

MOTORIZED TRAVEL MANAGEMENT PROJECT

DRAFT RECREATION SPECIALIST REPORT

Prepared by

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For

Okanogan-Wenatchee National Forest

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Introduction

The purpose of this report is to identify potential effects of travel planning alternatives on motorized recreation opportunities within the project area. A review of the existing condition of these types of opportunities is provided in order to provide a basis for comparison of alternatives.

Regulatory Framework

Relevant laws and regulations

Two Executive Orders provide direction for ORV management on National Forest System lands- President Nixon's Executive Order 11644 – *Use of Off-Road Vehicles on the Public Lands* (February 8, 1972), and President Carter's Executive Order 11989 (*Off-road Vehicles on Public Lands-May 24, 1977*). These executive orders direct that the Forest Service "develop and issue regulations and administrative instructions... to provide for administrative designation of the specific areas and trails on public lands on which the use of off-road vehicles may be permitted, and areas in which the use of off-road vehicles may not be permitted." The 2005 Travel Management Rule addressed these Executive Orders. Thus, if this action meets the 2005 Travel Management Rule, then it meets the Executive Orders. The Executive Orders will not be discussed further.

The Final Travel Management Rule was published in the Federal Register on November 9, 2005. This Rule requires that all national forests and grasslands designate roads, trails, and areas that are open to motor vehicle use on a Motor Vehicle Use Map (MVUM). Motor vehicle use off designated roads and trails and outside designated areas would then be prohibited by regulation (36 CFR 261.13). The MVUM is to be updated and published as needed, as travel planning will be an ongoing process. The rule also contains provisions for limited motor vehicle use within a specified distance of designated roads, referred to as corridors, in order to access dispersed camping [36 CFR 212.51(b)].

Forest Plan Direction

The Okanogan and Wenatchee National Forests were combined around the year 2000, roughly 10 years after each forest published its Land and Resource Management Plan. The Methow Valley and Tonasket Ranger Districts were on the Okanogan National Forest, while the Chelan, Entiat, Wenatchee River, Cle Elum, and Naches Ranger Districts were on the Wenatchee.

The Okanogan National Forest and Wenatchee National Forest Land and Resource Management Plans (Forest Plans) provide management direction for recreation and access and travel management. Goals of both the Okanogan and Wenatchee Forest Plans include providing a broad spectrum of recreation opportunities and providing a safe road and trail system that protects wildlife, soil, and water resources.

Under the Wenatchee Forest Plan (USFS, 1990), the Forest is managed as open to motor vehicles year round unless closed by Forest order. The Okanogan Travel Plan is displayed on the Travel Plan Map (USFS, 2005), which also displays temporary exceptions or restrictions under 36 CFR section 261.50, and identifies specific areas where seasonal and other restrictions for motorized use are in place for resource protection. As identified on the Travel Plan Map, cross-country motor vehicle travel is seasonally prohibited in some areas and many roads and trails are subject to travel restrictions for wildlife protection, non-motorized hunting experiences, or for winter recreation such as snowmobiling or cross-country skiing. The Okanogan Travel Plan Map also states "Where off-route travel is prohibited, direct access to temporary campsites within 300 feet of designated routes is permitted". Otherwise the

travel plan shows areas as open for motorized use. Temporary exceptions to motorized vehicle closures and restrictions are posted at the appropriate Ranger District office and at the restricted area, road or trail.

The Okanogan and Wenatchee Forest Plans both recognize that motorized and non-motorized forms of recreation will likely increase in the future, along with the likelihood of conflicts between users (USFS, 1990, p. IV-5; USFS 1989, p. 3-17). The Okanogan Forest Plan designated relatively few motorized trails on the Okanogan portion of the Forest, and most trails that lead to designated wilderness are closed to motorized use (USFS, 1989, p. 3-17).

Relevant Forest-wide Okanogan Forest Plan standards and guidelines for travel management in relation to recreation include the following (USFS, 1989):

- 8-1: Recreation and trail opportunities for a variety of recreation activities, including winter recreation activities, shall be provided consistent with the goals and recreation opportunity setting of the management area (USFS 1989, p. 4-38).
- 8-7: Off road vehicle opportunities shall be provided consistent with the goals of the Management Area (USFS 1989, p. 4-38).
- 8-8: Off-road vehicle opportunities shall be designed to minimized damage to soil, water, vegetation, and other resources, to minimize disturbance to wildlife or habitat, and to minimize conflict with other recreation uses (USFS 1989, p. 4-38).
- 17-3: Areas, roads, and trails shall be designated open, closed, or restricted to motorized use to conform to management goals. These designations shall be displayed in the Forest Travel Plan (p. 4-38).

The Wenatchee Forest Plan has no relevant standards and guidelines that apply to this analysis or project.

Forest Service Policy

FSM 7716.1 –Content of Designations

1. A designation of a road or trail includes all terminal facilities, trailheads, parking lots, and turnouts associated with the road or trail. The designation also includes parking a motor vehicle on the side of the road when it is safe to do so without causing damage to National Forest System resources or facilities, unless prohibited by state law, a traffic sign, or an order (36 CFR 261.54). Road designations must specify either that they include parking within one vehicle length, or within a specified distance of up to 30 feet, from the edge of the road surface.
2. A designation of a trail includes the width of the trail and, to promote public safety, the distance necessary to allow other users to pass where it is safe to do so without causing damage to National Forest System resources or facilities.
3. Designations that include limited use of motor vehicles within a specified distance from certain forest roads and forest trails for dispersed camping or big game retrieval must specify the distance, the vehicle class, the time of year the use is permitted, if appropriate, and any other conditions on use.

FSM 2353.02- Objectives

1. Provide trail-related recreation opportunities that serve public needs and that meet land management and recreation policy objectives.

2. Provide trail-related recreation opportunities that emphasize the natural setting of National Forest System lands and that are consistent with land capability.
3. Provide trail access for management and protection of National Forest System lands.

Best Available Science and Rationale

The information in this report is both quantitative and qualitative in nature and based upon social patterns that are understood in the industry and science related to recreation management. Research on recreation use is based on National Visitor Use Monitoring (NVUM) data gathered for the Okanogan-Wenatchee National Forest from October 2009 to September 2010. This is the most recent Forest-wide source of recreation use data available. It is important to note that the NVUM data is valid at the Forest level only, and is not applicable at a finer scale. Further, the data represents one year of recreation use estimates, and survey results may have been affected by an abnormally low snow year, a long fire season and site closures that were not anticipated. Recreation trend data was compiled from the National Survey on Recreation and the Environment (NSRE) (Cordell, 2004), which is an on-going, long-term study of outdoor recreation participation since the 1960s. There are numerous other sources of recreation trend data available; however, this is the most complete outdoor recreation participation study to date. This analysis also incorporates the Washington State Comprehensive Outdoor Recreation Planning (SCORP) data, which provides statewide recreation participation information.

Methods

Research on local recreation use and trends on public land regionally and nationally were reviewed. This review was assembled to provide an estimation of recreation demand for different activities on the Okanogan-Wenatchee National Forest (Forest) over the next several decades. The determination of effects to recreation resources under each action alternative are predominantly based on the input of district trails and recreation specialists who are most familiar with use patterns and trail systems on their respective districts. The following individuals were consulted for this report:

- Tonasket Ranger District: Elizabeth Peterson, Recreation Program Manager, Chris Williams, Trails Specialist
- Methow Ranger District: Jennifer Zbyszewski, Recreation Program Manager, Morgan Hartsock, Trails Specialist
- Chelan Ranger District: Paul Willard, Recreation Program Manager, and Ken Dull, Trails Specialist
- Entiat Ranger District: Randy McLandress, Recreation Program Manager, and Mason Schuur, Trails Specialist
- Wenatchee River Ranger District: Bob Stoehr, Recreation Program Manager; Rich Haydon, Trails Specialist; TJ Broom, Trails Specialist
- Cle Elum Ranger District: Pam Novitzky, Recreation Program Manager, and Tim Foss, Trails Specialist
- Naches Ranger District: Jacquie Beidl, William Zimmer, Recreation Program Managers, and Sue Ranger, Trails Specialist

Terminology Used Throughout this Report

Term	Definition
Off-highway vehicle (OHV)	Any motor vehicle designed for or capable of traveling cross-country on or immediately over land, water, sand, snow, ice, marsh,

	swampland, or other natural terrain, including 4x4s (OHVs > than 50 inches wide), ATVs (OHVs < 50 inches wide) and motorcycles.
Full size vehicle	Highway legal vehicles and OHVs greater than 50 inches wide.
Route	A general term used to denote any roads and trails open to motorized and non-motorized use, including roads open only to full size vehicles, motorized mixed use (MMU) roads, unauthorized access routes to dispersed campsites, roads for use by OHVs, and trails. Routes may be either designated or not designated for motor vehicle use
Highway legal vehicle	Vehicles primarily operated on roadways publicly maintained by the Department of Transportation or any county or city with funding from the motor vehicle fund. Vehicles meet all applicable state laws for safety and operations.
Non-highway legal vehicle	Vehicles primarily for use on high clearance roads or trails that are not legal on publicly maintained roadways as they do not meet state laws for safety and operation.
Maintenance level	The level of service provided by, and maintenance required for, a specific road, consistent with road management objectives and maintenance criteria.
Wheeled All-Terrain Vehicle (WATV)	In July 2013, Washington enacted a law requiring license plates on All Terrain Vehicles, House Bill 1632 (HB1632). The bill created a new class of recreational vehicle (a wheeled all-terrain vehicle, or WATV): <ul style="list-style-type: none"> • <i>A motorized, non-highway vehicle with handle bars that is 50 inches or less in width; has a seat height of at least 20 inches; weighs less than 1,500 pounds; has 4 tires with diameters of 30 inches or less, or,</i> • <i>A utility-type vehicle designed for, and capable of, travel over designated roads that has 4 or more low-pressure tires of 20 psi or less; is less than 74 inches wide; Weighs less than 2,000 pounds; has a wheelbase of 110 inches or less; meets 1 or more of the following: is at least 50 inches wide; weighs at least 900 pounds; has a wheelbase of over 61 inches</i>
4x4 Trail	Also called a Jeep Trail, intended for use by jeep-like vehicles. Generally also open to hikers, horseback riders, bikes, motorcycles, and OHVs. Not all trails will be suitable for all methods of travel.
ATV Trail	Trails intended for use by OHVs less than 50 inches wide. Generally also open to hikers, horseback riders, bikes, and motorcycles. Not all trails will be suitable for all methods of travel.
Single-Track Trail	Also called motorcycle trails. Also open to hikers, horse, and bikes. Treads are too narrow for jeep-like vehicles or ATVs

It is important to note that the term OHV does not necessarily denote a vehicle traveling cross-country, or off system routes. Cross-country (or off-road or off-trail travel) will be specified whenever described in this report.

Affected Environment

Analysis Area and Boundary Rationale

The analysis area for the assessment of recreation condition and potential effects is the land administered by the Okanogan-Wenatchee National Forest located outside of designated wilderness, with a focus on summer (non-snow based) recreational opportunities.

Existing Condition

Introduction

The Okanogan-Wenatchee National Forest offers a wide range of recreation opportunities from primitive and remote settings to more developed settings. The Forest receives a wide variety of visitors. Many are local residents, but well-traveled routes like Interstate 90 over Snoqualmie Pass, Highway 20 over Washington Pass (North Cascades Scenic Highway), Highway 2 over Steven's Pass, Highway 12 over White Pass, and Highway 410 over Chinook Pass also provide residents from the west side of the Cascade Range with easy access to the dry and sunny east-side climate of the Forest. Visitors also come from other portions of the Pacific Northwest, or other regions of the country. The Forest also receives international visitors, drawn by the beautiful scenery and recreation opportunities. The Forest is important for the abundance of backcountry recreation opportunities for both motorized and non-motorized visitors. Approximately 36 percent (1.5 million acres) of the Forest is located within designated wilderness, and another 26 percent (1.1 million acres) is within inventoried roadless and potential wilderness areas, providing numerous opportunities for those seeking backcountry, dispersed recreation settings. The Forest is known as a statewide destination for motorized recreationists seeking large and challenging motorized trail systems.

More than 150 developed campgrounds and picnic sites, nearly 180 developed trailheads, six historic Forest Service guard stations available for rent, and numerous boating sites and horse camps are also available for visitors. In 2009 districts inventoried an estimated 1,855 dispersed campsites across the forest. Dispersed camping is popular, especially along routes adjacent to the many streams and rivers located across the Forest, and many sites are used for hunting camps and large group gatherings. The Forest also administers special use permits for 682 recreation residences, mostly concentrated on the southern portion of the Forest.

Numerous water bodies, ranging from small, alpine tarns to large lakes and rivers, attract visitors for camping, boating, fishing, and wildlife viewing. Eighteen rivers on the Forest have been found eligible for Wild and Scenic River designation. None of the rivers on the forest have been congressionally designated as Wild, Scenic or Recreational Rivers.

Although this project does not address winter use, snowmobiling, cross-country skiing, backcountry skiing, snowshoeing, downhill skiing, snowboarding, snow camping, and snow play are all popular recreation activities on the Forest.

Current Okanogan-Wenatchee National Forest Recreation Use

The National Visitor Use Monitoring (NVUM) study has been conducted every 5 years on the Forest beginning in 2000. The most recent survey was completed between October 2009 and September 2010

(USFS 2010). The information from the most recent study is summarized below. For a complete description of methodology, background, summary data from other Forests and national statistics, visit the NVUM website at: www.fs.fed.us/recreation/programs/nvum.

Visitor activity participation is a good indicator of the types of recreation opportunities and settings in current demand by recreation visitors. Survey respondents were presented with a list of 27 recreation activities and asked to pick all those they had participated in during their current national forest visit. A national forest visit is defined as the entry of one person upon the Forest to participate in recreation activities for an unspecified period. Survey respondents could select multiple activities per visit, so the total activity participation column may total more than 100 percent.

Survey respondents were also asked to select just one of their activities as their primary activity during their national forest visit. For example, a visitor may have engaged in both primitive camping and fishing during their visit to the Forest, but that visitor's main reason for coming to the forest was to camp.

Table 1 displays the most popular activities and the primary activity participated in during the visit to the Forest. Recreation use participation for certain activities may have been affected by wildfire closures, temporary road closures and other factors that could affect a one-year survey of actual recreation use.

Table 1—Land-based activity participation on the Okanogan-Wenatchee National Forest (USFS 2010)

Activity	Total estimated activity participation (percent)**	Total number of participants	Reported as primary activity (percent)
Hiking / walking	44.0	601,920	13.3
Viewing natural features	39.4	538,992	9.9
Relaxing	31.4	429,552	6.1
Viewing wildlife	30.5	417,240	1.4
Driving for pleasure	25.7	351,576	5.1
Downhill skiing	15.6	213,408	14.4
Developed camping	14.6	199,728	8.3
Fishing	12.8	175,104	5.2
Cross-country skiing	11.5	157,320	9.5
Picnicking	10.6	145,008	0.3
Gathering forest products	10.2	139,536	6.2
Nature study	6.0	82,080	0.0
Primitive camping	5.5	75,240	3.1
Motorized trail activity	4.4	60,192	2.5
Resort use	4.3	58,824	1.7
Hunting	4.2	57,456	4.2
Some other activity	3.2	43,776	2.0
Other non-motorized	3.0	41,040	1.3
Bicycling	2.4	32,832	0.8
Backpacking	2.1	28,728	1.1
OHV Use	2.0	27,360	0.9
Nature center activities	1.6	21,888	0.3

Visiting historic sites	1.5	20,520	0.0
Snowmobiling	1.5	20,520	1.4
Horseback riding	1.3	17,784	1.3
Other motorized activity	0.1	1,368	0.0
TOTAL ESTIMATED VISITS		1,368,000	

*The 90 percent confidence interval width was plus or minus 15 percent for this sample.

**Survey respondents could select multiple activities so this column totals more than 100 percent.

As displayed in the top five recreation activities for the Forest, in terms of total number of participants, were hiking/walking, viewing natural features, relaxing, viewing wildlife, and driving for pleasure (USFS 2010). The top three non-winter based primary activities are hiking/walking (13.3 percent), viewing natural features (9.9 percent), and developed camping (8.3 percent).

The 2010 NVUM data suggests OHV use makes up a smaller proportion of total recreation use within the project area as compared to non-motorized recreational activities. An estimated 32 percent of visitors (440,496 individuals) to the Forest chose to engage in motorized use (including driving for pleasure, OHV use, motorized trail use and other motorized activities) during their visit, while approximately 53 percent of visitors (722,304 individuals) engaged in non-motorized activities while on the Forest (which includes backpacking, hiking/walking, horseback riding, bicycling, and other non-motorized activities). Almost all of these recreationists arrive by motorized vehicle.

Only 9 percent of respondents reported motorized use as their primary activity (driving for pleasure accounted for 5 percent of the total), as compared to 18 percent who primarily engaged in non-motorized activities (hiking/walking accounted for 13 percent of the total).

This data shows that, overall, the forest receives approximately twice as many visitors who engage in non-motorized recreation activities than those who choose motorized recreation activities. It is important to note that District recreation managers observe OHV use as a primary activity is likely higher than reported in the NVUM study, particularly on the Methow Valley and Tonasket districts, due in large part to study design. For example, 2010 NVUM data showed 0 percent participation in OHV use as a primary activity on these districts, and 1.1 percent primary participation on the remaining districts. These figures appear low since the motorcycle trails in the Sawtooth Backcountry on the Methow and Chelan Districts, and the ATV and motorcycle routes west of the town of Conconully in the Granite Mountain trail system are known to be destinations with consistent OHV use. It appears that the study design missed this use. Likewise, the trail systems on the Cle Elum and Naches districts, and the extensive Devils Backbone/Mad River/Lower Chiwawa and Devils Gulch motorcycle trail systems near Entiat and Leavenworth are popular destinations for motorized recreationists.

National and Regional Recreation Trends

The 2010 NVUM recreation participation data for the Forest displayed in Table 1 represent one year of recreation use data on both portions of the Forest. To gain a more complete picture of recreation participation rates and trends, this next section summarizes national and regional recreation participation data.

As illustrated in Table *, participation rates for many outdoor recreational activities popular on National Forest System lands have been increasing since the early 1980s. Even with participation rates that are

relatively stable through time, the number of participants will increase due to population growth. For example, though roughly 12 percent of the population has participated in hunting since 1982, the activity gained nearly 6 million participants over that time due to the increase in population.

Table 4–National recreation participation trends 1982-2009 (Cordell, May 2009)

Activity	1982-1983		2005-2009		Trend	
	Percent Population Participating	Total Participants (millions)	Percent Population Participating	Total Participants (millions)	Percent Change in number of participants 1982-1983 to 2005-2009	Change in No. of Participants (millions)
View/ photograph birds	12.0	20.8	35.0	80.5	287.0	59.7
Day hiking	14.0	24.3	33.0	75.3	210.0	51.0
Backpacking	5.0	8.7	10.0	22.7	161.0	14.0
Drive off-road	11.0	19.1	20.0	46.2	142.0	27.1
Primitive camping	10.0	17.3	14.0	32.8	90.0	15.5
Developed camping	17.0	29.5	24.0	55.7	89.0	26.2
Horseback riding	9.0	15.6	10.0	22.4	44.0	6.8
Picnicking	48.0	83.3	51.0	117.5	41.0	34.2
Driving for pleasure	48.0	83.3	49.0	112.7	35.0	29.4
Fishing	34.0	59.0	34.0	78.0	32.0	19.0
Hunting	12.0	20.8	12.0	26.6	28.0	5.8

Note: This table shows the percentage as well as the total number of the U.S. population 16 or older who participated in a given activity at least once within the 12 months preceding the survey date. While the NSRE does not distinguish recreation activities by land type (private, state or federal), all of the activities in this table are popular on National Forest System lands.

Recreation participation in the Pacific Coast region (which includes California, Alaska, Washington and Oregon) is comparable to the rest of the nation, with the exception of primitive camping and backpacking, which are notably more popular in this region (Cordell, 2008b).

According to Cordell (2009), driving off-road vehicles was one of the fastest growing non-winter, land-based recreational activities from 1982 to 2009, growing 142 percent during that time period. Only two activities, viewing and photographing birds (287 percent growth) and day hiking (+210 percent) gained more participants over that time period. Backpacking (+161 percent), primitive camping (+90 percent) and developed camping (+89 percent) were also among the fastest growing activities. Given the strong growth in OHV use since the early 1980s, it is reasonable to assume continued growth in OHV participation rates in the future.

A study completed in June 2008 by the Washington State Recreation and Conservation Office (RCO), indicates similar participation rates based solely on Washington survey data gathered as part of the State's Comprehensive Outdoor Recreation Planning document (SCORP) (WA RCO, 2008). In this survey, walking/hiking, wildlife watching, bicycle riding, nature photography, ORV use, camping, and hunting were among the top twenty most frequent recreation activities noted. It is important to note that, like Cordell's National Survey on Recreation and the Environment, this study does not differentiate between

different land types (state, federal or private); however, all of the listed activities are popular on National Forest System land.

The RCO has completed similar surveys about every 10 years since the late 1960s, using roughly the same methodology of telephone surveys with mail follow-up (IAC, 2003). Based on three recreation participation surveys completed in 1979, 1989 and 1999, RCO concluded that overall participation in recreation activities, including the total numbers of people fishing and camping, appeared to be declining over the 20-year period, but ORV and equestrian activities appeared to be stable (IAC, 2003).

This downward participation trend is in contrast to the results from the past 10-year survey period from 1999 to 2007, which shows a short-term increase in participation rates for all activities listed in Table 4. Because the 1999-2000 results are from a diary-based statewide panel and the 2007 results are from a telephone survey, the results must be compared with some caution and viewed as indicators of change rather than as an actual trend.

Table 2–Washington State participation rates* (IAC, 2002 and WA RCO, 2008)

Activity	1999 Survey Results		2007 Survey Results	
	Percent residents participating	Total number participants (millions)	Percent residents participating	Total number participants (millions)
Walking/hiking	53.0	3.10	74.0	4.80
Nature activities**	43.0	2.50	54.0	3.50
Picnicking	20.0	1.20	47.0	3.10
Sightseeing	23.0	1.30	35.0	2.30
Bicycle riding	21.0	1.20	31.0	2.00
Off-road vehicle riding	9.0	0.52	18.0	1.20
Camping	13.0	0.75	17.0	1.10
Fishing	13.0	0.75	15.0	0.98
Hunting/shooting	6.0	0.35	7.0	0.46
Equestrian activities	3.0	0.17	4.0	0.26

* 1999 WA state population approximately 5.8 million; 2007 WA state population approximately 6.5 million (Office of Financial Management, 2010)

** Nature based activities include outdoor photography, observing wildlife and fish, whale watching, gathering plants or food, gardening, gathering firewood and cutting holiday trees.

As displayed in Table 5, the participation rate of OHV use (listed as off-road vehicle driving in the table) in Washington State appears to have doubled from 9 percent in 1999 to 18 percent in 2007. During that same time period, walking/hiking and picnicking also saw considerable growth (greater than 20 percent), and hunting, fishing and equestrian activities saw very little growth. As with the NSRE data, it is important to note that even stable participation rates result in an increased number of participants due to population growth in Washington State.

In 2003, the RCO completed a report that projected participation rates of nature-based activities in Washington State over a 10-year and 20-year period based on participation data from the 1999-2000 RCO survey (IAC 2003). These projections, shown in Table 5, took into account NSRE data and projections for the Pacific Northwest Region, demographic trends in Washington State, the local supply of lands available for recreation activities, and other factors.

Table 3—RCO recreation participation projections as a percent of change in the number of people participating in the future compared to 1999-2000 survey results (IAC 2003)

Activity	Projected percent growth in number of participants (2000-2020)
Nature activities	+37
Picnicking	+31
Bicycle riding	+29
Camping-developed (RV style)	+20
Hiking	+20
Off-road vehicle driving	+20
Camping- backpacking	+8
Equestrian	+8
Hunting/shooting	-21
Camping-primitive dispersed	No estimate available*

*IAC estimates a slow growth in primitive camping due to increasing management controls to minimize or address resource concerns which would result in some loss of opportunity. IAC projects 5 percent growth over a 10-year period, but could not make a prediction over a 20-year period due to a high level of uncertainty.

According to these projections, all activities common on National Forest System land are expected to increase in number of participants except hunting/shooting, which is expected to decrease 21 percent. The differences in participation rates and projected percentage increase in participation rates between the Cordell data and the IAC projections can be explained in part by differences in study design; however, the data from both sources show increasing participation rates for all activities except hunting.

The data suggests the demand for summer activities that favor non-motorized settings will be heaviest in the future, most notably for day hiking. Other non-motorized activities like horseback riding, biking, and backpacking are expected to increase, as well, though the overall numbers of participants in each activity will be relatively low as compared to day hikers.

At the same time, there will likely be an increasing demand for OHV use within motorized settings. The total number of motorized recreationists will still be relatively low as compared to other non-motorized recreation activities; but motor vehicle use takes up proportionately more space due to the ability to travel long distances. In addition, the noise associated with motor vehicle use can disproportionately have a negative effect on other nearby users seeking non-motorized recreation settings because noise of OHVs can travel great distances (see noise analysis of alternatives in this report). The Forest can expect more demand for the motorized trail systems in the future. Trail systems on the southern end of the forest, especially the Taneum-Manastash and Little Naches system, will likely receive the most pressure due to the close proximity to the highly populated Greater Seattle area. The Devils Gulch and Mad River trail systems near Wenatchee and Entiat may also become more crowded due to increasing use.

As the population of the Greater Seattle area and other nearby population centers increases, visitation to the Forest for all types of recreational activities is also likely to increase, even if participation rates are

stable, as the demand for outdoor recreation is strongly correlated to population growth (Hall 2009)¹. Increasing numbers of recreationists on a finite land base is likely to lead to increasing conflicts in social values, especially between motorized and non-motorized users.

Hunting is the only activity expected to decrease over the coming decades. Though the decrease in hunting participation may reduce pressure on dispersed sites commonly used during the hunting season, it is likely that dispersed sites, particularly the most desirable sites adjacent to water, will be more heavily used in the future due to expected increases in all other activities, including primitive camping and picnicking.

Summary of Current Road and Trail Opportunities

Tables 2 and 3 display the available motorized road and trail opportunities within the project area.

Table 4– Miles of Forest Service roads by maintenance level² and mixed use designation within the project area

Category	Project area miles
Total miles National Forest System road open to highway legal vehicles (maintenance levels 2-5)	5,366
Total miles of maintenance level 1 roads	2,557
National Forest System motorized mixed use road (open to highway legal vehicles and OHVs <50 inches wide)	125
National Forest System motorized mixed use road motorcycle only (open to highway legal vehicles and motorcycle only)	23

Table 5–Miles of Forest Service System Motorized Trail by Vehicle Designation Within the Project Area.

Trail type	Uses generally allowed	Uses generally prohibited	Project area miles
4x4 >50 inches	All uses	--	243
ATV ≤50 inches	ATV, motorcycle, bicycle, pack and saddle, hiker/pedestrian	Jeep	20

¹ The Greater Seattle Area is predicted to grow by more than 1.2 million residents by 2030 (40 percent growth), and Washington state's population is predicted to grow by 2.6 million people (44 percent growth) during that same time frame (Office of Financial Management, 2007). The populations of Yakima, Kittitas, Chelan, Douglas and Okanogan Counties are also expected to increase by nearly 150,000 residents (37 percent growth) by the year 2030 (Office of Financial Management, 2007).

² Definitions of road maintenance levels, from FSH 7709.58, 10, 12.3:

Maintenance Level 1: assigned to intermittent service roads during the time they are closed to vehicular traffic.

Maintenance Level 2: roads open for use by high-clearance vehicles.

Maintenance Level 3: roads open and maintained for travel by prudent drivers in a standard passenger car. User comfort and convenience are low priorities.

Maintenance Level 4: roads that provide a moderate degree of user comfort and convenience at moderate travel speeds.

Maintenance Level 5: roads that provide a high degree of user comfort and convenience.

Motorcycle	Motorcycle, bicycle, pack and saddle, hiker/pedestrian	Jeep, ATV	735
Total summer motorized trail miles			998

*While the trail type denotes the primary activity for which the trail is actively maintained and managed, it is important to note that the designated trail type does not necessarily exclude other uses. For example, pack and saddle trails are open to hikers, and ATV trails are generally open to motorcycles. All motorized trails are open to non-motorized users. ATVs are allowed to use 4x4 trails; however, a number of 4x4 trails are not actually passable by ATVs due to the different sized wheelbase of the vehicles and the challenging terrain of many 4x4 trails.

Approximately 5,366 miles of National Forest System roads (maintenance levels 2 through 5) and 998 miles of National Forest System trails are open and managed for summer motorized use within the project area. These system roads and trails were either constructed or included in the system in the past because they met various transportation needs, both commercial and recreational, of national forest users, permit holders, contractors and managers. These roads and trails provide motor vehicle access to areas for hunting, berry picking, camping, pleasure driving, firewood removal, and to trail systems for OHV, bike, foot, and horseback use, and other activities.

There are 2,577 miles of maintenance level 1 roads on the Forest. When discussing road management, maintenance level 1 roads are closed, and therefore are considered part of cross-country motorized travel landscape. The definition of a maintenance level 1 road comes from the Forest Service Handbook (FSH) 7709.59:

LEVEL 1. These are roads that have been placed in storage between intermittent uses. The period of storage must exceed 1 year. Basic custodial maintenance is performed to prevent damage to adjacent resources and to perpetuate the road for future resource management needs. 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" all traffic. These roads are not shown on motor vehicle use maps.

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 available and suitable for non-motorized uses.

Before a road is placed in this category a decision is made to determine that there are future needs for the road but no access needs for at least one year. Typically, the entrance to the road is physically blocked with an earthen berm, rocks, vegetation or other methods to help eliminate vehicular use. Basic custodial maintenance is performed as necessary to prevent damage to adjacent resources.

The Okanogan and Wenatchee National Forests, however, have managed maintenance level 1 roads somewhat differently from each other, as discussed below. The Forest Service Handbook definition specifies that these roads are closed to vehicular (motorized) traffic.

The Okanogan Forest Plan states that "Areas, roads, and trails shall be designated open, closed, or restricted to motorized use to conform with management goals" and that "These designations shall be displayed in the Forest Travel Plan" (Standards and Guidelines, 17-3, pp. 4-50). The Okanogan National

Forest Travel Plan (2005) states that:

If your OHV is not licensed, it may be used only on roads that are blocked with rocks, trees or earthen barriers and not open for passenger cars or trucks.

Because of this direction, all maintenance level 1 roads on the Methow Valley and Tonasket Ranger Districts are considered open for OHVs, unless specifically closed with a Code of Federal Regulations (CFR) legal order (36 CFR 261.54), or if they fall within an area closed to motorized vehicles.

The Wenatchee Forest Plan does not specifically address motorized use on closed roads. Management of these roads assumes they are closed to vehicular traffic. However, enforcement to eliminate traffic is neither feasible nor intended and, because cross country travel is not prohibited, some closed roads receive vehicular use to the extent that they are physically accessible. In order to prohibit traffic use on a road a CFR legal order must be approved, posted and enforced. Only a limited number of maintenance level 1 roads on the Chelan, Entiat, Wenatchee River, Cle Elum, and Naches Ranger Districts are officially closed with a CFR.

Since there is currently no prohibition on cross-country motor vehicle travel (outside areas specifically closed by the forest plans to motorized cross country travel), there is the potential to drive motorized vehicles on the 2,577 miles of maintenance level 1 roads using OHVs. When maintenance level 1 roads are closed, they are placed into long-term storage for a variety of resource related reasons, but not typically with the intention of creating recreational motorized opportunities. It is likely that many of these maintenance level 1 roads are now partially or fully blocked by vegetation and therefore not providing an OHV recreation opportunity. For those maintenance level 1 roads that are still passable, some provide a more remote, backcountry experience than motorized mixed use roads since they are closed to full-size vehicles. These roads do not provide the same recreation opportunity as a trail designed specifically for ATV or motorcycle use. Since these roads are generally wider and flatter than designed OHV trails, they provide opportunities for beginner riders or those seeking a less challenging riding experience, but would likely not meet the needs of skilled OHV users looking for a challenging and varied riding experience.

The Forest additionally manages approximately 148 miles of motorized mixed use roads, which allow concurrent use of a road by highway legal vehicles (such as a standard passenger vehicle) and non-highway legal vehicles (such as ATVs and motorcycles). These roads are typically maintenance level 2 or 3 roads, characterized by a dirt or gravel surface, slower vehicle speeds and may have lower use levels than roads with higher maintenance levels. These roads typically provide for OHV access to allow links between motorized recreation opportunities on adjoining state and county lands, or between segments of motorized trails where road travel is needed as a connection. However on Tonasket Ranger District, these motorized mixed use roads provide an important recreation opportunity for ATV users in particular.

The Forest manages 998 miles of motorized trails, the majority of which are located on the southern portion of the Forest in large, interconnected motorcycle and 4x4 trail systems. Visitors from the heavily populated greater Seattle area seeking the dry east-side climate gain quick access to this portion of the Forest via Interstate 90, Highway 12 and Highway 410 and dispersed sites and trailheads are at capacity on weekends at the most popular sites. The trails on the northern portion of the forest, being farther from Seattle, generally receive less use. While there are several other important OHV trail systems in the state, primarily on state Department of Natural Resource lands, the Okanogan-Wenatchee National Forest provides by far the single largest venue in the state. There are other large OHV trail systems

elsewhere in the nation, but the un-roaded single-track motorcycle systems available in several locations on the Okanogan-Wenatchee are unique at a national scale. There are isolated conflicts between non-motorized and motorized recreationists on these trails, however the abundant availability of non-motorized trails across the forest provide help separate the user groups, minimizing conflicts.

Funny Rocks (9.93 acres) and Moon Rocks (23.37 acres) Rock Crawl destinations are two very popular motorized sites that are located on the Naches Ranger District in the Bald Mountain area of Manastash Ridge. Part of this location came into National Forest management through a land acquisition from Burlington Northern Railroad in 1986. They are located along Trail 4W694 (Summit Trail) on the border between the Cle Elum and Naches Ranger Districts. The Forest Service has managed these as rock crawl destinations since the land was acquired, monitoring use and occasionally issuing special use permits for recreation events. It is not unusual to see a dozen vehicles on either rock formation at one time. On sunny snow-free weekend days as many as 75 to 100 vehicles will visit these sites per day. These formations are popular with both 4X4 vehicles and motorcycle trials bikes. Enthusiasts come from all over the Pacific Northwest to experience these unique areas.

Cross-country Travel and Unauthorized Routes

Cross-country motorized travel typically leads to creation of unauthorized routes. An unauthorized route is a road or trail that is not a National Forest System road or trail or a temporary road or trail and that is not included in a forest transportation atlas (36 CFR 212.1). Any trail or route created without the authorization by the Forest Service following NEPA analysis is considered unauthorized. While it is illegal to create unauthorized roads or trails (36 CFR 261.10A) or cause resource damage (36 CFR 261.9A), the use of unauthorized routes is currently legal unless the routes cross areas closed to motorized use. Advances in recreational vehicle technology have increased the ability of OHVs to travel on steeper grades and over rougher terrain, leading to an ever-increasing development of unauthorized routes created by users, particularly by ATV and motorcycle riders. These routes generally take the shortest or most direct route from one point to another and often fail to meet Forest Service trail construction standards because they are steep, erosive, and do not adequately provide for visitor safety or protection of resources.

It is virtually impossible for a rider to distinguish an authorized, Forest Service system trail from an unauthorized route. Many system trails are signed, but not all, and popular unauthorized routes typically look very similar to system trails. Current Forest Service maps and publications show only system trails, but many privately authored maps and guide books include unauthorized routes. Riders typically use a combination of authorized system trails, and unauthorized routes on a regular basis. The limited number of available law enforcement officers and field-going personnel limits the Forest Service's ability to close unauthorized trails as they are developed and to issue citations to individuals creating the routes or causing resource damage.

Currently, the Forest is managed as "open" to motorized use except where expressly prohibited by Forest order or under the Okanogan National Forest Travel Plan. In areas where cross-country travel is not expressly prohibited, such travel is permitted as long as it does not result in resource damage. Across the Forest, motor vehicle use, particularly ATV and motorcycle use, is expanding where terrain allows and resource damage is evident in some areas, particularly on the more heavily used southern portion of the Forest. Approximately 2.6 million acres are legally open for motorized use, that is, located outside of designated wilderness areas and management areas managed for semi-primitive non-motorized recreation opportunities; however, approximately 675,000 acres of the forest are potentially

available for cross-country travel when taking into account steepness of terrain and vegetation cover. It is estimated that motorized vehicles generally would not travel on slopes greater than 40 percent and through vegetation that is closed in more than 50 percent.

Informal monitoring by district personnel indicates there are several locations within the project area where cross-country motorized travel and construction of unauthorized routes is occurring at an increasing level. Some of these locations are listed below, but it should be noted that these issues occur across the forest:

- Cle Elum Ranger District: Swauk, Taneum, and Manastash areas
- Tonasket Ranger District: Crawfish Lake/Lost Creek area
- Wenatchee River Ranger District: Derby Canyon, Chumstick and Natapoc areas
- Naches Ranger District: Nile Creek valley
- Methow Valley Ranger District: Sawtooth Backcountry and North Summit areas

There is ongoing conflict between motorized and non-motorized recreationists because of motorized cross-country travel. Many comments were received from non-motorized recreationists during the scoping process for this travel management analysis expressing concern about the impact motorized recreationists have on their non-motorized recreation experiences on the 2.6 million acres currently open to motorized cross-country travel, and the 675,000 acres where it is likely concentrated. People stated that the noise of the engines, the dust created by the vehicles, and the impacts to soil, vegetation, and wildlife all decreased their desired recreation experience.

Current Dispersed Camping Opportunities

Many visitors prefer a more secluded and less regulated experience than offered by developed campgrounds and picnic areas, and instead seek out camping and picnicking opportunities in dispersed, or undeveloped, sites across the Forest. Many people who routinely use dispersed campsites have been returning to the same spots for many years.

Data from the 2010 National Visitor Monitoring study indicated that 6.6 percent of visitors to the Okanogan portion of the Forest and 5.2 percent of visitors to the Wenatchee portion of the Forest engaged in dispersed (primitive) camping during their visit. Big-game hunting has historically been a popular activity on the Forest during designated hunting seasons, and is often associated with camping at dispersed sites during the fall season. Results of the 2010 NVUM study indicate that 9.7 percent of visitors to the Okanogan portion of the Forest and 2.7 percent of visitors to the Wenatchee portion of the Forest engaged in big game hunting during their Forest visit (see Table 2).

A forest-wide inventory of dispersed campsites tallied 1,855 established sites, 1,115 of which were access by an unauthorized access route, and 740 of which were considered road-side. Using a GIS analysis of the location of the 1,115 drive-in sites, 773 are within 300 feet of an open road, and at least 100 feet away from water (river, stream, or lake). The GIS analysis also showed that about three-fourths of the dispersed sites across the Forest are located within 300 feet of a system road. Therefore about one quarter of the existing sites are located further than 300 feet from a system road. People park their vehicles within 30 feet of open roads to access the roadside campsites.

The Forest is generally managed as “open” to dispersed camping, meaning camping is allowed anywhere on the Forest unless other restrictions are specifically in place. The 2005 Okanogan Travel Plan map (USFS, 2005) identifies some portions of the Forest as seasonally closed to motor vehicle use off

designated routes for wildlife protection. During those closure periods, cross-country motor vehicle use is prohibited, but motor vehicle use is allowed up to 300 feet off designated routes for “direct access to temporary campsites.”

Over time, motor vehicle users have created numerous unauthorized routes to access dispersed sites from existing National Forest System roads. The dispersed sites typically consist of a bare soil area where vehicles park and/or tents are set up. The majority of the dispersed campsites have been developed in areas with easy road access, flat ground, where vegetation is open enough to allow vehicle access, and almost always near a lake, stream, or river. These sites are used throughout the snow-free months, but are most popular during the summer. There are some popular dispersed campsites located in “dry” locations, tending to be higher in elevation, near prime hunting areas, and are typically only used during fall hunting seasons.

Facilities are typically not present at dispersed sites; however, user-created fire rock rings are common, and primitive toilets may be created by users as well. Permanent or temporary toilets are provided by the Forest Service at some locations within or near heavily used sites or those sites with specific resource concerns. Visitors are drawn to dispersed sites in part due to the fewer restrictions than in developed campgrounds, the ability to “circle the wagons” and camp in large groups, and because there is no fee to use these sites. Dispersed sites also tend to offer more seclusion and a buffer from the activities of others such as being able to avoid campfire smoke or loud groups.

A full range of Forest visitors use dispersed sites. It is common to see visitors with tents, camp trailers, recreational vehicles, horse trailers or trucks loaded with ATVs and motorcycles camped at these sites. Most dispersed campers prefer to have their vehicles in the campsite because they are sleeping or cooking in the vehicles (such as recreational vehicles), or they worry about security of the vehicle, so want to have it in site. Some campers are willing to park their vehicles and carry camping gear a distance to their site.

Since the pattern of dispersed camping is largely influenced by road access, topography, vegetation, and proximity to water or prime hunting areas, dispersed campsites, and the access routes leading to them, have already been developed at the most desirable locations. Dispersed campsites are scattered across each ranger district, and many are used occasionally. Areas where campsites are not filled to capacity on a regular basis have a greater ability to absorb more use, meaning that if a visitor reaches their desired campsite and finds it full, there is a high likelihood that unoccupied campsites will be available in the general area. Some areas across the Forest have a higher density of established dispersed campsites. These areas are so popular that all established dispersed campsites are occupied on a regular basis. In these areas, there is no, or very limited likelihood that if a camper finds the desired campsite already occupied, there will be open sites in the vicinity.

New sites are occasionally developed, especially when all existing sites are occupied. In some areas, particularly on the Naches and Cle Elum districts, the boundaries of some dispersed sites have grown due to increasing and heavier use. Such growth in the number and size of dispersed sites has led to loss of vegetation, increased sedimentation in streams, and other resource damage in the vicinity of the campsites. This is especially true in the Little Naches River drainage and along the Cle Elum River.

Over the last thirty years, the Forest has implemented actions to contain motor vehicle access to dispersed campsites. In the late 1980’s areas along the Icicle River on the Wenatchee River Ranger District were closed to dispersed camping and motor vehicle use adjacent to riparian areas. In the mid-

1990's the Methow Valley Ranger District developed the "Respect the River" program, which targeted popular dispersed recreation sites near important fish habitat along the Chewuch River, and defined and limited motorized access route to some locations. Restoration efforts along access routes and within campsites included soil de-compaction and stream bank plantings. Rock or wood barriers were also installed to limit the size and area of disturbance at the sites, and to limit motorized vehicle access within riparian areas. This program spread across the forest and similar actions have since occurred on the Cle Elum, Naches, and Wenatchee River Ranger Districts, defining sites and decreasing motorized access to dispersed sites within riparian areas. These sites are referred to as "Improved Sites" in this analysis. A variety of other actions has occurred on the districts, and is summarized in the following table.

While these efforts have been largely effective at reducing impacts at some locations, continued use, and increases in the size and number of sites in other areas are perpetuating impacts to riparian areas and aquatic habitat.

Table *. Actions Taken to Reduce Environmental Impacts of Dispersed Camping

Ranger District	Drainage/Watershed	Examples of Actions Taken	Results
Wenatchee River Ranger District	Icicle Drainage	Closed to dispersed camping and motorized access during the snow-free months.	Reduced vehicle impacts to riparian areas and limited recreation access.
Cle Elum Ranger District	Cle Elum Reservoir, Cooper River, Upper Cle Elum River Drainage, Box Canyon, Teanaway, Buck Meadows (Manastash Drainage),	In portions of all these areas, closed critical riparian areas to vehicle access. In some instances altered existing campsite's "foot print"; or designated parking spurs by placing boulders; de-compacted soils and planted vegetation. Eliminated multiple dispersed sites by entirely closing one mile length of road - surfaced ripped and debris added. Closed meadow and built developed campground to accommodate former dispersed use. Up to 30 portable rental toilets placed in highest use riparian dispersed areas during peak summer season.	Reduced vehicle impacts to riparian zones. Reduced erosion created by impacted soils. In places, restricted recreation use by closing access points. Reduced impacts caused by poor human sanitation disposal practices.
Chelan Ranger District	Antilon Lake/Lake Chelan	Special Order #303 signed 5/8/1996. Restricts camping to designated sites and driving to existing open roads.	Curtailed off road travel and the proliferation of new dispersed campsites.
Chelan Ranger District	First Creek/Lake Chelan	Annual Special Order (2013, 2014). Prohibits camping in a portion of the First Creek drainage on FS lands on Memorial Day Weekend.	Reduced trash, human waste, high speed traffic on 1 st Creek Road, and shooting on FS lands. Increased public safety.
Chelan Ranger District	Lake Chelan Watershed	Special Order #878 signed 7/25/2013. Prohibits camping	Reduced impacts to trail based recreation from

		and campfires in Echo Ridge Trail System.	activities associated with camping (especially target shooting). Reduced trash at trailheads used for camping. Reduced potential for wildfire from unattended campfires. Increase in public safety.
Tonasket Ranger District	Krueger dispersed sites near Conconully	Closed road access and removed old toilet building, restored vegetation in dispersed campsites.	Reduced vehicle impacts and garbage dumping.
Entiat Ranger District	Pine Flat Campground in Mad River drainage	Removed user built camp sites along riparian zone in campground, and rehabbed area.	Reduced impacts to riparian zone vegetation and fish. Limited some recreation access.
Naches Ranger District	Little Naches, American River, Bumping, Naches Mainstem, Rattlesnake, South Fork Tieton Watersheds	Work has been completed at approximately 50 dispersed sites within these watersheds to control traffic using barriers to keep vehicles out of streams, and educate the public through signing about low impact camping activities. Sealed vault concrete toilets were placed at several locations to minimize human waste impacts. Buck and pole fencing was installed at about 15 dispersed sites within these watersheds to control vehicles and minimize impacts to stream banks and sensitive meadow/hardwood areas.	Reduced riparian impacts from vehicles to vegetation and water. Reduce sanitation impacts to riparian zones and to human health concerns. Modified motorized access for dispersed camping in some locations, but allowed access and camping to continue in these desirable areas
Methow Valley Ranger District	Chewuch Watershed	Modified approximately 50 popular dispersed campsites along the river by defining access routes, building buck and pole fences to confine camping areas- keeping them away from river's edge.	Reduced impacts to riparian zone vegetation and fish. Modified motorized access for dispersed camping in some locations, but allowed access and camping to continue in these desirable areas

Current WATV Opportunities

Currently, WATVs are only allowed to operate where unlicensed ATVs or OHVs are permitted. The Forest allows unlicensed ATVs, and therefore WATVs, on the 125 miles of mixed use roads, 263 miles of motorized trail (designated for ATVs or 4x4s), and some maintenance level 1 roads.

As described above, the mixed use roads are typically maintenance level 2 or 3 roads, characterized by a dirt or gravel surface, slower vehicle speeds and may have lower use levels than roads with higher maintenance levels. These roads typically provide for OHV access to allow links between motorized recreation opportunities on adjoining state and county lands, or between segments of motorized trails where road travel is needed as a connection. However on Tonasket Ranger District, these motorized mixed use roads provide an important recreation opportunity for ATV users in particular.

WATVs are also allowed to operate on many maintenance level 1 roads, particularly ones on the Tonasket and Methow Valley Ranger Districts, where the current travel plan map specifically states that non-licensed vehicles can be driven on roads closed with a berm. As discussed above, however, these maintenance level 1 roads are typically short (less than 5 miles), and do not access desirable locations, or provide loop riding opportunities. Some maintenance level 1 roads are included in trails open to ATVs/OHVs, so are important links in those opportunities.

Environmental Consequences

Direct and Indirect Effects

This section addresses the potential direct and indirect effects of implementing each of the alternatives on recreation resources identified within the project area. The assessment of effects is based on GIS analysis and professional subjective judgment of the potential impact of each alternative on the recreation resource as compared to the no action Alternative A.

Activities that will not be affected by the Motorized Travel Plan

The following uses are not considered recreational activities and will not be discussed further in this recreation effects analysis (however, see other resource reports for analysis of these on those resources):

- Grazing permittee access
- Administrative access
- Emergency access
- Private land access
- Mining access
- Tribal access
- Special forest products access
- Special use permittee access

Motor-vehicle use associated with these activities would be covered by a special use authorization, an act that provides for access, or administrative or tribal government use on a case-by-case basis.

Analysis of Alternatives

ALTERNATIVE A

Available Motor Vehicle Routes

National Environmental Policy Act regulations require consideration of a “no-action” alternative, which describes the effects on resources if no management action is taken. Alternative A would have no effect

on current motorized road and trail recreation opportunities, as there would be no change to the existing open road network (maintenance levels 2 through 5) and trail system.

OHV use would continue to be unmanaged on approximately 2,557 miles of maintenance level 1 roads, although this use would be inconsistent with the travel management rule, which requires motor vehicle use to be restricted to designated open routes. The recreation experience currently offered to OHV drivers on maintenance level 1 roads would continue.

Cross-country Motorized Travel Opportunity

Existing recreation opportunities for motor vehicle users to travel off roads and trails either to ride unauthorized routes or to access portions of the Forest for a variety of other recreational activities would not change. The Forest is currently managed as open to motor vehicle use unless specifically closed, so cross-country motor vehicle travel would continue to be allowed on the 2.6 million acres of the Forest located outside of designated Wilderness and non-motorized areas or where expressly prohibited. Of the total acreage available for cross-country travel, it is estimated that such use may occur on approximately 675,000 acres when topography and vegetation are taken into consideration.

OHV users would likely continue to travel off trail on their favorite unauthorized routes, or would continue to find areas to explore by OHV, potentially creating resource damage and creating conflicts between motorized and non-motorized recreationists in some areas. Social value conflicts and complaints of noise and safety concerns from non-motorized recreationists would likely occur, resulting in some displacement of those visitors seeking quiet recreation opportunities free from OHV noise.

Access to Dispersed Camping

No restrictions would apply to motor vehicle travel off National Forest System routes for dispersed camping under this alternative, except for those areas already closed to motor vehicle travel by special order or as depicted in the Okanogan National Forest Travel Plan. Under Alternative A, people would continue to be able to drive motorized vehicles all the way from open roads to 100% of existing campsites.

Campers would continue to be able to use the dispersed campsites they have become accustomed to using, including those near water, particularly rivers and streams, which would continue to be a main attraction for those seeking out dispersed camping sites during the summer months.

WATV Opportunities

Alternative A would not open any National Forest System roads to WATVs, so opportunities for WATVs would be no different than those for non-licensed ATVs and OHVs. WATVs would continue to be allowed to operate on the 125 miles of mixed use roads, open to non-licensed ATVs/OHVs, 263 miles of motorized trail (designated for ATVs or 4x4s), and some maintenance level 1 roads.

The mixed use roads providing links between motorized recreation opportunities on adjoin state and county land, and between segments of motorized trails would still be open to WATVs. They would continue to provide links between motorized recreation opportunities on adjoining state and county lands, or between segments of motorized trails where road travel is needed as a connection. This important recreation opportunity on the Tonasket Ranger District would continue.

WATVs would also continue to be allowed to operate on many maintenance level 1 roads, particularly ones on the Tonasket and Methow Valley Ranger Districts, where the current travel plan map specifically states that non-licensed vehicles can be driven on roads closed with a berm. As discussed earlier, however, these maintenance level 1 roads are typically short (less than 5 miles), and would not access desirable locations, or provide loop riding opportunities. The portions of maintenance level 1 roads that are part of ATV/OHV trails would also remain open to WATVs.

Effects Common to Alternatives B, C, and D

Available Motor Vehicle Routes

None of these alternatives would result in any changes to the current open motorized road (maintenance levels 2 through 5) and motorized trail system, so there would be no direct or indirect effects on motorized road and trail opportunities on currently open National Forest System roads and trails.

Alternatives B, C, and D would close all 2,557 miles of current maintenance level 1 roads to motorized vehicles. As discussed in the Existing Condition section, many of these roads are impassable due to vegetation growth or debris on the roadbed, so are not currently being used as motorized recreation routes. A few of the maintenance level 1 roads are currently officially closed to motorized vehicles, so these are also not providing motorized recreation opportunities. Any maintenance level 1 roads that are currently being used for motorized recreation would be closed to that activity (with the exception of any sections of maintenance level 1 roads that are part of a National Forest System motorized trail), so the motorized recreation opportunity they provide would be lost. While this represents only a portion of the overall motorized recreation occurring on the Forest, it would result in a reduction in motorized recreation opportunities. The people currently using these routes as links between open roads or to access motorized trails or unauthorized cross-country routes would no longer be able to use them. Since the miles of maintenance level 1 roads currently being used is unknown, the loss of opportunity cannot be quantified, but those people currently using these roads would lose this recreation opportunity because they would be legally closed by CFR.

Isolated conflicts between motorized and non-motorized trail users would continue, but be minimized by the abundant non-motorized trails available.

Cross-country Travel Opportunity

The Forest Plan amendments in Alternatives B, C, and D would prohibit cross-country motorized travel on the 2.6 million acres of National Forest System land currently open in conformance with the Travel Management Rule. As described in the Existing Condition section, approximately 675,000 acres of this 2.6 million are flat and open enough for vehicles to pass, and many miles of unauthorized trails have been developed in these areas, however there is no complete inventory of the number of miles of unauthorized trails so the loss cannot be quantified except by these acres. Only 33 acres of cross-country travel would remain at Moon and Funny Rocks.

Implementation of these alternatives would result in a substantial loss of motorized recreation opportunities. Motorized vehicles would only be allowed on designated Forest Service System roads and motorized trails. All unauthorized trails and roads that are not part of the Forest Service Transportation system would also be closed to motorized travel. Thousands of people use the unauthorized routes each year, so these people would be displaced to riding or driving on open Forest

System roads or motorized trails. This could lead to slightly increased traffic on the roads; however the most noticeable increase in traffic would likely be on motorized trails. The relatively limited number of miles of motorized trails (998 miles total) would still be open. Motorcycles (single-track vehicles) would be allowed on all 998 miles, while vehicles over 50 inches wide would be restricted to 243 miles, and ATVs (dual track vehicles under 50 inches wide) would be restricted to the 20 miles open to ATVs in addition to the 243 miles open to vehicles over 50 inches wide. The additional traffic on these system trails could make them more crowded, and potentially reduce the quality of the recreation experience for the riders.

Those who drive motor vehicles cross-country would no longer be able to do so. These drivers could be displaced to other public and private lands that provide cross-country travel opportunities. Hunters would no longer be able to use vehicles to travel cross-country to hunt and retrieve game. Some may choose to park and hike to hunt, while others may choose to use horses, hunt on other nearby public or private lands, or choose not to hunt at all.

The closure of the 2.6 million acres currently open for cross-country travel, including the 675,000 acres where the motorized traffic is likely concentrated would substantially reduce conflicts between motorized and non-motorized recreationists in these areas, and address safety concerns raised by the non-motorized recreation community. Isolated conflicts would likely continue on the 998 miles of designated motorized trail. Non-motorized recreationists would no longer encounter motorized vehicles off National Forest System roads and trails, or outside Moon and Funny Rocks, There would be a large increase in potential non-motorized recreation opportunities across the forest, and non-motorized recreationists would not be displaced trying to avoid conflict with motorized recreation activities.

Illegal Motorized Use

Once the travel plan is implemented, it is expected that most visitors would comply with the Motor Vehicle Use Map. Under all action alternatives, however, there is potential for illegal motorized use to continue in some areas, although the location, duration and type of illegal use cannot be predicted. It is reasonable to assume there would be increased violations during the initial years of implementation as it will take time to familiarize the public with the new rules.

Effects of Limitations on Motorized Access for Dispersed Camping in Alternatives B, C, and D

Access to Dispersed Camping

Alternatives B, C, and D would not put any limitations on dispersed camping itself, but would limit motorized access for dispersed camping. The motorized access would be limited to existing routes leading to established campsites within designated corridors, so motorized access to dispersed camping would only occur where it is currently established. Each alternative includes designated corridors for motorized access to dispersed camping, but the miles of corridors and placement varies by alternative, as described below. The locations of the corridors are shown on the Alternative Maps in the analysis file. Each alternative would permit motor vehicle use for dispersed camping along existing routes to established campsites within designated corridors for up to 300 feet from the centerline of the road. If an existing dispersed site is located further from the road than the designated corridor width of 300 feet from the centerline of the road, visitors would need to park their vehicle within the corridor and access the dispersed site by non-motorized means. Access to roadside campsites would not change with any

alternative, since people would still be allowed to park within 30 feet of open roads. Although corridors would exist on all roads, motorized access for dispersed camping would be limited to existing routes to established campsites, so motorized access to dispersed camping would only occur where it is currently established.

Additionally, these alternatives would prohibit motor vehicle use within 100 feet of existing water bodies within designated corridors except at Improved Sites³. Consequently, except at Improved Sites all visitors would need to park their motorized vehicle at least 100 feet from the water and access water-front dispersed campsites by non-motorized means. People would no longer be allowed to park trailers or recreational vehicles on the water's edge, except at Improved Sites⁴. Some visitors, who strongly desire to park on the edge of a river, stream or lakeshore, may be displaced to other private or public lands or would not be able to experience this type of desired recreation opportunity.

Along open roads without corridors, visitors would need to park their vehicle within 30 feet of the road and access the desired dispersed site by foot or other non-motorized means of travel. Use at the existing dispersed campsites not located within a corridor and further than 30 feet from a designated road could decrease, since many dispersed campers would be unwilling to park along a road, and carry camping gear to the campsite, potentially leaving their vehicle out-of-sight, and less accessible. This would be even more likely for people camping with recreational vehicles.

The 2009 survey of existing dispersed campsites across the Forest identified 1,855 campsites, as described earlier in the Existing Condition section, with 1,115 drive-in sites, and 740 roadside sites. This survey has not been repeated, and is not considered to be a complete and thorough inventory of all dispersed camping opportunities on the Forest. It does, however, provide important information about the approximate number of sites, and their general distribution along the Forest Service road system. The survey showed that sites are not evenly distributed along all open roads, but tend to be concentrated along rivers, streams, and lakes. There are many established sites at higher locations, not necessarily near water, but in prime hunting areas. The factors that lead to the establishment of each site are a function of open road access, relatively flat ground, vegetation open enough to allow vehicles to pass, and a desirable destination, such as water or hunting area. Roughly 75% of the established sites are within 300 feet of an open road.

Using a GIS analysis of the location of the 1,115 drive-in sites, 773 are within 300 feet of an open road, and at least 100 feet away from water (river, stream, or lake), all of which would be accessible by vehicles in Alternative D. Also using GIS, 626 of the 1,115 drive-in campsites would fall within the corridors in Alternative B, and 449 would fall within the Alternative C corridors. The approximate percentage of drive-in campsites falling with the corridors in the alternatives was calculated as follows:

- Alternative B: 626 campsites/1,115 campsites = 0.561, rounded to 56%
- Alternative C: 449 campsites/1,115 campsites = 0.402, rounded to 40%
- Alternative D: 773 campsites/1,115 campsites = 0.693, rounded to 69%

³ Driving motor vehicles closer than 100 feet to water would be authorized at Improved Sites, within the limitation established at each site.

⁴ Improved Sites are described in Chapter 2 and the Existing Condition section above. The Forest Service has taken steps to reduce environmental impacts from motor vehicle use at these sites. The sites are identifiable on the ground by the presence of barrier rocks or logs defining the access route, buck and pole fences limiting how closely motorized vehicles can be driven to water, defined access trails to the water, and other constructed features.

An important distinction in determining the effect on motorized access limitations to dispersed camping is estimating the percentage of established drive-in campsites that would be located along roads without corridors in each alternative. This was estimated as follows:

- Since Alternative D would have corridors on all open roads, the GIS analysis determined there are 773 drive-in campsites along open roads within 300 feet of the road and not closer than 100 feet to water. The other 342 drive-in campsites (1,115-773 = 342) campsites are either farther than 300 feet from the road, or closer than 100 feet to water. Therefore, a baseline of 773 drive-in campsites was used for comparison for all action alternatives based on rule parameters and water setbacks.
- GIS analysis determined that 626 campsites would fall within corridors in Alternative B. Therefore 773 campsites – 626 campsites = 147 drive-in campsites would be along roads without Alternative B corridors.
- The percentage of drive-in campsites located along roads without corridors in Alternative B would be 147 campsites/773 campsites = 0.190, rounded to 19%.
- GIS analysis determined that 449 campsites would fall within corridors in Alternative C. Therefore, 773 campsites – 449 campsites = 324 drive-in campsites would be along roads without Alternative C corridors.
- The percentage of drive-in campsites located along roads without Alternative C corridors would be 324 campsites/773 campsites = 0.419, rounded to 42%.

The following table displays this information, in addition to the size of the corridors, and set-back from water. When using a campsite located within a corridor, visitors would be able to drive a motorized vehicle on the established access route the entire distance from the road to the campsite. Some of the established campsites would be located farther than 300 feet from a road and thus fall outside of the designated corridor or are closer than 100 feet to water within the corridor. As described above, in these locations, visitors would be able to drive their vehicles on existing access routes only part-way to the campsite. Other campsites would be located along roads with no corridors. Visitors would have to park within 30 feet of designated roads and use a non-motorized method of accessing the campsites (such as walking, using pack animals, or carts, for example).

Table 8—Established Campsite Motorized Access Information and Comparison by Alternative*

	Alternative B	Alternative C	Alternative D
Corridor width (feet), from the centerline, on both sides of the road	300 feet	300 feet	300 feet
Setback from water (feet)	100 feet**	100 feet**	100 feet**
Miles of designated corridors	1,680 miles	1,492 miles	5,366 miles
Approximate percent of established dispersed sites within corridors and further than 100 feet from water	56%	40%	69%
Approximate percent of established dispersed	19%	42%	0%

campsites located along roads without corridors			
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*The designation of corridors does not exist under current management, and are not included in Alternative A as motor vehicle travel is permitted off of National Forest System routes unless specifically closed by Forest Order or as listed in the 2005 Okanogan National Forest Travel Plan; therefore 100% of the existing 1,115 campsites would continue to be available for access by motorized vehicle.

**There is an exception to the 100' setback requirement at Improved Sites.

Alternatives B and C would result in a substantially reduced opportunity for motor vehicle access to drive-in dispersed camping sites as compared to Alternatives A and D. Even Alternative D would result in reduced motorized access since 31% of the existing campsites fall outside of corridors or within 100 feet of water. Decreased direct motor vehicle access to dispersed camping sites off of roads may particularly displace visitors with recreational vehicles, whose camping choices and opportunities would be limited. Many dispersed sites that would be inaccessible by motor vehicle may be located adjacent to streams, rivers or other water bodies, resulting in decreased availability of this highly desired recreation opportunity. The requirement for motor vehicle use to occur only on existing routes within existing corridors would not reduce the opportunity to access dispersed sites by motor vehicle within corridors, but would eliminate the opportunity to pioneer new routes to create new dispersed sites by motor vehicle. There would likely be some illegal use of sites, especially during a transitional period of acquainting visitors with new regulations and on roads without a corridor. There may also be development of new sites within 30 feet of roads from visitors seeking a legal place to park. The availability and use of existing roadside campsites would not change from the current condition. People would continue to be allowed to park within 30 feet of open roads to camp.

If monitoring indicates negative environmental impacts occurring from motorized access for dispersed camping, the access route would be modified to minimize or eliminate the impact. Some of the possible actions could include, but are not limited to:

- using boulders, fences, or other barriers to keep vehicles to an acceptable location;
- hardening the access route surface to minimize erosion;
- improving the access routes with water bars or other drainage structures to protect water quality;
- decommissioning and blocking the access route, or
- modifying or removing the corridor.

This mitigation could further reduce motor vehicle access to dispersed camping opportunities on a case-by-case basis, however modifications or limitations of vehicle access, short of decommissioning or blocking the access routes, have been successful at several Improved Sites across the forest, so it is likely that limitations on vehicle access, while allowing access to continue, would be adequate to mitigate impacts.

ALTERNATIVE B

In Alternative B, corridors would be designated on 1,680 miles of road (1,680 miles/5,366 miles of open road = 0.313, rounded to 31% of open roads) which would allow complete motorized access from the road to approximately 56% of existing drive-in dispersed campsites. In addition, partial motorized access would be provided to those campsites that are located outside the corridor boundaries or closer than 100 feet to water along roads with corridors (approximately 25% of existing drive-in campsites).

This may influence the use of these campsites, however the ability to drive a motor vehicle close to a chosen campsite would likely be sufficient for most visitors.

Approximately 19% of established drive-in campsites would be located along roads with no corridors. These campsites are located anywhere between the roadside to several hundred feet from the road. For those located a distance from the road, visitors would need to park along the open road, and access the campsite by a non-motorized means. This would substantially reduce the quality of the camping experience for most, and would likely lead to many of the drive-in campsites no longer being used. People would not be able to drive recreation vehicles to or near the campsites located off the roads outside of corridors. For those who do leave their vehicle parked along the road and carry camping equipment to the campsite, their vehicles could be out-of-sight while they camp. It is likely that many of the people accustomed to using these sites would be displaced to campsites within or adjacent to corridors. Since the only authorized use of a motor vehicle within a corridor would be along an existing route to an established campsite, there may not be enough established routes within corridors to absorb the displaced campers, so overall access and availability to dispersed camping would decline in some areas during the most popular camping times.

Alternative C

Alternative C would modify the corridor pattern in Alternative B to eliminate corridors in Critical Fish Habitat. It would remove corridors from the Chewuch River and Eightmile Creek on the Methow Valley Ranger District, the Upper Cle Elum Valley and Teanaway River on the Cle Elum Ranger District, and the Wenatchee River/Little Wenatchee River and Rainy Creek on the Wenatchee River Ranger District. There would be no difference in the corridor placement between Alternatives B and C on the Chelan, Entiat, Naches, or Tonasket Ranger Districts.

There would be 1,492 miles of corridor (1,492 miles/5,366 miles of open road = 0.278, rounded to 28% of open roads) with the implementation of Alternative C, with approximately 40% of existing drive-in campsites falling within the corridors. As described under Alternative B, there would be partial motorized access to those campsites that are located outside the corridor boundaries or closer than 100 feet to water along roads with corridors, or approximately 18% of the existing campsites. This may influence the use of these drive-in campsites, however the ability to drive a motor vehicle close to a chosen campsite would likely be sufficient for most visitors.

Approximately 42% of established campsites would be located along roads with no corridors. These campsites are located anywhere between the roadside to several hundred feet from the road. For those located a distance from the road, visitors would need to park along the open road, and access the campsite by a non-motorized means. This would substantially reduce the quality of the camping experience for most, and would likely lead to many of the campsites no longer being used. People would not be able to drive recreation vehicles to or near the campsites located off the roads. For those who do leave their vehicle parked along the road and carry camping equipment to the campsite, their vehicles could be out-of-sight while they camp. It is likely that many of the people accustomed to using these sites would be displaced to campsites within or adjacent to corridors. Since the only authorized use of a motor vehicle within a corridor would be along an existing route to an established campsite, there is a high likelihood that there would not be enough established routes within corridors to absorb the displaced campers, so overall access and availability to dispersed camping would decline substantially.

The potential impacts to motorized recreation from Alternative C would be intensified with the removal of the corridors within 300 feet of Critical Fish Habitat. The Chewuch River, Eightmile Creek, Upper Cle Elum Valley, Teanaway River, Wenatchee River/Little Wenatchee and Rainy Creek are some of the most popular dispersed camping areas on the Forest. There would be no motorized access to the established drive-in campsites in these areas. The established sites are popular because of their proximity to water, and removing the ability for visitors to drive to or near these established sites would cause the greatest decrease in motorized access to dispersed camping, and subsequently the availability of dispersed camping opportunities, of any of the alternatives.

Alternative D

Alternative D would have the least impact to dispersed camping, compared to Alternatives B and C. There would be corridors on every road, which would allow complete motorized access from the road to approximately 70% of existing drive-in dispersed campsites. There would be partial motorized access to remaining campsites that are located outside the corridor boundaries or closer than 100 feet to water along roads with corridors. This may influence the use of these drive-in campsites, however the ability to drive a motor vehicle close to a chosen campsite would likely be sufficient for most visitors.

There may be some displacement of campers with implementation of Alternative D, especially ones wanting to park recreation vehicles directly adjacent to rivers and lakes. These people would likely be displaced to developed campgrounds on the Forest, or private campgrounds or areas that allow unconstrained motor vehicle access to water. It is likely that there would be an adequate number of established campsites and access routes to meet the current demand, although the most popular areas would remain crowded, with competition for the best spots.

WATV Opportunities

Alternatives B and D

Alternatives B and D would close all maintenance level 1 roads to motorized vehicles, including WATVs, reducing potential riding opportunities by 2,577 miles. As discussed in the current condition section above, many of these roads are impassible, or not being used. Others are too short to offer a meaningful WATV riding opportunity, so the loss of miles actually being used by ATVs or WATVs would be less than the total. Portions of maintenance level 1 roads that are part of National Forest System ATV or 4x4 trails would remain open to WATVs.

This loss of maintenance level 1 roads would be offset by opening 350 miles of National Forest System roads to WATVs. These routes would be relatively high-mileage, and create loops and links between towns and SnoParks on every ranger district. These would be in addition to the 125 miles of mixed use road that would also be open to WATV, for a total of approximately 475 miles of open road riding opportunities for WATVs. Each new WATV route is summarized below. Refer to the maps for Alternatives B and D for complete location information.

- The Table Mountain Route would open approximately 41 miles of currently open road to WATVs, linking the Blewett SnoPark at the Blewett Summit along Highway 97 to the town of Liberty, and to the Reecer SnoPark near Ellensburg.

- The Thunder Mountain Route would open approximately 91 miles of road, linking the town of Conconully to the East Chewuch Road just north of Winthrop, the Toats Coulee Road west of Tonasket, the North Summit SnoPark along Highway 20 at the Loup Loup Summit, and the Beaver Creek Campground on Washington State Department of Fish and Wildlife land east of Winthrop.
- The Bald Mountain Route would open approximately 34 miles of road, linking the Hog Ranch, Dipping Vat, and Cow Canyon Roads, and connecting to the existing 4x4 trail number 4W644 west of Bald Mountain.
- The Clover Springs Route would open approximately 50 miles creating 3 interconnected loops by tying into trail number 4W696 at the Clover Springs Trailhead and Forest Road 1600.
- The Entiat Ridge Route would open approximately 72 miles and link the Lower Chiwawa Trailhead to Forest Road 5700 near Entiat and Forest Road 7401 to the Derby Canyon Road near Peshastin.
- The Grade-Oss Route would open approximately 62 miles and link the Black Canyon SnoPark near Pateros to the Echo Valley Ski Area, and create a loop along Forest Roads 8200 and 8020.

Allowing WATVs on these routes would increase the overall volume of traffic on the roads, since they are all open to highway vehicles. Data that could be used to estimate the actual increase does not exist, however it is reasonable to assume the increase would be similar to the volume of ATV traffic typically seen on mixed use roads. Some of the riders currently using the mixed use routes have licensed their vehicles to meet the requirements of a WATV, and these riders would be able to disperse onto the newly opened routes. This would potentially decrease traffic on the mixed use roads, and spread the riders from the current 125 miles to the total 475 miles.

There would likely be some increase in the overall number of riders. A total of 1,774 WATVs and 5,247 ATVs were licensed in Washington State in 2015, according to the Washington State Department of Licensing website. This totals 7,021 licensed WATVs/ATVs state-wide, of which approximately 25% are WATVs. Given that this relatively small percentage of ATVs are licensed to ride on the WATV routes, it is safe to assume that the number of WATVs on the new routes would be small in comparison to highway licensed vehicle traffic on the routes.

Alternative C

Alternative C would not open any National Forest System roads to WATVs, so the effects would be the same as with Alternative A. Opportunities for WATVs would be no different than those for non-licensed ATVs and OHVs. WATVs would continue to be allowed to operate on the 125 miles of mixed use roads, open to non-licensed ATVs/OHVs, 263 miles of motorized trail (designated for ATVs or 4x4s), and some maintenance level 1 roads. As discussed above, WATVs would be prohibited on the 2,557 miles of maintenance level 1 roads with implementation of Alternative C.

The mixed use roads providing links between motorized recreation opportunities on adjoin state and county land, and between segments of motorized trails would still be open to WATVs. They would continue to provide links between motorized recreation opportunities on adjoining state and county

lands, or between segments of motorized trails where road travel is needed as a connection. This important recreation opportunity on the Tonasket Ranger District would continue.

WATVs would also continue to be allowed to operate on many maintenance level 1 roads, particularly ones on the Tonasket and Methow Valley Ranger Districts, where the current travel plan map specifically states that non-licensed vehicles can be driven on roads closed with a berm. As discussed earlier, however, these maintenance level 1 roads are typically short (less than 5 miles), and would not access desirable locations, or provide loop riding opportunities. The portions of maintenance level 1 roads that are part of ATV/OHV trails would also remain open to WATVs.

Cumulative Effects

This section analyzes the cumulative effects to motorized recreation opportunities discussed in detail in the *Direct and Indirect Effects* as a result of travel planning actions when combined with past, present and reasonably foreseeable future actions on this Forest and adjoining state and federal lands.

Analysis Area & Boundary Rationale

The cumulative effects temporal boundary for recreation is the early 1900s, when the road and recreational trail system was initiated, to 10 years into the future, which encompasses the span of the RCO predictions for recreation trends. The physical boundary for this analysis includes the entire Forest and any areas directly adjacent to the Forest that are connected by motorized road or trail use. It is important to note that additions or reductions to motorized recreation opportunities on federal, state or private lands within Washington State have the potential to affect motorized use patterns across the state; however, it is not feasible to identify all ongoing and foreseeable actions and evaluate potential effects at the statewide scale. All past, present, and reasonably foreseeable future actions listed at the beginning of this chapter were considered in this cumulative effects analysis.

Past Actions

The road and trail systems on the Forest were largely built as a result of timber harvest activities, mining activities, and fire suppression activities beginning in the early 1900s. Over time, these roads and trails have received increasing recreational use and provide a variety of recreational opportunities. Some of those system trails are no longer maintained and may not provide a recreational opportunity. A portion of the Forest's trails were constructed specifically for a given recreational purpose using appropriated dollars and/or grant funding. In addition, a number of unauthorized routes (total mileage is unknown) have been created by Forest visitors in order to access dispersed recreation sites, reach viewpoints or to provide more recreation opportunities. The aggregate effects of these past actions as they affect road and trail access and recreational opportunities are displayed in the *Existing Condition* section (Page *) and under Alternative A in the *Analysis of Alternatives* section (Page *).

Ongoing (Present) and Reasonably Foreseeable Future Actions

Actions that are ongoing and planned in and adjacent to the Okanogan-Wenatchee National Forest that would act cumulatively to affect recreation are summarized in Table *

Table *—List of ongoing and reasonably foreseeable future actions that have the potential to affect recreation opportunities

Project type	Possible effect to recreation
WATV Routes	Okanogan, Chelan, Douglas, and Kittitas counties have opened most of the county roads with speed limits less than 35 miles per hour to WATVs. Many of these roads connect to National Forest System roads. The towns of Okanogan, Omak, Conconully, East Wenatchee, and Cle Elum have also opened many of the city roads to WATVs. This has increased WATV opportunities on non-National Forest System land.
Restoration & Fuels Reduction	Several restoration projects are proposed across the Forest, and would total approximately 140,347 acres of National Forest System Land. These projects, when combined with other actions, result in a temporary reduction in motorized access on roads and trails within or leading up to the treatment unit(s). New permanent or temporary roads built for timber harvest purposes are typically closed to motorized use or decommissioned after the timber harvest is complete and any road or trail tread damage during project activities would be restored to its pre-project condition (unless they are slated for decommissioning) as required by the Forest Plans. Several projects also include road closures or decommissioning, with a total of 218.5 miles of road currently planned. Road closures and decommissioning would reduce motorized access to any dispersed campsites located along those roads.
Transportation System Management	Approximately 118 miles of road would be closed or decommissioned in the Chewuch Transportation Plan. A planned 51.7 miles of road will be decommissioned in the Peshastin-Chumstick Road Decommissioning Project. These would reduce motorized access to dispersed campsites and motorized recreation opportunities.
Recreation	Several recreation projects, including construction or reroute of non-motorized trails on the Chelan and Wenatchee River Ranger Districts, dock replacement on the Chelan and Tonasket Ranger Districts, establishing ATV trailheads on the Tonasket District, converting 11.7 miles of road to trail on the Wenatchee River Ranger District, and establishing a group site in a campground on the Tonasket District, would increase overall recreation opportunities and access across the forest.

ALTERNATIVE A

Available Designated Motor Vehicle Routes

The cumulative effect of Alternative A and the past, present, and reasonably foreseeable future actions would be a reduction in roaded motorized recreation opportunities. Up to a 388.2 miles of National Forest System roads would be decommissioned as a result of reasonably foreseeable restoration and transportation management projects. The ability for motorized vehicles to be driven on maintenance level 1 roads would help off-set some of that loss, in addition to the construction of new ATV trailheads on the Tonasket Ranger District.

Cross Country Motorized Travel

There are no ongoing or reasonably foreseeable projects that would have the potential to act cumulatively to either increase or decrease the amount of cross-country motorized travel opportunities available. The cumulative effect of the past, present, and reasonably foreseeable future actions with Alternative A would be a continuation of the motorized cross-country recreation opportunities across the forest.

Motorized Access to Dispersed Camping

Up to 388.2 miles of National Forest System roads would be closed with the reasonably foreseeable future restoration and transportation management projects on the forest. This could slightly reduce motorized access for dispersed camping opportunities, however there would be no limitations on motorized access for dispersed camping with the implementation of Alternative A, so the cumulative effect would be very little change from the existing condition, and the ability for the projected increase in the number of people dispersed camping to be proved.

WATV Opportunities

The county and city roads open to WATVs would provide opportunities for the riders, however, since no routes would be open on National Forest System roads, all open routes connecting to National Forest System roads would be truncated at the National Forest System boundary. The cumulative effect would be opportunities limited to non-National Forest System roads, providing some riding options.

ALTERNATIVES B, C, AND D

Overall, the cumulative effect of Alternatives B, C, or D with the effects of other past, present and reasonably foreseeable future actions, would be a substantial reduction of motorized access to the Forest for recreational purposes; however the increases in WATV opportunities in Alternatives B and D would slightly offset this reduction. Specific reductions would be the prohibition on cross-country motor vehicle travel, the prohibition of motorized vehicles on maintenance level 1 roads, limitations on motorized access for dispersed camping, plus other projects that would close roads and trails (and therefore access to dispersed camping). The anticipated trend in the number of people dispersed camping and people driving vehicles off-road would intensify the effect.

Available Designated Motor Vehicle Routes

None of the alternatives would affect or change the current National Forest system of open roads and motorized trails. There would be a loss of some existing and potential motorized recreation opportunities with the legal CFR closure of all maintenance level 1 roads to motorized vehicles (2,557 miles). Up to 388.2 miles of roads would be closed or decommissioned under the ongoing or reasonably foreseeable restoration and transportation system management projects (refer to Table *).

Cumulatively, there would be a 2,945.2-mile reduction in the roads open to motorized vehicles, however many of the 2,557 miles of maintenance level 1 roads are not currently being used by motorized vehicles, so the actual reduction in miles would be less. This would cumulatively reduce motorized recreation opportunities, motorized recreation access to dispersed campsites and potentially the loss of connectivity or loops in the motorized road and trail system.

Cross-country Motorized Travel Opportunity

The greatest incremental effect of implementation of the travel plan would be closure of cross-country motorized travel, and the loss of motorized travel on unauthorized roads and trails that have developed as a result of past actions and activities in the areas currently legally open to cross-country travel. There are no ongoing or reasonably foreseeable projects that would have the potential to act cumulatively to either increase or decrease the amount of cross-country motorized travel opportunities available. Many unauthorized routes and areas that have developed in the past currently used by and important to motorized recreationists would no longer be legally available for motorized use, leading to a loss of motorized opportunity and/or displacement of OHV enthusiasts to available designated motorized routes or other nearby public or private lands. The projected increase in the number of people

participating in off-road driving could increase the number of people on the motorized system trails. The cumulative effect could be increased crowding and user conflict on the routes open to motorized recreationists, especially if these routes are also popular with non-motorized recreationists.

Motorized Access to Dispersed Camping

The ongoing activities across the Forest to manage dispersed campsites by maintaining structures at Improved Sites would allow the continued use of these desirable dispersed campsites. As discussed above, approximately 388.2 miles of roads would be closed or decommissioned under the ongoing or reasonably foreseeable future actions, potentially blocking access to some established dispersed campsites. These projects could add to the loss of motorized recreation access to dispersed campsites. The potential upward trend in people dispersed (primitive) camping could result in more competition for established sites, especially in the most popular dispersed camping areas.

Implementation of any of the action alternatives would result in the largest reduction to motor vehicle access to dispersed sites compared to all other restoration activities. Any past, present and reasonably foreseeable future actions would only contribute a minimal effect to overall access to dispersed camping opportunities with motor vehicles. The designation of corridors, setbacks from water bodies and requirement to use only existing routes to dispersed sites under all of the action alternatives would be a large departure from the existing condition and would result in a substantial reduction in visitors' motor vehicle access to dispersed sites across the Forest. Consequently, when combined with other past, present and reasonably foreseeable future actions as described above, Alternative C would result in the largest cumulative reduction in motorized access to dispersed camping as it would be the most restrictive (1,460 miles of corridors providing full motorized access to approximately 40% of existing sites, and eliminating motorized access along some of the most popular dispersed sites on the forest), followed by Alternatives B and D. The cumulative effect of the potential upward trend in the number of people dispersed camping and this decreased access to established sites could lead to increased violation of the MVUM regulations, or more people not being able to dispersed camp.

WATV Opportunities

The cumulative effect of allowing WATVs on 475 miles of National Forest System road in Alternatives B and D (350 miles of WATV routes plus 125 miles of mixed use roads) and the WATV opportunities on non-National Forest System roads would be the establishment of a system of WATV routes that cross ownership boundaries, and allow riders to follow routes that begin on or near private land, and continue onto National Forest System land. It would provide WATV connections between some communities, and interesting loop rides. The 2,557 miles of maintenance level 1 roads that would be closed to WATVs would offset this increase, however the quality of the actual WATV routes would be much higher than what is offered with on maintenance level 1 roads, so the actual cumulative effect would be beneficial to WATVs riders.

Since Alternative C would not open any National Forest System roads to WATVs, and would also close the 2,557 miles of maintenance level 1 roads to WATVs. The county and city roads open to WATVs would provide opportunities for the riders, however, since no routes would be open on National Forest System roads, all open routes connecting to National Forest System roads would be truncated at the National Forest System boundary. The cumulative effect would be opportunities limited to non-National Forest System roads, providing some riding options.

Compliance with Other Laws and Regulations

This analysis finds that all alternatives are consistent with all relevant laws and regulations when the proposed amendments are incorporated.

This project does not propose to designate motorized use on the Pacific Northwest National Scenic Trail or the Pacific Crest National Scenic Trail and is thus consistent with the National Trails System Act of 1968 (16 U.S.C. §§ 1241–1249) and the following standard and guideline from the Okanogan Forest Plan (USFS, 1989):

- 8-16: The Pacific Crest National Scenic Trail (PCNST) shall be closed to motorized and mechanized forms of transportation (p. 4-39).

Each of the action alternatives included in this project were developed based on direction in the travel management rule as summarized in the *Forest Service Policy* section (Page *) of this report. Each of the action alternatives would designate roads, trails and areas as open to motorized use, prohibit cross-country motorized travel, designate corridors for access to dispersed camping, and considered resource and social concerns. Therefore, this project is in compliance with the travel planning rule. Since Alternative A, the no-action alternative, would not designate roads, trails and areas for motorized use, Alternative A would not be in compliance with the travel management rule.

The action alternatives would provide a mix of motorized and non-motorized recreation opportunities consistent with ROS and Management Area guidelines. Motorized use is not proposed within any prescription areas or management areas identified as semi-primitive non-motorized ROS class. Thus, this project is consistent with the following Okanogan Forest Plan and Wenatchee Forest Plan standards and guidelines (USFS, 1989):

- 8-1: This project makes no changes to system trail opportunities or developed recreation, and the alternatives provide different levels of motorized dispersed recreation opportunities, consistent with the goals and ROS class of the management areas (USFS 1989, p. 4-38).
- 8-7: Off road vehicle opportunities would continue to be provided on system roads and system motorized trails, consistent with management areas. No changes would occur to off-road motorized use shown on the Okanogan Travel Plan except as required by the Travel Management rule to close the Forest to cross-country motorized travel, and to be consistent with Forest Service Handbook direction for management of maintenance level 1 roads (USFS 1989, p. 4-38).
- 8-8: Closing the Forest to cross-country motorized use will minimize damage to soil, water, vegetation and other resources, and minimize conflicts in those areas between motorized and non-motorized users.
- 17-3: This standard and guideline is being amended through this project.

Alternatives B, C, and D would all be consistent with the forest plan standards and guidelines amended as part of this action.

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