

Santa Fe Mountains Landscape Resiliency Project: Inventoried Roadless Areas Draft Effects Analysis

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Issues Addressed

This section includes issues pertaining to inventoried roadless areas that have been identified for detailed analysis. “An issue is a statement of cause and effect linking environmental effects to actions” (Forest Service Handbook 1909.15).

Issue 1: How would the proposed treatments impact the character of the inventoried roadless areas within the Project Area?

Inventoried Roadless Areas (IRAs) are defined as undeveloped areas typically exceeding 5,000 acres that met the minimum criteria for wilderness consideration under the Wilderness Act and that were inventoried during the Forest Service’s Roadless Area Review and Evaluation (RARE II) process, subsequent assessments, or forest planning. IRAs provide relatively undisturbed habitats for wildlife and have ecosystem functions to provide for clean water, soil, and air; opportunities for dispersed outdoor recreation; and locations for study and research. The 2001 Roadless Area Conservation Rule (also referred to in this report as the 2001 Roadless Rule) places restrictions for timber harvest and road construction or reconstruction within IRAs.

As stated in the Chief’s Review Process for Activities in Inventoried Roadless Areas of May 31, 2012, Regional Foresters shall review IRA activities involving “...the cutting, sale or removal of generally small diameter timber when [such removal is] needed...to maintain or restore the characteristics of ecosystem composition and structure, such as to reduce the risk of uncharacteristic wildfire effects within the range of variability that would be expected to occur under natural disturbance regimes of the current climatic period” (USDA Forest Service, 2012). The purpose and need of the SFMLR Project fits within this allowed purpose, so the Santa Fe National Forest has requested approval for the proposed treatments within the IRA areas of the Project from the Southwestern Region’s Regional Forester.

The 2001 Roadless Rule identifies nine values and features that characterize IRAs. These nine characteristics are:

- 1) High quality or undisturbed soil, water, and air.
- 2) Sources of public drinking water
- 3) Diversity of plant and animal communities
- 4) Habitat for threatened, endangered, proposed, candidate, and sensitive species and for those species dependent on large, undisturbed areas of land
- 5) Primitive, Semi-Primitive Non-Motorized, and Semi-Primitive Motorized classes of dispersed recreation
- 6) Reference landscapes
- 7) Natural appearing landscapes with high scenic quality
- 8) Traditional cultural properties and sacred sites

- 9) Other locally identified unique characteristics

Affected Environment

The SFMLR Project area includes eight IRAs governed by the 2001 Roadless Conservation Rule. These areas comprise approximately 24,613 acres of the SMLRP area (Table 1). There are a total of 8.23 miles of existing classified roads within the IRAs found in the Project area.

Table 1. Inventoried roadless area acreages and miles of road in the Santa Fe Mountains Landscape Resiliency Project.

Inventoried Roadless Areas (IRA) in the Santa Fe Mountains Landscape Resiliency Project			
<u>IRA Name</u>	<u>Total Acreage of IRA</u>	<u>Acreage Within Project Area</u>	<u>Miles of Road* Within IRAs of the Project Area</u>
Rancho Viejo	3,827.0	231.3	-
Pacheco Canyon	1011.9	384.3	-
Thompson Peak	33,001.6	13,061.5	5.26
Tesuque Creek	810.4	727.7	-
Juan de Gabaldon Grant	8,023.4	7,876.0	2.21
Black Canyon	1,921.5	1,148.5	-
Little Tesuque	814.8	814.3	0.04
McClure Reservoir	375.4	369.4	0.72
Total	49,786 ac	24,613 ac	8.23 mi

*includes Level 1 roads (basic custodial care, closed), Level 2 roads (high clearance vehicles) and Level 4 roads (Moderate degree of user comfort).

Vegetation Types in the SFMLR Project's IRAs

The predominant vegetation types found within the IRAs of the Project Area, as described by ecological response units, are identified in Table 2 below. These vegetation types are not unique to the IRAs within the project area and not all vegetation types are proposed for treatments in the SFMLR Project.

Table 2. Vegetation types and acreages within the Inventoried Roadless Areas of the Santa Fe Mountains Landscape Resiliency Project.

<u>IRA Name</u>	<u>Vegetation</u>	<u>Acreage Within Project Area</u>
Rancho Viejo	Mixed Conifer – frequent fire	47.37
	Pinon-Juniper Woodland	47.58
	Ponderosa Pine Forest	136.32
Pacheco Canyon	Mixed conifer – frequent fire	93.88
	Pinon-Juniper Woodland	168.87
	Ponderosa Pine Forest	116.63
	Narrowleaf Cottonwood/Shrub	4.87
Thompson Peak	Mixed Conifer – frequent fire	4,529.08
	Mixed Conifer with Aspen	6.08
	Pinon-Juniper Woodland	669.47
	Ponderosa Pine Forest	6,185.61
	Narrowleaf Cottonwood/Shrub	89.19

	Spruce-Fir Forest	1,582.10
Tesuque Creek	Mixed Conifer – frequent fire	634.33
	Mixed Conifer with Aspen	73.71
	Narrowleaf Cottonwood/Shrub	19.61
Juan de Gabaldon Grant	Colorado Plateau / Great Basin Grassland	133.65
	Mixed Conifer – frequent fire	1,934.44
	Mixed Conifer with Aspen	198.06
	Pinon-Juniper Woodland	4,210.92
	Ponderosa Pine Forest	1,208.38
	Narrowleaf Cottonwood/Shrub	157.87
	Ponderosa Pine / Willow	30.81
Black Canyon	Mixed Conifer – frequent fire	344.71
	Mixed Conifer with Aspen	42.30
	Ponderosa Pine Forest	9.16
	Narrowleaf Cottonwood/Shrub	1.39
	Spruce-Fir Forest	750.98
Little Tesuque	Mixed Conifer – frequent fire	46.78
	Mixed Conifer with Aspen	20.37
	Pinon-Juniper Woodland	347.55
	Ponderosa Pine Forest	398.72
	Narrowleaf Cottonwood/Shrub	0.93
McClure Reservoir	Mixed Conifer – frequent fire	326.22
	Ponderosa Pine Forest	41.63
	Narrowleaf Cottonwood/Shrub	1.56

Values and Features that characterize IRAs

The affected environment for the nine values and features used to characterize overall are representative of the general project area without any outstanding features unless specified below.

Soil, Water and Air

The Santa Fe National Forest’s GIS data shows that the soils in the inventoried roadless areas are in moderate or severe condition (Table 3).

Table 3. Erosion Hazard Ratings in the Inventoried Roadless Areas of the Santa Fe Mountains Landscape Resiliency Project.

IRA Name	Soil Rating	Acres
Rancho Viejo	Moderate	47.36
	Severe	183.89
Pacheco Canyon	Moderate	98.74
	Severe	285.56
Thompson Peak	Moderate	5,942.52
	Severe	183.89
Tesuque Creek	Moderate	727.66
Juan de Gabaldon Grant	Moderate	2,436.44
	Severe	5,439.44

Black Canyon	Moderate	389.29
	Severe	759.26
Little Tesuque	Moderate	67.69
	Severe	746.65
McClure Reservoir	Moderate	327.77
	Severe	41.63

The Santa Fe National Forest’s GIS data shows that the subwatersheds in the inventoried roadless areas of the Project are primarily functioning at risk, with the exception of Arroyo Hondo which is functioning properly (Table 4).

Table 4. HUC12s Located Within the Inventoried Roadless Areas of the Santa Fe Mountains Landscape Resiliency Project.

<u>IRA Name</u>	<u>HUC12</u>	<u>Watershed Condition Class</u>
Rancho Viejo	Rio Nambe	Functioning at Risk
Pacheco Canyon	Rio-Tesuque-Pojoaque Creek	Functioning at Risk
	Headwaters Rio Tesuque	Functioning at Risk
Thompson Peak	Headwaters Rio Tesuque	Functioning at Risk
	Dry Gulch-Pecos River	Functioning at Risk
	Arroyo Hondo	Functioning Properly
	Headwaters Santa Fe River	Functioning at Risk
	San Cristobal Arroyo-Galisteo Creek	Functioning at Risk
Tesuque Creek	Headwaters Rio Tesuque	Functioning at Risk
Juan de Gabaldon Grant	Headwaters Rio Tesuque	Functioning at Risk
Black Canyon	Headwaters Rio Tesuque	Functioning at Risk
Little Tesuque	Headwaters Rio Tesuque	Functioning at Risk
McClure Reservoir	Headwaters Santa Fe River	Functioning at Risk

There are three Class I areas managed for high air quality in northern New Mexico; Bandelier Wilderness, San Pedro Parks Wilderness, Pecos Wilderness and Wheeler Peak Wilderness (USDA Forest Service, 2020e). There are no areas within the project boundaries or any of the IRAs that are specifically managed for high air quality.

Sources of Public Drinking Water

The Santa Fe National Forest’s GIS data shows that there is one public water supply intake located within the project area; however, this intake is not located directly within an IRA.

Diversity of plant and animal communities and habitat for threatened, endangered, proposed, candidate, and sensitive species and those species dependent on large, undisturbed areas of land

The Project Area, and the IRAs within it, is currently occupied by many wildlife species including the Mexican spotted owl (MSO), a federally listed Threatened species, and the northern goshawk, a Forest Service Sensitive species. There are currently five Mexican Spotted Owl Protected Activity Centers (PAC) identified in the Project Area (USDA Forest Service, 2020a). Of the five MSO PACs, three are wholly or partially located within IRAs. One is located within the Juan de Gabaldon IRA in its entirety, and two are located in the Thompson Peak IRA, although both are only partially within the Project

boundary. The current risk for large, high-severity fire also poses a substantial threat to Mexican Spotted Owl habitats across the Project Area.

The project area is dominated by tree stands (ponderosa, mixed conifer, spruce-fir, pinyon-juniper and riparian) that are increasing in density over time. The majority of these trees are small diameter in the understory, often growing in shade, thus stunted and at risk for disease. Over time, wildlife habitats are changing, becoming less suitable as diversity decreases, conifer density increases and risk for large, high-intensity, high-severity wildfires increases across the Forest. This condition limits the diversity and quality of wildlife habitat.

The absence of low-intensity fire has promoted this in-fill of small trees and has contributed to the accumulation of surface fuel loads in the project area. The combination of the dense vegetation, high fuel loads, and presence of ladder fuels results in an increased risk for uncharacteristically severe wildfire which could drastically alter vegetation communities and thus wildlife habitats. In addition, the high vegetation densities increased the risk of insect and disease outbreaks, coupled with drought stress can lead to widespread tree mortality, again risking habitat alteration.

The vegetation within and immediately adjacent to the project area also consists of a diversity of other types and conditions. These include mixed conifer and aspen overstory types and understory types of upland vegetation such as grasses and small shrubs. The vegetation also consists of uneven-aged trees, some with a more open canopy. Refer to the draft Biological Evaluation prepared for the draft EA for additional information regarding existing conditions for wildlife (USDA Forest Service, 2020b).

Primitive, Semi-Primitive Non-Motorized, and Semi-Primitive Motorized classes of dispersed recreation

The presence of primitive, semi-primitive non-motorized, and semi-primitive motorized classes of dispersed recreation across the IRAs of the project are identified below (Table 5). Other classes of dispersed recreation, including rural and roaded natural, are also found within the IRAs.

Table 5. Primitive, Semi-Primitive Non-Motorized, and Semi-Primitive Motorized classes of dispersed recreation in the Inventoried Roadless Areas of the Santa Fe Mountains Landscape Resiliency Project.

<u>IRA Name</u>	<u>Recreation Opportunity Spectrum</u>	<u>Acres</u>
Rancho Viejo	Primitive	231.3
Pacheco Canyon	Semi-Primitive Motorized	103.97
	Semi-Primitive Non-Motorized	280.33
Thompson Peak	Primitive	1875.47
	Semi-Primitive Motorized	75.46
	Semi-Primitive Non-Motorized	1,0739.37
Tesuque Creek	Semi-Primitive Motorized	20.37
	Semi-Primitive Non-Motorized	491.98
Juan de Gabaldon Grant	Semi-Primitive Motorized	2.38
	Semi-Primitive Non-Motorized	7237.49
Black Canyon	Primitive	23.60
	Semi-Primitive Non-Motorized	943.79
Little Tesuque	Semi-Primitive Non-Motorized	694.16
McClure Reservoir	Primitive	123.14
	Semi-Primitive Non-Motorized	246.25

Reference Landscapes

“Reference landscapes of relatively undisturbed areas serve as a barometer to measure the effects of development on other parts of the landscape” (2001 Roadless Area Final Rule, pg.3245). The current Santa Fe National Forest Plan does not identify any reference landscapes. The IRAs within the project area are not suitable reference landscapes because their conditions do not represent desired conditions for ecosystem composition, structure, or processes.

Natural appearing landscapes with high scenic quality

The Pacheco Canyon, Tesuque Creek, Thompson Peak, Black Canyon, and Little Tesuque IRAs include areas that fall within Management Area D, which emphasizes management for a visual quality objective (VQO) of retention. The definition of retention is, “...provides for management activities that are not visually evident. Activities may only repeat the form, line, color and texture frequently found in the existing landscape.” The Juan de Gabaldon IRA, Rancho Viejo, and Thompson Peak IRAs include areas located within Management Area L, which is also managed for a VQO of ‘retention’.

The McClure and Thompson Peak IRAs include areas within Management Area O, which is managed for a VQO of ‘preservation’. For these areas, management activities would not be detectable to a visitor.

A small portion of the Thompson Peak IRA includes areas within Management Area E, which is generally managed for a VQO of partial retention, with specified areas managed for a VQO of retention, including the foregrounds of developed recreation sites and the foreground and middleground of I-25. Partial retention is defined as “...activities may be evident, but must remain subordinate to the characteristics of the landscape.”

Traditional cultural properties and sacred sites

The SFMLRP Phase 1 Literature Review (USDA Forest Service, 2020c) revealed 80 previously recorded archaeological sites within the project area.

Other locally identified unique characteristics

No other characteristics of the IRAs would qualify as “locally unique” so effects to this feature will not be analyzed.

Methodology

This section includes a description of the methods and data used in this analysis.

Data Sources

This analysis is based on spatial and Geographic Information System data from the Santa Fe National Forest. The spatial boundaries for evaluating the direct/indirect and cumulative effects on inventoried roadless areas include the broader boundary for all the IRAs that are wholly within, or partially within the Project boundary so that potential impacts to individual IRAs can be assessed.

For this report, the definition of a short-term impact is 1 to 5 years because immediate fire effects are expressed during this time period, such as the response of herbaceous plants and shrubs. The definition of

a long-term impact is 6 years and beyond because the structure and composition of vegetation recover from fire effects by this time.

Resource Indicators and Measures

Table 4. Resource condition indicators and measures for assessing effects

Issue	Indicator or Measure	Source
Changes to the character of Inventoried Roadless Areas	Assessment of each proposed management activity's impact to the nine roadless characteristics (qualitative and quantitative)	2001 Roadless Area Conservation Rule (36 CFR Part 294)

Impacts to the character of Inventoried Roadless Areas from the alternatives (No Action Alternative and Proposed Action) are analyzed by qualitatively assessing the nine characteristics of roadless areas, as defined in the 2001 Roadless Rule.

Environmental Consequences

No Action Alternative

This section discloses the environmental impacts of the no-action alternative.

Direct and Indirect Effects of the No Action Alternative

Under the No Action Alternative, current management plans would continue to guide management of the project area. No prescribed burning, vegetation and restoration treatments, or road closure, would be implemented to accomplish project goals within the project area, unless approved through a separate NEPA document and decision. No Forest Plan amendments would occur. Without implementing the treatments, forest conditions would continue to depart from desired conditions. The risk of uncharacteristic fire severity would continue to increase within the project area. Forest structure would continue to be somewhat homogenous and would continue to be dominated by a single age class. Forests would lack the desired level of diversity in structure, composition, and density. Forest susceptibility to insects and disease (e.g. bark beetles and mistletoe) would continue to increase. Ultimately, the landscape would not be moved toward desired conditions, and as such, the no action alternative would not meet the purpose and need for the project.

High quality or undisturbed soil, water, and air.

Without treatment to fuels and forest structure, ground cover would be expected to remain deficient beneath areas of dense canopy, and the persistent and elevated risk of large, high intensity wildfire would continue to threaten water quality, soil productivity, and flooding. High intensity wildfire would negatively impact the soil and water of the inventoried roadless areas. Potential impacts include altered soil productivity, altered water-balance, decreasing infiltration, increasing overland flow and stream-flow, and increasing erosion and sedimentation. Refer to the draft specialist report for Watershed Resources prepared for the draft EA for more detailed information on the effects of the no action alternative to soil and water throughout the project area (USDA Forest Service, 2020h). Effects in the IRAs are not discernibly different from the rest of the project area.

Air quality in the project area is generally in good condition or improving as most pollutants are decreasing as a result of stricter regulation. However, impacts to visibility and ambient air quality conditions associated with particulate matter are expected to increase as a result of larger, more severe

wildfires and increases in fugitive dust as the effects of climate change are realized. Refer to the draft specialist report for Air Quality prepared for the draft EA for more detailed information on the effects of the no action alternative to air quality throughout the project area (USDA Forest Service, 2020e). Effects in the IRAs are not discernibly different from the rest of the project area.

Sources of public drinking water

The increased potential for a severe wildfire could cause severe soil erosion, which would potentially affect water quality and drinking water supplies of downstream communities for decades. Please refer to the draft specialist report for watershed resources (USDA Forest Service, 2020h) for more information on the effects of the no action alternative to watersheds and public drinking water sources throughout the project area. Effects in the IRAs are not discernibly different from the rest of the project area.

Diversity of plant and animal communities and habitat for threatened, endangered, proposed, candidate, and sensitive species and for those species dependent on large, undisturbed areas of land

Without treatments, existing trends towards increased densities of smaller trees and conifer encroachment/infill would continue and wildlife habitats would become less suitable as diversity decreases, conifer density increases and risk for large, high-intensity, high-intensity wildfires increases across the Forest. The risk for large, high-intensity fire would pose a substantial threat to MSO habitats across the Project Area.

Please refer to the draft Biological Assessment and draft Biological Evaluation for detailed information on the effects of the alternatives to Mexican Spotted Owl, Goshawk, and other wildlife species (USDA Forest Service, 2020a; USDA Forest Service, 2020b). Effects in the IRAs are not discernibly different from the rest of the project area.

Primitive, Semi-Primitive Non-Motorized, and Semi-Primitive Motorized classes of dispersed recreation

In the No Action scenario, there would be no impacts to the existing recreation setting, opportunity, and existing recreation experiences beyond those that are already occurring in the project area if no catastrophic fire occurred. If one did occur there would be major impacts to the recreation setting, opportunity, and existing recreation experience (USDA Forest Service, 2020f). As a result of a high intensity wildfire, it is possible that access to the primitive, semi-primitive non-motorized, and semi-primitive motorized areas with the IRAs would become reduced and the quality of recreational experiences negatively impacted. If these areas were closed due to wildfire, recreation users would be required to seek alternative locations to pursue the same activity (USDA Forest Service, 2020f).

Please refer to the Recreation specialist report prepared for the draft EA for detailed information on the effects of the alternatives to these ROS classes (USDA Forest Service, 2020f). Effects in the IRAs are not discernibly different from the rest of the project area.

Reference landscapes

Since no reference landscapes are identified, the absence of actions would have no effects to this characteristic of IRAs.

Natural appearing landscapes with high scenic quality

Vegetative conditions would continue to depart from the desired structure and composition that are characteristic of the forests found within the inventoried roadless areas. This would result in forests are visually denser and homogenous, lacking the desired structural diversity. The risk of uncharacteristic fire severity would continue to increase within the project area. A high intensity wildfire would dramatically alter the scenic quality and natural appearance of the landscape, resulting in large-scale removal of

vegetation across the landscape and negatively impacting the scenic quality (USDA Forest Service, 2020g).

Please refer to the Scenic Effects analysis prepared for the draft EA for detailed information on the effects to scenic quality (USDA Forest Service, 2020g). Effects in the IRAs are not discernibly different from the rest of the project area.

Traditional cultural properties and sacred sites

A high intensity wildfire has the potential to damage or destroy the traditional cultural properties and sacred sites that exist within the inventoried roadless areas (USDA Forest Service, 2020c). Please refer to the Cultural Resource Effects Analysis prepared for the draft EA for more detailed information on traditional cultural properties and sacred sites (USDA Forest Service, 2020c). Effects in the IRA are not discernibly different from the rest of the project area.

Other locally identified unique characteristics

No locally identified unique characteristics have been identified.

Proposed Action Alternative

This section discloses the environmental impacts of the proposed action.

Direct and Indirect Effects of the Proposed Action, Alternative 2

The potential direct and indirect impacts to inventoried roadless areas by the Proposed Action (See Chapter 2 of this EA) are addressed for each identified issue below. The proposed Forest Plan amendments adopt updated management guidance for Mexican Spotted Owl and Northern goshawk.

The proposed Forest Plan amendments adopt updated management guidance for Mexican Spotted Owl and Northern goshawk. This includes amendments specifying how vegetation would be manipulated within Mexican Spotted Owl protected activity centers (PACs), adopting aspects of the 2012 Mexican Spotted Owl Recovery Plan, clarifying activity restrictions during MSO breeding seasons, and clarifying the need for interspaces for consistency with updated Northern goshawk management guidance. The proposed Forest Plan amendments are not expected result in effects to the characteristics of inventoried roadless areas that are substantially different from the rest of the project area. The effects of the proposed plan amendments are analyzed in greater detail in the relevant specialist reports, which are incorporated by reference below.

Issue 1: Management activities would impact the character of inventoried roadless areas.

Prescribed fire, riparian restoration, and manual and mechanical thinning treatments would occur within all eight of the inventoried roadless areas within the Project area. The vegetation types subject to treatment include mixed conifer – frequent fire, ponderosa pine forest, pinon-juniper woodland, pinon-juniper grassland, juniper grasslands, and narrowleaf cottonwood/shrub.

The restoration methods applied within the inventoried roadless areas would use equipment and vehicles that do not require the use new access roads (e.g., either vehicles would use existing roads within the IRA or vehicles capable of overland travel would be used). The Project proposes up to 18,000 acres of mechanical or hand-thinning treatments, up to 38,000 acres of prescribed burning, up to approximately 672 acres of riparian restoration, and 1.5 miles of road closure. Mechanical treatment would only occur on slopes with gradients less than 40 percent and manual treatments could occur on all slopes. Within the inventoried roadless areas, approximately 11,732 acres occur on gradients less than 40%. The Forest Service estimates that no more than 750 acres per year (3 percent of total IRA acres) would be treated

with manual or mechanical vegetation thinning and no more than 4,000 acres per year (16 percent of total IRA acres) would be treated by the use of prescribed fire.

Restoration activities would focus on thinning and burning treatments to improve forest health and resiliency by reducing fuel loading, stand density, continuity, and homogeneity (sameness of forest structure and species composition), and increasing heterogeneity (diverse forest structure and species composition) at a landscape scale, mid-scale, and fine scale. No permanent or temporary roads would be constructed, but existing roads, trails, and routes may be used for access. Overland travel by vehicles that do not require roads to be constructed (e.g. masticators, UTVs) may occur.

High quality or undisturbed soil, water, and air.

Short-term adverse impacts to soil, water, and air quality could occur during the implementation of vegetation thinning and prescribed fire treatments from the increased erosion potential resulting from ground disturbance. The adverse impacts would be outweighed by the long-term benefits to watershed resources and would be mitigated by the design features developed for the project. This project is also expected to reduce risks of high-severity, stand-replacing wildfires; thereby resulting in long-term beneficial impacts to soil function and watershed conditions across all 24,613 acres of IRA within the SMLPR area.

The use of prescribed fire may cause some erosion (and sedimentation) but is unlikely to cause more erosion on steeper slopes than typical slopes during an average precipitation year. The potential for adverse effects to soil and watershed processes by mechanical equipment and prescribed fire should be diminished by the effective implementation of project design criteria. Adverse impacts to watershed resources are expected to be minimal, short term, and insignificant when compared with those by high intensity wildfire. Refer to the specialist report for Watershed resources prepared for the draft EA for more detailed information on the effects of the no action alternative to soil and water throughout the project area (USDA Forest Service, 2020h). Effects in the IRAs are not discernibly different from the rest of the project area.

Implementation of the proposed action will reduce future wildfire smoke emissions and air quality impacts and mitigate the potential long term loss of stored carbon. Mechanical fuel treatments and prescribed fire would have minimal impacts on air quality. The impact of smoke on local community members and visitors would depend on weather conditions when fires are active and an individual's sensitivity to smoke. The Forest Service would take measures to manage smoke impacts resulting from prescribed fire. Refer to the specialist report for Air Quality prepared for the draft EA for more detailed information on the effects of the proposed action alternative to air quality throughout the project area (USDA Forest Service, 2020e). Effects in the IRAs are not discernibly different from the rest of the project area.

Sources of public drinking water

National forests in New Mexico were, in part, established to protect sources of water which flow from the mountains and forested areas down to the valleys and deserts. Precipitation that falls on National Forest lands infiltrate into the groundwater and can provide drinking water to residents using wells. Vegetation and watershed restoration both within IRAs and outside of IRAs is expected to improve filtration and reduce the risk of the increased sedimentation caused by uncharacteristic wildfires.

Impacts to the IRAs' characteristic of sources of public drinking water is expected to be beneficial over the long term when compared to the no action alternative. Refer to the specialist report for Watershed resources prepared for the draft EA for more detailed information on the effects of the no action alternative to watershed resources throughout the project area (USDA Forest Service, 2020h). Effects in the IRAs are not discernibly different from the rest of the project area.

Diversity of plant and animal communities and habitat for threatened, endangered, proposed, candidate, and sensitive species and for those species dependent on large, undisturbed areas of land

Varying habitat types exist in the project area, from ponderosa pine to piñon-juniper, and grasslands to riparian areas along streams, and a variety of plant and animal species occupy these habitats. Overall, treatments are aimed at making habitats for wildlife species more resilient to disturbances such as wildfire and improving diversity of plant and animal communities.

Thinning and prescribed fire treatments are expected to have a stimulating effect on herbaceous understory, improve forage, reduce woody debris and recycle nutrients to the soil (USDA Forest Service, 2020b). Some short-term negative impacts may occur – for example, temporary reduction in herbaceous cover after prescribed burning, and some wildlife may be temporarily displaced during project implementation but would likely recolonize treated areas once activities cease. Although direct impacts to individuals may occur in the short term, treatments are expected to improve habitat suitability and forage availability over the long term. No impacts to species trends are expected (USDA Forest Service, 2020b).

For the northern goshawk, a sensitive species, the proposed treatments are expected to help move forested stands towards suitable habitat by shifting conditions so that more trees are in the larger size ranges, which provide better habitat than smaller trees sizes that are currently overrepresented in the project area. In the short-term, there may be some initial negative impacts as the area would have noise and visual disturbance in the area and trees would be removed which would open the canopy in many places, potentially removing the area from nesting habitat suitability. This may change some areas used for foraging. However, in the long-term, understory vegetation would increase in quantity and diversity, thus promoting prey species (USDA Forest Service, 2020b).

For the Mexican Spotted Owl, a threatened species, the proposed treatments are generally expected to improve habitat. Prescribed burning may result in a short-term loss of understory plant cover, but would likely increase plant cover and diversity long-term, benefitting MSO prey species. The proposed treatments would reduce the likelihood of degradation or loss of MSO habitat from wildfire and enhance key habitat elements (USDA Forest Service, 2020a).

Overall, the proposed action may result in some adverse and short term impacts to wildlife immediately following the proposed treatment activities, but impacts are expected to be beneficial over the long term when compared to the no action alternative.

Please refer to the Biological Assessment and Biological Evaluation prepared for the draft EA for detailed information on the effects of the proposed action alternative to Mexican Spotted Owl, Goshawk, and other wildlife species (USDA Forest Service, 2020a; USDA Forest Service, 2020b). Effects in the IRAs are not discernibly different from the rest of the project area.

Primitive, Semi-Primitive Non-Motorized, and Semi-Primitive Motorized classes of dispersed recreation

The Proposed Action could cause short-term, minor to moderate impacts to site-specific recreation sites. Noise from restoration activities and views of workers, equipment, vehicles, or debris and cleared areas could temporarily and adversely impact the experience of recreationists in dispersed settings. The desired condition of a healthier, more resilient forest would also result in a forest that is more open in character than the current landscape and would offer more dispersed recreation opportunities like hunting, hiking, and wildlife viewing (USDA Forest Service, 2020f).

Impacts to the IRAs' characteristic of dispersed recreation is expected to be adverse and short term and beneficial over the long term when compared to the no action alternative.

Please refer to the Recreation Specialist report prepared for the draft EA for detailed information on the effects of the alternatives to these ROS classes ((USDA Forest Service, 2020f). Effects in the IRAs are not discernibly different from the rest of the project area.

Reference landscapes

Since no reference landscapes are identified, the proposed action would have no effects to this characteristic of IRAs. However, the proposed treatments would move vegetative conditions in the project area, including the IRAs, closer to suitable conditions for a potential reference landscape.

Natural appearing landscapes with high scenic quality

The IRAs within the SMLRP area fall within the West Range character type, characterized by mountains that have highly dissected slopes, sharp angular ridgetops, and deep V-shaped canyons. The proposed management activities would move the landscape character to include more open stands typical of this elevation and vegetation type (USDA Forest Service, 2020g).

The proposed activities would improve the natural appearance of the landscape over the long term. The treatments would affect the near-term appearance during implementation, as a result of tree removal, slash piles, and burned vegetation. However, the IRAs would still appear natural. No artificial structures or new roads would be added that would reduce the appearance of a natural landscape. The high scenic quality would be protected by reducing the threat of a high-severity, stand-replacing wildfire, which could diminish the scenic quality for a long period of time. However, low to moderate-intensity fire would improve the natural appearance by creating small openings and encouraging grass and forb growth.

Impacts to the IRAs' characteristic of natural appearing landscapes with high scenic quality is expected to be adverse and short term and beneficial over the long term when compared to the no action alternative (USDA Forest Service, 2020g).

Please refer to the Scenic Effects Analysis prepared for the draft EA for detailed information on the effects to scenic quality (USDA Forest Service, 2020g). Effects in the IRAs are not discernibly different from the rest of the project area.

Traditional cultural properties and sacred sites

The removal of trees will reduce long-term fuel continuity, fuel loading, and fire hazard. This type of treatment will benefit cultural resources within the project area by decreasing the potential for adverse effects caused from high-intensity, high-severity wildfires. Traditional cultural areas would be avoided by all ground disturbing (mechanized) activities associated with the project. Cultural sites would be avoided by project activities, or fire would be allowed to burn over cultural resources depending on the type and nature of the sites. In the short-term, the treatments could lead to accelerated erosion; increased site visibility caused by removal of vegetation may substantially increase inadvertent or advertent looting activities (USDA Forest Service, 2020c).

Impacts to the IRAs' characteristic of TCPs and sacred sites is expected to be adverse and short term and beneficial over the long term when compared to the no action alternative. Please refer to the Cultural Resources Effects Analysis prepared for the draft EA for more detailed information on traditional cultural properties and sacred sites (USDA Forest Service, 2020c). Effects in the IRA are not discernibly different from the rest of the project area.

Other locally identified unique characteristics

No locally unique characteristics of the inventoried roadless areas in this Project Area have been identified. Therefore, no impacts would occur to this IRA characteristic.

Summary

Since there would be no new roads constructed within the inventoried roadless area, there would be no change in the roadless character. The project would not forego any future management decisions for the inventoried roadless area. Impacts to the nine characteristics of IRAs, as described in detail above, vary depending upon the affected resource. While some short-term adverse impacts may occur, they are generally outweighed by the long-term benefits of the proposed action, including the reduced risk for high-severity wildfire. The adverse impacts would occur on less than 16 percent of the total IRA acreage within the project area and would generally be mitigated by the design features developed for the project. This project is also expected to reduce risks of high-severity, stand-replacing wildfires; thereby resulting in long-term beneficial impacts across all 24,613 acres of IRA within the SMLPR area.

Cumulative Effects of the Proposed Action, Alternative 2

The temporal boundaries for analyzing cumulative effects is 20 years in order to account for subsequent maintenance burning that would follow initial treatments. None of the actions in Table 3-1 propose road construction within inventoried roadless areas. The Pacheco Canyon Forest Resiliency Project (2,042 acres) and the Hyde Park WUI Project (1,840 acres) are ongoing projects adjacent to the SFMLR Project area that include thinning and prescribed burning activities within IRAs. For the Pacheco Canyon Project, 808 acres of the 2,042 acres are within IRAs. The entirety of the 1,840-acre Hyde Park Project is within IRAs. The Santa Fe Municipal Watershed Project (7270 acres) includes ongoing maintenance prescribed burning within the Nichols Reservoir and a small portion of the Thompson Peak IRAs. These projects would have similar short-term and long-term impacts to IRA characteristics as described above; while some short-term impacts may be adverse, there are long-term benefits to many affected resources. Cumulatively, these projects along with the SFMLR Project would improve the landscape's resiliency to high severity wildfire and improve vegetative conditions.

Please refer to the cumulative effects for individual resources throughout Chapter 3 of the draft EA for more detailed information on cumulative effects. Cumulative effects for resources in the IRA are not discernibly different from the rest of the project area.

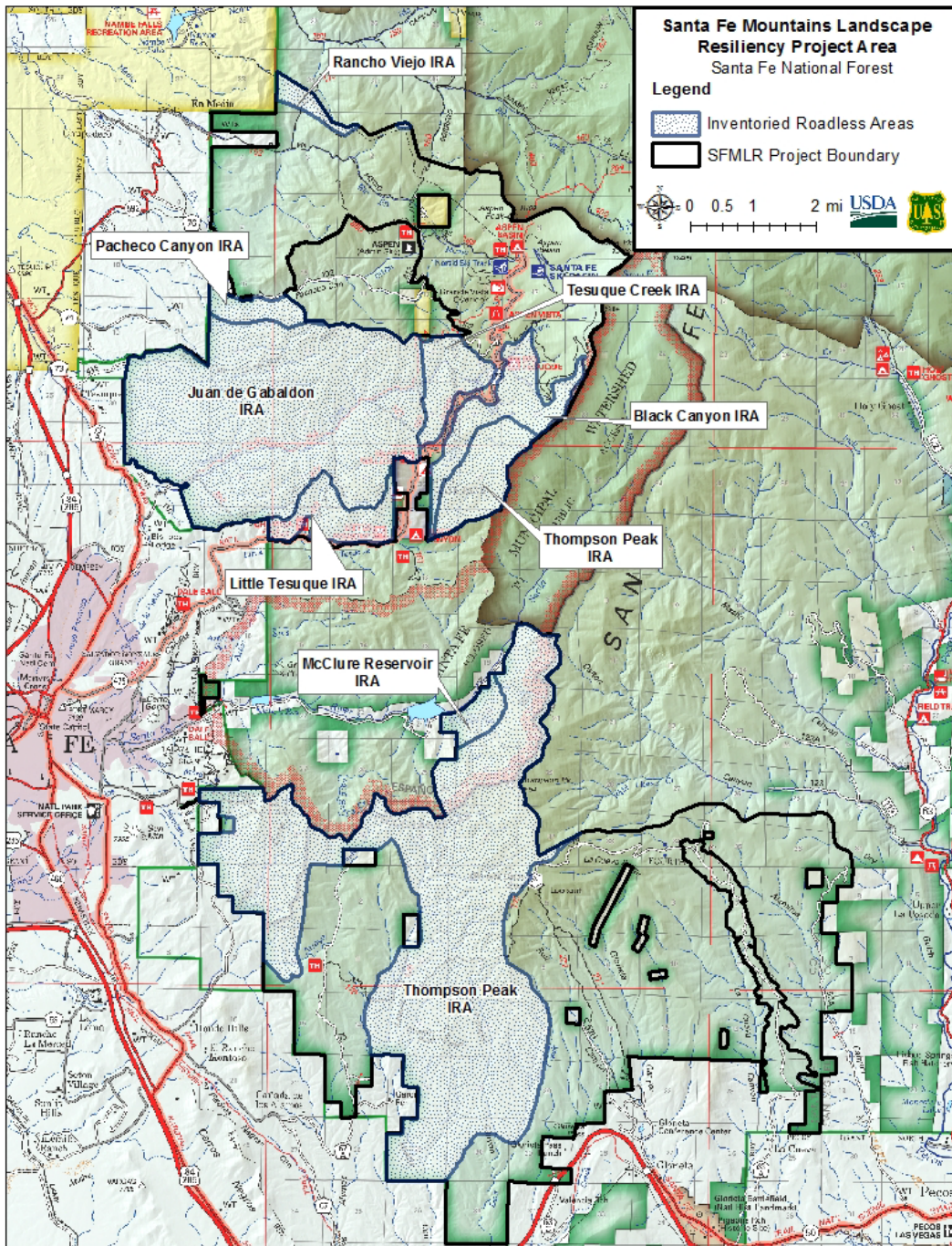
Conclusion

The no-action alternative would likely result in substantial, long-term impacts to the character of the inventoried roadless areas of the Project Area. Some short-term negative impacts may result from the proposed action, but management activities would generally improve the character of the inventoried roadless areas.

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- U.S. Department of Agriculture, Forest Service. 2012. Chief’s Review Process for Activities in Roadless Areas. Washington, D.C., USA.
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Appendix A: Map of Inventoried Roadless Areas in the Santa Fe Mountains Landscape Resiliency Project



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