739, 701 and 773 serve as VAST Corridor 7A that connects the three communities together. Users of this trail system enjoy the benefits of traveling a very scenic route and accessing services such as gas and food along the way in the different communities. The summer trail network does not provide any managed connection between the communities in the analysis area.

GT (2): How does the road/trail system connect large blocks of land in other ownerships to public roads?

NFSR39, 49, 55, and 100 connect private land to local Town Highways and SR100 & 125, though winter access is limited and access is only to a few private camps. An Environmental Analysis is planned for the Upper White River project area which will address this question more specifically if relevant. Please also reference the Forest-wide Roads Analysis Process Report, Step 4, p 57.

The VAST trail system connects to large blocks of private and other public lands to the east. Snowmobile users enjoy this access that connects to the larger state-wide snowmobile trail network. The connection of communities, private lands, other public lands and the GMNF provide a diverse riding experience. The Long Trail System also connects hikers to other large blocks of private and public land north and south along the spine of the Green Mountains. The 275 mile trail runs the length of Vermont from Massachusetts to Canada. The next largest public land accessed by the Long Trail to the north is Camel's Hump State Park.

GT (3): How does the road/trail system affect managing roads with shared ownership or limited jurisdiction?

The Forest Service has full jurisdiction on all National Forest System (NFSR) roads within the analysis area. Other numbered Forest roads and Forest Highways are under Town jurisdiction. An Environmental Analysis is planned for the Upper White River project area which will address this question more specifically if relevant. Please also reference the Forest-wide Roads Analysis Process Report, Step 4, pp 57-59.

The UWR analysis area has approximately 52 miles of recreation trails, of which 7.4 miles are located on town or other private land jurisdiction. The GMNF trail partners primarily develop and cultivate the verbal agreements for crossing those non-GMNF travel routes. There are no formal agreements between the GMNF, partner organization or towns to operate and maintain the trail system on non-NFS lands. The towns generally support the trail activities on their Class 4 roads and trails for economic develop and quality of life opportunities and access can be counted on for the long term.

The only place where the trail system crosses private land is in the Town of Granville, Albee Brook drainage. FST 700 (Taylor Brook Trail) crosses approximately 0.2 miles of private land. The current landowners have provided verbal agreement to allow winter and summer access across their property, but no formal easement or ROW has been pursued. There is a concern that

improving FST 700 may result in it only being cut off in the future should the landowner change their mind or the property be sold to a less cooperative owner.

GT (4): How does the road/trail system address the safety of road users?

The largest concern for safety in the analysis area is the concurrent use of snowmobiles and automobiles on the same travel route. Currently there are no instances of this on NFS managed lands, but there are two cases on lands managed by the towns and state. The first safety concern is the crossing of VT 125 from FST 749 (Boyden Brook) to FST 739 (Texas Gap). This has been a long standing safety concern that involves VAST, the state of VT, the town of Hancock and a private land owner. Safe crossing of VT 125 in this area is very difficult due to the configurations of terrain, roads and landownership. A Motorized Mixed Use Report was produced in January 2009 addressing the mixed use of snowmobiles and autos on FR39 in the winter months. Recommendations from that report (including improved signing on FR39) are being considered in the UWR Project.

The other area where vehicles and automobiles share a town road is in Granville along TH 4/FSR 55. The shared portion is less than 0.5 miles and there have been no known incidents between the two uses on this trail segment. Please also reference the Forest-wide Roads Analysis Process Report, Step 4, pp 59-60.

Administrative Use (AU)

AU (1): How does the road/trail system affect access for research, inventory, and monitoring?

Road closures within the analysis area have been in place for a decade or more. Research, inventory, and monitoring practices adhere to the policy on administrative use of closed roads. An Environmental Analysis is planned for the Upper White River project area which will address this question more specifically if relevant. Please also reference the Forest-wide Roads Analysis Process Report, Step 4, pp 60-61.

AU (2): How does the road/trail system affect investigative or enforcement activities?

Unauthorized uses associated with summer off-road vehicles and snowmobiles have been said to occur in the Upper White River area, although the GMNF has no data as to what extent. Field inspections and conversation with Forest Service law enforcement indicate that unauthorized motorized activity in the Upper White River area is incidental and not considered a 'hot spot' for illegal motorized activity on the GMNF. An Environmental Analysis is planned for the Upper White River project area which will address this question more specifically if relevant. Please also reference the Forest-wide Roads Analysis Process Report, Step 4, p 61.

Protection (PT)

PT (1): How does the road/trail system affect fuels management?

Not an issue for this project area. An Environmental Analysis is planned for the Upper White River project area which will address this question more specifically if relevant. Please also reference the Forest-wide Roads Analysis Process Report, Step 4, p 61.

PT (2): How does the road/trail system affect the capacity of the Forest Service and cooperators to suppress wildfires?

Not an issue for this project area. An Environmental Analysis is planned for the Upper White River project area which will address this question more specifically if relevant. Please also reference the Forest-wide Roads Analysis Process Report, Step 4, p 61.

PT (3): How does the road/trail system affect risk to firefighters and to public safety?

Not an issue for this project area. An Environmental Analysis is planned for the Upper White River project area which will address this question more specifically if relevant. Please also reference the Forest-wide Roads Analysis Process Report, Step 4, p 62.

PT (4): How does the road/trail system contribute to airborne dust emissions resulting in reduced visibility and human health concerns?

Not an issue for this project area. An Environmental Analysis is planned for the Upper White River project area which will address this question more specifically if relevant. Please also reference the Forest-wide Roads Analysis Process Report, Step 4, p 62.

Unroaded Recreation (UR)

UR (1): Is there now or will there be in the future excess supply or excess demand for unroaded recreation opportunities?

According to the latest Recreation Opportunity Spectrum inventory, there are 9,688 acres of semi-primitive non-motorized opportunities within the analysis area. That accounts for 42% of the analysis area, where most of this is located within the Breadloaf Wilderness Area. The 2006 New England Wilderness Act created around 1,500 acres of wilderness in the analysis area with additions to the Breadloaf Wilderness and the creation of the Joseph Battell Wilderness. There is no evidence that shows there is an excess supply or demand for unroaded recreation opportunities.

UR (2): Is developing new roads into unroaded areas, decommissioning of existing roads, or changing the maintenance of existing road causing substantial changes in the quantity, quality, or type of unroaded recreation opportunities?

There are no needs to develop new roads into unroaded areas. Managing additional uses such as bicycles and horses on the existing trail system outside of wilderness will provide additional unroaded recreation opportunities. These will not result in substantial changes to unroaded recreation opportunities.

UR (3): What are the effects of noise and other disturbances caused by developing, using, and maintaining roads on the quantity, quality, and type of unroaded recreation opportunities?

Currently, noise from the road system does not substantially affect unroaded recreation opportunities. The areas most affected by road noise are the Breadloaf and Joseph Battell Wilderness Areas on either side of VT 125. Visitor seeking an experience away from the sights and sounds of modern life may have to travel deeper into the wilderness away from this highway corridor. The noise generated by the snowmobile trail network in the project area also affects unroaded recreation opportunities. Visitors seeking experiences away from the sights and sounds of the combustible engine will have to travel further into the unroaded portions of the area. Currently the area is not a major destination for those seeking solitude and quiet.

UR (4): Who participates in unroaded recreation in the areas affected by constructing, maintaining, and decommissioning roads?

The primary users of the unroaded portions of the analysis area include hikers, skiers and hunters.

UR (5): What are these participants' attachments to the area, how strong are their feelings, and are alternative opportunities and locations available?

There is a strong attachment by the public to the wilderness areas within the analysis area. Congressionally designated wilderness provides opportunities for natural processes to dominate the landscape and primitive recreation with solitude. Roads are not allowed to be constructed in wilderness.

Road-Related Recreation (RR)

RR (1): Is there now or will there be in the future excess supply or excess demand for roaded recreation opportunities?

The inventoried ROS analysis for the project areas shows that 12,913 acres (56%) is in the Roaded Natural and Rural ROS classes. Roaded recreation opportunities are popular along Forest Roads 39, 55, 101 and 49. Roaded recreation opportunities typically include hunting, camping and viewing scenery. There is no evidence to suggest that there is excess supply or demand of roaded recreation opportunities within the analysis area.

RR (2): Is developing new roads into unroaded areas, decommissioning of existing roads, or changing the maintenance of existing roads causing substantial changes in the quantity, quality, or type of roaded recreation opportunities?

No. There has been very little new road construction activity on the Forest within the past 10 years. Neither have maintenance levels changed over this period of time, and few roads have been decommissioned.

RR (3): What are the effects of noise and other disturbances caused by developing, using, and maintaining roads on the quantity, quality, and type of roaded recreation opportunities?

Not an issue as there has been little to no activity in the past and any future activity will be minor. An Environmental Analysis is planned for the Upper White River project area which will address this question more specifically if relevant. See also the Forest-wide Roads Analysis Process Report, Step 4, pp 66-67.

RR (4): Who participates in roaded recreation in the areas affected by constructing, maintaining, and decommissioning roads?

Roaded recreation within the analysis area consists mostly of hunting, snowmobiling, and camping. An Environmental Analysis is planned for the Upper White River project area which will address this question more specifically if relevant. See also the Forest-wide Roads Analysis Process Report, Step 4, pp 67-69.

RR (5): What are these participants' attachments to the area, how strong are their feelings, and are alternative opportunities and locations available?

Recreation users of the area have a strong attachment to the land. They have relied on the road access for generations to pursue activities such as hunting and camping. Reducing the size of the road system would impact those users who have grown to depend on it for their quality of life.

Civil Rights (CR)

CR (1): How does the road and trail system or its management, affect certain groups of people (minority, ethnic, cultural, racial, disabled, and low-income groups)?

The Texas Falls Observation Area contains a trail and bridge that was badly damaged during the 2008 flood. The infrastructure did not meet access guidelines for people with mobile disabilities. The GMNF will be reconstructing the access trail and bridge to meet current access standards for people with mobile disabilities.

Passive-Use Value (PV)

PV (1): Do areas planned for road/trail entry, closure, or decommissioning have unique physical or biological characteristics, such as unique natural features and threatened or endangered species?

An Environmental Analysis is planned for the Upper White River project area which will address this question more specifically if relevant. See also the Forest-wide Roads Analysis Process Report, Step 4, p 70.

PV (2): Do areas planned for road/trail entry, closure, or decommissioning have unique cultural, traditional, symbolic, sacred, spiritual, or religious significance?

An Environmental Analysis is planned for the Upper White River project area which will address this question more specifically if relevant. See also the Forest-wide Roads Analysis Process Report, Step 4, pp 70-71.

PV (3): What, if any groups of people hold cultural, symbolic, spiritual, sacred, traditional, or religious values for unroaded/untrailed areas planned for road/trail entry or road/trail closure.

To date, such values have not been specifically identified. An Environmental Analysis is planned for the Upper White River project area which will address this question more specifically if relevant.

Social Issues (SI)

SI (1): What are the people's perceived needs and values for roads / trails? How does the road / trail management affect people's dependence on, need for, and desire for roads/trails?

People have grown to depend on and value the trail network within the analysis area. Many of the trails have been established through they years by volunteer user groups such as VAST and GMC. There is a perceived need to balance out the winter motorized and non-motorized uses in the analysis area by creating more ski only opportunities. There is also a perceived need by the snowmobile community that upgrading ungroomed trails to groomed trails will bring more recreation use to the area.

An Environmental Analysis is planned for the Upper White River project area which will address this question more specifically for the road network if relevant.

SI (2): What are the people's perceived needs and values for access? How does the road management affect people's dependence on, need for, and desire for access?

An Environmental Analysis is planned for the Upper White River project area which will address this question more specifically if relevant. See also the Forest-wide Roads Analysis Process Report, Step 4, pp 71-72.

SI (3): How does the road/trail system affect access to paleontological, archaeological, and historical sites?

An Environmental Analysis is planned for the Upper White River project area which will address this question more specifically if relevant. See also the Forest-wide Roads Analysis Process Report, Step 4, p 72.

SI (4): How does the road/trail system affect cultural and traditional uses, and American Indian treaty rights?

An Environmental Analysis is planned for the Upper White River project area which will address this question more specifically if relevant. See also the Forest-wide Roads Analysis Process Report, Step 4, p 72.

SI (5): How are roads/trails that are historic sites affected by road management?

An Environmental Analysis is planned for the Upper White River project area which will address this question more specifically if relevant. See also the Forest-wide Roads Analysis Process Report, Step 4, pp 72-73.

SI (7): What is the perceived social and economic dependency of a community on an unroaded area versus the value of that unroaded area for its intrinsic existence and symbolic values?

This question is more appropriately addressed at the Forest scale. See the Forest-wide Roads Analysis Process Report, Step 4, pp 73-74. An Environmental Analysis is planned for the Upper White River project area which will address this question more specifically if relevant.

SI (8): How does road and trail management affect wilderness attributes, including natural integrity, natural appearance, opportunities for solitude, and opportunities for primitive recreation?

An Environmental Analysis is planned for the Upper White River project area which will address this question more specifically if relevant. See also the Forest-wide Roads Analysis Process Report.

OPPORTUNITIES AND PRIORITIES (Step 5)

Summary, Opportunities, and Remarks

Based on the existing and desired road and trail system conditions and issues derived from public and internal Forest Service meetings, the following sets of opportunities were developed (opportunities are not exclusive of each other):

I. Existing National Forest System Roads (NFSR)

Road Opportunities for consideration

- NFSR 39 Keep at OML 3 (1.76 miles) and OML 2 (0.17 miles) and make no changes to infrastructure. Improve OML 2 section and change to all 1.93 miles maintained at OML 3. Seek increase of parking opportunities for winter and summer use on Town portion of FR39. Work with Town to place motorized mixed use signing for winter mixed use (snowmobile and auto) occurring on FR39 (TH2). Work with Town and State on snowmobile crossing of SR125 and onto FR39 to improve safety. Work with Town on new road cooperative agreement or for Forest Service to be granted jurisdiction of road (TH2) from recreation area at falls north to end. Add all or portion of FR39 (TH2) to Forest Highway System.
- NFSR 39A: Keep at OML 2 (0.2 miles) and make no changes to infrastructure. Change to OML 4 from 0.0 to 0.03 and OML 1 from 0.03 to 0.20 to align with existing road condition. The first section of road is a host site that is paved.
- NFSR 39B: Decommission portion in existing Wilderness MA (mile 0.12 to 0.47) to align with Forest Plan and 2006 New England Wilderness Act. Remove all trace of roadbed in Wilderness MA. Allow roadbed to re-vegetate naturally in Wilderness MA. Pull road drainage structures by hand or w/ mechanized equipment, but leave roadbed to re-vegetate naturally otherwise in Wilderness MA. Leave remaining road (mile 0.0 to 0.12) as is at OML 2. Create a turnaround near mile 0.12 to allow 1-2 autos to park and turn-around to exit area.
- NFSR 39C: Decommission portion in existing Wilderness MA (mile 0.03 to 0.27) to align with Forest Plan and 2006 New England Wilderness Act. Remove all trace of roadbed in Wilderness MA. Allow roadbed to re-vegetate naturally in Wilderness MA. Pull road drainage structures by hand or w/ mechanized equipment, but leave roadbed to re-vegetate naturally otherwise in Wilderness MA. Leave remaining road (mile 0.0 to 0.03) as is at OML 2. Remove large FR39C road culvert on Texas Brook (Wilderness MA boundary line). Create a parking / turnaround area near mile 0.03 to allow 1-2 autos to park and turn-around to exit area.
- NFSR 39D: Keep at OML 3 (0.29 miles) and make no changes to infrastructure. Add parking areas and other related recreation improvements along the road according to Texas Falls improvement plans completed in the late 1990's.
- NFSR 39E: Keep at OML 2 (0.3 miles) and make no changes to infrastructure. Change to OML 2 from 0.0 to 0.07 and OML 1 from 0.07 to 0.30 to align with existing road condition. The second section of the road is bermed and impassible.
- NFSR 49: Keep at OML 2 (2.70 miles) and make no changes to infrastructure. Change to OML 2 from 0.0 to 1.81 and OML 1 from 1.81 to 2.70 to align with existing road condition. The road from 1.81 is gated (unlocked) and grown-in with vegetation. Convert FR49 from 1.81 to 2.7 to a NFS Trail.

- NFSR 50: Keep at OML 3 (4.15 miles) and make no changes to infrastructure. Create parking pull-off areas at decommissioned existing OML 1 spur roads (FR50C, D & E). Improve turning radius at FR 55 intersection. Replace existing road gate just north of FR55 with new gate and signing.
- NFSR 50A: Keep at OML 1 (0.10 miles) and make no changes to infrastructure, or decommission and re-vegetate roadbed. Road provides access into C37 in MA 3.1.
- NFSR 50B: Keep at OML 1 (0.10 miles) and make no changes to infrastructure, or decommission and re-vegetate roadbed. Road provides access into C37 in MA 3.1.
- NFSR 50C: Keep at OML 1 (0.10 miles) and make no changes to infrastructure, or decommission and re-vegetate roadbed. Create parking pull-off at FR50 entry if decommissioned. Road is currently in Wilderness Study Area MA and leads towards Wilderness MA lands.
- NFSR 50D: Keep at OML 1 (0.10 miles) and make no changes to infrastructure, or decommission and re-vegetate roadbed. Create parking pull-off at FR50 entry if decommissioned. Road is currently in Wilderness Study Area MA and leads towards Wilderness MA lands.
- NFSR 50E: Keep at OML 1 (0.30 miles) and make no changes to infrastructure, or decommission and re-vegetate roadbed. Create parking pull-off at FR50 entry if decommissioned. Road is currently in Wilderness Study Area MA and leads towards Wilderness MA lands.
- NFSR 50F: Keep at OML 1 (0.20 miles) and make no changes to infrastructure, or decommission and re-vegetate roadbed. Road provides access into existing wildlife opening and for C45 in MA 3.1.
- NFSR 55: Keep at OML 3 (0.42 miles) and OML 1 (1.3 miles) and make no changes to infrastructure. Decommission OML 1 portion and restore roadbed to natural conditions, or simply remove larger road culverts on active streams. The OML 1 portion of the road is in the 2006 Inventoried Roadless Area (IRA). Provide a small parking pull-off area on NFS land off the Town portion of FR55 near FR208 on the south side of the road in cooperation with the Town. Install a new road gate to protect NFSR55 and 101 during mud season.
- NFSR 55B: Keep at OML 1 (0.15 miles) and make no changes to infrastructure, or decommission and re-vegetate roadbed. Road is located in the 2006 Inventoried Roadless Area (IRA).
- NFSR 55C: Keep at OML 3 (0.04 miles) and make no changes to infrastructure. Road provides access south of FR55 in MA 3.1 lands of C57.

- NFSR 55D: Keep at OML 3 (0.02 miles) and make no changes to infrastructure. Convert to parking feature of FR55.
- NFSR 55E: Keep at OML 3 (0.01 miles) and make no changes to infrastructure. Convert to parking feature of FR55.
- NFSR 56: Keep at OML 1 (0.50 miles) and make no changes to infrastructure, or decommission and re-vegetate roadbed. Create parking pull-off at FR50 entry if decommissioned. Road is currently in Wilderness Study Area and Wilderness MA's and is required to be decommissioned within Wilderness MA.
- NFSR 100: Keep as OML 4 (3.19 miles) and make no changes to infrastructure. Change entire length from OML4 to OML3 to align with existing conditions and future predicted budgets.
- NFSR 100A: Keep at OML 1 (0.10 miles) and make no changes to infrastructure, or decommission and re-vegetate roadbed. Road provides access into C74 & 75 in MA 3.1 and into an existing wildlife opening.
- NFSR 100B: Keep at OML 1 (0.10 miles) and make no changes to infrastructure, or decommission and re-vegetate roadbed. Road provides access into C75 in MA 3.1.
- NFSR 100C: Keep at OML 1 (0.10 miles) and make no changes to infrastructure, or decommission and re-vegetate roadbed. Road provides access into C75 & 76 in MA 3.1.
- NFSR 100D: Keep at OML 1 (0.20 miles) and make no changes to infrastructure, or decommission and re-vegetate roadbed. Road provides access into C76 in MA 3.1.
- NFSR 101: Keep as OML 3 (4.42 miles) and make no changes to infrastructure.
- NFSR 101A: Keep at OML 1 (0.10 miles) and make no changes to infrastructure, or decommission and re-vegetate roadbed. Road provides access into C56 in MA 3.1.
- NFSR 101B: Keep at OML 1 (0.10 miles) and make no changes to infrastructure, or decommission and re-vegetate roadbed. Road provides access into C57 in MA 3.1 and into an existing wildlife opening.
- NFSR 101C: Keep at OML 1 (0.05 miles) and make no changes to infrastructure, or decommission and re-vegetate roadbed. Road provides access into C58 in MA 3.1.
- NFSR 101D: Keep at OML 1 (0.06 miles) and make no changes to infrastructure, or decommission and re-vegetate roadbed. Road provides access into C57 in MA 3.1.
- NFSR 101E: Keep at OML 1 (0.50 miles) and make no changes to infrastructure, or decommission and re-vegetate roadbed. Road provides access into C58 in MA 3.1 and into an existing wildlife opening.

- NFSR 101F: Keep at OML 2 (0.03 miles) and make no changes to infrastructure, or decommission and re-vegetate roadbed. Road provides access into C59 in MA 3.1.
- NFSR 101G: Keep at OML 1 (0.10 miles) and make no changes to infrastructure, or decommission and re-vegetate roadbed. Road provides access into C58 in MA 3.1.
- NFSR 101H: Keep at OML 1 (0.04 miles) and make no changes to infrastructure, or decommission and re-vegetate roadbed. Road provides access into C58 in MA 3.1.
- NFSR 176: Keep at OML 1 (0.10 miles) and make no changes to infrastructure, or decommission and re-vegetate roadbed. Road (with future ford) could provide access into MA 6.2 lands south of the Hancock Branch. An easement over private lands was purchased for the road.
- NFSR 212: Keep at OML 3 (0.07miles) and make no changes to infrastructure. Road provides access with parking to trail head for NFS Trail 712.

II. Existing Non-NFS Roads on USFS land or off NFS roads

<u>Road</u>	<u>Opportunities for consideration</u>
50S-1.241:	Physically close at NFSR 50 upon conclusion of any administrative use. This is an existing skid road that was not physically closed after past use. Improve and add this existing road to the NFS as a 0.20 mile long OML 1 road (NFSR 50G). This road would provide important access to C37.
55S-1.237:	Physically close at FR55. This is an existing road providing dispersed recreation near the White River. Add this existing road to the NFS as a 0.06 mile long OML 3 road (NFSR 55F). This road would provide important dispersed recreation access.
Various:	Several other non-NFS (unauthorized) roads and trails are located within the project area and there is an opportunity for them to be closed-off and monitored for any new or continued illegal use during the project. Closure of any unauthorized roads and skid trails would be at or near the main road entrance by: placing large boulders (or similar physical barrier); re-planting some native vegetation; and re-establishing the main road template and / or ditch-line as needed. Until the vegetation is established small, temporary travel management signing may be installed to discourage unauthorized use. Small single car pull-off areas may be created (when needed) at existing unauthorized road entrances where the pull-off can be located by extending the shoulder of the main road (without cuts or fills) and where they will not be separated by ditches or drainage structures.

III. Temporary Haul Roads to existing or new timber landings proposed for the Upper White River Project

Road Opportunities for consideration

Various: There is an opportunity to construct temporary short haul roads to new and existing landings to provide access for timber management (see existing and proposed landings on UWR Project map). Most all of these roads are short (<0.10 miles), would not require gravel, and would likely be used primarily under frozen ground conditions. Previously used temporary roads would need to be reopened to access existing landing locations that meet current standards for use. Temporary roads would be restored to pre-sale conditions after use according to Forest Plan Standards and Guidelines as a part of the timber sale to prevent unauthorized motorized use. Skid roads leading from these temporary roads and log landings would be closed off at the completion of harvest activities to prevent unauthorized vehicle use into the Forest.

IV. Easements & ROW's and State / Town Road Access needsRoad Opportunities for consideration

Various: All existing Easements and ROW's would remain intact within the project area (see attached copy of ROW Status Atlas sections relevant to project area).

Various: There is an opportunity to better understand private land access over US Government lands or roads and initiate or renew any needed Road Use or Special Use Permits. Areas to consider for review are private lands accessed via NFSR's 39A, 49, and 100.

Various: There are opportunities for improved access to National Forest lands over new permanent or temporary access permits (easements) at the following areas:

- off Granville TH 26 near the Bowl Mill for access to C58 (S7)
- off the end of Hancock TH 3, Fassett Hill Road for access to C74 (S3)
- off Hancock TH 3, Fassett Hill Road near SR 125 for access to C74 (S1 & 22)
- off the end of Hancock TH 4, Champney Hill Road for access to C75 (S9)
- off TH 5, Tucker Brook Road for access to C76 (S2)
- off TH 15, Comes Road for access to C76 (S1)

FR 207: There is an opportunity to improve FR207 (TH 11, Rob Ford Road) through the existing road cooperative agreement with the Town of Granville to reduce soil erosion and unauthorized off-road 4wd and ATV activity in wildlife clearings and provide clearer access for town residents and Forest land management activities. Improvements, with Town approval, could include spot graveling, road template shaping, water bar, culvert, and ditching work, brushing, and other similar road maintenance activities.

FR 208: There is an opportunity to improve FR208 (TH 12, West Hill Ext. Road) through the existing road cooperative agreement with the Town of Granville to reduce soil erosion and unauthorized off-road 4 wheel drive and ATV activity and provide for

temporary timber management access to NFS land between FR 55 and FR 50. Improvements, with Town approval, could include spot graveling, road template shaping, water bar, culvert, and ditching work, brushing, and other similar road maintenance activities. Improvements would also include restoring the small stream just south of FR 50 and providing an appropriate stream crossing structure for the road. These actions would also return the small stream channel to a more natural state, and improve its water quality.

FR 39: There is an opportunity to improve signing on FR39 (TH 2, Texas Falls Road) for motorized mixed use through the existing road cooperative agreement with the Town of Hancock to improve safety for the shared use of FR 39 (TH2) / FT 739 (C100) during the winter snow season. Improvements, with Town approval, could include placement of motorized mixed use signing along TH 2 that would be managed cooperatively for snow season.

V. Existing National Forest System Trails

NFST 772 (Bowl Mill Trail) – Decommission this trail and remove it from the transportation atlas. Monitoring has shown that this trail does not get maintained and is very lightly use. There is an opportunity to decommissioning this trail, which will reduce the deferred maintenance on the Forest trail system by \$6,513.

NFST 794 (Rice Tract) – Decommission this trail and remove it from the transportation atlas. Monitoring has shown that this trail does not get maintained and is very lightly used. There is an opportunity to decommission this trail, which will reduce the deferred maintenance on the Forest trail system by \$2,303.

NFST 795 (Baker Brook) – Decommission this trail and remove it from the transportation atlas. Trail monitoring as shown that this trail does not get maintained and is very lightly used. There is an opportunity to decommission this trail, which will reduce the deferred maintenance on the Forest trail system by \$1,805.

NFST 791 (Fassett Hill) & 700 (Taylor Brook) – There has been strong support from the local snowmobile club to upgrade these two trails from Class 3 to Class 4 groomed trails to create a loop riding experience referred to as the Childs Mountain Loop. Upgrading these two trails would entail construction from a 6 to 8 foot wide trail to a 12 to 20 foot wide trail. The Forest Service is not moving forward with this proposal at this time due to the need to focus on reducing deferred maintenance and addressing other health & safety concerns within the analysis area. Also, this system of trails crosses three parcels of land owned by the Town of Hancock and two private landowners. The local snowmobile club has verbal agreement from the other landowners to upgrade this trail, but the GMNF has concerns that as landowners change in the future, so may their disposition about hosting a snowmobile trail on private property. There is an opportunity for the Forest Service, club and VAST to explore options of securing permanent access through purchasing easements. The trails in their existing condition provide a more primitive type of snowmobile riding experience that is not common within the analysis area.

NFST 712 (Hancock Branch) – This trail was badly damaged during the flood of 2008. It is a popular destination for four-season non-motorized uses because of its relatively flat terrain and scenery along a mountain stream. There are opportunities to reconstruct this trail so that it is more resilient against future flooding events and expansion to include a loop for day hiking and cross country skiing. The exact location of the reconstructed trail is yet to be determined based on field review. Possible locations include locating it in the proximity of the existing trail, but on higher ground or on the east side FSR 39 where it may be able to link into the existing FST 703 (Texas Falls Nature Trail).

NFST 703 (Texas Falls Nature Trail) – The beginning of this trail, at the Texas Falls Observation Area, was badly damaged during the flood of 2008. It washed away a significant portion of the trail tread and destroyed the bridge crossing the Texas Falls gorge. There is an opportunity to reconstruct this popular hiking trail at the Observation Area to access standards so that people with mobile disabilities could viewing the falls.

NFST 749 (Boyden Brook) & NFST 739 (Texas Gap) – There is a health and safety concern regarding the crossing of State Route (SR) 125 with snowmobiles. NFST 749 (collocated with FSR 49) connects with SR 125 from the south and NFST 739 (collocated with 39) connects with SR 125 from the north. The crossing of SR 125 by the trails does not match up to a perfect perpendicular alignment, therefore causing trail users to travel a small portion of the highway before turning off in a piece of private land. The alignment of the crossing is complex as it involves a group of interests consisting of the snowmobile club, private landowners, Town of Hancock and Forest Service. The actual crossing of the highway is dependent upon lands no within the jurisdiction of the Forest Service. There is an opportunity for the Forest Service to highlight this safety concern to the other interested parties and offer opportunities within their authority to help resolve the safety concerns.

NFST 739 (Texas Gap) – There is concerns that the GMNF does not provide enough opportunities for trail and equestrian users. The Texas Gap trail offers an opportunity to convert from a snowmobile use only trail to a managed bike and horse trail for the summer months. Adding new uses to the trail will promote new uses of the GMNF and provide new user groups to assist on operating and maintaining the trail system. The Texas Gap Trail could provide a link between the Towns of Granville and Hancock and open up a larger network of roads to horse and bike users. Future connections could also be made with the Town of Rochester via the Boyden Brook Trail.

RECOMMENDATIONS (Step 6)

Identification of needed and unneeded roads and trails within the analysis area.

The following tables (Tables TA-8 and TA-9) show existing and proposed NFS roads and trails and recommendations for their status, classification, and maintenance level based on the existing conditions on the ground; transportation needs in the project area; consideration of scoping issues; and assessment of benefits, problems, and risks.

Table TA-8 NFS Road System Review and Recommendations

ROAD ID	ROAD NAME	CURRENT ROAD SYSTEM & OML	POST-ANALYSIS ROAD SYSTEM & OML RECOMMENDATION	Miles	Objective Maintenance Level (OML)
NFSR 39	Texas Gap	National Forest System Road (NFSR) OML 3 / 2	National Forest System Road (NFSR) OML 3	1.93	3
NFSR 39A	Texas Gap Spur	National Forest System Road (NFSR) OML 2	National Forest System Road (NFSR) OML 4 / 1	0.03 / 0.17	4 / 1
NFSR 39B	Texas Gap Spur	National Forest System Road (NFSR) OML 2	NFSR OML 2 (0.0-0.12) Decommission (0.12-0.47)	0.12 (-0.35)	2 -
NFSR 39C	Texas Gap Spur	National Forest System Road (NFSR) OML 2	NFSR OML 2 (0.0-0.03) Decommission (0.03-0.27)	0.03 (-0.24)	3 -
NFSR 39D	Texas Gap Spur	National Forest System Road (NFSR) OML 3	National Forest System Road (NFSR) OML 3	0.29	3
NFSR 39E	Texas Gap Spur	National Forest System Road (NFSR) OML 2	National Forest System Road (NFSR) OML 2 / 1	0.07 / 0.23	2 / 1
NFSR 49	Boyden Brook	National Forest System Road (NFSR) OML 2	National Forest System Road (NFSR) OML 2 / 1	1.81 / 0.89	2 / 1
NFSR 50	Patterson Brook	National Forest System Road (NFSR) OML 3	National Forest System Road (NFSR) OML 3	4.15	3
NFSR 50A	Patterson Brook Spur	National Forest System Road (NFSR) OML 1	National Forest System Road (NFSR) OML 1	0.10	1
NFSR 50B	Patterson Brook Spur	National Forest System Road (NFSR) OML 1	National Forest System Road (NFSR) OML 1	0.10	1
NFSR 50C	Patterson Brook Spur	National Forest System Road (NFSR) OML 1	Decommission all	(-0.10)	-
NFSR 50D	Patterson Brook Spur	National Forest System Road (NFSR) OML 1	Decommission all	(-0.10)	-
NFSR 50E	Patterson Brook Spur	National Forest System Road (NFSR) OML 1	Decommission all	(-0.30)	-
NFSR 50F	Patterson Brook Spur	National Forest System Road (NFSR) OML 1	National Forest System Road (NFSR) OML 1	0.20	1
NFSR 50G	Patterson Brook Spur	Existing skid / haul road	Add to NFSR as OML 1	(+0.20)	1
NFSR 55	Granville	National Forest System Road (NFSR) OML 3 / 1	NFSR OML 3 (2.69-3.11) Decommission (3.11-4.41)	0.42 (-1.30)	3
NFSR 55B	Granville Spur	National Forest System Road (NFSR) OML 1	National Forest System Road (NFSR) OML 1	0.15	1
NFSR 55C	Granville Spur	National Forest System Road (NFSR) OML 3	National Forest System Road (NFSR) OML 3	0.04	3
NFSR 55D	Granville Spur	National Forest System Road (NFSR) OML 3	Convert to parking feature of NFSR 55	(-0.02)	-
NFSR 55E	Granville Spur	National Forest System Road (NFSR) OML 3	Convert to parking feature of NFSR 55	(-0.01)	-
NFSR 55F	Granville Spur	Existing road to dispersed recreation site	Add to NFSR as OML 3	(+0.06)	3
NFSR 56	Deer Hollow	National Forest System Road (NFSR) OML 1	Decommission all	(-0.50)	-
NFSR 100	Taylor Brook	National Forest System Road (NFSR) OML 4	National Forest System Road (NFSR) OML 3	3.19	3
ROAD ID	ROAD NAME	CURRENT ROAD SYSTEM & OML	POST-ANALYSIS ROAD SYSTEM & OML RECOMMENDATION	Miles	Objective Maintenance Level (OML)

NFSR 100A	Taylor Brook Spur	National Forest System Road (NFSR) OML 1	National Forest System Road (NFSR) OML 1	0.10	1
NFSR 100B	Taylor Brook Spur	National Forest System Road (NFSR) OML 1	National Forest System Road (NFSR) OML 1	0.10	1
NFSR 100C	Taylor Brook Spur	National Forest System Road (NFSR) OML 1	National Forest System Road (NFSR) OML 1	0.10	1
NFSR 100D	Taylor Brook Spur	National Forest System Road (NFSR) OML 1	National Forest System Road (NFSR) OML 1	0.20	1
NFSR 101	Gulf Brook	National Forest System Road (NFSR) OML 3	National Forest System Road (NFSR) OML 3	4.42	3
NFSR 101A	Gulf Brook Spur	National Forest System Road (NFSR) OML 1	National Forest System Road (NFSR) OML 1	0.10	1
NFSR 101B	Gulf Brook Spur	National Forest System Road (NFSR) OML 1	National Forest System Road (NFSR) OML 1	0.10	1
NFSR 101C	Gulf Brook Spur	National Forest System Road (NFSR) OML 1	National Forest System Road (NFSR) OML 1	0.05	1
NFSR 101D	Gulf Brook Spur	National Forest System Road (NFSR) OML 1	National Forest System Road (NFSR) OML 1	0.06	1
NFSR 101E	Gulf Brook Spur	National Forest System Road (NFSR) OML 1	National Forest System Road (NFSR) OML 1	0.50	1
NFSR 101F	Gulf Brook Spur	National Forest System Road (NFSR) OML 2	National Forest System Road (NFSR) OML 2	0.03	2
NFSR 101G	Gulf Brook Spur	National Forest System Road (NFSR) OML 1	National Forest System Road (NFSR) OML 1	0.10	1
NFSR 101H	Gulf Brook Spur	National Forest System Road (NFSR) OML 1	National Forest System Road (NFSR) OML 1	0.04	1
NFSR 176	Comes	National Forest System Road (NFSR) OML 1	National Forest System Road (NFSR) OML 1	0.10	1
NFSR 212	Hancock Branch	National Forest System Road (NFSR) OML 3	National Forest System Road (NFSR) OML 3	0.07	3
			Total NFSR miles added:	+0.26	
			Total NFSR miles adjusted / decommissioned:	-2.92	
			Net mileage change:	-2.66	
			Total NFSR Miles Post-Analysis:	20.25	

Table TA-9 NFS Trail System/Classification Review and Recommendations

Trail Name Trail Type	Trail Number	Current Condition			Post Analysis Recommendation			
		Current Length (miles)	Trail Class	Existing Uses	TMO Length (miles)	Trail Class	Designed Use	Managed Uses
Patterson Brook Snow Trail	750	4.15	TC4	Snowmobile	4.15	TC4	Snowmobile	Snowmobile
White River Snow Trail	755	2.4	TC4	Snowmobile	2.4	TC4	Snowmobile	Snowmobile Cross-country ski
Trail Name Trail Type	Trail Number	Current Condition			Post Analysis Recommendation			
		Current	Trail	Existing	TMO	Trail	Designed	Managed Uses

		Length (miles)	Class	Uses	Length (miles)	Class	Use	
Rob Ford Snow Trail	707	2.82	TC3	Snowmobile Cross-country ski	2.82	TC3	Snowmobile	Snowmobile Cross-country ski Hike
Rice Tract Snow Trail	794	1.5	TC3	Snowmobile	0.0	---	---	---
Baker Brook Snow Trail	795	0.6	TC3	Snowmobile	0.0	---	---	---
Gulf Brook Snow Trail	701	4.44	TC4	Snowmobile	4.44	TC4	Snowmobile	Snowmobile
Bowl Mill Snow Trail	772	1.5	TC3	Snowmobile	0.0	---	---	---
Texas Gap Snow & Standard Terra Trail	739	4.78	TC4	Snowmobile	4.78	TC4	Snowmobile	Snowmobile Bicycle Equestrian
Perry Basin Snow Trail	773	1.68	TC4	Snowmobile	1.68	TC4	Snowmobile	Snowmobile
Taylor Brook Snow Trail	700	5.25	TC4/3	Snowmobile	5.25	TC4/3	Snowmobile	Snowmobile
Fassett Hill Snow Trail	791	2.19	TC3	Snowmobile	2.19	TC3	Snowmobile	Snowmobile
Boyden Brook Snow Trail	749	4.1	TC4	Snowmobile	4.1	TC4	Snowmobile	Snowmobile Bicycle Equestrian
Clark Brook Standard Terra Trail	702	2.95	TC2	Hike	2.95	TC2	Hike	Hike
Hancock Branch Standard Terra Trail	712	0.93	TC3	Hike Cross-country ski	2.5 (appx.)	TC3	Hike	Hike Cross-country ski
Texas Falls Nature Standard Terra Trail	703	0.9	TC4	Hike	0.9	TC4/5	Hike	Hike
Long Trail Standard Terra Trail	3	10.3	TC2	Hike	10.3	TC2	Hike	Hike
Silent Cliff Standard Terra Trail	167	0.39	TC2	Hike	0.39	TC2	Hike	Hike
Total Miles		50.88			48.85			

Identification of road and trail associated environmental and public safety risks.

Road associated environmental and public safety issues and risks are identified throughout the previous discussions (particularly starting with Steps 3 & 4). Environmental and public safety risks are identified in the Engineering Report for Motorized Mixed Use Forest Road 39 (TH2) Texas Falls & NFS Trail 739/749, January 2009; and are also to be identified in more detail in the Upper White River EA. Any roads that are to be physically closed upon completion of administrative use should be closed with the following design criteria in mind:

Temporary haul or skid roads and other identified unauthorized roads will also be closed off to further motorized use after any activities during project implementation. Access will be restricted

at or near the main road entrance by placing large boulders (or similar physical barrier), re-planting some native vegetation, and re-establishing the main road template and / or ditchline as needed. Until the vegetation is established small, temporary travel management signing may be installed to discourage unauthorized use. Small single car pull-off areas will be created (as needed for dispersed recreation at temporary or unauthorized road entrances where pull-off can be located by extending the shoulder of the main road (without cuts or fills) and where they will not be separated by ditches or drainage structures. Law enforcement will monitor the various project locations for illegal use. Road closures with gates or boulders or other restrictive devices will be placed to provide at least 32 inches and no more than 36 inches of clear passage around or through the device to ensure that a person who uses a wheelchair can get beyond the man made barrier but restrict unauthorized motorized vehicles.

The primary environmental concerns with the trail system are associated with erosion and sedimentation in water bodies and the spread of non-native invasive plants. Maintenance and improvement activities mitigate risks to these environmental concerns by constructing and maintaining erosion control structures such as water bars and ditches and hardening trail surfaces through wet areas. Actions mitigating the spread of NNIS include washing trail maintenance equipment prior to and after activities on the trails. There is also an effort to educate users about the spread of NNIS through seed dispersal on boots, bicycle tires and equestrian activities.

The primary safety risk associated with the trail system in the Upper White River project area is the snowmobile trail crossing of VT State Route 125. Recommendations for mitigating these risks are provided below.

Identification of site-specific priorities and opportunities for road and trail improvements and decommissioning.

Please see the previous discussions under the opportunities and recommendations for needed and unneeded roads and trails within the project area. Needed improvements were identified on several roads. Opportunities were identified for road decommissioning for a small number of Forest jurisdiction roads within the project area.

All opportunities listed in parts II, III, and IV of Step 5 (above) are recommended for implementation. Opportunities listed under Opportunities and Priorities (Step 5) for existing or new NFS roads are recommended for implementation as follows:

<u>Road</u>	<u>Recommendation (opportunities for road improvements and decommissioning)</u>
NFSR 39	Improve OML 2 section and change to all 1.93 miles maintained at OML 3. Seek increase of parking opportunities for winter and summer use on Town portion of FR39. Work with Town to place motorized mixed use signing for winter mixed use (snowmobile and auto) occurring on FR39 (TH2). Work with Town and State on snowmobile crossing of SR125 and onto FR39 to improve safety. Work with Town on new road cooperative agreement or for Forest Service to be granted jurisdiction of road (TH2) from recreation area at falls north to end.

- NFSR 39A: Change to OML 4 from 0.0 to 0.03 and OML 1 from 0.03 to 0.20 to align with existing road condition.
- NFSR 39B: Decommission portion in existing Wilderness MA (mile 0.12 to 0.47) to align with Forest Plan and 2006 New England Wilderness Act. Pull road drainage structures by hand or w/ mechanized equipment, but leave roadbed to re-vegetate naturally otherwise in Wilderness MA. Leave remaining road (mile 0.0 to 0.12) as is at OML 2 and create a turnaround near mile 0.12 to allow 1-2 autos to park and turn-around to exit area.
- NFSR 39C: Decommission portion in existing Wilderness MA (mile 0.03 to 0.27) to align with Forest Plan and 2006 New England Wilderness Act. Pull road drainage structures by hand or w/ mechanized equipment, but leave roadbed to re-vegetate naturally otherwise in Wilderness MA. Leave remaining road (mile 0.0 to 0.03) as is at OML 2. Remove large FR39C road culvert on Texas Brook (Wilderness MA boundary line). Create a parking / turnaround area near mile 0.03 to allow 1-2 autos to park and turn-around to exit area.
- NFSR 39D: Keep at OML 3 (0.29 miles) and make no changes to infrastructure.
- NFSR 39E: Change to OML 2 from 0.0 to 0.07 and OML 1 from 0.07 to 0.30 to align with existing road condition.
- NFSR 49: Change to OML 2 from 0.0 to 1.81 and OML 1 from 1.81 to 2.70 to align with existing road condition.
- NFSR 50: Keep at OML 3 (4.15 miles) and create parking pull-off areas at decommissioned existing OML 1 spur roads (FR50C, D & E). Improve turning radius at FR 55 intersection. Replace existing road gate just north of FR55 with new gate and signing.
- NFSR 50A: Keep at OML 1 (0.10 miles) and close-off after any administrative use.
- NFSR 50B: Keep at OML 1 (0.10 miles) and close-off after any administrative use.
- NFSR 50C: Decommission and re-vegetate roadbed as needed creating a parking pull-off at FR50 entry.
- NFSR 50D: Decommission and re-vegetate roadbed as needed creating a parking pull-off at FR50 entry.
- NFSR 50E: Decommission and re-vegetate roadbed as needed creating a parking pull-off at FR50 entry.
- NFSR 50F: Keep at OML 1 (0.20 miles) and close-off after any administrative use.

- NFSR 50G: Add to system as 0.20 mile long OML 1 road.
- NFSR 55: Decommission OML 1 portion and remove larger road culverts on active streams. Provide a small parking pull-off area on NFS land off the Town portion of FR55 near FR208 on the south side of the road in cooperation with the Town. Install a new road gate to protect NFSR55 and 101 during mud season.
- NFSR 55B: Keep at OML 1 (0.15 miles) and close-off after any administrative use.
- NFSR 55C: Keep at OML 3 (0.04 miles).
- NFSR 55D: Convert to parking feature of FR55.
- NFSR 55E: Convert to parking feature of FR55.
- NFSR 56: Decommission and re-vegetate roadbed as needed creating a parking pull-off at FR50 entry.
- NFSR 100: Change entire length from OML4 to OML3 to align with existing conditions and future predicted budgets.
- NFSR 100A: Keep at OML 1 (0.10 miles) and close-off after any administrative use.
- NFSR 100B: Keep at OML 1 (0.10 miles) and close-off after any administrative use.
- NFSR 100C: Keep at OML 1 (0.10 miles) and close-off after any administrative use.
- NFSR 100D: Keep at OML 1 (0.20 miles) and close-off after any administrative use.
- NFSR 101: Keep as OML 3 (4.42 miles).
- NFSR 101A: Keep at OML 1 (0.10 miles) and close-off after any administrative use.
- NFSR 101B: Keep at OML 1 (0.10 miles) and close-off after any administrative use.
- NFSR 101C: Keep at OML 1 (0.05 miles) and close-off after any administrative use.
- NFSR 101D: Keep at OML 1 (0.06 miles) and close-off after any administrative use.
- NFSR 101E: Keep at OML 1 (0.50 miles) and close-off after any administrative use.
- NFSR 101F: Keep at OML 2 (0.03 miles) and make no changes to infrastructure.
- NFSR 101G: Keep at OML 1 (0.10 miles) and close-off after any administrative use.
- NFSR 101H: Keep at OML 1 (0.04 miles) and close-off after any administrative use.

NFSR 176: Keep at OML 1 (0.10 miles) and close-off after any administrative use.

NFSR 212: Keep at OML 3 (0.07miles) and make no changes to infrastructure.

Please see the previous discussions under the opportunities and recommendations for needed and unneeded trails within the project area. Needed improvements were identified on several trails. Opportunities were identified for trail decommissioning for a small number of Forest jurisdiction trails (3.4 miles) within the project area.

<u>Trail</u>	<u>Recommendation (opportunities for decommissioning or improvements)</u>
NFST 772	Bowl Mill Trail (1.4 miles): Decommission trail and stabilize against long-term erosion. Utilize trail for temporary reroutes if needed for mitigation during resource management activities.
NFST 794	Rice Tract Trail (1.4 miles): Decommission trail and stabilize against long-term erosion.
NFST 795	Baker Brook Trail (0.6 miles): Decommission trail and stabilize against long-term erosion.
NFST 791	Fassett Hill Trail (1.15 miles): Continue to operate and maintain as a Class 3 Snow Trail designed and managed for snowmobile use. No changes recommended.
NFST 700	Taylor Brook Trail (5.01 miles): Continue to operate and maintain as a Class 3 Snow Trail designed and managed for snowmobile use. No changes recommended.
NFST 712	Hancock Branch Trail (0.93 miles): Reconstruct trail outside of the flood plain and enhance non-motorized trail recreation opportunities by expanding to a loop-trail. Manage the trail as a Class 3 Standard Terra Trail and Snow Trail for pedestrian uses (hike and ski).
NFST 703	Texas Falls Nature Trail (0.9 miles): Reconstruct the first six hundred feet of the trail where it crosses the Texas Falls gorge to access standards. Manage the reconstructed portion of the trail as a Class 5 Standard Terra Trail for hiking.
NFST 749	Boyden Brook Trail (4.1 miles): Address the safety concern of the snowmobile trail crossing of VT State Route 125 by working with private landowners, Vermont Agency of Transportation, Vermont Association of Snow Travelers, and Town of Hancock. Designate new bicycle and equestrian uses to the existing trail. Consider how this links to a larger network of equestrian and horse trails in the Town of Rochester.
NFST 739	Texas Gap Trail (3.95 miles): Designate new bicycle and equestrian uses to the existing snowmobile trail. Complete trail hardening improvements as needed to

accommodate summer uses. Manage the trail as a Class 4 Snow Trail for snowmobile use and Class 3 Standard Terra Trail for hike, bicycle and equestrian uses.

Identification of areas of special sensitivity, unique resource values, or both.

See previous discussion under Steps 3 & 4 and the Upper White River scoping documents.

Any other specific information that may be needed to support project-level decisions.

Please see the Upper White River scoping documents and any future Environmental Analysis.

Summary of Road Density within the Analysis Area

A summary of road miles and road densities for the existing and future condition is displayed in Table TA-10. The summary is based on the assumption that all opportunities identified would be brought forward. The table includes only roads under Forest Service jurisdiction. Actual proposed density totals would be finalized based on project alternative development and final decisions during the NEPA process.

Table TA-10 Summary of Road Density (NFS Roads only) by Management Area

Management Area	Sq. Miles	Existing Condition		Future Condition	
		Miles	Miles/sq mi.	Miles	Miles/sq mi.
3.1 - Open Roads	15.452	14.250	0.922	14.48	0.937
3.1 - Closed Roads	15.452	3.300	0.214	2.850	0.184
3.1 - All Roads	15.452	17.550	1.136	17.330	1.122
5.1 - Open Roads	18.580	0.000	0	0.000	0
5.1 - Closed Roads	18.580	1.880	0.101	0.000	0
5.1 - All Roads	18.580	1.880	0.101	0.000	0
6.2 - Open Roads	1.745	2.700	1.547	1.810	1.037
6.2 - Closed Roads	1.745	0.100	0.057	0.990	0.567
6.2 - All Roads	1.745	2.800	1.605	2.800	1.605
9.5 - Open Roads	0.133	0.130	0.977	0.130	0.977
9.5 - Closed Roads	0.133	0.560	4.211	0.000	0
9.5 - All Roads	0.133	0.690	5.188	0.130	0.977

Table TA-10 Note: There are no existing or planned roads in MA's 6.1, 8.2, or 8.7.

From Table TA-10 we see that the recommended changes to NFS roads within the analysis area is minor, and that the additional 0.26 miles of NFS Road miles recommended to be added (see page 39) will result in a very minor increase (0.922 miles/sq. mile existing vs. 0.937 miles/sq. mile future) for open roads in the 3.1 MA (and actually a decrease for 3.1-All Roads). Also, NFS road miles / sq. mile will be reduced in the 5.1, Wilderness (0.101 vs. 0) and 9.5, Wilderness Study Area (5.188 vs. 0.977) MA's. There are a number of temporary spur haul roads and skid trails recommended (see pages 34, 35, and 41) for vegetation management; but

any affects from these will be reduced significantly because of project implementation in most areas during winter (frozen ground) conditions and their temporary nature.

LITERATURE SITED / REFERENCES

- Green Mountain National Forest Land and Resource Management Plan, 2006, USDA Forest Service
- Roads Analysis Process (RAP) Report –Green Mountain National Forest, January 2003, USDA Forest Service
- Engineering Report for Motorized Mixed Use: Forest Road 39 (TH2) Texas Falls & NFS Trail 739 Texas Gap / 749 Boyden Brook, January 2009, USDA Forest Service
- FS-643 Roads Analysis: Informing Decisions About Managing the National Forest Transportation System, August 1999, USDA Forest Service
- Federal Register, Part IV Department of Agriculture, Forest Service, 36 CFR Parts 212, 251, 261, and 295 Travel Management; Designated Routes and Areas for Motor Vehicle Use; Final Rule, November 9, 2005
- Upper White River IRP Project Proposed Action Scoping Document, March 2009 and any future Environmental Analysis
- Vermont General Highway Map, Towns of Granville and Hancock; prepared by the Vermont Agency of Transportation in cooperation with the US DOT and FHWA.
- Forest Service Manual (FSM) and Forest Service Handbook (FSH) applicable sections related to roads and trails.
- Motor Vehicle Use Map Green Mountain National Forest, March 2009