

# Santa Fe Mountains Landscape Resiliency Project: Recreation Effects Analysis

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For: Espanola and Pecos-Las Vegas Ranger Districts, Santa Fe National Forest

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The Santa Fe Mountains Landscape Resiliency Project (SFMLRP) area is within a very actively used Recreation Area on the Santa Fe National Forest. There are three campgrounds – Black Canyon Fee Site, and Big Tesuque and Aspen Basin which are non fee site as of the 2021 season. There are three picnic/day use sites and 9 Trailheads. Winter recreation includes the Ski Santa Fe and the Norski Nordic Ski areas which are also popular for hiking and mountain biking in the summer.

The Table below shows that most of the recreation sites within the SFMLRP are on the Española District. However, this table also shows that there are many recreation sites of the same type outside of the SFMLRP that are within an easy drive.

Site Type	Pecos/ Las Vegas Ranger District	Española Ranger District	Within SFMLRP area
Campgrounds	10	4	3
Camp Sites	174	52	38
Group Campgrounds	2	0	0
Picnic Areas	5	2	3
Picnic Sites	24	19	19
Boating Sites	0	0	0
Fishing Access	3	0	0
Trailheads	15	15	9
Nordic Ski Areas	0	2	1
Downhill Ski Areas	0	1	1

Source: Santa Fe NF Natural Resources Manager Database and Forest geospatial data, 2017.

The north project area is within the Española Ranger District of the Santa Fe National Forest and is within a short drive from the city of Santa Fe. Many consider it to be a “backyard” recreation area, and therefore receives high use year-round. Most popular recreation activities within the north portion of the project area include camping, picnicking, hiking, mountain biking, and horseback riding in the summer. During the winter months there is Alpine skiing at Ski Santa Fe, Nordic skiing on area roads and trails, as well as snowshoeing and hiking where practical.

The south project area is within both the Española Ranger District and the Pecos/Las Vegas Ranger Districts. Recreation is not as high use as the north side, and access is not as easy. There is not a paved highway to the recreation sites like the NM 475 highway on the north side, but instead just a couple of Forest dirt roads open in Travel Management. Private property without easements along the boundary of the Forest also limits access. Most popular recreation activities within the south portion include four wheel driving, mountain biking, hiking, and horseback riding. Winter recreation is much more limited in the southern portion due to lower elevation and less snow pack.

The New Mexico State Highway 475 corridor out of Santa Fe to Ski Santa Fe is the primary and most popular access to Forest Service recreation opportunities for Santa Fe County. From south to north along 475 there is:

- Chamisa Trail head
- Little Tesuque Picnic Area
- Black Canyon Campground
- Black Canyon Trailhead and trail
- Borrego Bear Wallow Trailhead
- Big Tesuque Campground and trailhead
- Pacheco Road intersection with Highway 475 (dispersed camping and trailhead access mostly outside of project area)
- Aspen Vista Picnic area and trailhead
- Vista Grande Overlook
- Aspen Basin Campground and trailhead
- Ski Santa Fe Ski Area. - One of the major Ski Areas in the region

In the West portion of the SFMLRP Area there is;

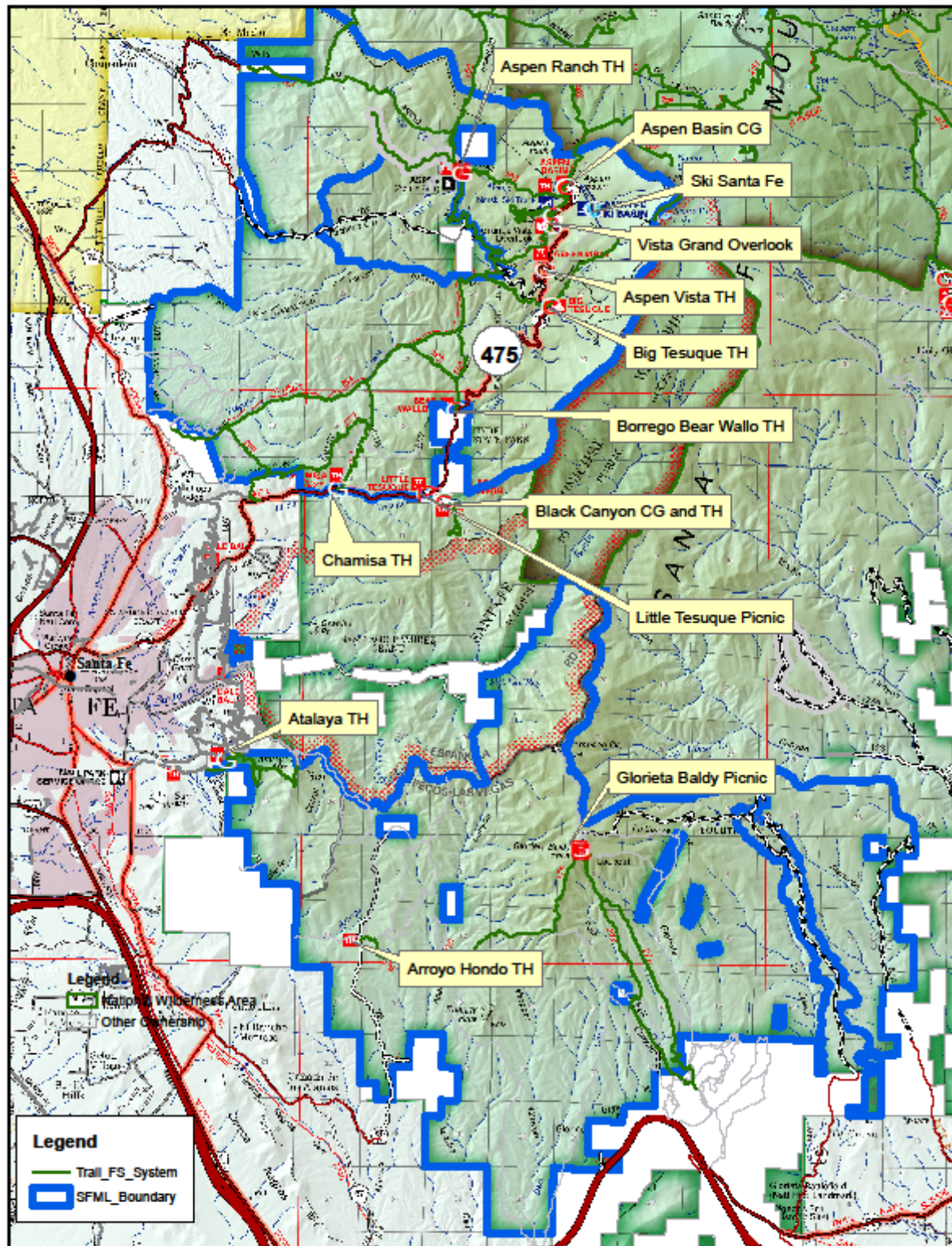
- Aspen Ranch Trailhead
- Winsor Trailhead
- En Medio Trailhead.

In the southern block of the Project Area there is:

- Arroyo Hondo Trailhead (at the south end of the proposed road closure)
- Glorieta Baldy Lookout and picnic area
- Forest Road 375 from I 25 to Glorieta Baldy
- Forest Road 50A from Highway 50, through private land and terminating 3.5 miles north of the private land.
- Numerous non motorized roads and Forest Service System Trails and user created trails starting near the Glorieta Conference Center.

## **Recreation Facilities in the SFML Project Area**

Location Name	Type of Recreation Opportunities Provided	Estimated number of users accommodated	Recreation Setting
Little Tesuque	Picnic Area	10	Roaded Natural
Black Canyon	Campground and Trailhead	42	Roaded Natural
Big Tesuque	Campground and Trailhead	7	Roaded Natural
Aspen Basin	Campground and Trailhead	6	Roaded Natural
Aspen Vista Picnic	Picnic Area and Trailhead	5	Roaded Natural
Vista Grande Overlook	Observation Point	10	Roaded Natural
Borrogo Bear Wallow	Trailhead	4	Roaded Natural
Aspen Ranch Trail Head	Trailhead	4	Roaded Natural
Ski Santa Fe	Winter Ski Resort	660 acres, 86 runs	Rural
Glorieta Baldy	Picnic Area	4	Roaded Natural
Chamisa	Trailhead	4	Roaded Natural
Winsor	Trailhead	4	Roaded Natural
En Medio	Trailhead	4	Roaded Natural
Apache Canyon	Trailhead	6	Roaded Natural



## **Most popular and well-known Recreation Sites within the Project Area**

### **Winsor National Recreation Trail**

Winsor National Recreation Trail is 8 miles long. It begins at end of County Road 72A in Tesuque, intersects the Chamisa trail where it is designated as a National Recreation Trail, and ends at the Santa Fe Ski Basin. The Winsor Trail, without the National Recreation Trail status, continues from Aspen Basin to the Cowles Trailhead on the Pecos/Las Vegas District on the East side of the Sangre de Cristo Range. The trail, totaling about 22 miles, is open for hiking, horseback riding, and backpacking. Mountain biking is allowed in the non wilderness portions of the trail. (USDA 2016).

### **Santa Fe National Forest Scenic Byway**

This nationally recognized strip of highway starts in the historic downtown plaza in Santa Fe, follows New Mexico Highway 475, and ends 16 miles later at the Santa Fe Ski Area. Spring and summer wildflowers dot the uphill road cuts and slopes below the road. The drive is most scenic in the autumn when the aspen colors are in full effect.

The Santa Fe National Forest Scenic Byway has an Interpretive Master Plan available to help guide managers so as to develop this route as informative and interesting to visitors. There are many great stops on the way. Vista Grande Overlook, near the top of the byway, has spectacular views of the Rio Grande Valley and the Jemez Mountains to the west. The cities of Santa Fe, Los Alamos, White Rock, and even Albuquerque on clear days, are visible from this vista. Big Tesuque Campground and Aspen Vista Day use area both have great views of the fall foliage as well. There are three campgrounds, two picnic areas and seven trail heads along the route.

### **Aspen Vista Trailhead/Picnic Area**

This is a very popular trailhead, especially in the fall when the aspen leaves are changing color. The service road to Tesuque Peak is closed to motor vehicles except for maintenance needs of the communication site. It makes an excellent group hike area that is relatively easy hiking with excellent views. In winter it can be a good back country ski trail during good snow conditions. The picnic site provides well spaced tables and a feeling of seclusion among the aspen dominated setting along a ridgetop.

### **Santa Fe Ski Basin**

Santa Fe Ski Area is a year-round mountain retreat for local residents of Santa Fe and tourists from all over the world. In the summer, the ski slopes offer hiking, mountain biking and dispersed recreation opportunities. During the fall for a few days, the ski area opens a lift for viewing of the fall colors. The parking lot of the ski area also serves as parking for the Winsor National Recreation Trail and a gateway to the west side of the Pecos Wilderness.

Ski Santa Fe is located at the top of the Santa Fe National Forest Scenic Byway, (NM State Route 475 or Hyde Park Road), 16 miles from the historic Santa Fe Plaza in downtown Santa Fe. The area operates on 660 acres of National Forest land, under a Special Use Permit. There are seven lifts serving 73 runs, with a mix of beginner, intermediate and advanced runs. The base area elevation is 10,350' and the summit 12,075', for a total vertical gain of 1,725'. It is the primary downhill skiing area for the Santa Fe National Forest.

## **Black Canyon Campground**

Black Canyon Campground is one of the more popular campgrounds on the Santa Fe National Forest and offers the most amenities of any of the campgrounds in the Espanola Ranger District. There are 36 units for cars and RVs, 6 walk-in units for tent camping only, picnic tables and grills, drinking water, a campground host on site, vaulted toilets, and several double sites to accommodate a maximum of 16 people. Due to a break in the electric line servicing the area, Black Canyon Campground has been without potable water amenities for the past three years.

## **Santa Fe Area Trail System**

Within both project areas, there are 53 miles of Forest Service System trails and another 71 miles of user created trails for a total of 114 miles of recreation trails that are used in the project area. This includes the Winsor National Recreation Trail. The Draft Forest Plan emphasizes scenery management along the Winsor Trail and that management activities maintain safe public access. Management activities along corridors should maintain the condition and character of the surrounding landscape and practices that promote “Leave no Trace” ethics.

Outside and adjacent to the project areas, there are another 64 miles of trails.

Primary recreation activities in and around the project area are:

- Hiking
- Mountain biking
- Campground Camping
- Dispersed camping
- Picnicking
- Skiing – alpine and Nordic
- Snowshoeing
- Motorized driving
- Horseback riding
- Mushroom hunting
- Wildlife and plant viewing

A map of the draft Recreation Opportunity Spectrum from 2019 within the proposed action is shown below. Most of the area falls into Semi Primitive Non Motorized. Roaded Natural acres are about half the size, followed by Semi Primitive Motorized, and then Rural – concentrated around the Santa Fe Ski Basin.

Along highway 475 corridor, all the recreation sites are within the Roaded Natural Spectrum, with the exception of Ski Santa Fe which falls into the Rural spectrum due to heavy winter use for downhill skiing.

Below are the different categories of the Recreation Opportunity Spectrum with their description:

**Semi Primitive Non Motorized** – A setting that has an area of primitive roads\* or trails that are not open to motorized use; is generally at least 2,500 acres in size; and is between 1/2 and 3 miles from

all roads, railroads, or trails with motorized use. Access is via nonmotorized trails or nonmotorized primitive roads or cross-country. Low contact frequency with other visitors. High probability of solitude; natural-appearing environment.

Note:\* “Primitive roads” are not constructed or maintained and are not generally suitable for highway type vehicles.



**Roaded Natural** – A setting in an area that is within 1/2 mile of a better than primitive road. Access is primarily via conventional motorized use on roads. Contact frequency with other users may be low to moderate on trails and moderate to high on roads. Environment is natural appearing as viewed from visually sensitive roads and trails.



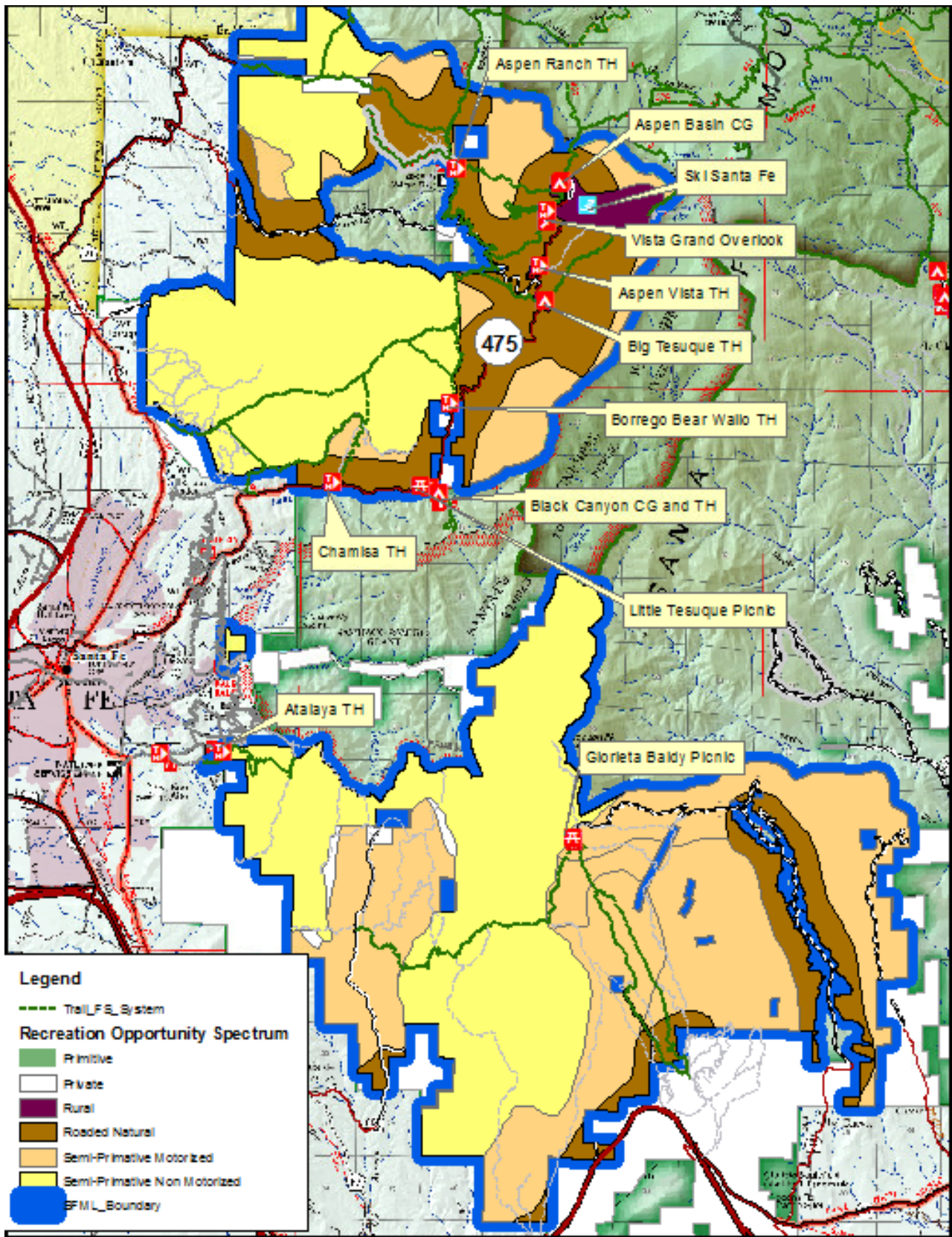
**Semi Primitive Motorized** – A setting that has an area that allows motorized use, is generally at least 2,500 acres in size, and is at least 1/2 mile from a better than primitive road. Access is via motorized trails or primitive roads or cross country, where terrain and regulations permit. Low to moderate contact frequency with other visitors. Environment may have moderately dominant alterations, but these do not dominate views from trails or primitive roads in the area.



**Rural** – Predominantly a culturally modified setting where the natural environment has been substantially modified, i.e., structures are readily apparent, pastoral or agricultural or intensively managed wildland landscapes predominate as viewed from visually sensitive roads and trails. Access is primarily via conventional motorized use on roads. Contact frequency with other users may be moderate to high in developed sites and moderate away from developed sites.







Recreation Opportunity Spectrum within the Proposed Action Boundary



Recreation visitors to the project areas are primarily from the Santa Fe, Rio Arriba, and San Miguel counties with a collective population over 100,000 according to recent census statistics, but there are many other visitors who travel to the forest nationwide and international.

## Environmental Consequences

### Analysis Methods and Impact Indicators

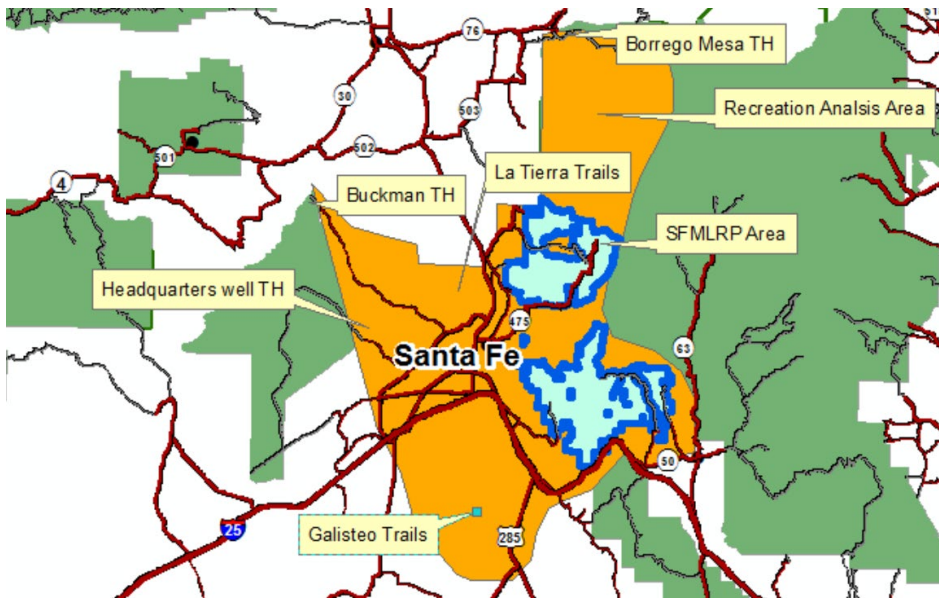
The analysis to determine potential impacts to recreation is based on existing management and data from Santa Fe National Forest and Espanola Ranger District. Spatial/geographic information system data were also used in this analysis and include recreation settings and designated recreation sites. The changes (based on the proposed project as described in the EA) to the resource condition indicators provide the basis for assessing impacts.

### Analysis area for impacts recreation

The analysis area for recreation impacts includes the area shown on Map 1. These are areas where people living in the Santa Fe area can easily commute to within about 15 to 30 minutes in normal traffic.

**Definition of short-term impact** – Short term impacts are those that occur during implementation of the project and may linger for a few days to a few weeks after the project

**Definition of long-term impact** – Long term impacts are those that will last more than a month following implementation of the project.



The following indicators are used to assess the potential for impacts to recreation resources:

- Recreation settings – Assess changes in the recreation settings (e.g., undeveloped or rural settings) within the analysis area as a result of the proposed project. Specifically, assess whether the settings that support existing off-highway vehicle, hiking, camping, target

shooting, or hunting opportunities, as well as settings that provide for remoteness, quiet or solitude, would change (increase or decrease).

- Recreation opportunities/activities – Assess whether a change in (loss or creation of) recreational activities or access to (including special use activities) would result with development of the proposed project. Specifically, assess whether the change would increase or decrease the qualities of the hunting or other off trail experience.
- Desired recreation experiences – Assess the potential for diminishment or loss of developed recreational values and quality (e.g., off-highway vehicle, hiking, camping, target shooting) and undeveloped recreational values and quality in the project area.

Table 1 provides a breakdown of these indicators and the measures used in the predicting and characterizing the analysis.

**Table 1. Resource indicators and measures for assessing effects**

<b>Resource Element</b>	<b>Resource Indicator</b>	<b>Measure (Quantify if possible)</b>
Recreation Setting	Changes to the existing recreation settings	Qualitative assessment of restoration within Recreation Opportunity Spectrum classes
Recreation Opportunities	Changes (loss of or creation of) to the current available recreation opportunities and activities	Qualitative assessment of restoration method’s impact to recreation opportunity
Desired Recreation Experiences	Changes (diminishment or improvement) to existing recreation values and quality	Qualitative assessment of restoration method’s impact to recreation desired experiences

**No Action Alternative**

In the No Action Alternative, there would not be potential short term closures to trail use due to prescribed burns and thinning operations. There would not be short term smoke in the area due to prescribed burns, and the road closure on Arroyo Hondo access would not occur. There would also not be riparian restoration work that might be noticeable along the Winsor Trail, Rio en Medio Trail and Pacheco Canyon. Recreation would continue as it has in the past.

Long term for the No Action Alternative, there would be increased chance of catastrophic fire which could affect most of the trails in the area. Trails would have to be re-built over time when conditions had stabilized and restoration was safe. Falling trees would increase user risk and make maintenance more difficult. The scenario could be similar to what happened in Los Alamos County after the Cerro Grande and Las Conchas fires. Trails needed reconstruction multiple times due to flooding. Relocation for some trails was required and other trails were never practical to rebuild. The trail character, scenery, shading, and “feel” of the trail were changed for long term. Trails

become much more dangerous on windy days. Thorny primary species that increase after fires, like New Mexico Locust, make the trails more difficult, uncomfortable and sometimes unusable without continuous pruning and effort.

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 could be major impacts to the recreation setting, opportunity, and existing recreation experiences possibly like after the major fires in Los Alamos County in 2000 and 2011.

Currently, the Forest Service has limited resources to maintain existing recreation opportunities (e.g., clearing down trees from trails and roads) or to mitigate threats such as the impacts to recreation facilities such as campgrounds, trailheads, roads, and parking areas that could result from a wildfire, windthrow, or other disturbance. Current maintenance is limited to removing existing vegetation threats as time and resources are available and depending on the risk to health and human safety, as opposed to maximizing resources by treating larger areas to restore forest resiliency, as described in the proposed action. Piecemeal treatments that only address immediate hazards would not reduce the risk for large catastrophic wildfires, and often do not address recreation site hazards such as dead and dying trees that block safe passage on forest roads and trails. The threat of uncharacteristically severe wildfire, windthrow, or other disturbance would continue to increase with ongoing, non-landscape-scale vegetation management activities under the No Action Alternative. Furthermore, continuing to only remove site-specific vegetation as time and resources permit will perpetuate current unhealthy forest conditions and could even increase the rate of forest health decline.

Research and recent wildfires in New Mexico have demonstrated the negative effects severe wildfire can have on recreation (such as the Cerro Grande and Las Conchas fires, where fire impacts included closing developed campgrounds and trails to public use and created safety hazards to dispersed recreation opportunities such as camping). If the SFMLRP analysis area or portions thereof were closed due to wildfire, recreation users would be required to seek alternative locations to pursue the same activity. This could lead to overcrowding in nearby areas of Santa Fe National Forest, resulting in potential resource damage and undesirable recreational experiences.

Barring a severe wildfire, windthrow, or other disturbances, there would be no loss or creation of recreation opportunity. Recreation opportunities and activities would continue as they do today, and the quality of the recreation experiences, as well as the desired recreation experiences as outlined in the Forest Plan, would be expected to remain.

### **Environmental Consequences of the Proposed Action**

The project area is used extensively for recreation. The proposed action has the potential to benefit recreation in both a positive and negative aspect. The positive aspect would be to lessen the risk of catastrophic fires that could remove the quality and availability of recreational opportunities both long and short term. The negative impacts to recreation would be implementation activities that could affect each type of recreation in slightly different ways:

**Trails** – The proposed action activities may restrict the use of favorite trails for the short term, mostly from controlled burns. Mechanical vegetation thinning would not directly affect trails unless the trail itself was used for access by motorized vehicles. Ridgeline fire lines may turn into user created trails, causing tribal concerns and user safety issues.

**Dispersed Camping** – The proposed action activities may restrict availability, access, and aesthetics of the camping during prescribed burns. Periods of smoke and noise could affect quality of experience.

**Campgrounds** – “Based on Forest Service’s recent monitoring of recreation user numbers and experiences at the Black Canyon campground, which was treated in 2018, potential impacts to campground users would be short-term during treatment implementation activities (from noise, human presence). For Black Canyon, this was done after the Campground was closed, so there really was no noticeable effects to the campers. The thinned trees and piles were not noticed by most campers, or at least no one commented on them. No long-term impacts to campground use or experience would be expected due to the design feature that requires a 150 foot buffer for visual screening of forest treatments. Periods of smoke and noise could affect quality of experience.

**Recreation Special Uses** – Outfitter Guide trips to areas planned for burns may need to be changed on occasion or rescheduled, but this would be more the exception rather than common place. Smoke and noise may affect quality of experience.

### **Design Features that will help mitigate impacts to Recreation**

1. Create a 150 foot visual buffer around campgrounds and picnic areas where no thinning or piling would occur. Prescribed fire would be allowed to back into these areas.
2. If equipment must cross trails and roads, crossing would be minimal, perpendicular to the trail, and rehabilitated after treatment of the area.
3. Use of trails as access routes for heavy equipment should be considered carefully and other routes evaluated to best protect all resources, including recreation.
4. If trails must be used as access routes, they need to be fully reclaimed with sustainable trail practices implemented such as proper cut slope, width for managed use, and drainage features including rolling grade dips, water turnouts, armoring above and below the trail at drainage crossings, water bars, and check darns. Trail reconstruction will be coordinated with the Forest Service recreation team.
5. Avoid crossing or using motorized and nonmotorized system trails where feasible. If a trail or section of trail is affected, the trail shall be restored to the original condition. All treatment slash and debris would be removed from trails. It is acceptable to make perpendicular trail crossings. Trail crossing locations would be designated and flagged with input from a qualified Forest Service recreation staff or designated representative. Crossings of existing forest system trails would be restored to pre-project condition after use.
6. Applicable signing would be placed at camping areas, trailheads and along trails to warn Forest visitors of project implementation activities such as tree thinning, or prescribed burning along trails. Information may also be provided through the Forest Service website, news releases, traffic control and signage, or other measures as appropriate.

7. Where possible, schedule work that would limit recreation access such that it does not occur around holidays and weekends. Coordination would occur with any sponsors of recreational special use events to minimize impacts to planned events occurring in the Project Area during implementation.
8. Where riparian areas are fenced, ensure that these do not block system trails. If they do, provide an easy portal through the fence.
9. Stumps will be cut to a maximum of 8 inches within 50 feet of National Forest System trails, and as low as possible in all other distances zones.
10. Paint and markings, such as butt marks, leave-tree and boundary markings within 150 feet of National Forest System trails, roads, and campgrounds would be applied facing away from these areas to reduce visibility. Flagging would be used in these areas, where practical, to mark unit boundaries and should be removed upon project completion.
11. Cut trees flush with trail when they need to be cut on the edge of the trail and road.
12. Disguise route entrances to firelines with rocks, boulders, downed trees, and forest litter to prevent them from being seen, easily accessed and becoming user trails. It should be difficult to access these areas for recreational use.
13. Activity-generated fuels created within 150 feet of National Forest System trails and roads would be piled and burned or removed within 2 years of operations and within 1 year for areas managed for a Visual Quality Objective of Retention. Piles would be located a minimum of 100 feet from trails, roads and trailheads.

Where trails are used as access for treatments, they will require reclamation to restore the trail to a sustainable single track. Long term, the visual changes due to mechanical thinning, prescribed fires, riparian vegetation, and closed roads will not be noticeable to the majority of recreation users. There are few vantage points from trails and facilities where these treatment areas can be seen in an overview aspect.

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 developed as well as dispersed settings (particularly those settings classified under the recreation opportunity spectrum as semi-primitive motorized and semi-primitive non-motorized, where such activities would be more evident and invasive to the recreating public). These recreation activities include driving for pleasure on routes and hiking/biking on trails. These indirect effects would be temporary and localized. The effects would be transient as the recreationist moves past the work area (or vice versa). Maintaining vegetation clearances or establishing new forest health practices around recreation infrastructure may result in changes to the recreation setting that people have grown accustomed to, but these changes would be intended to benefit the recreation setting in the long-term. It would likely be perceived as an improved aesthetic change by most.

Camping primarily occurs along designated roads and trails. Campsites, both developed and dispersed, could be temporarily closed or restricted for public safety, including prescribed burning, heavy equipment



use, slash piles, and even hand vegetation thinning. Campers in dispersed sites while work is underway would experience indirect noise and visual effects similar to those already described.

However, the restoration activities would be conducted in a manner that would not close entire sites for public use at any one time. (e.g., treatment areas would be worked sequentially so as to allow recreation use to continue in that area to the extent possible). Upon restoration, the recreation setting would likely improve (e.g., become safer, more scenic, and more sustainable for future recreationists), resulting in a long-term, beneficial impact.

Restoration activities conducted in areas that are not near developed sites or adjacent to routes or trails (i.e., in semi-primitive non-motorized areas) under the proposed action would have beneficial effects on the recreation setting. A healthier forest (i.e., mixed conifer, ponderosa pine, and pinyon-juniper forests with natural plant and animal demographics, maximum structural and spatial heterogeneity of vegetation, maximum productivity and biodiversity, and intact ecosystem processes and functions) would be more open in character than the current landscape and would offer more dispersed recreation opportunities like hunting, hiking, and wildlife viewing.

Current recreation opportunity spectrum settings would not change under the proposed action, and all restoration activities would be conducted such that the proposed action would conform to the recreation opportunity spectrum classifications delineated in the Forest Plan.

The desired recreation experiences of the project area would not change since the restoration methods would be conducted so that they minimize impacts to recreation experiences and would be in compliance with the Forest Plan. Restoration methods would only preclude recreational desired experiences temporarily during surface-disturbing restoration work; once activities were completed, the desired recreation experiences would continue, subject to public safety concerns.

### **Manual and Mechanical Vegetation treatments**

Manual and mechanical vegetation treatments, particularly those that involve heavy equipment or machinery, have the potential to adversely impact recreation opportunities and experiences; these impacts would be site specific and short term. The design features above, specifically 1-8, would limit the use of equipment on trails and restrict impacts when practical to non-peak seasons, when recreation use is anticipated to be at its lowest. Design feature will be incorporated to minimize any indirect effects such as cut stumps adjacent to trails that might cause tripping hazards for hikers and bike tire punctures for bikers. Also there would be a one year time limit and minimal distance of 150 feet for any vegetation piles placed near trails or campgrounds. Changes around a campground or dispersed camping and potential for less fuelwood could occur. Yearly hazard tree mitigation may offset this for developed campgrounds since these are often cut up and used as fuel wood.

### **Use of prescribed fires**

When prescribed fires occur in the vicinity of trails, these trails will not be open for use during the fire burning period which could be from a day to a week at most. Trail users would be displaced to other trails for a period of time. Recreation users even in adjacent areas could experience periods of increased smoke and lessened visibility, but given the broad area of the analysis area, there would almost certainly be somewhere in the vicinity where the trails would not be affected. The same is true for other recreation activities such as camping in campgrounds or dispersed camping, and motorized driving. Following a prescribed burn there may be sections of burn visible from trails, dispersed camp areas and Forest Roads.

These burn areas would mostly be short term impacts unless the burn was very severe in a particular area. Depending on the time of year, the black areas would green up and the burn would not be immediately noticeable. The proposed action goal is to prevent the large area severe burns where there would be a stand replacing fire resulting in long term impacts.

Ridgetop firelines may be constructed during prescribed fires. If these are left in place post fire, they might be used by hikers/bikers and become additional user created trails. This may create conflict with tribes, be in conflict with the overall trail planning for the area, and may encourage erosion and additional trail building in areas not cleared for trails. Planning for converting ridgeline fire lines into the Forest Service Trail system should occur prior to implementation of construction of the fire lines. This would require collaboration with the Greater Santa Fe Trails Working groups, additional public scoping and NEPA, and construction techniques for a sustainable trail that would include outslope, drainage features, width, and travel management objectives. These additional requirements and design features may not be practical for the proposed action implementation. Unless these can be achieved, ridge line fire lines and their access should be reclaimed post use.

There is the potential that outfitters and guides may need to adjust their trip locations and/or days to avoid restricted areas, smoke, and/or congestion and noise associated with these operations. Advanced notice of these activities could be given to minimize the inconvenience to guides and their clients.

### **Riparian Restoration Treatments**

The Proposed Action would not adversely impact the availability of trails; however, recreation users may experience some effects to recreation activities in both the short- and long-term. The Rio en Medio Trail, Winsor Trail, Apache Canyon trail, and Big Tesuque Trail are the trails that follow streams within the project area. Trail users may come across workers in the area during their hike or bike ride and may notice minor changes in vegetation or new fencing. The fencing would be designed such that trails would not be impeded. If a gate is installed in a fence, mountain bikers and equestrians may be inconvenienced in their travels with a need to stop, get off their bikes or horse, and negotiate a passage. Fencing design features would minimize the need for hiker/biker passage through a fence. It is not expected that any trails would be closed or blocked during riparian restoration activities.

### **Road Closure**

1.5 miles of Forest Service Road 79W near Arroyo Hondo would be closed to the public during implementation which would have some impact on the Arroyo Hondo trailhead access in this area. It would require all users to park at the Arroyo Hondo trailhead rather than continue driving up the rough road, which many prefer to hike anyway.

**Table 2: Summary Table of Causal effects**

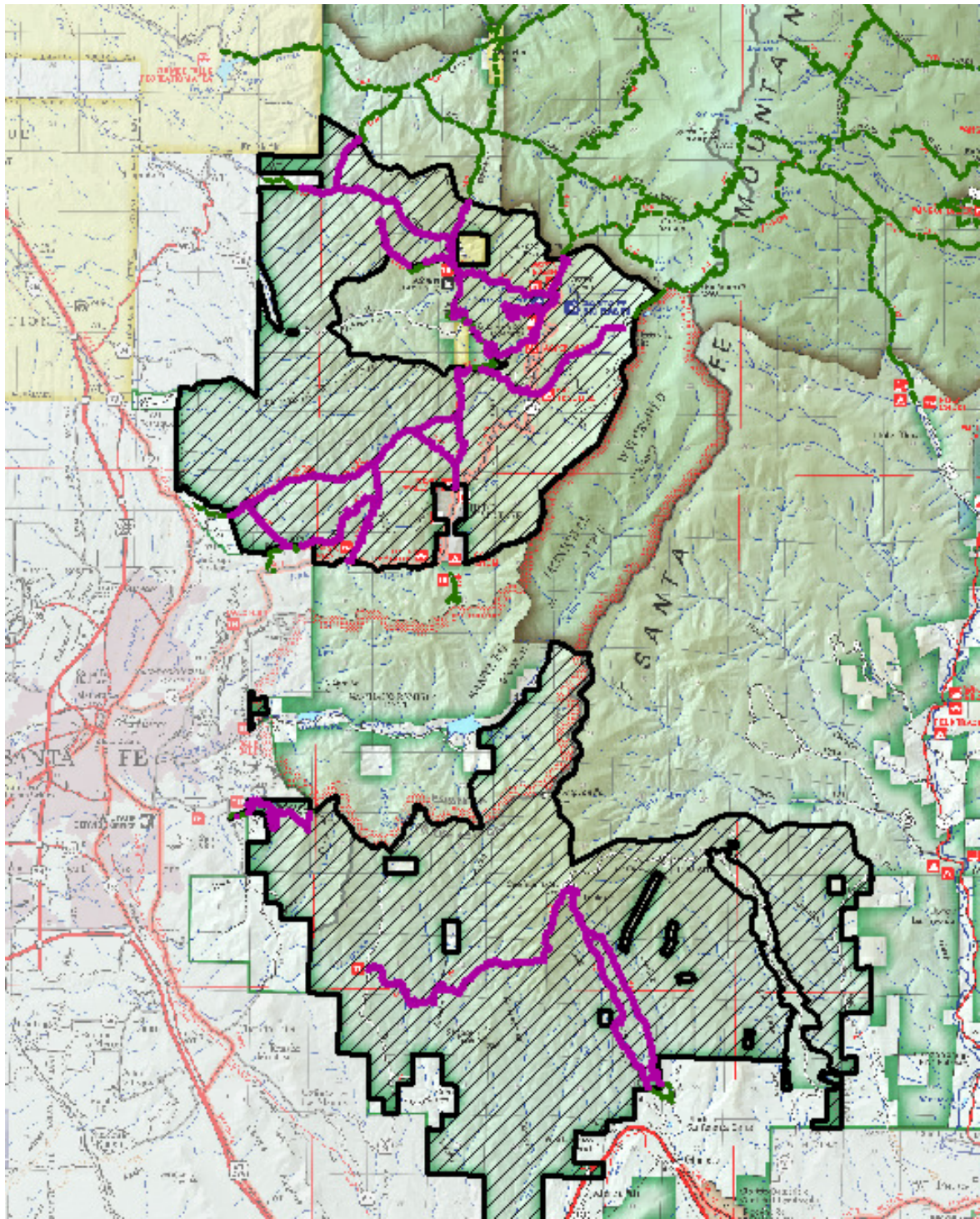
Rec type Action	Trails	Dispersed Camping	Campgrounds and picnic areas	Recreation Special Uses	Ski Santa Fe
Mechanical Vegetation Treatment	Mitigated with design features for no effect.  If trail used for access, will be repaired.	Potential restriction to some areas short term  Potential area changes to regular users	Potential area changes to regular users	Potential for short term restriction to some areas.	Currently no proposal within Ski Area
Prescribed Fire	Short term use restrictions  Smoke and noise  Fireline user trails could occur	Smoke and noise potential  Potential restriction to some areas short term  Potential area changes – less fuelwood	Potential area changes such as less fuelwood	Short term smoke and noise  Short term use restriction to some areas.	Currently no proposal within Ski Area  Short term smoke and noise to off season users
Riparian Enhancement	Mitigated to allow passage	Access to some riparian areas may be restricted	Access to some riparian areas may be restricted near the campground	Mitigated to allow passage	No Effect
Road Closure for 1.5 mile of 79W	One closed road 1.5 miles would require starting at the Arroyo Hondo Trailhead rather than some users	Better Access to areas along TM roads that are improved	No effects	No effects to those who follow the travel management rule	No Effect

	<p>driving a difficult portion of road.</p> <p>Better Access to some trails on TM roads that are improved.</p> <p>Changes to roads for decommissioning could affect users, but there would be opportunity for public input.</p>				
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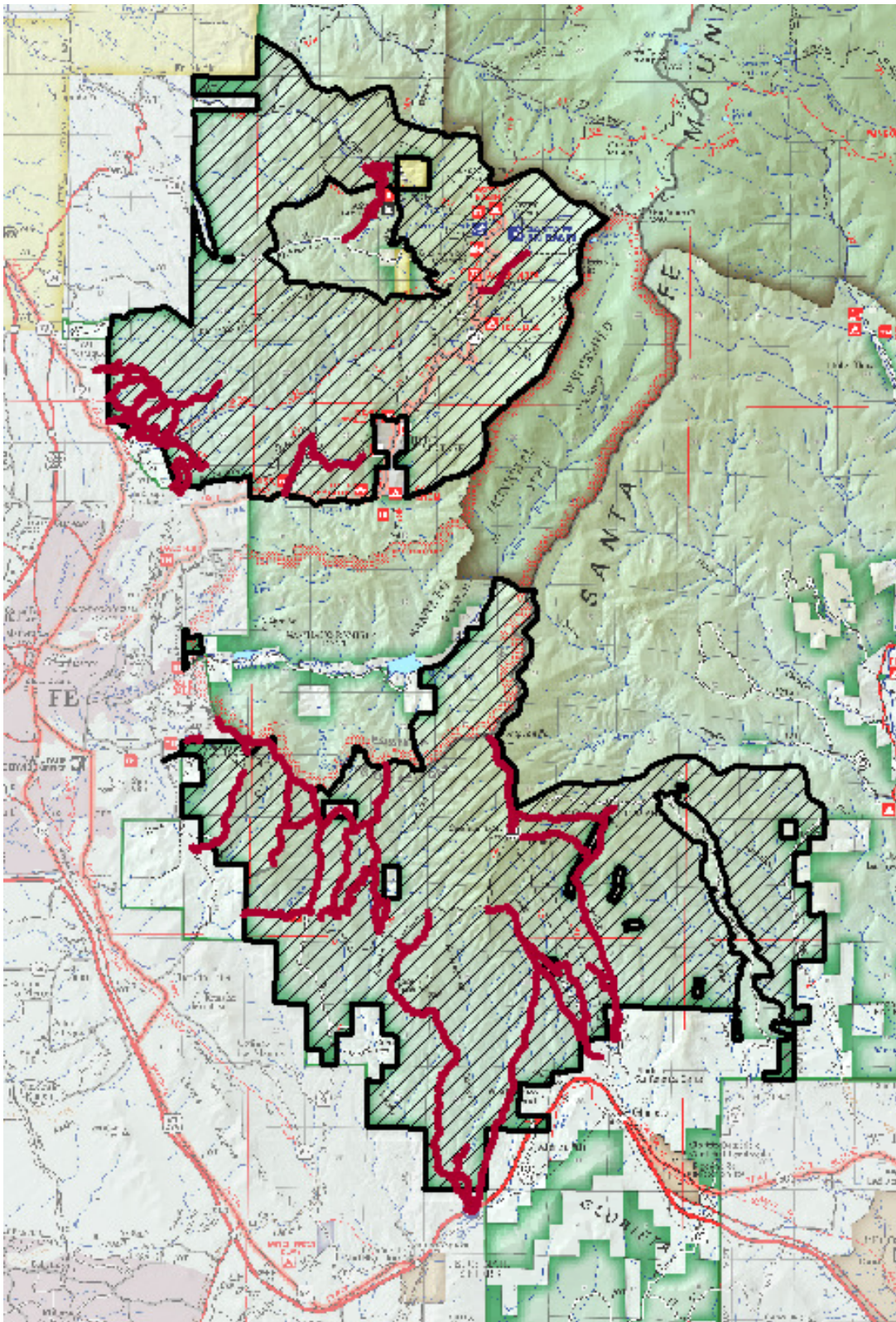
Within the project area, there are 53 miles of Forest Service System trails and another 71 miles of user created trails for a total of 114 miles of recreation trails. The number of trail miles outside the project area, yet nearby and accessible from the Santa Fe corridor, are 64 miles. In addition, the project area is divided into north and south sections. All trails in the south section would be available if sections in the north were being implemented with a burn or thinning operation and vice versa. This would provide about 90 miles of trails in the north and about 88 miles of trails in the south if either section was closed to recreational trail use for any period of time during implementation.

When looking at the entire analysis area, there are many options for alternative trail systems, especially during prescribed burns when users may desire to be further away from smoke and fire activities. From the Tierra Trails in the north part of the Santa Fe Country, to the roads and trails in the Caja del Rio to the west, and the Galisteo Trails to the south, the city of Santa Fe is well surrounded by a vast network of trail systems incorporating lands managed by the Forest Service, Bureau of Land Management, State Parks, and County of Santa Fe.

Therefore, with so many alternative trails for recreation, any short term impacts by restricting a trail access for a few days is not considered an impact that degrades recreation opportunities for most users.







Non System Trails in the Project Area. Non System trails shown in Red.

## **Summary of impacts to recreation from the proposed action:**

**Recreation settings** – Recreation settings are not expected to change in a way that is striking and dramatic to the average user long term. There could be short term interruptions to the recreation sites and corridors such as debris, smoke, noise, workers, fencing and even burn areas near the trail corridors. Long term, users might notice a slightly more open forest in and around the recreation trail corridors and facilities such as campgrounds, dispersed camping and picnic areas. The proposed action is expected to help preserve these recreation site surroundings and corridors from the potential of catastrophic fire where the recreation settings would be severely impacted.

**Recreation opportunities/activities** – Short term recreation activities might be temporarily restricted or degraded in quality in some areas for short periods of time due to prescribed burns, smoke, noise, fencing, or vegetative removal. Long term, the recreation opportunities would not be impacted. Hunting is not expected to be noticeably impacted by the proposed action other than temporary closing of some areas during implementation, and migration of animals to other areas in the short term. The more open habitats created by the proposed action might even draw more deer and elk to these areas. The proposed action should lessen the chance for catastrophic fire around these recreation sites and trails. Should a catastrophic fire occur, there would be great impact to recreation opportunities and activities. Trails would disappear and need to be reconstructed in a severely burned environment where most topsoil could be lost.

**Desired recreation experiences** – Short term, desired recreation experiences would be impacted only through short term closures of select trails and dispersed camping within a prescribed burn. There are no plans to close campgrounds and picnic areas due to the proposed action. Long term, the desired recreation experiences would not be impacted by the proposed action other than lessening the chance of catastrophic fire in the future which would impact desired recreation experiences.

## **Forest Plan Amendment**

The proposed Forest Plan amendments would provide specific guidelines about how vegetation would be manipulated within Mexican Spotted Owl (MSO) and goshawk habitats, along with updating the Forest Plan to be in alignment with current management guidance for these species. The guidelines are not expected to result in substantially different effects to recreation resources other than how the proposed action might be implemented.

No campgrounds or day use sites in the project area would be affected by the Forest Plan amendment regarding the MSO and goshawk habitats within the SFML project area. If an existing recreation trail passes through an MSO protected activity centers (PAC), the use and maintenance of that trail would not be impacted. Even a new trail could be constructed within an MSO PAC, as long as removal of trees was not required for that construction. Other than sawing through dead and down trees, it is rare that any live trees are removed for trail construction.

The proposed Forest Plan amendments related to vegetation treatments within MSO PACs are anticipated not to affect recreation resources. Trail use would continue mostly uninterrupted throughout those treatments. Potentially, the timing of those treatments could change and the impacts and displacement of trail use would correspond to those timing changes. The greatest

benefit would be the reduction in risk of wildfire causing widespread impact to recreation experiences.

The proposed Forest Plan amendments that restrict the timing of activities within MSO habitat would have no effect to recreation resources. The amendment does not restrict normal recreation activity in these areas. Amendments that direct monitoring within MSO habitat would also have no effect to recreation resources, since these are generally activities that are not even noticed by the public users.

The amendment adds clarification for the need for interspaces for northern goshawk habitat. More specifically, this amendment reflects the adoption of the most northern goshawk recovery guidelines and would have no effect on recreation resources.

### Cumulative Impacts to Recreation

See Table 3 for a list of past, ongoing, and reasonably foreseeable future actions considered for cumulative effects on recreation.

**Table 3: Actions that May Have Cumulative Impacts to Resources within the Study Area**

Action	Summary of Action
Pacheco Canyon Forest Resilience Project	<p>The scope of the project is to thin and use prescribe fire on approximately 2,042 acres northeast of the City of Santa Fe, near several popular recreation sites, including the Big Tesuque Campground, Aspen Vista Picnic Area, and the Santa Fe Ski Basin. Tesuque Pueblo lands are within and northeast of the project area. The purpose of the project is to change stand conditions in predominantly ponderosa pine forests in the Pacheco Canyon area. The actions proposed to accomplish this change would be thinning and burning about 2,042 acres.</p> <p>Decision signed on June 1, 2018.</p>
La Cueva Fuelbreak Project	<p>The purpose of the project is to change fire behavior in treated areas to reduce the risk of a large-scale, high intensity wildfire spreading to or from the communities of La Cueva, Dalton Canyon, and the Santa Fe Watershed. This project proposes creation of a shaded fuelbreak by thinning 995 acres and conducting prescribed burns (pile and broadcast burning) on approximately 1,100 acres.</p> <p>Decision signed on February 4, 2005</p>
County Line Fuel Wood Treatments	<p>The purpose of the project is to improve forest health and wildlife habitat through a combination of thinning and prescribed burning across approximately 900 acres on Borrego Mesa.</p> <p>Decision signed on August 6, 2010</p>
Southern Rowe Mesa Restoration Project	<p>The purpose of this project is to promote a mosaic of healthy forest stands and natural grasslands through thinning and prescribed burning activities on approximately 17,500 acres on Rowe Mesa.</p> <p>Decision signed on February 21, 2013.</p>

Action	Summary of Action
Hyde Park Wildland Urban Interface Project	<p>The scope of the project is to thin and use prescribe fire on up to 1,840 acres. The project area is dominated by dense stands of ponderosa pine forests with a lesser component of mixed conifer and pinon-juniper. The project area is located in forests east of the community of Hyde Park Estates, near Hyde Memorial State Park, and adjacent to Black Canyon campground. The purpose of this project is to reduce the risk of uncharacteristic, stand-replacing wildfire and reduce the risk for insect and disease related tree mortality within the project area.</p> <p>Decision signed on March 21, 2018.</p>
Santa Fe Municipal Watershed	<p>The scope of the project is to use a combination of tree thinning and prescribed burning on up to 7,270 acres of national forest and city lands in the Santa Fe Municipal Watershed. The proposal is designed to reduce the risk of a severe crown fire and to restore sustainable forest and watershed conditions in the Watershed.</p> <p>Record of Decision signed in October 2001.</p>
Santa Fe Municipal Watershed Pecos Wilderness Prescribed Burn Project	<p>The project proposes to perform prescribed burns of between 200 and 2,100 acres at one time in ponderosa pine and mixed conifer stands within an approximately 2,900-acre, mid elevation (8,500 – 10,000 ft) treatment area within the Pecos Wilderness.</p> <p>Decision signed on April 28, 2015.</p>
Rowe Mesa II (U.S. Forest Service n.d.)	<p>Fuel treatment to promote a mosaic of healthy forests stands and natural grasslands by thinning and prescribed burning in pinon/juniper, and ponderosa pine trees that have encroached into the understory of woodlands and into meadows of Rowe Mesa.</p> <p>Project initiation 12/19/2018; expected implementation 4/2020.</p>
Century Link/PNM Santa Fe to Los Alamos Fiber Optic Project (U.S. Forest Service n.d.)	<p>Proposal to bury a fiber optic line along Forest Road 24 on Santa Fe National Forest land to a PNM transmission line where it will be carried to DOE facilities to improve service to Los Alamos National Lab and Los Alamos community.</p> <p>Notice of initiation 10/1/2018.</p>
Issuance of Forest-wide Temporary and Priority Special Use Permits (SUPs) for Non-Motorized Over-Snow Activities (U.S. Forest Service n.d.)	<p>Proposal to approve issuance of temporary and priority SUPs for outfitter and guides throughout the Santa Fe National Forest to conduct guided recreation activities related to over-snow uses, including but not limited to cross country skiing and snow shoeing.</p> <p>Notice of initiation 12/1/2019.</p>
Rio Chama Aquatic and Wetland Habitat Restoration Project (U.S. Forest Service n.d.)	<p>Species habitat improvement project to increase diversity and quality of aquatic habitat for fish and invertebrates in Rio Chama downstream from Abiquiu Dam approximately 5.6 miles between Santa Fe and Carson National Forests to point 1.34 miles upstream of Highway 84 bridge.</p> <p>Notice of initiation 10/1/2019; expected implementation 4/2020.</p>
Comexico Jones Hill Exploration (U.S. Forest Service n.d.)	<p>Exploratory drilling operation on unpatented mining claims in Pecos/Las Vegas Ranger District of SFNF. Proposal will cause approximately 5-7 acres of surface disturbance in an area that has been previously disturbed by earlier exploration date. All activities will occur within 1 year of the state date.</p> <p>Scoping was conducted in December 2019; expected implementation 10/2020.</p>

Action	Summary of Action
Pecos Bike Trails (U.S. Forest Service n.d.)	Project to develop trail system and impress access and promote visitor safety in Canada de Los Alamos/Glorieta area. Notice of initiation 11/1/2019; expected implementation 2/2020.
Pecos Rio Grande Cutthroat (RGCT) Trout Restoration (U.S. Forest Service n.d.)	Project to restore RGCT populations to Willow Creek and upper Cow Creek by adding 9 miles of stream to currently occupied distribution. Scoping occurred February 2019.
<b>Non-Forest Service Projects</b>	
Aztec Springs, Phase 2 & 3 (City of Santa Fe, The Nature Conservancy, New Mexico State Forestry)	150 acres of thinning, piling, and prescribed burning activities.
Aspen Ranch (Pueblo of Tesuque)	160 acres of thinning, piling, and prescribed burning activities in ponderosa pine and mixed conifer.
Vigil Grant (Pueblo of Tesuque)	158 acres of thinning, piling, and prescribed burning activities in ponderosa pine and mixed conifer.
Hyde Memorial State Park (New Mexico State Forestry)	Thinning, piling, and prescribed burning across 276 acres in Hyde Memorial State Park.
City of Santa Fe Planned Communities and Infrastructure Projects	<p>Three master planned communities that is projected to absorb most of Santa Fe's growth through 2030</p> <ul style="list-style-type: none"> <li>• Tierra Contenta Master Plan (1995) approved as many as 5,200 housing units and to date is 50% completed with up to 2,500 homes and apartment units completed. The western portion of Phase 2 and Phase 3 await construction and includes 400 acres of developable land and 100 acres of open space/parks.</li> <li>• Las Soleras Master Plan (2008) covers 400 acres with most of the land along I-25 slated for commercial and mixed use. Internal portion of master plan are reserved for residential units which could be developed with 1,000-1,500 housing units.</li> <li>• Northwest Quadrant (2010) covers approximately 160 acres of 2,000 acres the city owns in the northwest corner of the city. The Master Plan calls for 750 housing units to the southeast of Highway NM 599.</li> </ul> <p>Roadway improvements, trails and urban mixed use and parks (Southwest Activity Node, Las Soleras Park, and South Meadows Park) (City of Santa Fe 2017).</p> <p>Multiple drainage projects are proposed by City of Santa Fe in Council Districts 1, 2, 3, and 4 to be completed in three phases between 2019 and 2022 (City of Santa Fe n.d.).</p>
Santa Fe River Greenway R&PP Lease Project	EA (released 11/21/19) for the conveyance of 23.5 acres of BLM-administered public lands to Santa Fe County under the Recreation and Public Purpose Act (R&PP) for the construction and maintenance of a short segment of the greenway and for bank stabilization of the Santa Fe River. The proposed project will create a greenway of public parks and multi-use recreational trails along the Santa Fe River from Two-mile Reservoir in eastern Santa Fe west to the Santa Fe County wastewater treatment plant, which is located just west of New Mexico Highway 599 (BLM 2019a).

Note: Projects that are listed as on hold in the January 2020 through March 2020 Schedule of Proposed Action (SOPA) were not included in this table.



The spatial boundaries for analyzing the cumulative effects on recreation resources is the same area as the Recreation Analysis Area, as it represents a reasonable region in which recreation settings, existing recreation opportunities and activities, and desired recreation experiences, when assessed in combination with other cumulative actions, could be impacted if the proposed project were implemented.

The temporal boundaries for analyzing the cumulative effects is 15 years because restoration methods are anticipated to have taken effect in that time period.

The past uses in the cumulative effects analysis area have had a direct effect on the recreation settings, as described in Affected Environment and Environmental Consequences sections. Historic proliferation of mining and ranching roads, the establishment of federal, state, county, and private lands, and community development have all shaped the recreation opportunities, settings, and desired experiences in the cumulative effects analysis area.

Nonnative, invasive plant management, watershed protection, fuels reduction, restoration, and habitat improvement activities all have the potential, when considered with the proposed action, to cumulatively impact the recreation setting. Ongoing activities such as the Rowe Mesa II Project (293 acres), and Capulin/Walker Flats CFRP (6,034 acres) are similar in nature to the proposed action (but much smaller in scale, compared with the SFMLRP 50,566 acres). The cumulative impact of the actions listed in Table 3 to the recreation setting would be adverse, minor, and short term. This is particularly true in areas classified as semi-primitive non-motorized because actively managed, intensive actions (as opposed to passive actions such as natural revegetation) like nonnative, invasive plant management, watershed protection, fuels reduction, restoration, and habitat improvements typically involve activities that are inconsistent with the objectives of a semi-primitive non-motorized area. While this impact may also occur in rural, roaded-natural, and semi-primitive motorized areas, actively managed, intensive actions are mostly consistent with these recreation opportunity spectrum classifications. In addition, the issuance of Forest-wide temporary and priority SUPs for non-motorized activities would result in a beneficial cumulative impact to recreation because it would expand recreation activities within the analysis area.

As described above under direct and indirect impacts from the Proposed Action, adverse impacts to recreation settings would be most apparent during and immediately after SFMLRP treatments. Over the next 10-15 year period, approximately 18,000 acres would be treated using vegetation thinning and 38,000 acres would be treated using prescribed fire in the SFMLRP area. From the projects listed in Table 3, recreational experience could be impacted on approximately 7,000 additional acres, resulting in a cumulative impact to recreational experiences within 25,000 to 45,000 acres over the long-term. As with the proposed action, the actions listed in Table 3 would be implemented over time, and therefore would not occur all at once. Users can be expected to pursue similar or other opportunities outside the SFMLRP treatment areas but within the cumulative effects analysis area. They can also be expected to return to the areas over time inside the SFMLRP area once restoration activities are successfully completed. Over time, the cumulative impacts to recreation setting would be beneficial, and the recreation setting would be protected and enhanced.

Implementation activities of the proposed action and other reasonably foreseeable actions may detract from the recreational opportunities. For example, areas affected by controlled burns/fires

derived from the actions provided in Table 3 would likely render the setting less desirable for recreation activities, thus affecting the recreation experience. These would be individually minor, but collectively moderate, particularly in areas where the proposed action and other reasonably foreseeable projects provided in Table 3 overlap and are not spread out over large areas. However, with the proposed action being staggered over long periods of time and the actions listed in Table 3 not all conducted concurrently, the cumulative effects on recreation opportunities and experiences would be substantially decreased (i.e., recreational opportunities would continue in areas not being actively restored). Therefore, recreational opportunities would not be lost permanently (i.e., restoration activities may only take a few days) and no recreational opportunities would be completely precluded, even during implementation of the proposed action or actions listed in Table 3 at any time since all recreation opportunities identified within the cumulative effects analysis area are able to be pursued in adjacent and similar areas.

Off-highway vehicle riding may have more opportunities available as a result of the proposed action and other reasonably foreseeable projects provided in Table 3, particularly projects that create new access roads (both temporary and permanent), such as fuels reduction and forest restoration projects. These projects often encourage increased off-highway vehicle use through “curiosity,” and users may use the access roads of the proposed action and other reasonably foreseeable projects’ access roads to view the activities and/or sites (subject to existing New Mexico off-highway vehicle laws and regulations).

The desired recreation experiences of the project area would not change when considered in the context of the other actions listed in Table 3, since the Forest Service would ensure those projects would also be conducted in a manner that minimizes impacts to recreation experiences and in compliance with the Forest Plan.

In summary, the cumulative impacts to recreation would be the incremental increase in people, projects and activities within a very high use recreation area. Impacts by the SFMLRP would be minimized with design features, timing, and the abundance of alternative areas where people can participate in their recreational activity of choice. It should be noted that although the project would increase a ‘presence of activities’ in the area during implementation, the desired result would be an environment that would be more sustainable over time and would allow recreation activities to continue, and even grow. Without the SFMLRP, there could be increased risk of catastrophic fire that would change, limit, and even eliminate much of the recreation activities that are currently enjoyed.

### **Land and Resource Management Plan**

The current Forest Management Plan record of decision emphasizes recreation opportunities and specially to manage 161,851 acres of unroaded areas for semi-primitive non-motorized. Almost all of the SFMLRP project area is within this type of recreation opportunity spectrum as shown in the affected environment section. The SFMLRP would not be in conflict with this direction.

### **Consistency with Relevant Laws, Regulations, and Policy**

Most of the recreation within the project occurs on the Santa Fe National Forest System Trails. The national trails system was established in the National Trails System Act of 1968 (as amended) to promote and provide opportunities for the public. The Forest Service manages and cares for

many National Scenic, Historic, and Recreation Trails with the help of countless volunteers and partners. There are three special categories of trails managed Nationwide. These are:

- National Recreation Trails – Administratively designated with local management criteria
- National Scenic Trails – Congressionally designated with special management criteria
- National Historic Trails – Congressionally designated with special management criteria

Within the project area, there are no National or Historic trails. The Winsor Trail is the only National Recreation Trail, with local management criteria to protect the scenic corridor of this trail.

The other recreation facilities within the project area are managed through regulations not affected by the proposed action. In 2020 the Great American Outdoor Act allowed funding for critical maintenance needs for the federal priority infrastructure, including repair and improvement of trails, roads, bridges, water systems, and more. Facility improvement, archeology surveys and trail deferred maintenance will be occurring within the proposed action throughout the next 5 years with this funding. Careful documentation and monitoring will also be occurring.

Under the Federal Lands Recreation Enhancement Act (FLREA; 16 U.S.C. §§6801-6814) fees are expected to increase at Black Canyon Campground and additional sites will become fee sites. This act authorizes the Forest Service to charge and collect recreation fees on federal recreational lands and waters. The agencies retain the collected fees primarily for on-site improvements. The proposed action will have no effect on implementation of these actions.

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Design Features for Winsor Recreational Trail – Winsor NRT Establishment Report 1979

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Great American Outdoor Act – July 22, 2020.

Maps from Santa Fe NF Natural Resources Manager Database and Forest geospatial data, 2017

National trails - <https://www.fs.usda.gov/managing-land/trails/national>

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