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Jonathan Stephens
National Program Manager for Trails and Congressionally Designated Areas
USDA Forest Service
Recreation and Heritage Resources Staff
1400 Independence Avenue, SW, Stop 1125
Washington, DC 20250

RE: National Trail Classification System, Notice of Proposed Policy and Directives

August 23, 2006

Dear Mr. Stephens,

The following comments are made on behalf of United Four Wheel Drive Associations (UFWDA) and BlueRibbon Coalition (BRC) in response to the Notice of proposed policy and directives for the National Trail Classification System.

UFWDA and BRC are supportive of the general policy of utilizing a Trail Class Matrix and the concepts of enhancing trail development and maintenance through design parameters. In addition, please consider the following comments for changes and additions to the proposed policy and directives proposal.

I. Forest Service Manual (FSM) 2353.05. The definition for four wheel drive ways should be replaced with the following:

Four Wheel Drive Motor Vehicle Trail: A National Forest System Trail commonly used by four wheel drive motor vehicles.

II. Forest Service Handbook (FSH) 2309.18.

A. 2309.18, Zero Code, Section 05. The definition for Four-Wheel Drive Way should be replaced with the following:

Four Wheel Drive Motor Vehicle Trail: A National Forest System Trail commonly used by four wheel drive motor vehicles.

B. 2309.18-1.42 – Trail Classes. Four wheel drive motor vehicle trails do fit neatly into the paradigm established for all other trail uses as outlined in Section 1.42, Exhibit 01. The desired experience for four wheel drive motor vehicle users is to experience more challenging trails through trail design rather than utilizing trail design to create a less challenging experience. In Exhibit 01, the higher the number of the trail class, the more trail development exists and thus the less challenging the user experience. In contrast, for four wheel drive motor vehicle trails a more accurate paradigm would be the higher the number of the trail class, the more trail development exists and thus the more difficult the trail. Conversely, if a shift were to occur, four wheel drive motor vehicle trails would be represented in a chart where the higher the number of the trail class, the **less** trail development exists and thus the more difficult the trail, assuming that any trail design would be undertaken to meet user desires which are for more difficult experiences. We are certain that a trail class development scale along a continuum that is similar in nature but different in specifics from Exhibit 01 does not render a classification system for four wheel drive motor vehicles trails impossible or impracticable.

Please adopt the following trail class paradigm as FSH 2909.18, section 1.42, Exhibit 02 specifically for Trail Classes for Four Wheel Drive Motor Vehicle Trails.

FSH 2309.18, section 1.42, Exhibit 02

Trail Classes, Four Wheel Drive Motor Vehicles Only

NOTE: Four wheel drive motor vehicle trail descriptions, improvements and modifications should create a greater degree of difficulty for the driver. Therefore, the more developed the design parameters, the more difficult the trail. This results in a similar policy of trail classes that range from least developed (Trail Class 1) to most developed (Trail Class 5). However, trails most developed (Trail Class 5) are more difficult than trails that are least developed (Trail Class 1), a direct contrast to the difficulty levels correlating to the Trail Classes of other trails.

Trail Attributes	Trail Class 1 Minimal/Undeveloped Trail	Trail Class 2 Simple/Minor Developed Trail	Trail Class 3 Developed/Improved Trail	Trail Class 4 Highly Developed Trail	Trail Class 5 Fully Developed Trail
Tread & Traffic Flow	<ul style="list-style-type: none"> Width generally accommodates two-directional travel with courtesy pause-type passing capable along its length Commonly previously developed for forest management uses or other multiple use applications Some imported materials such as gravel, hard-pack surface 	<ul style="list-style-type: none"> Tread wide, two-track and relatively smooth with few irregularities Width consistently accommodates two-directional travel or provides frequent passing turnouts Native or imported materials May be hard-pack in tread tracks 	<ul style="list-style-type: none"> Two-track tread, obvious and continuous, can be rough Width accommodates unhindered one-lane travel with occasional constructed or natural passing turnouts Typically native materials 	<ul style="list-style-type: none"> Tread discernable and continuous but, narrow and rough Few or no allowances constructed for passing Native materials 	<ul style="list-style-type: none"> Tread intermittent and often indistinct, very rough Often one way travel Native materials
Obstacles	<ul style="list-style-type: none"> No obstacles Grades minimal at less than 10% 	<ul style="list-style-type: none"> Limited obstacles such as dips and rises in the trail bed Slightly steeper grades at less than 15% Vegetation cleared outside of trail 	<ul style="list-style-type: none"> Obstacles frequent though limited in size Vegetation not cleared outside of trail with occasional encroachment into trail Occasional steep grades or off camber 	<ul style="list-style-type: none"> Frequent obstacles of various types and significant size including logs, rocks and boulders, shelves common on trailbed, etc Blockages cleared to define route and protect resources Vegetation encroachment 	<ul style="list-style-type: none"> Continuous obstacles common, brush, large rocks/boulders, large logs, shelves, Narrow, tight passages Off-camber sections, challenging steep grades and slopes,

				common	
				<ul style="list-style-type: none"> Steep grades common 	
Constructed Features & Trail Elements	<ul style="list-style-type: none"> Near road like design and structure elements including bridges, functional drainage, etc. for resource protection, appropriate access and high use Few to no constructed trail challenge elements 	<ul style="list-style-type: none"> Constructed and natural trail challenge elements are of limited size, scale and number. Functional drainage Trail bridges in near road like design common for resource protection, appropriate access and fairly high use 	<ul style="list-style-type: none"> Trail elements (Steps, drainage, raised trail) may be common and constructed to preserve trail infrastructure and to protect resources Primitive crossings and fords where appropriate. Constructed bridges or other designed crossing structures only where necessary to protect trail infrastructure and resources Native materials Functional drainage 	<ul style="list-style-type: none"> Trail elements of appropriate challenge constructed as necessary to provide for mid to high degree of difficulty, preserve trail infrastructure and to protect resources Primitive crossings and fords where appropriate. Constructed bridges or other designed crossing structures only where necessary to protect trail infrastructure and resources Drainage functional to protect trail infrastructure and resources Native materials (rocks/boulders, logs, etc.) 	<ul style="list-style-type: none"> Trail elements of appropriate challenge constructed as necessary to provide high degree of difficulty, preserve trail infrastructure and protect resources Primitive crossings and fords where appropriate. Constructed bridges or other designed crossing structures only where necessary to protect trail infrastructure and resources Drainage functional to protect trail infrastructure and resources Native materials (rocks/boulders, logs, etc.)
Signs	<ul style="list-style-type: none"> Wide variety of signage is present Informational and interpretive signs likely Trail universal access information is typically displayed at trailhead 	<ul style="list-style-type: none"> Wider variety of signs likely present Informational signs likely Interpretive signs likely possible Trail universal access information likely displayed at trailhead 	<ul style="list-style-type: none"> Regulation, resource protection and user challenge information Directional signs at junctions or when confusion is likely Destinations and distance signs likely present Informational and interpretive signs may be present 	<ul style="list-style-type: none"> Minimum required for basic direction information Generally limited to challenge information, regulation and resource protection Typically very few or no destination signs present 	<ul style="list-style-type: none"> Minimum required Generally limited to challenge information, regulation and resource protection No destination signs present
Typical Recreation Environs & Experience	<ul style="list-style-type: none"> Novice, general trail riding, sightseeing and access to other trail types and similar more challenging trail experiences ROS: Roaded natural, semi-primitive motorized 	<ul style="list-style-type: none"> Novice trail challenge experience, general trail riding, sightseeing in more remote areas, access to other trail types and similar but more challenging trail experiences ROS: Roaded natural, semi-primitive motorized 	<ul style="list-style-type: none"> Novice to semi-experienced trail challenge experience, mild challenge ROS: Roaded natural, semi-primitive motorized 	<ul style="list-style-type: none"> Experienced trail challenge experience, mid to high challenge ROS: Roaded natural, semi-primitive motorized 	<ul style="list-style-type: none"> Very experienced, high challenge ROS: Roaded natural, semi-primitive motorized

C. 2309.18-1.6 – Trail Operation and Maintenance Considerations. Please adopt the following trail operation and maintenance considerations as FSH 2909.18, section 1.6, Exhibit 02 specifically for Four Wheel Drive Motor Vehicle Trails. Unlike section 1.6, Exhibit 01, exhibit 02 represents the concept that four wheel drive motor vehicle trails are managed and maintained so that the higher the trail class, the higher the development of the trail and the more difficult the trail.

FSH 2309.18, section 1.6, Exhibit 02

Trail Operation and Maintenance Considerations for FOUR WHEEL DRIVE MOTOR VEHICLE TRAILS ONLY

Trail operation and maintenance Considerations are general guidelines that assist in the development of trail prescriptions, program management, and trail operation and maintenance. These considerations are general in nature with the goal that maintenance should create a greater deal of difficulty for the driver or to protect resources.

Trail Attributes	Trail Class 1	Trail Class 2	Trail Class 3	Trail Class 4	Trail Class 5
Trail Management	Typically managed to accommodate: *any use level *users with limited experience	Typically Managed to accommodate: *any use level *users with minimal experience	Typically managed to accommodate: *any use level *users with some experience	Typically managed to accommodate: *any use level *users with experience	Typically managed to accommodate: *any use level including intensive use *users with frequent experience
Maintenance Indicators	*User comfort and ease *High level of accessibility *Safety commensurate with targeted experience	*User comfort and ease. *Resource protection *Safety commensurate with targeted experience	*Resource protection *User convenience *Safety commensurate with targeted experience	*Resource protection *Safety commensurate with targeted experience	*Resource Protection *Safety commensurate with targeted experience
Maintenance Frequency and Intensity	*Maintenance performed as needed to meet posted conditions *Major damage or safety concerns corrected or posted < 24 hours of notice	*Maintenance performed with the primary objective to protect resources *Trail cleared only to maintain trail class	*Maintenance performed with the primary objective to protect resources or to increase difficulty of trail *Maintenance interval in response to trail or resource damage or to maintain difficulty level of trail	*Maintenance performed with the primary objective to protect resources or to increase difficulty of trail *Maintenance interval in response to unusual problems	*No scheduled recurring maintenance except to protect resources and to maintain difficulty of trail *Maintenance interval only in response to unusual problems

D. 2309.18-2.3(3)(b) – Please add subsection 2.3(3)(b)(3) Four Wheel Drive Motor Vehicle.

E. 2309.18-2.32c. This section should be renamed Four Wheel Drive Motor Vehicle Design Parameters. The content of this section should contain the following:

2.32c—Four Wheel Drive Motor Vehicle Design Parameters

1. Generally, four wheel drive motor vehicle use (four wheeling) on National Forest System lands can be either a trail-based or road-based activity depending on the availability of Maintenance Level 2 (high-clearance roads) National Forest System Roads, the primary Road Management Objective of such roads, the availability of trails suitable and open for four wheel drive motor vehicle use or other vehicles exceeding 50” in width, the primary Trail Management Object of such trails, and the managed use and designed use of the road or trail.
2. Designate suitable closed roads as National Forest System trails open to four wheel drive motor vehicle use.
3. Four wheel drive motor vehicle trails are ideally Trail Class 1 or Class 2 and modified to create a greater degree of difficulty for the driver.
4. The higher the Trail Class the higher the difficulty of the trail.
5. User needs for different distances and experiences can be accommodated by providing trunk trails offering a lower level of difficulty than secondary trails leading off of trunk trails or trail segments further into the trunk trail offering a higher level of difficulty. Length of trail and duration of drive is related to the difficulty of the trail. The more difficult the trail the shorter

the length necessary for a desired experience and the longer the duration. Conversely, the less difficult the trail the longer the length necessary for the desired experience and the shorter the duration. The shorter the trail length and the smaller the area of trails the more difficult the trail experience should be.

6. Favor drainage dips (rolling dips) over water bars. Particularly drainage dips (rolling dips) within close proximity to one another are favored by the driver and for environmental mitigation for sustained grades.
7. Use climbing turns, and avoid switchbacks whenever possible. Consider implementing rolling dips before and after climbing turns for side slopes greater than 30%.
8. The radii of turns should vary depending on the difficulty level of the trail. Decreasing the turning radius can become a design feature itself to offer maneuverability challenges for the driver.
9. Locate trail junctions so that no more than 2 trails intersect at one point.
10. Provide varying degrees of horizontal and vertical alignments, with safe tread for an average speed of 2 to 4 miles per hour.
11. Four wheel drive motor vehicle trail improvements and modifications should create a greater degree of difficulty for the driver. Therefore, the more developed the design parameters the more difficult the trail. This results in a similar policy of trail classes that range from least developed (Trail Class 1) to most developed (Trail Class 5). However, trails most developed (Trail Class 5) are more difficult than trails that are least developed (Trail Class 1), a direct contrast to the difficulty levels correlating to the design parameters in Sections 2.31 and 2.32a-b.

F. 2309.18-2.32c, Exhibit 01. Please add the following to the Forest Service Handbook, section 2.32c, as Exhibit 01.

FSH 2309.18, section 2.32c, Exhibit 01

Design Parameters

The Design Parameters provide guidance for the assessment, survey, design, construction, repair, and maintenance of trails, based on Trail Class and Designed Use. These parameters reflect the design objective for the trail. Local exceptions can be established based on specific trail conditions, topography, and other factors, provided that the exceptions reflect the general intent of the corresponding Trail Class.

Designed Use FOUR WHEEL DRIVE MOTOR VEHICLE		Trail Class 1	Trail Class 2	Trail Class 3	Trail Class 4	Trail Class 5
Design	One Lane	144"	120"	72-84"	72-84"	72-84"

Tread Width	Two Lane	16-18'	16'	n/a	n/a	n/a
	Non-defined foot print	144"	120"	72-84"	72-84"	72-84"
Design Surface	Type	Native, with limited or no mechanical grading	Native, grading used to increase the difficulty of the experience	Grading and importing or creating of more difficult terrain	Surface contains frequent obstacles and significant changes	Surface contains continuous obstacles and off-camber side-slopes
	Obstacles - wooded	trees min. 2 feet off side of tread	tight trees, steep grades	rocky surface, tight trees, naturally felled trees >= 12" dia.	changing surface types, tight turns, naturally felled trees >=15" dia.	steep grades, tight turns, rocky surface, naturally felled trees 15"+ dia.
	- desert	loose sand or soil or rocky terrace	sandy sections combined with washes and rocky terrace; washes < 4' depth	sandy sections combined with washes and rocky terrace; washes > 4' deep	sandy sections combined with washes and rocky terrace; dune height > 6'	loose sand or soil; rocky climbs, steep grades; dune height < 6'
	- rock	protrusions up to 24"	protrusions >= 30"	protrusions >= 36"	protrusions >= 48"	protrusions unlimited in size
Design Grade	Target Grade	5-10%	12-15%	15-18%	18-21%	21-25%
	Short Pitch Max	15-18%	17-20%	19-22%	21-24%	23-30%
	Max Pitch Density	2-5%	5-10%	10-20%	20-30%	30-40%
Design Cross-Slope	Target Range	3-8%	8-12%	10-13%	11-14%	12-15%
	Maximum	8%	12%	13%	14%	15%
Design Clearing	Width	168"	144"	72-84"	72-84" with turns frequently requiring multi-point turn	72-84" with turns frequently requiring multi-point turn and high cross-slopes
	Height	8'	7-8'	no minimum	no minimum	no minimum
Design Turns	Radius	25'	20'	17'	13'	10'

We look forward to working with the agency in the final development of the Trail Class Matrix to ensure that the proposed additions discussed above are incorporated in a way that is useful and meaningful for both the agency and four wheel drive motor vehicle users.

Very truly yours,

United Four Wheel Drive Associations

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Carla Boucher, Attorney

BlueRibbon Coalition

By: Greg Mumm
Greg Mumm, Executive Director