

Rocky Mountain Region

# Pike and San Isabel National Forests Public Motor Vehicle Use Environmental Impact Statement

# **Specialist Report Addendum**

Pike and San Isabel National Forests 2840 Kachina Drive Pueblo, Colorado 81008

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Acronym or Abbreviation Full Term

AOU American Ornithologists' Union

ATV all-terrain vehicle

CFR Code of Federal Regulations

DEIS draft environmental impact statement

Forest Plan Pike and San Isabel National Forests Land and Resource Management Plan

Forest Service United States Department of Agriculture, Forest Service

GIS geographic information system

INFRA Forest Service infrastructure database

ML maintenance level

MRS Minimum Road System

MVUM motor vehicle use map

NFS National Forest System

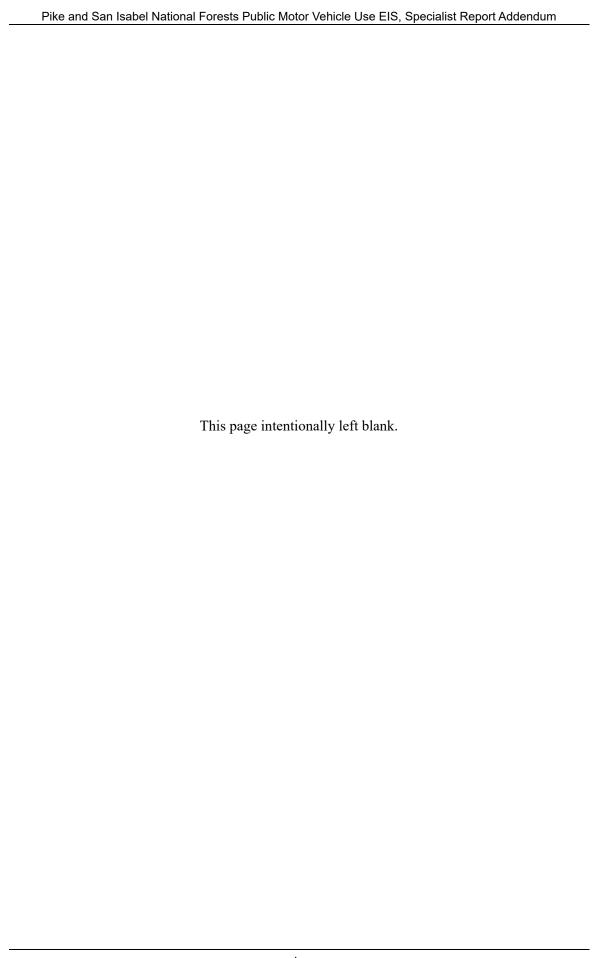
OHV off-highway vehicle

PSI Pike and San Isabel National Forests

ROS Recreation Opportunity Spectrum

TAP travel analysis process

USDA United States Department of Agriculture



#### Introduction

To comply with the Travel Management Rule of 2005 (36 Code of Federal Regulations [CFR] 212, 251, and 261), the Pike and San Isabel National Forests (PSI's) forest supervisor proposes to designate a system of roads, trails, and areas for motor vehicle use by making changes to the current National Forest System (NFS) for motorized travel. The proposed changes will revise the places where motor vehicle use is appropriate on the PSI. The proposed changes would not restrict where nonmotorized activities may take place, such as hiking, camping, horseback riding, bicycling, and hunting. As a result, the PSI is preparing a draft environmental impact statement (DEIS) to analyze the potential effects from these route and area designations. The PSI completed specialist reports for various resources as part of the analysis for the DEIS. The PSI completed these reports in October 2018.

Following detailed evaluation of Alternative C by the PSI ranger districts in February 2019, the PSI modified management recommendations to address specific concerns. The PSI also selected Alternative C as the proposed action and prepared an amendment to the PSI Land and Resource Management Plan (Forest Plan) to address issues with certain roads and management areas. This specialist report addendum provides updated information that addresses the changes in Alternative C. Further, this addendum provides an explanation of the proposed action change and Forest Plan amendments.

# **Alternative C Changes**

The Alternative C original management theme emphasized a safe, efficient, and environmentally sound transportation system that allows for existing forest uses, such as access to private parcels and facilities, along with continued use by search and rescue, emergency services, utilities, and firefighters. This included the routes in the United States Department of Agriculture, Forest Service (Forest Service) infrastructure database (INFRA), plus urgent priorities such as limited additions and modifications identified by the PSI in the travel analysis process (TAP). The PSI used agreed upon TAP/travel analysis report ratings in defining the management for Alternative C, as described in greater detail in the DEIS. Following application of the Minimum Road System (MRS) screening criteria, the Acting Forest Supervisor requested district review of the automatic actions generated by the criteria. Many of the actions generated through this process were not compatible with current management and lacked flexibility, so Alternative C was modified.

The PSI ranger districts evaluated each route management change identified for Alternative C by the MRS screening criteria and proposed different management for approximately 1,000 roads and trails based on their resource specialists' knowledge of specific routes and related resource or use issues. Examples of these types of changes include keeping a road's status as is, instead of converting it to a trail open to all motor vehicles as prescribed by the MRS screening process, or adding specific seasonal closures or closure dates based on individual issues with biological resources or soil conditions. The revised Alternative C management theme now incorporates these route-specific concerns identified by the PSI ranger districts.

# Rationale for Selecting Alternative C as the Proposed Action

Alternative C was selected as the proposed action because it meets the purpose and need for action; it emphasizes a safe, efficient, and environmentally sound transportation system, and it provides management flexibility to address resource impacts.

# **Alternative C Updated Totals**

Provided below are all tables within the DEIS that reflect any new totals resulting from the Alternative C modifications. These are intended to update the specialist reports, which include the totals from the original Alternative C. The updated information is presented by resource type to correlate with the original specialist reports.

#### **Alternatives**

Table 1. Summary of the NFS Routes Open to Public Motor Vehicle Use, by Alternative

Management Classification	Alternative A <sup>1</sup> No Action	Alternative B <sup>2</sup>	Alternative C	Alternative D	Alternative E
Roads Percent Change <sup>3</sup>	2,004.85 miles N/A	1,161.45 miles 42.07% reduction	1,792.08 miles 10.61% reduction	1,441.62 miles 28.09% reduction	969.91 miles 51.62% reduction
Trails Percent Change <sup>3</sup>	505.96 miles N/A	502.24 miles 0.74% reduction	616.63 miles 21.87% increase	984.92 miles 94.66% increase	278.39 miles 44.98% reduction
Total Routes <sup>4</sup> Percent Change <sup>3</sup>	2,510.81 miles N/A	1,663.69 miles 33.74% reduction	2,408.71 miles 4.07% reduction	2,426.54 miles 3.36% reduction	1,248.30 miles 50.28% reduction

Source: Forest Service GIS 2018

Table 2. Management Classifications for Designated NFS Routes by Alternative

Indicator Measure	Alternative A No Action	Alternative B	Alternative C	Alternative D	Alternative E
Keep as Is	2,944.34 miles	1,705.88 miles	2,556.43 miles	2,159.44 miles	1,236.03 miles
Change in NFS Route Status	N/A	372.23 miles	254.62 miles	609.95 miles	446.92 miles
NFS Addition: Routes	N/A	6.00 miles	14.59 miles	69.24 miles	3.72 miles
Areas Open to Motor Vehicle Use	N/A	0 acres	0 acres	182.00 acres	0 acres
Parking Locations	N/A	0 acres	85.00 acres	291.00 acres	0 acres
NFS Subtraction	N/A	847.90 miles	117.61 miles	147.67 miles	1,245.33 miles
Change in NFS Route Maintenance or Mitigation*	N/A	709.36 miles	108.06 miles	811.75 miles	494.29 miles
Change in Seasonal Use*	N/A	663.36 miles	629.34 miles	839.01 miles	743.79 miles

<sup>&</sup>lt;sup>1</sup>As described in greater detail in the Alternatives Development section of the DEIS, the details of Alternative A—the No Action Alternative—were identified in the 2015 settlement agreement.

<sup>&</sup>lt;sup>2</sup>As described in greater detail in the Alternatives Development section of the DEIS, the details of Alternative B were identified in the 2015 settlement agreement regarding roads or trails that were to be decommissioned.

<sup>&</sup>lt;sup>3</sup>Percent change, as compared with Alternative A—the No Action Alternative

<sup>&</sup>lt;sup>4</sup>The figures shown represent the final public transportation network to be included on the motor vehicle use map, if all recommendations from an alternative are adopted.

<sup>\*</sup>As described in **Section 2.4.1 of the DEIS**, changes in NFS route maintenance, mitigation, or seasonal use are not mutually exclusive categories and can also apply to other routes. For example, a road could be changed to open to highway-legal vehicles only and have a seasonal restriction added to minimize impacts on wildlife.

Table 3. NFS Management Proposed Under Alternative C

Management Criteria	Mileage or Acreage
Keep NFS Route Classification as Is	Total: 2,556.43 miles
Roads, maintenance level (ML) 1	32.55 miles
Roads, administrative	196.38 miles
Roads, special use permit only	53.66 miles
Roads, open to all vehicles	1,387.52 miles
Roads, open to highway-legal vehicles only	309.11 miles
Roads, special designation	51.4 miles
Trails, open to all vehicles	0.73 miles
Trails, ≤50 inches wide (open to off-highway vehicles [OHVs] such as allterrain vehicles [ATVs] and motorcycles)	334.25 miles
Trails, open to motorcycles	190.83 miles
Change in NFS Route Classification	Total: 254.62 miles
Convert nonpublic route to administrative use only road	26.01 miles
Convert nonpublic route to special use permit only road	16.37 miles
Convert to road open to highway-legal vehicles only (eliminate mixed use)	32.16 miles
Convert to trail open to all vehicles	84.01 miles
Convert to special designation trail (62 inches wide or less open to OHVs, such as utility terrain vehicles, ATVs, and motorcycles)	1.35 miles
Convert to trail 50 inches wide or less (open to OHVs such as ATVs and motorcycles)	1.61 miles
Convert to trail open to motorcycles only	1.15 miles
Convert nonpublic route to nonmotorized trail	0.89 miles
Decommission nonpublic route	91.06 miles
NFS Addition	Total: 14.59 miles, 85.00 acre
Add new road open to all vehicles	9.81 miles
Add new road open to highway-legal vehicles only	0.03 miles
Convert to road open to all vehicles	0.9 miles
Convert to road open to highway-legal vehicles only (eliminate mixed use)	0.07 miles
Add new trail open to all vehicles	0.47 miles
Add new trail 50 inches wide or less (open to OHVs such as ATVs and motorcycles)	0.31 miles
Add new trail open to motorcycles only	0.06 miles
Convert to trail open to all vehicles	1.86 miles
Open administrative use road to motorcycles only (special vehicle designation)	1.06 miles
Add new parking location	85 acres (n=85)
NFS Subtraction	Total: 117.61 miles
Convert to ML 1 road	2.58 miles
Convert to administrative use only road	26.68 miles
Convert to special use permit only road	26.48 miles
Convert to nonmotorized trail	1.73 miles
Decommission	57.68 miles
Decommission and add new parking area	2.46 miles

Management Criteria	Mileage or Acreage
Change in NFS Route Maintenance or Mitigation*	Total: 108.06 miles*
Change in Seasonal Closures*	Total: 629.34 miles*
Add seasonal closure	467.06 miles
Remove seasonal closure	0.95 miles
Revise seasonal closure or make temporary seasonal closure permanent	161.32 miles

<sup>\*</sup>As described in Section 2.4.1 of the DEIS, changes in NFS route maintenance, mitigation, or seasonal use are not mutually exclusive categories and can also apply to other routes. For example, a road could be changed to be open to highway-legal vehicles only and have a seasonal restriction added to minimize impacts on wildlife. Additionally, Section 2.3.1 and Appendix B in the DEIS describe how Alternative C includes various risk mitigation techniques available for implementation by the PSI depending on the route-specific issues identified by the ranger districts.

# Air Quality and Climate

Table 4. Summary of Air Quality Key Indicator Measures by Alternative

Indicator Measure	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E
Miles of routes open to public motor vehicle use	2,510.81	1,663.69	2,408.71	2,426.54	1,248.30
Miles of routes within 300 feet of non-PSI lands that are open to public motor vehicle use	205.55	139.52	179.01	171.74	96.93
Miles of routes open to public motor vehicle use within 300 feet of Browns Canyon National Monument	19.13	20.22	20.22	20.22	7.98
Miles of routes open to public motor vehicle use within 300 feet of roadless areas	440.91	323.57	391.06	444.26	80.74
Miles of routes open to public motor vehicle use within 300 feet of roadless areas	440.91	323.57	391.06	444.26	80.74
Miles of routes open to public motor vehicle use within 300 feet of wilderness areas	49.76	49.76	49.76	49.76	49.76
Acres of new parking	0	0	37	118	0
Acres of new areas open to motor vehicle use	0	0	0	182	0

#### **Biological Resources**

Table 5. Miles and Acres of Routes in Canada Lynx Habitat by Alternative

Habitat Type	Indicator Measure	A	В	С	D	E
Modeled habitat	Miles (and acres) of routes open to public motor vehicle use <sup>1</sup>	611.66 (2,200)	405.46 (1,500)	579.03 (2,100)	577.23 (2,100)	231.02 (800)
within Lynx Analysis Unit boundaries	Miles (and acres) of routes closed to public motor vehicle use <sup>2</sup>	109.93 (400)	84.81 (300)	73.03 (300)	94.94 (300)	126.45 (500)
(primary and secondary –	Miles (and acres) of routes subject to seasonal closures <sup>3</sup>	103.68 (400)	187.80 (700)	149.92 (500)	256.20 (900)	162.10 (600)
724,300 acres)	Acres open to motor vehicle use and parking locations within a .5-mile buffer <sup>4</sup>	N/A	N/A	11,700	20,900	N/A
	Miles (and acres) of routes not pertinent to public motor vehicle use <sup>5</sup>	N/A	220.36 (800)	60.49 (200)	41.42 (200)	353.17 (1,300)

Source: Forest Service GIS 2018

Table 6. Miles and Acres of Routes within 100 Feet of Greenback Cutthroat Trout Protected Streams by Alternative

Habitat Type	Indicator Measure	Α	В	С	D	E
All greenback trout	Miles (and acres) of routes open to public motor vehicle use <sup>1</sup>	1.12 (less than 5)	0.53 (less than 5)	0.92 (less than 5)	0.92 (less than 5)	0.07 (less than 1)
protected streams with 100-foot buffer	Miles (and acres) of routes closed to public motor vehicle use <sup>2</sup>	0.62 (less than 5)				
bullet	Miles (and acres) of routes subject to seasonal closures <sup>3</sup>	N/A	N/A	N/A	N/A	0.07 (less than 1)
	Acres open to motor vehicle use and parking locations within a .5-mile buffer <sup>4</sup>	N/A	N/A	less than 25	less than 25	N/A
	Miles (and acres) of routes not pertinent to public motor vehicle use <sup>5</sup>	N/A	0.39 (less than 5)	N/A	N/A	0.85 (less than 5)

<sup>&</sup>lt;sup>1</sup>Routes open to the public exclude administrative use, ML 1 roads, and special use permit roads.

<sup>&</sup>lt;sup>2</sup>Routes closed to the public are administrative use, ML 1 roads, and special use permit roads.

<sup>&</sup>lt;sup>3</sup>Seasonal closures apply to roads and trails open to the public. Seasonal closures may be temporary or permanent.

<sup>&</sup>lt;sup>4</sup>Designated parking areas are open to motor vehicle use. Under all alternatives, there is no single parking area greater than 5 acres, and most proposed parking areas would be less than 2 acres. Areas open to motor vehicle use are discrete, specifically delineated spaces defined in 36 CFR 212.1.

<sup>&</sup>lt;sup>5</sup>Includes decommissioned routes and routes converted to nonmotorized trails.

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<sup>&</sup>lt;sup>5</sup>Includes decommissioned routes and routes converted to nonmotorized trails.

Table 7. Miles and Acres of Routes in Gunnison Sage-Grouse Habitat by Alternative<sup>1</sup>

Habitat Type	Indicator Measure	Α	В	С	D	E
Gunnison sage- grouse historical habitat (400 acres total)	Miles (and acres) of routes open to public motor vehicle use <sup>2</sup>	0.60 (less than 5)	0.44 (less than 5)	0. 48 (less than 5)	0. 48 (less than 5)	0.18 (less than 1)
	Miles (and acres) of routes closed to public motor vehicle use <sup>3</sup>	N/A	N/A	N/A	N/A	N/A
	Miles (and acres) of routes subject to seasonal closures <sup>4</sup>	N/A	N/A	N/A	N/A	0.18 (less than 1)
	Acres open to motor vehicle use and parking locations within a .5-mile buffer <sup>5</sup>	N/A	N/A	less than 5	less than 5	N/A
	Miles (and acres) of routes not pertinent to public motor vehicle use <sup>6</sup>	N/A	0.04 (less than 1)	N/A	N/A	0.29 (less than 5)
Gunnison sage- grouse range (500 acres total)	Miles (and acres) of routes open to public motor vehicle use <sup>2</sup>	0.71 (less than 5)	0.54 (less than 5)	0.60 (less than 5)	0.60 (less than 5)	0.22 (less than 1)
	Miles (and acres) of routes closed to public motor vehicle use <sup>3</sup>	N/A	N/A	N/A	N/A	N/A
	Miles (and acres) of routes subject to seasonal closures <sup>4</sup>	N/A	N/A	N/A	N/A	0.22 (less than 1)
	Acres open to motor vehicle use and parking locations within a .5-mile buffer <sup>5</sup>	N/A	N/A	less than 5	less than 5	N/A
	Miles (and acres) of routes not pertinent to public motor vehicle use <sup>6</sup>	N/A	0.06 (less than 1)	N/A	N/A	0.38 (less than 5)
Sagebrush vegetation on the Salida	Miles (and acres) of routes open to public motor vehicle use <sup>2</sup>	11.05 (less than 50)	8.80 (less than 50)	10.73 (less than 50)	11.70 (less than 50)	6.06 (less than 25)
Ranger District (5,700 acres total)	Miles (and acres) of routes closed to public motor vehicle use <sup>3</sup>	7.82 (less than 50)	6.21 (less than 25)	5.92 (less than 50)	6.90 (less than 50)	8.13 (less than 50)
	Miles (and acres) of routes subject to seasonal closures <sup>4</sup>	1.65 (less than 10)	4.99 (less than 25)	6.47 (less than 50)	7.89 (less than 50)	4.61 (less than 25)
	Acres open to motor vehicle use and parking locations within a .5-mile buffer <sup>5</sup>	N/A	N/A	N/A	N/A	N/A
	Miles (and acres) of routes not pertinent to public motor vehicle use <sup>6</sup>	N/A	4.44 (less than 25)	2.80 (less than 50)	0.86 (less than 5)	5.25 (less than 50)

<sup>&</sup>lt;sup>1</sup>No routes overlap Gunnison sage-grouse production areas

<sup>&</sup>lt;sup>2</sup>Routes open to the public exclude administrative use, ML 1 roads, and special use permit roads.

<sup>&</sup>lt;sup>3</sup>Routes closed to the public are administrative use, ML 1 roads, and special use permit roads.

<sup>&</sup>lt;sup>4</sup>Seasonal closures apply to roads and trails open to the public. Seasonal closures may be temporary or permanent.

<sup>&</sup>lt;sup>5</sup>Designated parking areas are open to motor vehicle use. Under all alternatives, there is no single parking area greater than 5 acres, and most proposed parking areas would be less than 2 acres. Areas open to motor vehicles are discrete, specifically delineated spaces defined in 36 CFR 212.1.

<sup>&</sup>lt;sup>6</sup>Includes decommissioned routes and routes converted to nonmotorized trails.

Table 8. Miles and Acres of Routes in Mexican Spotted Owl Habitat by Alternative

Habitat Type	Indicator Measure	Α	В	С	D	E
Protected and recovery habitat within critical habitat boundaries (103,700 total acres)	Miles (and acres) of routes open to public motor vehicle use <sup>1</sup>	116.29 (400)	96.97 (400)	127.24 (500)	138.00 (500)	56.59 (200)
	Miles (and acres) of routes closed to public motor vehicle use <sup>2</sup>	17.55 (100)	15.71 (100)	14.93 (100)	14.96 (100)	14.63 (100)
	Miles (and acres) of routes subject to seasonal closures <sup>3</sup>	20.01 (100)	35.00 (100)	59.74 (200)	39.79 (100)	35.94 (100)
	Acres open to motor vehicle use and parking locations within a .5-mile buffer <sup>4</sup>	N/A	N/A	2,100	4,200	N/A
	Miles (and acres) of routes not pertinent to public motor vehicle use <sup>5</sup>	N/A	34.01 (100)	4.50 (less than 50)	3.11 (less than 50)	75.47 (300)
Protected and recovery habitat outside	Miles (and acres) of routes open to public motor vehicle use <sup>1</sup>	263.56 (1,000)	175.89 (600)	255.61 (900)	261.31 (1,000)	115.94 (400)
critical habitat boundaries (237,300 total acres)	Miles (and acres) of routes closed to public motor vehicle use <sup>2</sup>	31.43 (100)	29.44 (100)	25.19 (less than 100)	32.31 (100)	36.68 (100)
acres	Miles (and acres) of routes subject to seasonal closures <sup>3</sup>	15.83 (100)	61.75 (100)	66.52 (200)	73.19 (300)	59.91 (200)
	Acres open to motor vehicle use and parking locations within a .5-mile buffer <sup>4</sup>	N/A	N/A	900	12,900	N/A
	Miles (and acres) of routes not pertinent to public motor vehicle use <sup>5</sup>	N/A	88.27 (300)	13.37 (less than 50)	6.12 (less than 50)	140.98 500)
Protected Activity Center <sup>6</sup>	Miles (and acres) of routes open to public motor vehicle use <sup>1</sup>	1.28 (less than 5)	1.34 (less than 5)	1.34 (less than 5)	1.34 (less than 5)	1.34 (less than 5)
(7,600 total acres)	Miles (and acres) of routes closed to public motor vehicle use <sup>2</sup>	N/A	N/A	N/A	N/A	N/A
	Miles (and acres) of routes subject to seasonal closures <sup>3</sup>	0.16 (less than 1)	0.16 (less than 1)	N/A	0.16 (less than 1)	1.34 (less than 5)
	Acres open to motor vehicle use and parking locations within a .5-mile buffer <sup>4</sup>	N/A	N/A	100	100	N/A
	Miles (and acres) of routes not pertinent to public motor vehicle use <sup>5</sup>	N/A	N/A	N/A	N/A	N/A

<sup>&</sup>lt;sup>1</sup>Routes open to the public exclude administrative use, ML 1 roads, and special use permit roads.

<sup>&</sup>lt;sup>2</sup>Routes closed to the public are administrative use, ML 1 roads, and special use permit roads.

<sup>&</sup>lt;sup>3</sup>Seasonal closures apply to roads and trails open to the public. Seasonal closures may be temporary or permanent.

Table 9. Miles and Acres of Routes in Potential Wolverine Habitat by Alternative

Habitat Type	Indicator Measure	Α	В	С	D	E
Alpine tundra (132,700	Miles (and acres) of routes open to public motor vehicle use <sup>1</sup>	39.84 (100)	24.37 (100)	35.59 (100)	31.50 (100)	4.46 (less than 25)
acres)	Miles (and acres) of routes closed to public motor vehicle use <sup>2</sup>	14.4 (100)	13.17 (less than 50)	13.40 (less than 50)	14.61 (100)	11.89 (less than 50)
	Miles (and acres) of routes subject to seasonal closures <sup>3</sup>	3.06 (less than 5)	13.53 (less than 50)	5.46 (less than 50)	15.17 (100)	1.16 (less than 5)
	Acres open to motor vehicle use and parking locations within a .5-mile buffer <sup>4</sup>	N/A	N/A	200	500	N/A
	Miles (and acres) of routes not pertinent to public motor vehicle use <sup>5</sup>	N/A	17.58 (100)	7.72 (less than 50)	9.00 (less than 50)	38.77 (100)

Table 10. Miles and Acres of Routes in Pawnee Montane Skipper Habitat by Alternative

Habitat Type	Indicator Measure	Α	В	С	D	E
Pawnee montane skipper	Miles (and acres) of routes open to public motor vehicle use <sup>1</sup>	21.94 (100)	20.96 (100)	20.62 (100)	21.55 (100)	3.16 (less than 25)
habitat (27,600 acres)	Miles (and acres) of routes closed to public motor vehicle use <sup>2</sup>	12.32 (less than 50)	10.11 (less than 50)	10.89 (less than 50)	10.67 (less than 50)	10.13 (less than 50)
	Miles (and acres) of routes subject to seasonal closures <sup>3</sup>	0.25 (less than 1)	4.84 (less than 25)	13.36 (less than 50)	4.86 (less than 25)	0.63 (less than 10)
	Acres open to motor vehicle use and parking locations within a .5-mile buffer <sup>4</sup>	N/A	N/A	100	200	N/A
	Miles (and acres) of routes not pertinent to public motor vehicle use <sup>5</sup>	N/A	2.54 (less than 10)	2.54 (less than 10)	1.42 (less than 10)	20.32 (100)

<sup>&</sup>lt;sup>4</sup>Designated parking areas are open to motor vehicle use. Under all alternatives, there is no single parking area greater than 5 acres, and most proposed parking areas would be less than 2 acres. Areas open to motor vehicle use are discrete, specifically delineated spaces, defined in 36 CFR 212.1.

<sup>&</sup>lt;sup>5</sup>Includes decommissioned routes and routes converted to nonmotorized trails.

<sup>&</sup>lt;sup>6</sup>PACs constitute critical habitat within the designated boundaries and are the only protected habitat, as defined in the United States Fish and Wildlife Service (2012) MSO Recovery Plan.

<sup>&</sup>lt;sup>1</sup>Routes open to the public exclude administrative use, ML 1 roads, and special use permit roads.

<sup>&</sup>lt;sup>2</sup>Routes closed to the public are administrative use, ML 1 roads, and special use permit roads.

<sup>3</sup>Seasonal closures apply to roads and trails open to the public. Seasonal closures may be temporary or permanent.

<sup>&</sup>lt;sup>4</sup>Designated parking areas are open to motor vehicle use. Under all alternatives, there is no single parking area greater than 5 acres, and most proposed parking areas would be less than 2 acres. Areas open to motor vehicle use are discrete, specifically delineated spaces defined in 36 CFR 212.1.

<sup>&</sup>lt;sup>5</sup>Includes decommissioned routes and routes converted to nonmotorized trails.

<sup>&</sup>lt;sup>1</sup>Routes open to the public exclude administrative use, ML 1 roads, and special use permit roads.

<sup>&</sup>lt;sup>2</sup>Routes closed to the public are administrative use, ML 1 roads, and special use permit roads.

<sup>3</sup>Seasonal closures apply to roads and trails open to the public. Seasonal closures may be temporary or permanent.

Table 11. Miles of Routes in Potential Penland Alpine Fen Habitat by Alternative

Habitat Type	Indicator Measure	Α	В	С	D	E
	Miles (and acres) of routes open to public motor vehicle use <sup>1</sup>	0.25 (less than 1)	0.13 (less than 1)	0.22 (less than 1)	0.22 (less than 1)	0.08 (less than 1)
willow in Leadville	Miles (and acres) of routes closed to public motor vehicle use <sup>2</sup>	0.35 (less than 5)	0.41 (less than 5)	0.32 (less than 5)	0.32 (less than 5)	0.26 (less than 1)
South N	Miles (and acres) of routes subject to seasonal closures <sup>3</sup>	0.08 (less than 1)	0.05 (less than 1)	N/A	0.05 (less than 1)	N/A
Ranger Districts (4,300	Acres open to motor vehicle use and parking locations within a .5-mile buffer <sup>4</sup>	N/A	N/A	N/A	N/A	N/A
acres)	Miles (and acres) of routes not pertinent to public motor vehicle use <sup>5</sup>	N/A	N/A	N/A	N/A	0.20 (less than 1)

Table 12. Miles and Acres of Routes in Preble's Meadow Jumping Mouse Critical Habitat by Alternative

Habitat Type	Indicator Measure	A	В	С	D	E
Critical habitat	Miles (and acres) of routes open to public motor vehicle use <sup>1</sup>	3.77 (less than 25)	4.08 (less than 25)	4.45 (less than 25)	4.30 (less than 25)	1.66 (less than 10)
(3,500 total acres)	Miles (and acres) of routes closed to public motor vehicle use <sup>2</sup>	2.40 (less than 10)	2.05 (less than 10)	2.05 (less than 10)	2.38 (less than 10)	2.38 (less than 10)
acres)	Miles (and acres) of routes subject to seasonal closures <sup>3</sup>	N/A	1.89 (less than 10)	2.10 (less than 10)	1.90 (less than 10)	1.56 (less than 10)
	Acres open to motor vehicle use and parking locations within a .5-mile buffer <sup>4</sup>	N/A	N/A	N/A	300	N/A
	Miles (and acres) of routes not pertinent to public motor vehicle use <sup>5</sup>	N/A	0.40 (less than 5)	0.03 (less than 1)	0.03 (less than 1)	2.51 (less than 10)
Potential habitat	Miles (and acres) of routes open to public motor vehicle use <sup>1</sup>	31.24 (100)	25.95 (100)	28.59 (100)	31.38 (100)	9.07 (less than 50)
(40,400 acres)	Miles (and acres) of routes closed to public motor vehicle use <sup>2</sup>	22.52 (100)	18.36 (100)	16.46 (less than 100)	18.81 (100)	15.94 (100)
	Miles (and acres) of routes subject to seasonal closures <sup>3</sup>	0.13 (less than 1)	0	9.61 (less than 50)	12.42 (less than 50)	6.12 (less than 50)
	Acres open to motor vehicle use and parking locations within a .5-mile buffer <sup>4</sup>	N/A	N/A	200	700	N/A
	Miles (and acres) of routes not pertinent to public motor vehicle use <sup>5</sup>	N/A	7.19 (less than 50)	6.55 (less than 50)	1.72 (less than 10)	26.50 (96.35)

<sup>&</sup>lt;sup>4</sup>Designated parking areas are open to motor vehicle use. Under all alternatives, there is no single parking area greater than 5 acres, and most proposed parking areas would be less than 2 acres. Areas open to motor vehicle use are discrete, specifically delineated spaces defined in 36 CFR 212.1.

<sup>&</sup>lt;sup>5</sup>Includes decommissioned routes and routes converted to nonmotorized trails.

<sup>&</sup>lt;sup>1</sup>Routes open to the public exclude administrative use, ML 1 roads, and special use permit roads.

<sup>&</sup>lt;sup>2</sup>Routes closed to the public are administrative use, ML 1 roads, and special use permit roads.

<sup>&</sup>lt;sup>3</sup>Seasonal closures apply to roads and trails open to the public. Seasonal closures may be temporary or permanent.

<sup>&</sup>lt;sup>4</sup>Designated parking areas are open to motor vehicle use. Under all alternatives, there is no single parking area greater than 5 acres, and most proposed parking areas would be less than 2 acres. Areas open to motor vehicle use are discrete, specifically delineated spaces defined in 36 CFR 212.1.

<sup>&</sup>lt;sup>5</sup>Includes decommissioned routes and routes converted to nonmotorized trails.

<sup>&</sup>lt;sup>1</sup>Routes open to the public exclude administrative use, ML 1 roads, and special use permit roads.

<sup>&</sup>lt;sup>2</sup>Routes closed to the public are administrative use, ML 1 roads, and special use permit roads.

<sup>3</sup>Seasonal closures apply to roads and trails open to the public. Seasonal closures may be temporary or permanent.

Table 13. Miles of Routes in Potential Ute Ladies'-Tresses Habitat by Alternative

Habitat Type	Indicator Measure	Α	В	С	D	E
Grass/forb- dominated riparian areas (less than 5 acres)	Miles (and acres) of routes open to public motor vehicle use <sup>1</sup>	0	0	0	0	0
	Miles (and acres) of routes closed to public motor vehicle use <sup>2</sup>	0	0	0	0	0
	Miles (and acres) of routes subject to seasonal closures <sup>3</sup>	0	0	0	0	0
	Acres open to motor vehicle use and parking locations within a .5-mile buffer <sup>4</sup>	N/A	N/A	0	0	N/A
	Miles (and acres) of routes not pertinent to public motor vehicle use <sup>5</sup>	0	0	0	0	0

Table 14. Species Determinations by Alternative

Species	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E
Gunnison sage- grouse	May affect, not likely to adversely affect	May affect, not likely to adversely affect	May affect, not likely to adversely affect	May affect, not likely to adversely affect	May affect, not likely to adversely affect
Mexican spotted owl	May affect, likely to adversely affect	May affect, likely to adversely affect			
Canada lynx	May affect, likely to adversely affect	May affect, likely to adversely affect	May affect, likely to adversely affect	May affect, likely to adversely affect	May affect, likely to adversely affect
North American wolverine	May affect, not likely to adversely affect	May affect, not likely to adversely affect	May affect, not likely to adversely affect	May affect, not likely to adversely affect	May affect, not likely to adversely affect
Preble's meadow jumping mouse	May affect, likely to adversely affect	May affect, likely to adversely affect	May affect, likely to adversely affect	May affect, likely to adversely affect	May affect, likely to adversely affect
Pawnee montane skipper	May affect, likely to adversely affect	May affect, likely to adversely affect	May affect, likely to adversely affect	May affect, likely to adversely affect	May affect, not likely to adversely affect
Greenback cutthroat trout	May affect, not likely to adversely affect	May affect, not likely to adversely affect	May affect, not likely to adversely affect	May affect, not likely to adversely affect	May affect, not likely to adversely affect

<sup>&</sup>lt;sup>4</sup>Designated parking areas are open to motor vehicle use. Under all alternatives, there is no single parking area greater than 5 acres, and most proposed parking areas would be less than 2 acres. Areas open to motor vehicle use are discrete, specifically delineated spaces defined in 36 CFR 212.1.

<sup>&</sup>lt;sup>5</sup>Includes decommissioned routes and routes converted to nonmotorized trails.

<sup>&</sup>lt;sup>1</sup>Routes open to the public exclude administrative use, ML 1 roads, and special use permit roads.

<sup>&</sup>lt;sup>2</sup>Routes closed to the public are administrative use, ML 1 roads, and special use permit roads.

<sup>3</sup>Seasonal closures apply to roads and trails open to the public. Seasonal closures may be temporary or permanent.

<sup>&</sup>lt;sup>4</sup>Designated parking areas are open to motor vehicle use. Under all alternatives, there is no single parking area greater than 5 acres, and most proposed parking areas would be less than 2 acres. Areas open to motor vehicle use are discrete, specifically delineated spaces defined in 36 CFR 212.1

<sup>&</sup>lt;sup>5</sup>Includes decommissioned routes and routes converted to nonmotorized trails.

Species	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E
Penland alpine fen mustard	May affect, not likely to adversely affect	May affect, not likely to adversely affect			
Ute ladies'-tresses	No effect	No effect	No effect	No effect	No effect

Table 15. Summary Table of Miles of Routes Open to the Public by Management Area

	Forest Plan Management Area				
Miles of Routes Open To Public	4B	4D	5B	Total	
Alternative A	157.71	91.70	289.97	539.38	
Alternative B	96.11	65.17	174.35	335.63	
Alternative C	150.10	89.24	279.62	518.95	
Alternative D	146.08	92.70	272.10	510.88	
Alternative E	77.51	63.77	137.46	278.74	

Source: Forest Service GIS 2018

Table 16. Summary Table of Miles of Routes Closed to the Public by Management Area

	Forest Plan Management Area					
Miles of Routes Closed To Public	4B	4D	5B	Total		
Alternative A	27.90	5.41	68.52	101.83		
Alternative B	33.24	7.53	57.43	98.2		
Alternative C	21.42	7.60	50.40	79.42		
Alternative D	26.72	9.20	65.92	101.84		
Alternative E	27.49	9.85	82.17	119.51		

Source: Forest Service GIS 2018

Table 17. Alternative C Approximate Acres of Management Indicator Species and Regional Forester's Sensitive Species Habitat Within One-Half Mile of Designated Parking Locations

Vegetation Classification/Habitat Type	Acres in Buffers <sup>1</sup>
Ponderosa pine woodland	4,500
Spruce-fir	4,900
Mixed conifer	3,500
Lodgepole pine	2,600
Aspen-dominated stands	3,000
Riparian	2,300
Grass/forb/subshrub (grassland)	1,700
Water	400
Bristlecone/limber pines	500
Shrub—mountain sagebrush-dominated	0
Less than 25 percent vegetation	300
Alpine tundra	200
Shrub—Gambel oak-dominated	700
Pinyon-juniper woodland	1,600
Douglas-fir	300

#### **Cultural Resources**

Table 18. Comparison of Recorded Sites by Alternative

Number of Recorded Sites within Buffers <sup>1</sup>	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E
Routes closed to motorized vehicle use	672	598	639	695	731
Routes open to public motorized use	6,071	4,933	5,810	5,798	2,311
Seasonally closed routes	955	3,161	1,435	3,235	1,170
Campgrounds	5,220	5,220	5,220	5,220	5,220
Proposed Parking Areas	N/A	N/A	673	1,159	N/A

Source: Forest Service GIS 2018

### **Designated Areas**

Table 19. Miles of Roads and Trails Open to Public Motor Vehicle Use by Alternative

Indicator Measure	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E
Miles of road open to public motor vehicle use	2,004.85	1,161.45	1,792.08	1,441.62	969.91
Miles of trail open to public motor vehicle use	505.96	502.24	616.63	984.92	278.39
Miles of open routes in Browns Canyon National Monument	4.07	3.87	3.87	3.87	0
Miles of open routes within 300 feet of wilderness areas	49.76	40.31	51.66	51.32	3.91

Source: Forest Service GIS 2018

# **Grazing Management**

Table 20. Comparison of Motorized Routes Open in Grazing Allotments and near Range Improvements

Indicator Measure	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E
Miles of motorized routes open to public use in grazing allotments	1,370.29	808.18	1,276.61	1,272.11	735.67
Miles of motorized routes open to the public within ¼ mile of structural range improvements*	264.90	168.38	249.42	246.40	180.05

Source: Forest Service GIS 2018

Note: Miles rounded to the nearest 100th; acres rounded to the nearest 100

<sup>&</sup>lt;sup>1</sup>These acres represent the designated parking area footprint buffered by 0.5 miles.

<sup>&</sup>lt;sup>1</sup>Buffer sizes are 300 feet from the center line of each route.

<sup>\*</sup>Include only point locations, such as stock ponds or corrals, and not linear features such as fence lines

# Noise

**Table 21. Alternatives Comparison** 

Indicator Measure	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E
Miles closed to public motor vehicle use	433.53	379.11	345.58	413.88	462.98
Miles open to public motor vehicle use	2,510.81	1,663.69	2,408.71	2,426.54	1,248.30
Roads open to all vehicles	1,636.86	786.81	1,398.23	1,008.33	679.96
Roads open to highway-legal vehicles only	357.81	323.67	341.38	381.26	255.32
Trails open to all vehicles	0.18	221.16	274.90	408.57	187.26
Trails open to UTVs	NA	NA	1.35	1.35	NA
Trails open to ATVs	313.30	123.65	336.16	347.46	82.46
Trails open to motorcycles	192.48	157.43	192.04	227.53	8.66
Miles of nonmotorized routes within 0.5 miles of open to public motor vehicle use	441.91	307.34	414.94	405.47	181.72
Miles of roads/trails within 200 feet of non-PSI lands that are open to public motor vehicle use	202.86	132.10	157.95	163.76	92.19
Miles of roads/trails within 200 feet of non-PSI lands that are closed to public motor vehicle use	50.32	49.07	38.13	55.45	56.28
Miles of roads/trails within 200 feet of non-PSI lands that are subject to seasonal closures	28.28	67.84	33.44	76.64	59.20
Miles of trails within 200 feet of non-PSI lands open to motorcycles	5.85	3.84	4.42	6.13	1.47
Miles of trails within 200 feet of non-PSI lands open to ATVs (vehicles 50 inches or less in width)	6.86	1.42	5.06	6.58	0.27

Source: Forest Service GIS 2018

#### Recreation

Table 22. Comparison of Miles of Routes Open to Motorized Recreation by ROS Class

ROS Class	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E			
	Miles of Mixed-Use Roads Open to Motorized Vehicle Use							
Primitive	0.45	0.24	0	0.24	0			
Semi-primitive Nonmotorized	25.69	10.00	23.62	17.64	8.09			
Semi-primitive Motorized	476.44	176.91	397.72	248.49	156.27			
Roaded Natural	1,077.36	563.04	916.98	704.82	486.01			
Rural	25.53	15.97	18.81	14.92	13.55			
Urban	1.11	1.14	1.14	1.14	0.81			

ROS Class	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E
No data	3.09	2.58	2.79	3.02	2.26
Subtotal Roads	1,609.66*	769.88*	1,361.05*	990.27*	666.99*
	Miles of T	rails Open to Moto	rized Vehicle Use	•	
Primitive	5.16	4.56	8.66	8.86	0
Semi-primitive Nonmotorized	0.78	1.81	1.31	11.18	0.60
Semi-primitive Motorized	260.9	243.34	298.72	458.30	81.43
Roaded Natural	229.25	238.36	297.23	485.23	190.18
Rural	4.60	6.34	5.15	9.89	1.4
Urban	0	4.56	0	0	0
No data	N/A	N/A	0	0.09	N/A
Subtotal Trails:	500.69*	494.41*	611.07*	973.55*	273.61*
Total All Routes Open to Public Motorized Recreation	2,142.82**	1,289.05**	1,972.12**	1,993.24**	958.34**

### Scenery

Table 23. Comparison of Open Motorized Routes by Visual Quality Objectives

Visual Quality Objective	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E
Objective	Alternative A	Roads	Alternative o	Alternative D	Alternative
Null or no data	38.52	27.89	32.91	30.46	28.71
Modification	892.41	496.55	800.14	629.51	439.59
Partial Retention	737.74	446.16	644.78	532.58	333.39
Partial Retention and Modification	293.90	158.96	273.44	216.07	147.16
Preservation	1.40	1.25	1.49	1.25	0.10
Retention	2.17	2.13	1.79	2.13	0.23
Subtotal Roads:	1,966.14	1,132.95	1,754.55	1,412.01	949.18
		Trails			
Null or no data	0	2.04	2.97	4.29	2.99
Modification	139.63	187.20	169.30	340.20	93.30
Partial Retention	218.59	188.96	279.06	398.30	102.01
Partial Retention and Modification	133.74	109.85	151.78	222.08	75.30
Preservation	7.48	5.02	6.68	6.91	0.00
Retention	1.25	1.34	0.05	1.76	0.00
Subtotal Trails:	500.69	494.41	609.84	973.55	273.61
Total All Motorized Routes*:	2,466.83	1,627.36	2,364.39	2,385.56	1,222.79

<sup>\*</sup>Does not include the routes in the portions of the decision area that fall outside the PSI boundary or where PSI-maintained routes cross private land and therefore no visual quality objectives or existing visual quality classes are available. Source: Forest Service GIS 2018

<sup>\*</sup>Subtotals do not include certain NFS routes being analyzed that fall outside the PSI boundary or are PSI-maintained routes that cross private land; therefore, no ROS class is available for these routes.

<sup>\*\*</sup>Total does include those NFS routes that have no available ROS data.

# Soils and Hydrology

Table 24. Streams

Stream Type	Miles in Decision Area	Miles of Routes Closed to Public Motor Vehicle Use within 300 Feet of Streams for Alternative A (No Action Alternative)	Miles of Routes Open to Public Motor Vehicle Use within 300 Feet of Streams for Alternative A (No Action Alternative)
Perennial and Intermittent	8,336.10	171.87	982.83
Ephemeral	7,085.30	Unknown	Unknown
303(d) List	399	12.96	77.35

Sources: NHD GIS 2018; CDPHE GIS 2016; Forest Service GIS 2018

Table 25. Comparison of Soil Erosion Potential (Miles)

Route	Soil Erosion Potential (Kw)	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E
Closed to public motor vehicle use	0.49	1.94	2.71	1.97	2.02	4.01
Open to public motor vehicle use	0.49	26.08	18.59	22.35	20.87	3.92

Source: Forest Service GIS 2018

Table 26. Comparison of Miles of Open and Closed Routes near Streams

Stream Type	Miles of Routes Closed to Public Motor Vehicle Use within 300 Feet of Streams	Miles of Routes Open to Public Motor Vehicle Use within 300 Feet of Streams
Alternative A		
Perennial and Intermittent	171.87	982.83
Ephemeral	Unknown	Unknown
303(d) List	12.96	77.35
Alternative B		
Perennial and Intermittent	148.17	661.16
Ephemeral	Unknown	Unknown
303(d) List	10.32	55.94
Alternative C		
Perennial and Intermittent	130.13	939.55
Ephemeral	Unknown	Unknown
303(d) List	9.7	74.30
Alternative D		
Perennial and Intermittent	158.78	947.26
Ephemeral	Unknown	Unknown
303(d) List	10.4	75.01
Alternative E		
Perennial and Intermittent	187.27	476.82
Ephemeral	Unknown	Unknown
303(d) List	187.27	476.82

Sources: NHD GIS 2018; CDPHE GIS 2016; Forest Service GIS 2018

Table 27. Comparison of Acres within 300 Feet of a Stream from Areas Open to Motor Vehicle Use or Parking Locations

Stream Type	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E
Perennial and Intermittent	0	0	8,500	28,300	0
Ephemeral	0	0	Unknown	Unknown	0
303(d) List	0	0	500	1,200	0

Sources: Forest Service GIS 2018; CDPHE GIS 2016; NHD GIS 2018

# Special Uses, Administrative Uses, and Land Uses

Table 28. Miles of Routes by Permitted User Type

Indicator Measure	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E
Administrative use only routes	253.47	239.78	249.07	280.92	331.94
Special use permit only routes	54.68	105.62	53.66	110.80	108.23
ML 1 routes	125.38	33.71	32.55	22.16	22.81
Routes open to public motor vehicle use	2,510.81	1,663.69	2,408.71	2,426.54	1,248.30
Total routes available for administrative use	2,944.34	2,042.80	2,743.99	2,840.42	1,711.28

Source: FS GIS 2018

## **Transportation**

Table 29. Road Maintenance on the PSI

ML Category	Maintenance Tasks	Primary Maintainer	Average Maintenance Costs	Miles of Roads	Average Annual Maintenance Costs
ML 5	Maintenance work consists of blading to maintain the structural	Forest Service	\$9,200 per mile	6.27	\$57,638
	integrity and drainage functionality on unpaved surfaces; asphalt repair (on paved surfaces); culvert cleaning and repair; brushing; repairing or replacing signs; and hazard tree removal. The estimated maintenance cycle is twice every year to once every 2 years.		\$1,000 per mile	20.08	\$20,080
ML 4 Roads	Maintenance work consists of blading to maintain the structural integrity and drainage functionality; drainage structure cleaning and repair; brushing; repairing or replacing signs; and hazard tree removal. The estimated maintenance cycle is once every 1 to 5 years.	Forest Service	\$5,800 per mile	20.15	\$56,424
		Other	\$600 per mile	3.71	\$2,227

ML Category	Maintenance Tasks	Primary Maintainer	Average Maintenance Costs	Miles of Roads	Average Annual Maintenance Costs
ML 3 Roads	Maintenance work consists of blading to maintain the structural	Forest Service	\$4,200 per mile	289.52	\$1,045,314
	integrity and drainage functionality; drainage structure cleaning and repair; brushing; repairing or replacing signs; and hazard tree removal. The estimated maintenance cycle is once every 1 to 5 years.	Other	\$400  per mile	194.07	\$76,528
ML 2 Roads	Maintenance work consists of blading to maintain the structural integrity and drainage functionality; drainage structure cleaning and repair; brushing; repairing or replacing signs; and hazard tree removal. The estimated maintenance cycle is once every 2 to 9 years.	Forest Service	\$2,300 per mile	67.96	\$9,504
		Other	\$300 per mile	1,375.66	\$901,354
ML 1	Maintenance work consists of drainage structure cleaning and repair and repairing or replacing signs. The estimated maintenance cycle is once every 10 years. Maintenance is done to preserve resources only.	Forest Service	\$500 per mile	136.16	\$6,808
Administrative Roads	Maintenance work consists of drainage structure cleaning and	Forest Service	\$1,300 per mile	168.20	\$66,812
	repair and repairing or replacing signs. The estimated maintenance cycle is once every 2 to 9 years.	Other	\$300 per mile	84.49	\$4,388
-	-	-	Total:	2,366.27	\$2,247,078

Source: PSI 2018b

Table 30. Road Maintenance Budgets on the PSI

Fiscal Year	Total Maintenance Budget*	Salary Maintenance Personnel*	Salary as a Percentage of the Total Budget	Money Spent on the Ground in Maintenance*	Maintenance as a Percentage of the Total Budget*
2014	\$1,901,250	\$839,402	44.2	\$768,300	40.4
2015	\$2,047,500	\$870,773	42.5	\$774,150	37.8
2016	\$2,067,000	\$856,513	41.4	\$741,975	35.9
2017	\$1,998,750	\$815,636	40.8	\$918,450	46.0
2018	\$1,911,000	\$737,685	38.6	\$585,000	30.6
5-Year Average	\$1,985,100	\$824,002	41.5	**\$800,719	**40.0

<sup>\*</sup>Totals include road maintenance costs on the PSI only and do not include road maintenance costs on the Comanche and Cimarron National Grasslands (2.5 percent of overall PSI costs), which are not being considered in this travel management decision.

<sup>\*\*</sup>Four-year average of money spent on the ground in maintenance because the 2018 data are not complete and road maintenance is ongoing.

Table 31. Comparison of NFS Road System Mileage and Maintenance across Alternatives

Road Category	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E
Closed to all motor vehicle use (ML 1)	125.38	33.71	35.13	22.16	22.81
Administrative use only	252.45	239.78	249.07	280.92	331.94
Special use permit only**	54.68	105.62	96.51	110.8	108.23
Total of roads closed to public motor vehicle use	432.51	379.11	380.71	413.88	462.98
Open to all vehicles	1,636.86	786.81	1,398.23	1008.33	679.96
Open to highway-legal vehicles only	357.81	323.67	341.38	381.26	255.32
Special designation	10.18	50.97	52.46	52.03	34.63
Total of roads open to public motor vehicle use	2,004.85	1,161.45	1,792.08	1,441.62	969.91
Miles of roads converted to trails***	NA	222.53	89.99	410.37	186.54
Total Mileage	2,437.36	1,540.56	2,172.79	1,855.50	1,379.04
Total Average Annual Maintenance Costs	\$2,247,078*	\$1,706,895	\$2,071,772	\$1,899,130	\$1,258,861

#### **Vegetation Management**

Table 32. Comparison of Motorized Routes by Fire Regime Condition Class

Fire Regime Condition Class	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E
Condition Class I	604.87	449.43	581.74	579.30	298.67
Condition Class II	1,782.40	1,123.02	1,706.50	1,730.70	905.99
Condition Class III	42.20	36.96	44.47	43.31	19.90

Source: Forest Service GIS 2018

Note: Miles shown exclude areas not classified by FRCC, such as water, snow/ice, urban, barren, sparsely vegetated, or agriculture.

Table 33. Comparison of Acres of Suitable Timber Accessible from Motorized Route

NFS Routes	Alternative A <sup>2</sup>	Alternative B <sup>2</sup>	Alternative C <sup>2</sup>	Alternative D <sup>2</sup>	Alternative E <sup>2</sup>
All routes open to public motorized use <sup>1</sup>	287,200	183,700	290,100	271,500	155,700
Roads open to public motorized use	222,400	130,900	163,700	163,700	112,600
Roads open to all vehicles	180,300	87,500	165,200	115,100	84,000
Roads open to highway- legal vehicles only	41,700	35,700	36,100	40,900	22,500
Roads open by special designation only	400	7,700	7,900	7,700	6,100
Trails open to public motorized use	64,800	52,800	107,900	107,900	43,000

<sup>\*</sup>As noted in greater detail in the Transportation section of the DEIS, the average annual maintenance costs for the no action alternative were calculated using the available INFRA data as of January 2018.

<sup>\*\*</sup>Special use permit only roads are not used in the calculation of average annual maintenance costs.

<sup>\*\*\*</sup>Roads converted to trails are not used in the calculation of average annual maintenance costs or included under total road mileage.

NFS Routes	Alternative A <sup>2</sup>	Alternative B <sup>2</sup>	Alternative C <sup>2</sup>	Alternative D <sup>2</sup>	Alternative E <sup>2</sup>
Trails open to all vehicles	<50	19,800	5,500	38,800	23,700
Trails open to ATVs (50 inches or less in width)	50,900	20,100	55,100	53,900	18,100
Trails open to motorcycles	13,900	12,900	15,800	15,200	1,200

Table 34. Comparison of Miles of Invasive Species Infestations for Open Motorized Routes

Weed	Alternative A <sup>1</sup>	Alternative B <sup>1</sup>	Alternative C <sup>1</sup>	Alternative D <sup>1</sup>	Alternative E <sup>1</sup>
Black henbane	<1	0	<1	<1	0
Bull thistle	<1	<1	<1	<1	<1
Butter and eggs	69	49	65	65	35
Canada thistle	253	188	247	248	157
Cheatgrass	5	5	5	5	<1
Common mullein	5	4	5	5	4
Corn chamomile	<1	<1	<1	<1	0
Dalmatian toadflax	<1	<1	<1	<1	<1
Diffuse knapweed	22	22	22	22	19
Gypsyflower	9	6	8	8	8
Leafy spurge	17	15	18	18	16
Myrtle spurge	8	8	8	8	8
Nodding plumeless thistle	72	51	72	72	48
Orange hawkweed	<1	<1	<1	<1	<1
Oriental virgin's-bower	6	6	6	6	6
Oxeye daisy	<1	<1	<1	<1	<1
Scotch cotton thistle	<1	<1	<1	<1	<1
Slender Russian thistle	<1	0	<1	<1	<1
Spotted knapweed	5	5	5	5	5
Whitetop	<1	<1	<1	<1	<1

Source: Forest Service GIS 2018

Table 35. Comparison of Acres of Invasive Species Infestations for Designated Parking Areas and Areas Open to Motorized Vehicles

Weed	Alternative A <sup>1</sup>	Alternative B <sup>1</sup>	Alternative C <sup>1</sup>	Alternative D <sup>1</sup>	Alternative E <sup>1</sup>
Butter and eggs	68.91	49.41	100	65.42	35.02
Canada thistle	0	0	900	700	0
Cheatgrass	0	0	0	1,600	0
Common mullein	0	0	0	0	0
Gypsyflower	0	0	0	0	0
Diffuse knapweed	0	0	100	100	0
Leafy spurge	0	0	0	100	0
Nodding plumeless thistle	0	0	300	0	0
Spotted knapweed	0	0	0	400	0

<sup>&</sup>lt;sup>1</sup> Miles of roads and trails combined

<sup>&</sup>lt;sup>2</sup> Acres of timber suitability area within a quarter-mile of a trail or road open to motorized use

<sup>&</sup>lt;sup>1</sup> Miles of roads and trails are combined. The data reflected in this table represents current inventory data, additional Colorado noxious weed list A, B, or C species may be present, but have not been inventoried.

<sup>1</sup> Species shown are those with at least 100 acres of infestations within a half-mile of facilities, rounded to the nearest 100 acres.

#### **Forest Plan Amendment**

Not all roads comply with Management Area 3A direction under all the alternatives contemplated in the DEIS. Addressing this noncompliance requires a Forest Plan administrative correction and Forest Plan amendment. This is because Management Area 3A is closed to public motorized use (see Forest Service 1984, page III–125), and routes open to public motor vehicle use occur in Management Area 3A.

An administrative change is any change to a plan that is not a plan amendment or plan revision. Administrative changes include corrections of clerical errors to any part of the plan, conformance of the plan to new statutory or regulatory requirements, or changes to other content in the plan. In addition to an administrative correction, there is a need to change the Forest Plan to rectify the Management Area 3A boundaries and provide recreational access on the South Platte and Leadville Ranger Districts. NFS Roads 126, 398, and 398.B are existing roads that currently provide motorized recreational access; a plan amendment would ensure future motorized recreational use is consistent with the Forest Plan.

# MRS Screening Criteria and Design Criteria

Section 2.3.1, MRS Screening Criteria Process, in the DEIS provides a detailed explanation of the MRS screening criteria process, which was designed to screen roads under each of the four overall TAP ratings and thereby identify the MRS. Following the MRS screening process for all alternatives, PSI ranger districts evaluated the management recommendations (route status changes) for Alternative C. Based on the districts' understanding of specific issues for certain routes, the PSI determined that the MRS screening criteria did not provide enough flexibility in management for Alternative C and was incompatible with current uses. The PSI, therefore, decided that the MRS screening criteria as applied to Alternative C would not result in a mandatory route status change for routes. Instead, the ranger districts and PSI provided modifications to some of the route status changes based on their detailed understanding of route-specific issues.

The MRS screening process, therefore, applies to Alternative C subject to further discretion and change by the PSI. Additionally, under Alternative C, the recommendations for minimizing risk, such as *increase* the maintenance interval and techniques, reinforce and harden stream crossings, add seasonal closures, or install fencing, would be subject to the discretion of the PSI ranger districts that could choose from a variety of design criteria intended to minimize risk, as described in greater detail in the DEIS.

#### References

- CDPHE (Colorado Department of Public Health and Environment) GIS. 2016. GIS data of 303(d) state-listed waters used to support affected environment and environmental consequences. Internet website: https://data.colorado.gov/Water/WQCD-2016-303-d-list-of-impaired-waters/baj6-svb6.
- Forest Service GIS. 2018. GIS data used to support alternatives, affected environment, and environmental consequences, Alternative C modified June 2019. Pike and San Isabel National Forests. Pueblo, Colorado.
- Forest Service (US Department of Agriculture Forest Service). 1984. Pike San Isabel National Forest Land and Resource Management Plan and Final Environmental Impact Statement and Appendices. Pueblo, Colorado.
- \_\_\_\_\_. 2018c. Pike and San Isabel National Forests Capital Improvements and Maintenance Historical Salary Charges FY 2006–2018. Pueblo, CO.

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- United States Fish and Wildlife Service. 2012. Recovery plan for the Mexican spotted owl, First revision. Albuquerque, New Mexico.

