



United States Department of Agriculture

Draft Environmental Assessment

Motorized Travel Management for the Okanogan-Wenatchee National Forest



Okanogan-Wenatchee National Forest

Chelan, Kittitas, Okanogan, Skagit, and Yakima Counties, Washington

June 8, 2016

This page left blank.

TABLE OF CONTENTS

Chapter 1. Purpose and Need	1-1
Background.....	1-1
Document Organization.....	1-3
Analysis Area.....	1-4
Regulatory Framework.....	1-6
Purpose and Need for Action.....	1-9
Proposed Action.....	1-11
Decision Framework.....	1-14
Public Involvement.....	1-15
Issues.....	1-17
Chapter 2. Alternatives	2-1
Introduction.....	2-1
Alternative Development.....	2-1
Alternatives Considered But Eliminated.....	2-2
Alternatives Considered in Detail.....	2-6
Alternative A.....	2-6
Action Alternatives.....	2-7
Elements Common to Alternatives B, C, and D.....	2-8
Elements Specific to Action Alternatives.....	2-10
Alternative B.....	2-11
Alternative C.....	2-11
Alternative D.....	2-11
Mitigation Measures for Alternatives B, C, and D.....	2-12
Monitoring Plan.....	2-13
Preferred	
Alternative.....	2-
16	
Comparison of Alternatives.....	2-17
Chapter 3. Existing Condition and Environmental Consequences	3-1
Introduction	3-1
3.0 Past, Present, and Reasonably Foreseeable Future Actions	3-2
3.1 Recreation	3-9
Existing Condition.....	3-12
Environmental Consequences.....	3-28
Compliance with Laws and Regulations.....	3-43
3.2 Aquatic Biology, Hydrology, and Soil	3-44
Existing Condition.....	3-63
Environmental Consequences.....	3-68
Compliance with Laws and Regulations.....	3-88
3.3 Wildlife	3-93
Threatened, Endangered and Proposed Species.....	3-96
Gray Wolf.....	3-96
Grizzly Bear.....	3-104
Canada Lynx.....	3-112
Critical Habitat for Canada Lynx.....	3-121
Marbled Murrelet.....	3-128
Northern Spotted Owl.....	3-133
Critical Habitat for Northern Spotted Owl.....	3-146
Fisher.....	3-150
Management Indicator Species.....	3-159
Mature and Old Growth Conifer Habitat.....	3-160
Rock, Alpine, High Elevation Old-growth Conifer Habitat.....	3-168
Winter Range & Winter Range Shrub, Grass and Cover.....	3-174
Dead and Defective Tree Habitat.....	3-182
Sensitive Species.....	3-183
Survey and Manage Species.....	3-186
Landbirds.....	3-186
Sensitive Species, Survey and Manage Species and Focal Landbirds Species Analysis.....	3-189
Bighorn Sheep.....	3-189
Dry Mesic Habitat.....	3-196
Cold Moist Habitat.....	3-204
Cold Dry Habitat.....	3-212

Riparian and Wetland Habitats.....	3-221
Cliff/Talus Habitats.....	3-230
Non-Forest Habitats.....	3-236
3.4 Botany.....	3-244
Existing Condition.....	3-245
Environmental Consequences.....	3-251
Consistency Findings.....	3-262
3.5 Invasive Species.....	3-264
Existing Condition.....	3-265
Environmental Consequences.....	3-268
Compliance with Laws and Regulations.....	3-275
3.6 Heritage Resources.....	3-276
Existing Condition.....	3-278
Environmental Consequences.....	3-208
Consistency Findings.....	3-284
3.7 Economics.....	3-285
Existing Condition.....	3-285
Environmental Consequences.....	3-299
Compliance with Laws, Regulations, and Management Direction.....	3-304
3.8 Environmental Justice.....	3-305
Existing Condition.....	3-305
Environmental Consequences.....	3-309
Compliance with Laws, Regulations, and Management Direction.....	3-309
3.13 Specifically Required Disclosures.....	3-310
Wild, Scenic, and Recreation Rivers.....	3-310
Inventoried Roadless and Potential Wilderness Areas.....	3-311
Special Use Authorizations.....	3-312
Unavoidable Adverse Impacts.....	3-312
Short-term Uses and Long-term Productivity.....	3-315
Irreversible and Irrecoverable Commitments of Resources.....	3-316
Possible Conflicts with Other Use Plans, Policies, and Controls.....	3-316
Energy Requirements & Conservation Potential/Natural or Depletable Resources Requirements and ConservatiPotential.....	3-316
Urban Quality, Historic and Cultural Resources, and the Design of the Built Environment.....	3-317
Prime Farmlands, Rangelands, Forestlands, and Parklands.....	3-317
Wetlands and Floodplains.....	3-317
Section 504 of the Rehabilitation Act of 1973.....	3-317
Clean Air Act.....	3-318
Literature Citations.....	Citations-1
Appendix A. Ongoing and Reasonably Foreseeable Actions.....	A-1
List of Maps, Tables, and Figures	
Chapter 1. Purpose and Need	
Figure 1. Analysis Area Map.....	1-5
Chapter 2. Alternatives	
Table 2-1. Comparison of Alternatives.....	2-17
Chapter 3. Existing Condition and Environmental Consequences	
Table 3.0-1. Ongoing and Reasonably Foreseeable Future Actions.....	3-4
Table 3.1-1. Land-based Activity Participation on the Okanogan-Wenatchee National Forest.....	3-14
Table 3.1-2. National Recreation Participation Trends 1982-2009.....	3-16
Table 3.1-3 Washington State Participation Rates.....	3-17
Table 3.1-4. RCO Recreation Participation Projections.....	3-18
Table 3.1-5. Miles of Forest Service Roads by Maintenance Level and Mixed Use Designation within the Project Area.....	3-19
Table 3.1-6. Miles of Forest Service System Motorized Trail by Vehicle Designation within the Project Area.....	3-20
Table 3.1-7. Actions Taken to Reduce Environmental Impacts of Dispersed Camping.....	3-26
Table 3.1-8. Established Campsite Motorized Access Information and Comparison by Alternatives.....	3-33
Table 3.1-9. List of Ongoing and Reasonably Foreseeable Future Actions Potentially Affecting Recreation.....	3-39
Table 3.2-1. Special Status Fish and Species of Conservation Concern in the Project Area by Category.....	3-49
Table 3.2-2. Bull Trout Population Status.....	3-54
Table 3.2-3. Bull Trout Core Area Threats.....	3-55
Table 3.2-4. PCEs for Upper and Mid-Columbia Steelhead and Upper Columbia Chinook Salmon Pertinent to the Travel Management Project and Life Stage Each PCE Supports.....	3-57
Table 3.2-5. Management Indicator Species in Okanogan and Wenatchee Forest Plans.....	3-59
Table 3.2-6. Comparison of Hydrology, Fish, and Soil Indicators by Alternative.....	3-68
Table 3.2-7. Acres of Designated Motorized Access Corridor and Approximate Number of existing Access Routes with in RR/RHCA and As a Percentage of Total RR/RHCA Acres, and Within 300 Feet of Critical Fish Habitat.....	3-81

Table 3.2-8. Ongoing and Reasonably Foreseeable Future Actions	3-84
Table 3.3-1. Listed and Proposed Wildlife Species considered in Assessment	3-96
Table 3.3-2. Wolf Security Habitat by Subbasin.....	3-97
Table 3.3-3. Security Habitat for Wolves by Alternative	3-199
Table 3.3-4. Wolf Habitat Within Corridors Where Motorized Use Would Likely Occur, by Alternative	3-100
Table 3.3-5. Reasonably Foreseeable Future Actions Potentially Affecting Wolves.....	3-102
Table 3.3-6. Grizzly Bear Core Acres by Bear Management Unit (BMU)	3-105
Table 3.3-7. Amount of Core Habitat by Alternative.....	3-107
Table 3.3-8. Acres and Percent of Corridors within Grizzly Bear Recovery Zone by Alternative.....	3-108
Table 3.3-9. Reasonably Foreseeable Future Action that Could Affect Grizzly Bear	3-110
Table 3.3-10. Acres and Percent of Corridors Within Lynx Habitat by Alternatives B, C, and D	3-116
Table 3.3-11. Reasonably Foreseeable Future Actions Affecting Lynx Habitat	3-118
Table 3.3-12. Miles of Trail and Road Within Lynx Analysis Units which Comprise Critical Habitat.....	3-122
Table 3.3-13. Acres and Percent of Corridors Within Critical Lynx Habitat by Alternatives B, C, and D.....	3-124
Table 3.3-14. Reasonably Foreseeable Future Projects Potentially Affecting Critical Lynx Habitat	3-126
Table 3.3-15. Acres of Marbled Murrelet Zone and Late Successional Habitat Within Zone	3-128
Table 3.3-16. Late-Successional Security Habitat Estimate for Marbled Murrelet	3-129
Table 3.3-17. Increase in Late-Successional Security Habitat from current Condition.....	3-130
Table 3.3-18. Acres and Percent of Corridors Within Marbled Murrelet Habitat by Alternatives B, C, and D	3-131
Table 3.3-19. Late-Successional Habitat on the Okanogan-Wenatchee National Forest by Subbasin	3-135
Table 3.3-20. Security Habitat by LSRs, MLSAs, and AMA	3-137
Table 3.3-21. Late Successional Security Habitat by Subbasin	3-139
Table 3.3-22. Late-Successional Security Habitat in LSRs, MLSAs, and the AMA.....	3-140
Table 3.3-23. Acres and Percent of Corridors within LSRs, MLSAs, and AMA.....	3-143
Table 3.3-24. Reasonably Foreseeable Future Actions that Could Impact Spotted Owls	3-148
Table 3.3-25. Acres and Percent of Corridors Within Critical Spotted Owl Habitat by Alternatives B, C, and D.....	3-151
Table 3.3-26. Fisher Habitat by Subbasin.....	3-152
Table 3.3-27. Miles of Road and Trails Within Fisher Habitat by Subbasin	3-153
Table 3.3-28. Change in Motorized Access in fisher Habitat by Alternative.....	3-154
Table 3.3-29. Acres and Percent of Corridors in Fisher Habitat by Alternatives B, C, and D	3-156
Table 3.3-30. Reasonably Foreseeable Future Actions Affecting Fisher Habitat.....	3-160
Table 3.3-31. Summary of Management Indicator Species.....	3-162
Table 3.3-32. Late Successional Security Habitat by Subbasin	3-163
Table 3.3-33. Late Successional Security Habitat by Alternative	3-164
Table 3.3-34. Acres and Percent of Corridors Within Last Successional Habitat by Alternatives B, C, and D	3-166
Table 3.3-35. Reasonably Foreseeable Future Actions Potentially Affecting Last Successional Habitat	3-169
Table 3.3-36. Access in Mountain Goat Habitat by Subbasin	3-170
Table 3.3-37. Change in Miles of Motorized Access in Mountain Goat Habitat Between Alternatives	3-171
Table 3.3-38. Acres and Percent of Corridors in Mountain Goat Habitat, by Alternatives B, C, and D.....	3-175
Table 3.3-39. Special Status Species for Winter Range & Winter Range Shrub, Grass, and Cover	3-176
Table 3.3-40. Area Outside the Zone of Influence of a Road or Motorized Trail.....	3-177
Table 3.3-41. Change in Percent of Subbasin Influenced by Roads and Motorized Trails by Alternative	3-178
Table 3.3-42. Acres and Percent of Corridors by Alternatives B, C, and D.....	3-180
Table 3.3-43. Reasonably Foreseeable Future Actions That Could Affect Deer and Elk Habitat.....	3-183
Table 3.3-44. Special Status Species for Dead and Defective Tree Habitat.....	3-184
Table 3.3-45. Sensitive and Strategic Species Potentially Affected by Travel Management Alternatives	3-186
Table 3.3-46. Survey and Manage Species and Associated Habitat.....	3-187
Table 3.3-47. Focal Landbird Species Habitat Potentially Affected by Alternatives	3-187
Table 3.3-48. Focal Landbird Species Habitat Not Affected by Alternatives.....	3-190
Table 3.3-49. Bighorn Sheep Habitat on the Okanogan-Wenatchee National Forest.....	3-191
Table 3.3-50. Security Habitat Outside the Influence of Roads and Trails.....	3-192
Table 3.3-51. Acres and Percent of Corridors in Big Horn Sheep Habitat, By Alternatives B, C, and D.....	3-196
Table 3.3-52. Dry and Mesic Forest Species	3-197
Table 3.3-53. Existing Access in Dry and Mesic Habitats	3-198
Table 3.3-54. Miles of Open Roads and Motorized Trails in Alternatives, and Comparative Changes.....	3-199
Table 3.3-55. Acres and Percent of Corridors in Dry Mesic Habitat, by Alternatives B, C, and D	3-202
Table 3.3-56. Reasonably Foreseeable Future Actions Potentially Affecting Dry Mesic Habitat	3-202
Table 3.3-57. Cold Moist Habitat Species.....	3-205
Table 3.3-58. Cold Moist Habitat by Subbasin	3-205
Table 3.3-59. Miles of Road and Trails Within Cold Moist Habitat by Subbasin	3-206
Table 3.3-60. Change in Motorized Access in Cold Moist Habitat by Alternative.....	3-207
Table 3.3-61. Acres and Percent of Corridors in Cold Moist Habitat, by Alternatives B, C, and D	3-208
Table 3.3-62. Reasonably Foreseeable Future Actions Potentially Affecting Cold Moist Habitat.....	3-210
Table 3.3-63. Cold Dry Habitat Species.....	3-212
Table 3.3-64. Cold, Dry Habitat by Subbasin.....	3-213
Table 3.3-65. Security Habitat within Cold Dry Habitat by 4 th Field HUCs	3-214
Table 3.3-66. Acres and Percent of Corridors in Cold Dry Habitat, by Alternatives B, C, and D	3-216
Table 3.3-67. Reasonably Foreseeable Future Actions Potentially Affecting Cold Dry Habitat.....	3-219
Table 3.3-68. Riparian and Wetland Habitat Species.....	3-222
Table 3.3-69. Acres and Percent of Corridors in Riparian Habitat, by Alternatives B, C, and D.....	3-225

Table 3.3-70. Reasonably Foreseeable Future Actions Potentially Affecting Riparian/Wetland Habitat	3-227
Table 3.3-71. Cliff/Talus Habitat Species.....	3-231
Table 3.3-72. Acres of Cliff/talus Habitat by Subbasin	3-231
Table 3.3-73. Acres and Percent of Corridors in Cliff/Talus Habitat Within Corridors by Alternatives B, C, and D	3-233
Table 3.3-74. Non-Forest Habitat Species.....	3-236
Table 3.3-75. Acres and Percent of Corridors in Non-forest Habitat by Alternatives B, C, and D	3-239
Table 3.4-1. Standards and guidelines for Survey and Manage Plant Species	3-245
Table 3.4-2. Sensitive and Survey & Manage Plant Species	3-247
Table 3.4- 3. Riparian and old growth habitat Associated Species.....	3-248
Table 3.4-4. Total Acres Open to Cross Country Motorized Travel, and Acres of Riparian and Late Successional/ Old Growth Habitat Open to Motorized Travel, by Alternative	3-253
Table 3.4-5. Size and Acres of Corridors, and Acres Where Motorized Use would Likely Occur, by Alternative B, C & D ..	3-255
Table 3.4-6. Comparison of Acres of Riparian and Late Successional Habitat in Corridors by Alternative	3-255
Table 3.4-7. Species found in Riparian Habitat within Corridors	3-255
Table 3.4-8. Survey and Manage Species Within Corridors.....	3-256
Table 3.4-9. Number of Known Sites Found Within Corridors by Species by Alternative	3-257
Table 3.4-10. Endangered, Sensitive and S&M known sites Within Proposed Corridors by Alternative	3-259
Table 3.4-11. Summary of Effects of Forest-wide Ongoing and Foreseeable Future Actions That May Affect Botanical Resources.....	3-262
Table 3.5-1. Acres of Invasive Infestation by Species.....	3-266
Table 3.5-2. Total Acres and Acres Infested with Invasive Species Eithin Corridors, by Alternative	3-270
Table 3.6-1. Number of Heritage Resources in Corridors by Alternative	3-282
Table 3.6-2. Heritage Resource Probability Acres Within Corridors	3-282
Table 3.7-1. Current population and growth Trends.....	3-286
Table 3.7-2. Population Density.....	3-287
Table 3.7-3. Median Age	3-288
Table 3.7-4. Per Capita Personal Income	3-289
Table 3.7-5. Earnings Per Job	3-290
Table 3.7-6. Earnings per job Trends	3-290
Table 3.7-7. Unemployment rates by County.....	3-291
Table 3.7-8. Estimated Income and Labor Income Effects for All Recreation Use Reported by NVUM	3-294
Table 3.7-9. Estimated Employment and Labor Income Effects from OHV use.....	3-295
Table 3.7-10. Current Role of Forest's Recreation Visitors Spending to the Local Economy.....	3-296
Figure 3.7-1. Local Industry Employment Distribution.....	3-297
Figure 3.7-2. Local Industry Labor Income Distribution.....	3-298
Table 3.7-11. Values and Issues Listed by Community of Interest.....	3-299
Table 3.8-1. Population by Race	3-306
Table 3.8-2. Poverty Rates.....	3-307
Table 3.8-3. Poverty by Race and Ethnicity	3-308
Table 3.9-1. Rivers Potentially Eligible for Wild and Scenic River Designation	3-310
Table 3.9-2. Acres of IRA and PWA Open to Cross Country and Within Corridors by Alternative	3-312
Table 3.9-2. Unavoidable Adverse Effects.....	3-313

Appendix A. Present, Ongoing, and Reasonably Foreseeable Future Actions

Table A-1. Ongoing Actions on the Okanogan Wenatchee National Forest	A-1
Table A-2. Reasonably Foreseeable Future Actions on the Okanogan-Wenatchee National Forest.....	A-4
Table A-3. Ongoing and Reasonably Foreseeable Future Actions on non-National Forest System Land.....	A-9
Table A-4. Comparison of Impacts for Yakima Basin Alternatives	A-17