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# Draft Environmental Assessment

## Three Sisters Falls Recreation Management

**Palomar Ranger District, Cleveland National Forest**
**San Diego County, California**

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| Location of Action: | National Forest System lands on the Cleveland National Forest, San Diego County, California |
| Type of Document: | Draft Environmental Assessment; also serves as Initial Study for California Environmental Quality Act (CEQA) compliance |
| Lead Agency: | USDA Forest Service |
| Responsible Official: | Christopher Dowling, Palomar District Ranger |
| Contact Person: | Lee Hamm, Recreation and Lands Officer<br>Palomar Ranger District, Cleveland National Forest<br>1634 Black Canyon Road<br>Ramona, California 92065 |

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## Summary of proposal

The proposed action is to adopt and/or construct Class 2 system trails to Three Sisters Falls (TSF) and the summit of Eagle Peak, decommission and restore existing user-created trails, and construct a developed trailhead off of Boulder Creek Road.

This project addresses concerns related to:

- Public health and safety as hikers attempt to access TSF. Specific issues include heat illness, traumatic injuries resulting from hikers falling as they attempt to reach the falls, and lost hikers.
- Resource impacts stemming from high levels of unmanaged recreation use at TSF, along with erosion associated with the existing user-created trail to Eagle Peak.
- Compromised access along Boulder Creek Road for area residents and emergency vehicles during high-use periods at TSF, along with hazards to visitors associated with passing vehicles on the constricted roadway.

There is a high public demand for recreation activities in the TSF area. Constructing system trails and a developed trailhead and conducting restoration activities would maintain these opportunities while addressing the social and environmental concerns listed above.

The environmental assessment does not identify any significant environmental consequences resulting from the proposed action.

# 1 - Introduction

## 1.1 - Location

The location of this project is the vicinity of the Boulder Creek drainage and Eagle Peak, which are located between Santa Ysabel and Descanso, California. The proposed trailhead would be constructed at the junction of Boulder Creek Road and Cedar Creek Road, an area known locally as the "Turntable." The proposed trails would lead from the trailhead to TSF and to the summit of Eagle Peak.

The legal land description of the project area is Township 14 South, Range 3 East, Sections 4, 5, 6, 8, and 9, San Bernardino Meridian. See Figure 1 on page 3 for a map of the project area.

## 1.2 - Existing Condition

The public currently accesses TSF and Eagle Peak from the junction of Boulder Creek and Cedar Creek Roads, an area known locally as the Turntable, via an abandoned road and a network of informal, user-created trails. The terrain in this area is steep, rugged, eroded, and at times traverses directly through Boulder Creek. While there is no official parking facility at the Turntable there is an informal trailhead characterized by pipe railing, two gates, an old kiosk, and warning signage posted by the Forest Service describing the route to TSF as an "unofficial trail." Visitors typically park on the edge of Boulder Creek Road near the pipe railing and gates.

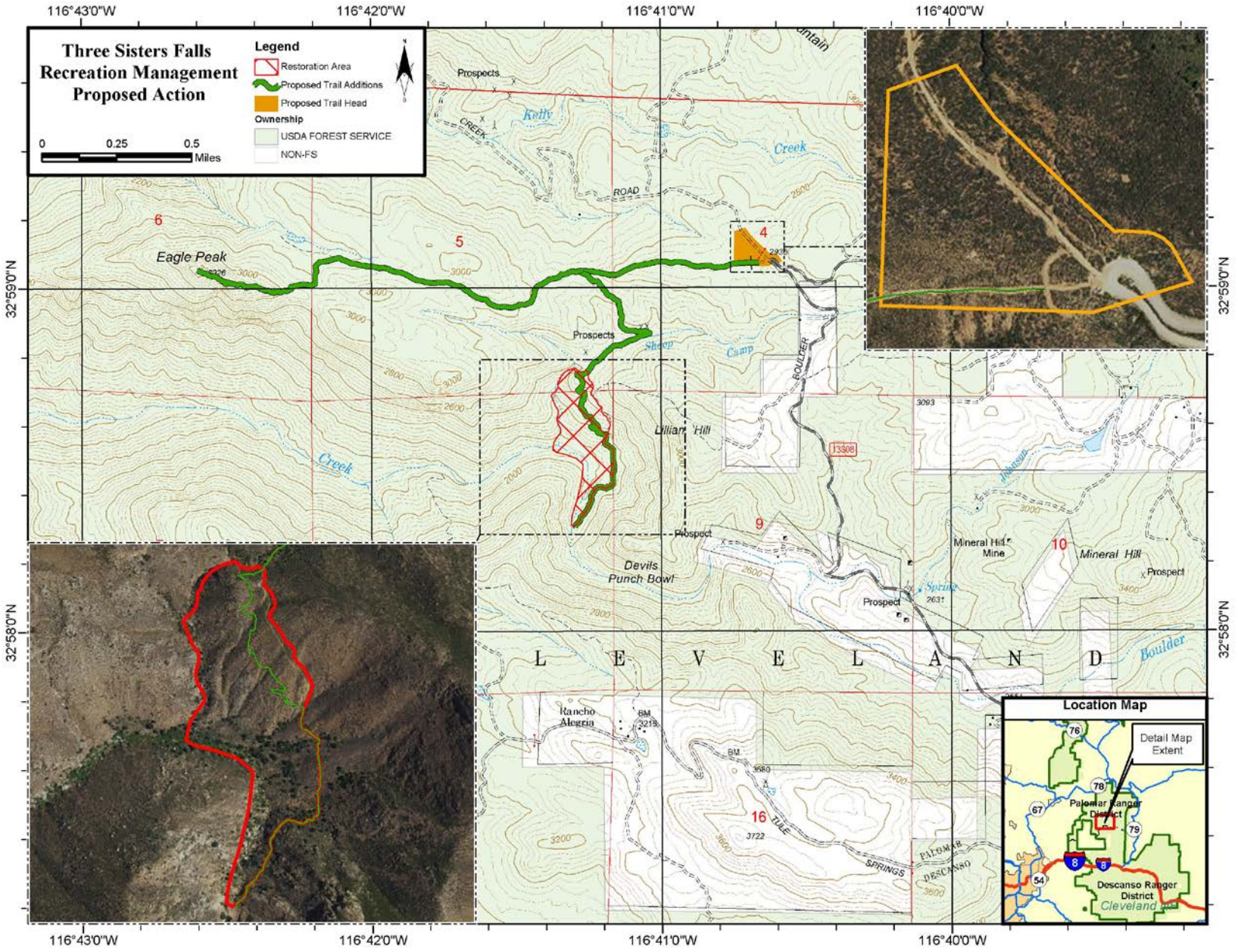
Public visitation to TSF varies based on season, weather, day of week, and water levels in Boulder Creek. Forest Service staff and volunteers estimate that use during the winter and spring months in 2014 through 2016 reached 50-150 visitors on weekdays and exceeded 400 visitors on peak weekend days and holidays. Typical visitation during summer and fall months in 2014 through 2016 ranged from 10-50 people on weekdays and 50-150 people on weekend days and holidays. Very little visitation to Eagle Peak occurs as compared to use levels at TSF. The two most popular activities on Eagle Peak are expert-level rock climbing and hiking in the pursuit of expansive views from the peak's summit.

As a result of the area's steep, eroded terrain, many hikers have experienced heat illness and traumatic injuries resulting from falls as they hike to and from TSF. The network of user-created trails in the project area also results in several hikers getting lost each year. Collectively, these issues result in numerous search and rescue operations in the area each year.[1] The public parking on both sides of Boulder Creek Road on peak use days also restricts the movement of emergency vehicles along the road, though in recent years the Forest Service has worked with the County of San Diego to address this issue to maintain vehicular access.

The current user-created trails used to access TSF are highly eroded and have resulted in resource degradation; minor resource impacts exist along the user-created trail to Eagle Peak. As the original route to TSF has become more eroded and challenging over the years, visitors have

[1] The Forest Service does not have jurisdiction for search and rescue operations. Precise data on the number of search and rescues occurring annually is therefore not available.

Figure 1. Three Sisters Falls Recreation Management Proposed Action



created numerous other routes extending beyond the original user-created trail, thereby expanding the extent of the heavily eroded area across the hillside. In addition to erosion, littering and human waste also impact wildlife and plant species and degrade riparian areas and water quality.

The 2014 decision on the Southern California National Forests Land Management Plan Amendment designated most of the project area as recommended wilderness. This was an administrative decision to reclassify the area's land use zoning to acknowledge its wilderness qualities. In particular, this area has a natural functioning ecosystem, remains largely undeveloped, and provides outstanding opportunities for solitude or a primitive and unconfined type of recreation. In addition to constituting a recommendation to Congress that it consider the area for wilderness designation in accordance with the Wilderness Act of 1964, this land use zoning decision acknowledges the intent of the Forest Service to manage this area to maintain these wilderness qualities.

## 1.3 - Purpose and Need for Action

Three Sisters Falls is an increasingly popular backcountry waterfall located on Boulder Creek near Julian, California. This site is accessed via a network of user-created trails that cross steep, rugged terrain, and additionally route hikers directly through approximately ¼ mile of riparian area. Use levels at the falls throughout 2014 and 2015 frequently reached 100-200 people, and exceeded 400 people on peak days. High levels of unmanaged use in this area have resulted in public health and safety issues, widespread soil erosion, watershed impacts, plant and wildlife impacts, and impediments to traffic flow on Boulder Creek Road. Specifically, there is a need to address concerns related to:

1. Public health and safety as hikers attempt to access TSF. Specific issues include heat illness, traumatic injuries resulting from hikers falling as they attempt to reach the falls, and lost hikers.
2. Resource impacts stemming from high levels of unmanaged recreation use at TSF, along with erosion associated with the existing user-created trail to Eagle Peak.
3. Compromised access along Boulder Creek Road for area residents and emergency vehicles during high-use periods at TSF, along with hazards to visitors associated with passing vehicles on the constricted roadway.

In meeting this need, the proposal must meet the following purposes:

1. Provide for public safety. The current user-created trail network is unstable and difficult to navigate. As a result hikers periodically get lost or injured as they seek to access TSF. Heat-related illnesses, particularly on hot days, are common among visitors as they hike up steep, eroded slopes. Visitors parking on the edge of Boulder Creek Road have historically restricted access along the road for area residents and emergency vehicles and been exposed to risks of passing vehicles on the constricted roadway.
2. Manage for an environmentally sustainable ecosystem. Currently visitors continue to expand user-created trails and erosion and leave litter and human waste behind. These activities damage vegetation, cause soil erosion, degrade riparian areas and water quality, and impact the area's wilderness qualities.

## 1.4 - Land Management Plan Direction

The proposed action works toward the forest management goals as described in the 2005 Revised Cleveland National Forest (CNF) Land Management Plan (LMP) (USDA, 2005). LMP strategies, standards, and guidelines relevant to this analysis are summarized below:

**REC 2 – Sustainable Use and Environmental Design** (LMP Part 2, CNF Strategy, p. 103)

Analyze, stabilize and restore areas where visitor use is negatively affecting recreation experiences, public safety and environmental resources. Manage visitor use within the limits of identified capacities:

- Implement control measures in specific high-use areas as use levels become a concern.
- Implement Adaptive Mitigation for Recreation Uses in existing and new recreation sites and uses whenever a conflict between uses or sensitive resources is detected.

**REC 3 – Recreation Participation** (LMP Part 2, CNF Strategy, p. 103)

Offer a wide range of high quality, environmentally sustainable developed and dispersed recreation opportunities to a rapidly growing and culturally diverse visitor population, with minimal visitor conflicts and effects to other resources.

- Develop new, environmentally sustainable recreation opportunities and infrastructure to relieve concentrated demand within existing high-use areas and to accommodate future growth and new uses elsewhere.
- Improve, remove or replace aging developed recreation infrastructure to meet current needs and future demand.
- Inventory and analyze existing and potential dispersed use … Manage for those uses that are consistent with resource protection and public safety, and mitigate or eliminate problems over time.

**WAT 1 – Watershed Function** (LMP Part 2, CNF Strategy, p. 95)

Protect, maintain and restore the natural watershed functions including slope processes, surface water and groundwater flow and retention, and riparian area sustainability:

- Restore, maintain and improve watershed conditions. Assure that approved and funded rehabilitation and emergency watershed treatments are implemented in an effective and timely manner.
- Maintain or restore soil properties and productivity to ensure ecosystem health (soil microbiota and vegetation growth), soil hydrologic function, and biological buffering capacity.
- Manage Riparian Conservation Areas (RCA) to maintain or improve conditions for riparian dependent resources. Riparian Conservation Areas include aquatic and terrestrial ecosystems and lands adjacent to perennial, intermittent, and ephemeral streams, as well as around meadows, lakes, reservoirs, ponds, wetlands, vernal pools, seeps, springs and other water bodies. Riparian dependent resources are those natural resources that owe their existence to the area, such as fish, amphibians, reptiles, fairy shrimp, aquatic invertebrates, plants, birds, mammals, soil and water quality.
- Maintain natural stream channel conductivity, connectivity and function.

- Maintain watershed integrity by replacing or disposing of displaced soil and rock debris in approved placement sites.

**WAT 2 – Water Management** (LMP Part 2, CNF Strategy, p. 96)

Manage groundwater and surface water to maintain or improve water quantity and quality in ways that minimize adverse effects:

- Conserve and protect high quality water sources in quantities adequate to meet national forest needs.
- Take corrective actions to minimize conditions leading to state listing of 303(d) impaired waters on National Forest System land. For those waters that are both on and off National Forest System land ensure Forest Service management does not contribute to listed water quality degradation.

**TRANS 1 – Transportation System** (LMP Part 2, CNF Strategy, p. 108)

Plan, design, construct and maintain the road and trail system to meet those objectives established to implement the forest plan, to promote sustainable resource conditions and to safely accommodate anticipated levels and types of use.

- Add unclassified roads and trails to the Forest Service transportation system when site-specific analysis determines there is a public need.
- Enhance user safety and offer adequate parking at popular destinations on high traffic passenger car roads, while also minimizing adverse resource effects.

**TRANS - 3 – Improve Trails** (LMP Part 2, CNF Strategy, p. 109)

Develop an interconnected, shared-use trail network where compatible and support facilities compliment local, regional and national trails and open space, and also enhance day-use opportunities and access for the general public:

- Construct and maintain the trail network to levels commensurate with area objectives, sustainable resource conditions, user safety, and the type and level of use. Convert ecologically sustainable unclassified roads and trails, and other roads that meet the need for trail-based recreation.
- New trail construction projects will emphasize development of partnerships and cooperative agreements for construction, future maintenance, and reconstruction.

**Fish and Wildlife Standards** (LMP Part 3: Design Criteria for Southern California Forests, p. 7)

- **S18:** Protect known active and inactive raptor nests areas. Extent of protection will be based on proposed management activities, human activities existing at the onset of nesting initiation, species, topography, vegetative cover, and other factors. When appropriate, a no-disturbance buffer around active nest sites will be required from nest-site selection to fledging.

**Soil, Water, Riparian and Heritage Standards** (LMP Part 3: Design Criteria for Southern California Forests, p. 11)

- **S47**: When designing new projects in riparian areas, apply the Five-Step Project Screening Process for Riparian Conservation Areas as described in Appendix E - Five-Step Project Screening Process for Riparian Conservation Areas.
- **S50**: Mitigate long term impacts from recreation use to soil, watershed, riparian or heritage resources (refer to Appendix D - Adaptive Mitigation for Recreation Uses).

**Appendix D – Adaptive Mitigation for Recreation Uses & Recreation Implementation Guidelines** (LMP Part 3: Design Criteria for Southern California Forests, pp. 63-64)

These guidelines apply to all existing and new recreation sites and uses whenever a conflict between uses or sensitive resources is detected. Sensitive resources include threatened, endangered, proposed, candidate, and sensitive species and habitats; riparian habitats, soil and watersheds; heritage resources; user conflicts; or other resources. The management actions will be implemented in the order (education; perimeter control; management presence; redirection of use-if appropriate) listed below unless analysis of the conflict clearly indicates a stronger measure is immediately necessary. The actions and practices include, but are not limited to:

1. Conservation Education
   - Use information networks, including public service announcements, internet sites and links, and visitor guides, newsletters to communicate information regarding sensitive resources.
   - Install and maintain appropriate multilingual information boards, interpretive panels and regulatory signs at developed sites and dispersed areas within sites of sensitive resources.
2. Perimeter Control
   - Modify visitor access to manage use. Install and maintain appropriate fencing or other barriers to protect sensitive resource areas. Limit the number of users at the site or area.
3. Presence
   - Provide adequate management presence to ensure protection of sensitive resources. This presence could include Forest Service personnel, peer education, concessionaires, other permit holders, and volunteer support.
4. Direct Action
   - Where visitor use is restricted – a) Limit or control use at developed recreation sites and areas through a permit system; b) When other actions are ineffective enact and enforce Forest Orders to protect sensitive resource areas through use of seasonal or temporary closures; c) Seek opportunities to proactively design and locate new facilities and areas for re-distributing human use away from sensitive resources.
   - Limit visitor use of recreation sites and areas through diurnal, seasonal or temporary closures during critical life cycle periods for affected threatened, endangered, proposed, candidate, and sensitive species.

**Upper San Diego River: Standards, Desired Conditions and Program Emphasis** (Forest Plan Part 2, CNF Strategy, pg. 67).

- Maintain as a remote, natural appearing landscape that functions as a respite for the surrounding urban population. Attributes to be preserved (or restored) over time include a diverse mosaic of natural habitats, rare plant and wildlife communities and the undisturbed character and panoramic views and features. Opportunities for developed recreation and trails (including the Trans-County Trail) improve through time. Program emphasis for the Upper San Diego River Place includes maintaining a natural appearing

setting for dispersed recreation activities and to increase public understanding of natural systems through education and interpretation ... Plan a trail system and develop support facilities commensurate with forest plan objectives to allow safe access to popular destinations, including an east/west section of the Trans-County Trail. Support the efforts of the San Diego River Conservancy to the extent feasible. Assess the landscape for opportunities to provide developed campgrounds and enhanced trail-based recreation. Conserve biological values associated with the Research natural Areas. Monitor coastal sage scrub in the San Diego River bottom and take adaptive management measures to protect important habitats as necessary. Develop management plans for special areas.

## 1.5 - Public Involvement

The proposal was first listed in the Schedule of Proposed Actions in June, 2014. A scoping letter initiating a 30-day scoping period on the proposed action was sent to interested parties on February 25, 2015. The Forest Service also posted the scoping letter in the front office of the Palomar Ranger District and met with County of San Diego Department of Public Works staff on May 20, 2015, and May 17, 2016, to discuss this proposal.

All input received during the course of scoping and other public involvement activities was considered by an interdisciplinary team (IDT). A summary and response to comments received during the scoping can be found in Appendix A of the Draft EA. Twenty-four (24) scoping comments from eight (8) individuals and notes about other public involvement activities can be found in the project record. These comments either resulted in new project design features or did not generate significant issues related to the proposal.

## 1.6 - Issues

Based on internal and external scoping, the interdisciplinary team (ID team) developed a list of issues. It was determined that the following issues warranted full analysis in this EA to determine their significance and/or contributed to project design features.

- **Impacts to human health and safety**: specifically concerns related to improvement in accessibility leading to an increase in heat-related health emergencies.
- **Potential for increased visitation**: increased visitation could result in more visitors parking on Boulder Creek Road.
- **Impacts to water quality and soils**: both downstream and immediately on site.
- **Impacts to air quality**.
- **Impacts to wildlife**.
- **Impacts to vegetation**: including riparian vegetation
- **Impacts to heritage resources**: including pre-historic and historic sites.
- **Impacts to the area's wilderness qualities**: including impacts to the area's natural, undeveloped qualities and its outstanding opportunities for solitude or a primitive and unconfined type of recreation.

# 2 - Alternatives, including the Proposed Action

This chapter describes the alternatives considered as part of this project. This chapter includes a description of each alternative and a discussion of an alternative considered but eliminated from detailed study.

## 2.1 - Alternatives

### 2.1.1 - Alternative 1

#### *No Action*

Under the No Action alternative, historic management practices would continue in the project area. System trails would not be adopted and/or constructed, user-created trails would not be decommissioned and restored, and an official trailhead would not be constructed.

This alternative would cost the Forest Service relatively little, however none of the currently recognized issues would be resolved, and public safety would continue to be a problem and could worsen with time if visitation increased and conditions continued to deteriorate. Costs for search and rescue efforts by the County of San Diego would likely continue to increase, as would safety issues along Boulder Creek Road.

### 2.1.2 - Alternative 2

#### *Proposed Action*

In order to address the purpose and need for this project, the Cleveland National Forest developed a three-part proposed action – to adopt and/or construct Class 2 system trails to TSF and the summit of Eagle Peak, to decommission and restore existing user-created trails, and to construct a developed trailhead. Design of the trails would be consistent with Forest Service specifications for Class 2 trails, being narrow and rough, single lane, with commonly occurring obstacles. The entirety of the Proposed Action is shown in Figure 1 on p. 3.

The initial 1.3 miles of the existing unclassified trail leading to TSF are located in old roadbed, which is proposed for adoption into the Cleveland National Forest trail system. Trail drainage and stream crossings would be improved upon the adoption of this trail, which may require minor re-routes. Approximately 1 mile of additional Class 2 trail would be constructed to deliver hikers to TSF. Approximately 1.6 miles of old roadbed and/or user-created trail leading to the summit of Eagle Peak would be also be adopted, including improvements to trail drainage and minor re-routes. In addition to the adoption and construction of system trails, remaining unauthorized trails and associated eroded areas in the project area would be decommissioned and restored. Materials needed for trail construction and restoration in the recommended wilderness would be delivered by helicopter drop on no more than three occasions. Because medical evacuations from the vicinity of TCF typically require helicopter support, a small area would be maintained free of tall vegetation for emergency use.

The proposed action would also allow the Palomar Ranger District to construct a trailhead up to 8 acres in size at the junction of Boulder Creek and Cedar Creek Roads, an area known locally as the Turntable. The trailhead falls within the backcountry land use zone, where developed

facilities are suitable, by contrast with the surrounding recommended wilderness. Trailhead improvements would include paved parking for 60-80 vehicles, a vault toilet facility, interpretive kiosks with educational and warning messaging, picnic tables, animal-resistant trash cans, and pipe railing and/or fencing. A short segment of Boulder Creek Road adjacent to the trailhead may be paved to reduce erosion and delineate acceptable roadside parking. Due to funding issues, construction of the trailhead may be phased, with primitive parking facilities consisting of a cleared area possibly being developed prior to constructing the trailhead.

Based on Forest Service staff observations gleaned through years of managing Cedar Creek Falls, an average of approximately three people per vehicle travel to Cedar Creek Falls, and vehicles in the parking lot turn over once daily (one parking space provides parking for two vehicles in a given day). With peak use levels at TSF of more than 400 people on the busiest days during 2014 through 2016, a 60-80 car lot would allow a similar level of use on busy days based on the assumption that use patterns at Cedar Creek Falls and TSF – two destination hikes of comparable length – are similar. While more than 100 vehicles have been observed on peak days, it is expected that Boulder Creek Road can safely accommodate a low level of roadside parking, and so the lot need not be large enough to accommodate peak demand.

The Forest Service has had initial discussions with the County of San Diego about potentially prohibiting parking along segments of Boulder Creek Road in the vicinity of the Turntable where roadside parking creates unsafe conditions. If approved through the County's regulatory process, this action would address safety issues associated with overflow parking beyond the capacity of the proposed trailhead.

### *Design Features*

1. The Forest Heritage Program Manager/Qualified Heritage Program Staff will remain informed of activities taking place in the proposed restoration area. If it is determined that proposed restoration activities will adversely affect a site, it will be revisited, recorded, and standard protection measures will be implemented accordingly.
2. Should any previously unrecorded cultural resources be encountered during implementation of this project, all work should immediately cease in that area and the Forest Archaeologist be notified immediately. Work may resume after approval by the Forest Archaeologist; provided any recommended Standard Protection Measures are implemented. Should any cultural resources become damaged in unanticipated ways by activities proposed in this project; the steps described in the Regional Programmatic Agreement for inadvertent effects will be followed.
3. Should the project boundaries or activities be expanded beyond the current APE, Section 106 compliance for this project will be incomplete until additional cultural resource review is completed.
4. Ground disturbing equipment would be thoroughly cleaned of debris before performing earthwork, and weed-seed-free materials (such as straw wattles/bales, matting, mulch, slash, chips, and imported/transported fill) would be used to prevent the introduction of new invasive weeds into the project area.
5. All applicable National Best Management Practices (BMPs) for Water Quality Management on National Forest System Lands (USDA 2012) would be followed.

6. Organic matter at project restoration and decommissioning sites would be retained at the site and be redistributed across the disturbed area (FSH 2509.18).
7. Soil cover (on disturbed areas) following decommissioning and restoration activities would be maintained at levels of at least 50 percent of the soil surface in upland area and at least 71 percent in the Riparian Conservation Areas (RCA). Soil cover would consist of rocks, litter, organic matter, low-growing plants, and woody debris. (FSH 2905.18)
8. Mechanical equipment use and trail maintenance would require ground conditions dry enough to prevent soil compaction (outside of the construction area), rutting, runoff of sediments to streams, or disturbance (in excess of disturbance needed to restore site). (FSH 2509.18, Best Management Practice 2.3, Fac-2, AqEco-2).
9. Mechanical equipment refueling will occur outside of the RCA and will have spill containment measures in place during operations. For small quantities (5 gallons or less), fueling of gas-powered machinery would not occur within 25 feet of any body of water or stream channel to maintain water quality. (Road-10, BMP-2.11).
10. Staging of equipment will occur outside the RCA (AqEco-2).
11. Equipment refueling and servicing will occur outside the RCA and will have spill prevention control and response plans (Road 10).
12. Decommissioned and restoration sites will be stabilized, restored, and revegetated to a more natural state as necessary to protect and enhance NFS lands, resources, and water quality (BMP 2.7, Rec-2).
13. Locate and design trail to cause minimal resource damage and decommission/restore user-created trails with resource damage (Rec-2, Fac-10).
14. Trails added to the system will be stormproofed and added to the regular schedule of maintenance. (BMP 2.3, BMP 2.4).
15. Restoration sites and the trailhead/parking area will have erosion control plans for short and long-term recovery (BMP-2.13, Fac-2). Construction of the parking area will require an erosion control plan to handle runoff that may occur during construction/implementation (Fac-2).
16. Design the parking area to minimize damage to resources and prevent increased erosion (Road-9).
17. Develop and implement a post-construction site vegetation plan using suitable species and establishment techniques to revegetate the construction site around the parking area in compliance with FSM to prevent erosion and reintroduce cover to applicable areas (Fac-2).
18. Add signage to encourage users to “leave no trace” and “pack in, pack out” (Rec-2, Fac-5).
19. Provide receptacles for trash that will be located away from waterbodies, are convenient to users, are maintained regularly, and prevent wildlife foraging (Fac-5).
20. Locate sanitation facilities away from water bodies and outside the RCA (Fac-4).

## 2.1.3 - Alternative 3

### *Permanent Closure*

A permanent closure option would close the area surrounding TSF and the user-created trail areas leading to it. This option would address concerns for public safety and resource protection.

New issues would be raised as enforcement would be difficult to impossible due to the large size and remote nature of the area, and a closure would negatively impact recreational users attempting to get to the falls. Permanent closure would require amendment of the Land Management Plan through a decision by the Forest Supervisor rather than the District Ranger.

This alternative would provide the most protection to the resources on the ground, as some trail segments would degrade back to a natural state, and some issues associated with visitation would resolve themselves. Trails concentrating flow would continue to concentrate flow and erode, and gullies would be unlikely to regrow vegetation and stabilize for a long time due to steep terrain and soil type. The costs of a full closure would be high in the long-term. Patrols by Forest personnel would be required to enforce a closure, and recreationists determined to access the area could encounter more difficulties resulting in more injuries and rescues.

This closure would not include closing access to Eagle Peak.

## 2.1.4 - Alternatives Considered but Eliminated from Detailed Study

Federal agencies are required by the National Environmental Policy Act (NEPA) to rigorously explore and objectively evaluate all reasonable alternatives, and briefly discuss the reasons for eliminating any alternatives that were not developed in detail (40 CFR 1502.4).

Many ideas have been suggested and explored in arriving at the current alternatives considered in detail in the EA. Addressing each of these suggestions in detail would create an unmanageably large number of alternatives that would not be helpful to the decision maker or the public. Also, some recommendations would not fully address or would conflict with the purpose of and need for this project, may result in new environmental or social impacts, and/or would be infeasible to implement.

### *Implementation of a Visitor Use Permit*

It was recommended through the scoping process that the Forest Service require a visitor use permit to visit TSF, similar to the system in place at nearby Cedar Creek Falls, as a means to limit public use at TSF. For context, the Cedar Creek Falls Visitor Use Permit System was implemented to resolve ongoing natural resource impacts from recreation use, with use levels exceeding 2,000 people at their peak. The highest observed use levels at Three Sisters Falls – approximately 400 people on a peak day – is twenty per cent the highest observed use in the past at Cedar Creek Falls. In addition, ongoing use data at Cedar Creek Falls suggests that peak days at this location exceed 300 people under the permit system, which is not substantially different from the use levels observed at TSF. And while the construction of a system trail and trailhead may result in increased public use at TSF and Eagle Peak, use levels seem to have plateaued at TSF between 2014 and 2016, whereas use levels at Cedar Creek Falls were consistently increasing from year to year even before the San Diego River Gorge Trail and Trailhead were constructed.

The Permit System was implemented at Cedar Creek Falls following the construction of a system trail to access the falls due to ongoing resource impacts despite the trail improvement. Currently no system trail or other recreation infrastructure exist at TSF, and unmanaged recreation use is

leading to the creation and expansion of unclassified trails, with resulting impacts to soils, water quality, vegetation, and wildlife. The Cleveland National Forest Land Management Plan directs Forest Service staff to "implement control measures in specific high-use areas as use levels become a concern" (Part 2, p. 103), "develop new, environmentally sustainable recreation opportunities and infrastructure to relieve concentrated demand within existing high-use areas" (Part 2, p. 103), and implement recreation management actions in the following order: conservation education, perimeter control, presence, and direct action (Part 3, pp. 63-64).

Given that the construction of a trailhead and system trails to access TSF and Eagle Peak may resolve unacceptable resource impacts resulting from unmanaged recreation use, it would be contrary to the Land Management Plan to implement a permit system at TSF without first trying less intrusive management approaches. Furthermore, if use levels at TSF remain stable at levels observed in 2014 through 2016 and construction of a trailhead and system trails resolves ongoing resource impacts, implementing a permit system would unnecessarily burden the recreating public, place a high administrative cost on Forest Service enforcement staff, and degrade the "outstanding opportunities for a primitive and unconfined type of recreation" quality for which the Eagle Peak Recommended Wilderness was partly established due to unnecessary regulation of recreation activities.

# 3 - Environmental Consequences

## 3.1 - Physical Environment

This section evaluates impacts of the three alternatives to soils, water, and air.

### 3.1.1 - Soils and Water

#### *Direct and Indirect Effects of Alternative 1: No Action*

The existing trends of increasing damage to resources would likely continue indefinitely and most likely worsen as use of the site continues to increase. The trails would not be added to the maintenance and repair schedule or have additional stormproofing, thus they would continue to degrade. Impacted Riparian Conservation Areas in the project area would not be allowed to recover and would continue to degrade as long as use persisted. Unmanaged trailing could continue to increase the area impacted by use. Watershed-level effects related to roads/trails and road/trail densities would remain the same and may increase due to trailing. Current trends in effects to beneficial uses would continue. Sanitation issues would continue and potentially worsen as use increases. Issues related to visitors creating parking near the trailhead, erosion at the intersection, accumulation of garbage and trash, and lack of education (due to lack of signage) would continue.

#### *Direct and Indirect Effects of Alternative 2: Proposed Action*

Soil Displacement, Compaction and Soil Productivity

1) Three Sisters Falls and Eagle Peak Trails:

Overall, identifying a single main trail would manage use and protect areas from the current practice and subsequent effects of trailing. The identified and established main trails would be stormproofed and have drainage control structures installed to reduce erosion and reduce

concentration of flow. The main trail would be located outside the RCA where possible, allowing soils and vegetation in the RCA to recover. The denuded, eroding slopes with a web of trails on the Three Sisters Falls trail would be restored using erosion control methods that would stabilize the slope and allow vegetation to re-establish. Restoration of the impacted site and managing use by keeping users on the main trail would promote re-establishment of soil productivity.

Soil displacement would be reduced through trail decommissioning, restoration, and prevention of trailing. Restoration of impacted areas would enhance soil productivity by stabilizing soils and allowing plant growth. Soil structure formation will take time to re-establish; however, preventing trailing will allow the process to start. Restoration efforts (such as adding cover, planting, seeding, etc.) would increase organic matter on disturbed sites, reducing erosion and reintroducing organic matter to depleted soils. Reducing trailing would prevent further damage to soil productivity and soil structure. Soil productivity is key to restoring habitat at a disturbed site.

Decreased disturbance and trailing would improve infiltration, groundwater recharge, and could improve soil moisture. Increasing soil infiltration capacity would positively affect other hydrologic processes such as reducing artificially high runoff and erosion rates related to routes.

2) Trailhead and Parking area:

Although the parking area at the trailhead would be considered a permanent loss of soil, establishing a managed parking area would reduce the area impacted by users creating new parking and widening the road. Installing and maintaining a parking area would reduce soil disturbance related to motorized use. The parking area would be designed to minimize erosion and control runoff. Erosion control methods may include a settling pond near the parking area, riprap at culverts, or other methods that could be installed within the disturbance footprint (see Figure 1 on p. 3). Managing runoff would reduce soil disturbance that is currently occurring in gullies and off impacted areas.

Water Quality (chemical)

Installing toilets at the trailhead and information on kiosks would reduce risks of water quality impacts related to poor sanitation practices by users. With the option of toilets, users would be less likely to use the riparian area and other drainage features to relieve themselves. Kiosks would inform forest users on less impactful use of the wilderness and “Leave no trace” methods.

Best Management Practices are designed to protect water quality. BMPs that apply to the project are identified in Appendix A of the Soils and Watershed Report. Implementation of BMPs and design features during proposed action activities would protect water quality. The trail work would be completed by a hand crew, potentially using small motorized hand-held equipment. Filling and storing of equipment would be conducted following BMPs. Additionally, mechanical equipment and use of equipment would be located on a ridge well outside the RCA. There is a very low risk to water quality due to project implementation with mechanical equipment.

Water Quality (sediment)

Overall, the proposed action would result in localized long-term reductions of chronic erosion and sedimentation related to the treated areas. There may be short-term (less than five years) increases in sediment related to implementation of the project (decommissioning, stormproofing, restoration efforts, etc.); however, there would be a long-term benefit to watershed resources as

the impacted sites recover and stabilize. Decommissioned sites would stabilize through re-established vegetation, improved hydrologic processes, and eliminated trampling. The designated main trail would be moved out of the RCA to the extent practical. Trails added to the system would be stormproofed and maintained using best management practices. When implemented, BMPs have been found to be effective at reducing sediment related to Forest activities. Effects would not be measurable at the Hydrologic Unit Code (HUC) 6 watershed scale.

Trails and impacted sites decommissioned would no longer be used and existing drainage and chronic erosion issues would be addressed through site restoration. The linear route features straight down steep slopes would no longer exist to concentrate flow and alter hydrologic processes. Restoration efforts would increase surface roughness, groundcover, and infiltration. Surface roughness decreases the potential for concentration of flow and erosion of the soil surface. Ground cover would protect the ground surface from raindrop erosion and soil sealing. Infiltration would prevent increased runoff that can increase erosion.

Decommissioning and closure of trailing sites within the RCA would have a beneficial effect on sedimentation caused from use. Because of proximity, these sites are more likely to contribute sediment and to be hydrologically connected. Additionally, these trail segments prevent riparian vegetation from growing. Some of the trails in the RCA are located in the stream channel, damaging streambanks, the streambed, and riparian vegetation. Decommissioning these routes and preventing use would allow the impacted channels to stabilize, reducing sedimentation. Riparian vegetation would re-establish and assist in stabilizing the channel banks.

Sediment (from the designated main trails that will be added to the system) would be reduced through stormproofing, maintenance, and repair. As discussed before, several trails concentrate runoff on the trail surface. Stormproofing works to disperse flow and prevent concentrated runoff, decreasing the erosive power of road drainage. This reduces potential for sediment delivery and for erosion/gully formation.

Short-term impacts of project implementation would be minimized through BMPs and project design features. BMPs would be implemented to ensure compliance with the Clean Water Act. They have been approved by the State Regional Water Quality Control Board. Best Management Practices Evaluation Program and the National BMP evaluation program are annual monitoring and reporting that the San Diego Regional Water Quality Control Board and Forest Service Washington Office require for ground-disturbing activities. This project would be included in the sampling pools.

Hydrology

Overall, the proposed action would result in improved hydrologic processes currently impacted by the trails and disturbed areas; however, these effects would not be measurable at the HUC 6 watershed scale.

Several characteristics of the impacted areas in this project (trailing, poor location, proximity to the RCA, poor drainage, soil disturbance, etc.) are contributing to alteration of natural hydrologic processes such as infiltration, runoff, peak flows, and channel characteristics.

Hydrologic processes on trails added to the system or rerouted would be improved through stormproofing, maintenance, and repair. Stormproofing works to disperse concentrated trail

runoff, slowing water and increasing potential for infiltration (off the compacted trail surface). It also includes disconnecting trail related runoff from stream crossings. All of these actions reduce the increase in peak flow discharge that can result from concentration of runoff on trails and connection to streams. When peak flows are returned to a more natural range, so is the flooding potential. Channel stability increases as well.

Hydrologic processes on decommissioned trails and impacted areas would be improved as the linear trail features down steep slopes would no longer exist to concentrate flow and alter hydrologic processes. Site restoration would improve infiltration, porosity and permeability. Runoff related to concentration of flow on the trail surface and compaction would be reduced. Improved hydrologic processes would support vegetative regrowth, which would further stabilize the site. Groundcover added to the disturbed soils would slow runoff. Slowing runoff and increasing infiltration would decrease peak flows and channel instability. Overall, rehabilitation of hydrologic processes including dispersal of trail surface drainage and disconnecting trail drainage from channels would have a positive effect on local hydrology and stream habitat.

Installation of erosion and drainage control at the trailhead would help minimize effects of installing a parking lot. Potential methods, such as settling ponds, drainage culverts with riprap, would be designed according to BMPs and would work to minimize hydroconnectivity and concentration of flow.

### *Cumulative Effects of Alternative 2: Proposed Action*

The proposed action would not result in measureable effects at the HUC 6 watershed scale. Localized effects would be beneficial to watershed resources, as currently impacted hillsides would be restored and trails would be moved out of the RCA. These impacted areas would be allowed to recover and the trail system would be added to the managed system. Effects of the parking lot would be minimized through erosion control measures (e.g. settling ponds or riprap) and implementation of BMPs. Bathrooms would reduce risks of impacts to water quality.

Other Projects on NFS lands

Other potential projects that may occur with the next five years within the project area watersheds include:

- Stormproofing and maintenance of roads impacted by the Witch Fire
- Coastal Sage Scrub Restoration
- Invasive Weed Removal
- Invasive Aquatic Species Removal
- Feral Pig Eradication

The proposed action in addition to the other potential projects would not result in detrimental cumulative effects. The proposed action is designed to improve watershed and soil resources, but improvements would not be measurable at the watershed scale.

### *Direct and Indirect Effects of Alternative 3: Permanent Closure*

While Alternative 3 would greatly reduce impacts described for Alternative 1 that result from visitor use, including user-created trail expansion, sanitation, litter, and parking, soil erosion and water quality impacts associated with the existing disturbance would remain indefinitely.

## 3.1.2 - Air

### *Direct and Indirect Effects of Alternative 1: No Action*

No direct, indirect, or cumulative effects to air quality are expected under Alternative 1.

### *Direct and Indirect Effects of Alternative 2: Proposed Action*

Expected project emissions of greenhouse gases are compared to California Environmental Quality Act (CEQA) Significance Determination Thresholds in Table 1. Some pollutants modeled in this analysis do not have assigned significance thresholds, as indicated by "--" in the table. Emissions expected under Alternative 2 are below all applicable air quality thresholds.

*Table 1. Comparison of expected emissions to CEQA Significance Determination Thresholds.*

| | Emissions (tons) compared to Yearly Emissions Threshold | | | | | | |
|---|---|---|---|---|---|---|---|
| | ROG | CO | NOX | SOX | PM+ | CO2 | CH4 |
| HHDT (Heavy-Heavy-Duty Diesel Truck) Emissions | 0.00232 | 0.01041 | 0.02705 | 0.00006 | | 6.73312 | 0.00011 |
| Off Road Emissions | 0.00944 | 0.04490 | 0.06490 | 0.00013 | 0.00332 | 9.63789 | 0.00085 |
| Total Project Emissions (HHDT + Off Road) tons | 0.01177 | 0.05531 | 0.09194 | 0.00019 | 0.00332 | 16.37101 | 0.00096 |
| CEQA Significance Determination Thresholds | 15 | 100 | 40 | 40 | 15 | -- | -- |
| Under Thresholds? | Yes | Yes | Yes | Yes | Yes | -- | -- |
| | Emissions (lbs) compared to Daily Emissions Threshold | | | | | | |
| | ROG | CO | NOX | SOX | PM+ | CO2 | CH4 |
| HHDT Emissions (lbs) | 4.64650 | 20.81706 | 54.09238 | 0.12907 | | 13466.24412 | 0.21512 |
| Off Road Emissions (lbs) | 18.88929 | 89.79541 | 129.79128 | 0.25387 | 6.64394 | 19275.77095 | 1.70435 |
| Total Project Emissions (HHDT + Off Road) lbs / 60 days | 0.39226 | 1.84354 | 3.06473 | 0.00638 | 0.11073 | 545.70025 | 0.03199 |
| CEQA Significance Determination Thresholds | 137 | 550 | 250 | 250 | 100 | -- | -- |
| Under Thresholds? | Yes | Yes | Yes | Yes | Yes | -- | -- |
| | Emissions (lbs) compared to Hourly Emissions Threshold | | | | | | |
| | ROG | CO | NOX | SOX | PM+ | CO2 | CH4 |
| Total Project Daily Emissions (lbs) / 8-Hour Workday | 0.04903 | 0.23044 | 0.38309 | 0.00080 | 0.01384 | 68.21253 | 0.00400 |
| CEQA Significance Determination Thresholds | -- | 100 | 25 | 25 | -- | -- | -- |
| Under Thresholds? | -- | Yes | Yes | Yes | -- | -- | -- |

### *Direct and Indirect Effects of Alternative 3: Permanent Closure*

No direct, indirect, or cumulative effects to air quality are expected under Alternative 3.

# 3.2 - Biological Environment

This section evaluates impacts of the three alternatives to Wildlife and Vegetation. Effects of the proposed action to listed species (endangered, threatened, candidate, or sensitive) are described in detail in a biological evaluation included in the project record.

## 3.2.1 - Wildlife

No endangered, threatened, or candidate animal species occur or have suitable habitat within the project area. Ten animal species from the Regional Forester's Sensitive Species List may occur within the project area. Eight of these (in bold) and six additional species (italicized) are also California State Listed Species of Special Concern. Cliff-nesting raptors are also addressed due to their presence at Eagle Peak.

### *Direct and Indirect Effects of Alternative 1: No Action*

Under the No Action Alternative it is reasonable to assume that visitor use to the area will continue at high levels. Impacts associated with this increased and unmanaged use of the Three Sisters Falls and Eagle Peak areas would result in resource damage to habitat and disturbance to wildlife. Unmanaged recreation within this relatively small geographical area could eventually result in significant negative impacts to soil, vegetation, and water quality within the riparian habitat areas. Negative environmental impacts associated with unmanaged recreation within this area include direct disturbance to riparian habitat; vegetation destruction through creation of unauthorized trails, day use, and/or camping locations; streambank erosion; litter and waste; increased potential of wildfire through illegal campfires, and water quality degradation.

### *Direct and Indirect Effects of Alternative 2: Proposed Action*

**Pallid Bat**, *Pocketed Free-tailed Bat*, **Townsend's Big-eared Bat**, *Western Mastiff Bat*, *Western Red Bat*

No negative direct, indirect, or cumulative effects are expected to these species from the proposed action. These species utilize the area for nocturnal foraging, and there are no known or potential breeding or hibernation sites within the project area. Positive indirect effects would result from reducing riparian habitat degradation.

**Southwestern Pond Turtle and Two-striped Garter Snake**

No negative direct, indirect, or cumulative effects are expected to these species from the proposed action, because they have the ability to avoid trail construction activities and would not occur in the trailhead area. Potential impacts to these species associated with visitor use are already present, not expected to appreciably increase, and limited to a relatively small geographical area. Positive direct and indirect effects to these species from the proposed action include reducing impacts associated with user-created trails, riparian habitat impacts, and water quality issues.

*Black-tailed Jackrabbit*, Coastal Rosy Boa, *Coronado Island Skink*, *Northwestern San Diego Pocket Mouse*, **Orange-throated Whiptail, Red-diamond Rattlesnake, San Diego Horned Lizard**, San Diego Ringneck Snake, and **Silvery Legless Lizard**

Potential negative direct effects to these species from the proposed action include the potential loss of individuals from new trail and trailhead construction activity. This is not expected to be significant due to the limited area (less than 8 acres) and duration of construction activities. Negative indirect effects to these species includes the loss of up to 8 acres of potential habitat. These effects may affect individuals but are not expected to contribute to a trend toward federal or State listing. Positive direct and indirect effects to these species from the proposed action include reducing impacts associated with user-created trails, riparian habitat impacts, and water quality issues.

Cliff-Nesting Raptors

The proposed action would have no negative effects to cliff-nesting raptors, specifically Peregrine Falcon and Prairie Falcon for several reasons: these species are currently managed under a previous NEPA decision which includes the ongoing use of seasonal area closures and/or advisories to protect nesting raptors at Eagle Peak; no new trail construction is proposed for the Eagle Peak Trail; and hiking activities at Eagle Peak are unlikely to affect nesting raptors due to

the nest locations and the topography of the Peak area. Hikers cannot access areas within the proximity of cliff nest sites.

#### *Direct and Indirect Effects of Alternative 3: Permanent Closure*

Permanent closure would greatly reduce the wildlife impacts listed under Alternative 1.

### 3.2.3 - Vegetation

No endangered, threatened, or candidate plant species occur or have suitable habitat within the project area. Two plant species from the Regional Forester's Sensitive Species List may occur within the project area.

#### *Direct and Indirect Effects of Alternative 1: No Action*

Under the No Action Alternative it is reasonable to assume that visitor use to the area will continue at high levels. Impacts associated with this increased and unmanaged use of the Three Sisters Falls and Eagle Peak areas would result in resource damage to vegetation. Unmanaged recreation within this relatively small geographical area could eventually result in significant negative impacts to soil, vegetation, and water quality within the riparian habitat areas. Negative environmental impacts associated with unmanaged recreation within this area include direct disturbance to riparian habitat; vegetation destruction through creation of unauthorized trails, day use, and/or camping locations; streambank erosion; litter and waste; increased potential of wildfire through illegal campfires; and water quality degradation.

#### *Direct and Indirect Effects of Alternative 2: Proposed Action*

Dean's Milk-vetch (*Astragalus deanei*) and San Diego (Descanso) Milkvetch (*Astragalus oocarpus*)

No negative direct or indirect effects are expected to these species from the proposed action. These species have not been documented within the project area and any potential impacts would be limited to the new trail and trailhead construction, which are less than eight acres. Positive indirect and cumulative effects to these species from the proposed action include reducing and restoring numerous user-created trails and their associated impacts to vegetation and soil.

#### *Direct and Indirect Effects of Alternative 3: Permanent Closure*

Permanent closure would greatly reduce the vegetation impacts listed under Alternative 1.

## 3.3 - Social Environment

This section evaluates impacts of the three alternatives to public health and safety, scenery management and recreation, heritage resources, and adjacent private property.

### 3.3.1 - Public Health and Safety

The current trail system at TSF threatens public health and safety; hikers can be easily lost and regularly experience heat exhaustion and falls. Hikers who are unprepared for hot weather and the steep terrain in the area surrounding TSF are frequently rescued by helicopter. A number of rescues were historically conducted each year, although in recent years an increased need for rescues has been reported by the County of San Diego. A majority of rescues are a result of heat stroke and there have been numerous fatalities as a result.

Hikers have also experienced severe injuries as a result of loose debris and soil on the unmaintained user-created trails. The unstable, steep, and highly eroded nature of the current, commonly used trail is a hazard for hikers.

There are currently dozens of intersecting user-created trails, especially in the areas surrounding the steepest, most eroded slope, as well as near the creek bed. Many intersections, boulders and brush make it difficult for hikers to find their way and many have become lost as a result.

It is also common for hikers to walk on the Cedar Creek Spur Road, a Forest Service road adjacent to the user created TSF trail, with the expectation that they will reach TSF. These hikers end up at Saddleback Trailhead and often continue to Cedar Creek Falls, therefore hiking for over twice as long as they prepared for.
The use of Boulder Creek Road's shoulder for parking creates a hazard to public health and safety. On busy days cars often line both sides of this narrow, dirt road, along the approach to a hair pin turn. Not only does this create a traffic hazard for visitors and through traffic but also can prevent road access to emergency vehicles or prevent emergency vehicles from accessing the trailhead. This hazardous parking situation not only impacts the TSF visitors, including walking along a constricted roadway to and from the trail, but also the local community and residents.

### *Direct and Indirect Effects of Alternative 1: No Action*

There would be a number of negative effects to the health and safety of recreationists and the local community under the no action alternative. Namely, these include the increasing trend of dehydration and heat exhaustion incidents on the trail to TSF, lost hikers, injuries as a result of a treacherous trail, and roadside parking that impedes emergency vehicle access and creates hazardous conditions for pedestrians and vehicles.

### *Direct and Indirect Effects of Alternative 2: Proposed Action*

There would be a number of positive direct effects to the health and safety of both recreationists and the local community as a result of the proposed action. First, adoption of the trail as an official trail would allow the Forest Service to provide recreationists with health and safety information on the forest service website as well as at the trailhead kiosks. A targeted education campaign could decrease the number of heat-related rescues.

The proposal includes rerouting the trail at the steepest, most eroded section into switchbacks with a more gradual elevation change. This change to the trail would reduce dangerous falls due to the unstable soil, gravel, and/or bedrock trail surface and the number of heat exhaustion cases caused by this strenuous and steep section of trail. Additionally, adoption of this trail into the Forest Service trail system would allow the Forest Service to post signage along the trail thereby decreasing the number of hikers getting lost in the area.

A potential indirect negative impact of the proposed action would take place if the trail improvements resulted in a significant increase in recreationists visiting this area, and a change in the typical hiker profile. Under the proposed action there would be significant improvements to the trail, but under the definition of Class 2 Trail, it would retain some challenging natural obstacles, such as being routed over boulders. If there is a shift in user type to the less experienced hiker then the continued existence of these obstacles may increase the total number of injuries on the trail. This impact is not expected to be significant since there is already a wide spectrum of preparedness among current visitors to the area and since educational signage at the trailhead would improve preparedness relative to the existing condition.

The trailhead construction would have a positive impact on the health and safety of recreationists and the local community. The trailhead would lessen the number of cars parked along the roadway, therefore ensuring emergency vehicle access and decreasing traffic hazards for pedestrians and vehicles along Boulder Creek Road. In addition, in the event of a wildland fire in this vicinity, the trailhead could serve as a staging area for suppression equipment and personnel and a potential safety zone for firefighters.

### *Direct and Indirect Effects of Alternative 3: Permanent Closure*

Permanent closure would have a positive impact on health and safety of the public. Nobody would be allowed to access the area, greatly reducing rescues and injuries. It is possible that smaller groups of users would still attempt to access the TSF area. If that were to happen, a higher percentage of visits could result in rescues due to more difficult conditions, and fewer people in the area to assist with and/or report incidents.

Permanent closure could have an indirect negative effect on health and safety if the area was not sufficiently patrolled and hikers continued to access the falls in smaller numbers. This would result in increased incidences of lost hikers, as the trails would fade, and a potential increase in the amount of injuries.

## 3.3.2 - Scenery and Recreation

TSF is located in a canyon bordered by steep mountainous terrain topped with rocky crags. From the falls visitors are offered an open scenic vista to the north. The scenic integrity objective for the area encompassed by the proposed action is high. A scenic integrity objective of high means that the landscape appears unaltered.

Chaparral communities dominate the hillsides above TSF, and along the abandoned roadway on the initial 1.3 miles of the trail there are intermittent Engelmann Oaks on the ridge. The two riparian zones along the trail are also dominated by Engelmann Oaks and provide a scenic respite from the sun.

The last half of the trail is on a very steep incline consisting of loose soil and requires hikers to climb down a steep 10-foot rock face. From there some of the user-created trails utilize boulders and require hikers to climb over large rocks over uneven terrain.

Along the existing user-created trail the scenery is dominated by National Forest System lands to the north, west, and south. To the east there is an inholding of undeveloped private land surrounded by National Forest. Two miles to the south is another, larger inholding surrounded by National Forest System Land. Both of these private parcels are undeveloped and do not impact the undeveloped scenic integrity of the project area.

Recreation in this area includes a number of traditional Forest Service offerings, especially hiking and mountain biking. The vast majority of recreation use in this area is day use hiking and occurs at TSF. Camping in the vicinity of the project area has historically been limited due to challenging terrain, and proximity to roads and streams further limits available sites. Rock climbers accessing Eagle Peak, a popular climbing destination, also use the TSF unofficial trailhead. The user-created trail to Eagle Peak continues west at the end of the abandoned roadbed, where the route to TSF turns south.

### *Direct and Indirect Effects of Alternative 1: No Action*

There would be a direct effect to recreation under no action as recreationists would continue to experience worsening trail conditions in the area. Additionally, the no action alternative would result in continued severe soil erosion on existing trails, detracting from the scenic nature of the area, and worsening safety concerns.

According to the Cleveland National Forest Land Management Plan, the desired condition of "the Upper San Diego River Place is maintained as a remote, natural appearing landscape that functions as respite for the surrounding urban population" (67). No action may indirectly keep the number of visitors to this area lower, providing for "increased remote and natural appearing landscape," however no action would also lessen the potential for the area to offer "respite for the surrounding urban population."

The wilderness character of the area under no action would continue to decline as it becomes less natural, solitude is harder to find, and helicopter rescues are common.

### *Direct and Indirect Effects of Alternative 2: Proposed Action*

The proposed action would have a direct positive impact on recreation. The trail improvements and improved parking area and facilities would increase user access and enjoyment of the area. Improvements in trail structure would ensure that trail erosion is minimized – thereby improving the scenic recreation value.

If the improvements to parking area and trail lead to large increases in visitation this could detract from the intended recreational experience of the area. However, the remote nature of the proposed improvements suggest that the area would remain in alignment with the Cleveland National Forest Land Management Plan, which classifies this area as a "remote, natural appearing landscape that functions as respite for the surrounding urban population" (USDA, 2005: 67).

The wilderness character of the area would be stabilized under the proposed action. Wilderness character would be improved in terms of its natural condition, a potential reduction in helicopter rescues, and visitor education at the trailhead. Wilderness character would decline in terms of its untrammeled quality, less solitude, and an anticipated continued need for helicopter rescues.

### *Direct and Indirect Effects of Alternative 3: Permanent Closure*

A permanent closure would have a direct negative effect on recreation as it would block recreational users entirely. Due to the setting of TSF, to effectively provide for public safety and enforcement, a relatively large area would have to be closed to public access. This would affect other users that are not planning to access TSF itself (such as hunters, bird watchers, and climbers), which would be undesirable.

A decrease in visitors to the area of TSF would allow some user-created trail segments to degrade with time, while gullies segments would persist, and other negative impacts (such as litter and sanitation) would be remedied as well. However, the area required to effectively close TSF to public access would also limit the public's ability to enjoy any scenic benefits.

All qualities of wilderness character would be improved under a permanent closure.

## 3.3.3 - Heritage Resources

### *Direct and Indirect Effects of Alternative 1: No Action*

No direct, indirect, or cumulative effects would be expected to result to heritage resources from implementation of Alternative 1.

### *Direct and Indirect Effects of Alternative 2: Proposed Action*

With respect to this project, direct effects may include breakage and displacement of artifacts and/or destruction of features resulting from construction of new trail segments, recontouring user made trails, installation of erosion control features, use of heavy machinery to construct the parking lot and installation of facilities and signage posts.

In general, activities of the kind proposed for this project have the potential to indirectly affect cultural resources by opening up areas of the forest in which cultural resources are located to increased visitor use. Increased visitor use of an area in which cultural resources are located can render the sites vulnerable to both intentional, as well as unintentional, damage. Intentional damage can occur through the unauthorized digging in archaeological sites, unauthorized collecting of artifacts from sites, and vandalism of above surface site features. Unintentional damage can result from unauthorized dispersed recreational use that impacts the local ground cover. This may cause sites to become exposed, displaced or destroyed by erosional processes.

No adverse effect to historic properties is expected to result from implementation of the proposed action given that design feature 1 (p. 7) would be used to protect, manage, or maintain historic properties in a manner that avoids adverse effects.

A network of user made trails have been created to cross steep, rugged terrain and riparian areas. Use levels at the area frequently reached an average of 100-200 visitors to the area, with more than 400 visitors on peak days. No cumulative effects to historic properties are expected as a result of the proposed project.

### *Direct and Indirect Effects of Alternative 3: Permanent Closure*

No direct, indirect, or cumulative effects would be expected to result to heritage resources from implementation of Alternative 3.

## 3.3.4 - Adjacent Private Property

Potential impacts to private properties that are adjacent to the project area are primarily a result of high levels of public visitation at Three Sisters Trailheads. These impacts are mainly traffic congestion and hazardous road conditions due to roadside parking on a narrow dirt road at a hairpin turn. Besides this impact, the impact on adjacent private property would be similar to the impact on the public of improved access to Three Sisters Falls.

### *Direct and Indirect Effects of Alternative 1: No Action*

The main negative impact of the no action alternative would be the continuation of road congestion and hazards due to roadside parking on the hairpin turn of Boulder Creek Road immediately adjacent to the proposed parking lot.

### *Direct and Indirect Effects of Alternative 2: Proposed Action*

The proposed action would primarily have a positive impact on the adjacent private property. If visitor use remains similar to historical trends then local residents could expect an improvement in traffic congestion and unsafe parking near the trailhead.

### *Direct and Indirect Effects of Alternative 3: Permanent Closure*

While permanent closure would improve often hazardous road conditions near the trailhead it would negatively impact adjacent property owners' enjoyment of the project area.

## 4 - Persons, Groups, Organizations, and Agencies Consulted

***ID TEAM MEMBERS:***

| | |
|---|---|
| Fredrickson, Bjorn | former Recreation and Lands Officer, Palomar Ranger District |
| Friedlander, Joan | former Palomar District Ranger |
| Fudge, Emily | Forest Hydrologist |
| Harvey, Steve | former Forest Archaeologist |
| Hamm, Lee | Recreation and Lands Officer, Palomar Ranger District |
| Heys, Jeff | Forest Planner |
| Klemic, Karin | Forest Archaeologist |
| Nick, Andrea | Southern California Province Air Resource Specialist |
| Nossa, Eraina | Acting Archaeologist |
| Quintana, Devin | Forest GIS Coordinator |
| Wells, Jeff | Forest Wildlife Biologist |

***FEDERAL, STATE, AND LOCAL AGENCIES:***

County of San Diego, Department of Public Works

## 5 - References

USDA Forest Service, 2005. *Land Management Plan: Cleveland National Forest*. San Diego, CA. Available online at: http://www.fs.usda.gov/detail/cleveland/landmanagement/planning/

USDA Forest Service, 2012. National Best Management Practices for Water Quality Management on National Forest System Lands. FS-990A.

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USDA Forest Service, 2016b. Biological Assessment and Evaluation. Three Sisters Falls Recreation Management. Cleveland National Forest files.

USDA Forest Service, 2016c. Cultural Resource Management Report. Three Sisters Falls Recreation Management. Cleveland National Forest files.

USDA Forest Service, 2016d. Soils and Watershed Report. Three Sisters Falls Recreation Management. Cleveland National Forest files.

USDA Forest Service, 2016e. Noxious Weed Risk Assessment. Three Sisters Falls Recreation Management. Cleveland National Forest files.

## Appendix A: Responses to Comments Received During Scoping

### Introduction

The Forest Service has documented, analyzed, and responded to the public comments received during the scoping period for the Three Sisters Falls Recreation Management EA. Appendix A summarizes the comments received during the scoping period and provides the agency's response to those comments. These responses comply with 40 CFR 1503.4, Response to Comments, of the National Environmental Policy Act (NEPA) regulations.

### Comment Analysis and Response

Public comments submitted regarding the Three Sisters Falls Recreation Management EA were documented, compiled, categorized, and analyzed in order to capture all viewpoints and concerns submitted during the official scoping and comment periods. Information from meetings, letters, emails, and other sources are all included in this response to comments. The response to comments helps the Forest Service clarify, adjust, or incorporate additional technical information into the EA.

Analysts read all public responses and identified separate comments within them that relate to a particular concern, resource consideration, and/or requested management action. Analysts categorized each comment into a topic area that is specifically relevant to this project. After categorizing comments, responses were written to address the public input that was received. The interdisciplinary team provided any recommendations for improvement to the proposed action to the Palomar District Ranger for review, consideration, and action. In general, the agency responds in the following five basic ways to substantive public comments, as prescribed in 40 CFR 1503.4:

1. Modifying alternatives.
2. Developing and analyzing alternatives not initially given consideration.
3. Supplementing, improving, or modifying the analysis documented in the EA.
4. Making factual corrections.
5. Explaining why the comments do not need further Forest Service response.

This response document is organized based on the categorization of comments into themes, as described above. Therefore, the Response to Comment Appendix C does not directly match the organization of the EA and is instead more closely tied to the concerns that the public shared during the scoping period with the proposed action. Comments that may have fit into several categories were addressed only once.

It is important to point out that the consideration of public comments is not a vote-counting process in which the project outcome is determined by the majority opinion. Relative depth of feeling and interest among the public can serve to provide a general context for decision-making. More importantly, it is the appropriateness, specificity, and factual accuracy of comment content that serves to provide the basis for modifications to planning documents and decisions. Further, because respondents are self-selected, they do not constitute a random or representative public sample. NEPA encourages all interested parties to submit comments as often as they wish regardless of age, citizenship, or eligibility to vote. Respondents may therefore include businesses, people from other countries, children, and people who submit multiple comments. Every substantive comment and suggestion has value, whether expressed by one respondent or many. All input is read and evaluated, and the analysis team attempts to capture all relevant public concerns in the analysis process.

## Responses to Comments

### Proposed Action

1. **The Three Sisters trail should be adopted as an "official" trail and should be re-route and the damaged/eroded trails should be restored.**
   **Response:** See section 2.1.2, where these recommendations are included in the proposed action.

2. **Construction of a Parking Lot ACSD also supports the proposed action to construct a parking lot at the trailhead, but does not believe the approval or funding of this component of the project should be required to proceed with the adoption and re-route of the trail.**
   **Response:** See section 2.1.2, where the proposed action does not require trailhead construction prior to trail designation and improvement and includes the possibility that a primitive lot may be cleared prior to trailhead construction.

3. **The County supports the proposed effort by the Forest Service to improve unsafe and disruptive conditions in the Three Sisters Falls area. Similar to the issues outlined in the notice, the County is concerned with public health and safety issues, resource impacts, and nuisance impacts associated with existing and future public use in Three Sisters Falls.**
   **Response:** The Forest Service appreciates this supportive comment and will continue to work with the County of San Diego to address issues of mutual concern.

## *Environmental Analysis and Consequences*

### Depth of Analysis

4. **User data and statistics regarding the documented [scoping] "concerns" should be backed by sound data with cited sources in the final proposal. Anecdotal user data and concerns are not adequate to justify actions restricting access to public land.**
   The proposed action would increase accessibility of public lands while at the same time diminishing negative impacts on resources. The parking lot would improve accessibility,

as would a System 2 trail. A primary concern of the increase in accessibility is the potential for resultant increases in *use.* Restricting use is not a component of the current proposal; parking restriction and enforcement would only occur as necessary to prevent safety issues along Boulder Creek Road.

5. **Potential effects to water resources and wetlands should also be considered in the EA.**
   **Response:** The proposed action would not have any foreseeable impact on wetlands as the proposed action does not take place near or on a current wetland. Impacts to water resources have been taken into account in the EA – see Section 3.1.1.

6. **The County of San Diego, Land Use and Environment Group has developed Guidelines for Determining Significance that are used to determine the significance of environmental impacts and mitigation options for addressing potentially significant impacts in the unincorporated portions of the County of San Diego. Project impacts that could have potentially significant adverse effects to the unincorporated County or County facilities should be evaluated using the County's Guidelines for Determining Significance. These guidelines are available online at:** http://www.sandiegocounty.gov/pds/procguid.html**.**
   **Response:** The County's guidelines for determining significance for California Environmental Quality Act (CEQA) compliance have been reviewed, and no impacts of the project were found to be potentially significant. This project is only subject to CEQA due to the use of State funding for its implementation. Because the proposed action lies entirely on National Forest System lands, this project is primarily subject to the National Environmental Policy Act (NEPA) and the significance criteria found in the regulations for implementing NEPA at 40 CFR 1508.27.

## Soils

7. **The project should be designed to minimize the potential for erosion. The project may generate offsite impacts in regards to Water Quality into County lands, storm drain facilities, and receiving waters. The project should consider integrating construction BMPs and associated plans for conformance with the County of San Diego's Grading Ordinance, Watershed Protection Ordinance and State of California's Construction General Permit.**
   **Response:** See Sections 2.1.2 and 3.1.1. The entirety of this project occurs on National Forest System lands, and so Clean Water Act compliance would be achieved through the inclusion of Best Management Practices and design features in the Proposed Action.

## Physical Environment

8. **The EA should analyze the potential visual and aesthetic resource impacts of the proposed parking area and associated trail.**
   **Response:** See section 3.3.2 for the Scenery and Recreation analysis.

9. **The EA analysis should properly consider the archaeological and historic significance of the area and the potential effects to cultural resources from inclusion of a parking area, new and decommissioned trails.**

**Response**: See Section 3.3.3 for the Heritage Resources analysis.

## Biological Environment

10. **Proposed construction activity has the potential to generate noise. The EA should analyze the potential for the project to affect noise sensitive receptors such as nesting birds.**
    **Response:** Construction of the parking lot will take a minimum amount of time. Further, there are no known nesting sites of sensitive birds nearby. Trail construction will be with hand tools, as this area of Cleveland National Forest is zoned for "Non-motorized use." Further information can be found in sections 3.2.1.

## Geographic location

11. **The EA should include figures and graphics that clearly portray the location of existing and proposed trails and parking locations, and local roadways. Based on the scoping notice, it is difficult to tell where the proposed improvements are located in relation to area roadways.**
    **Response:** See Figure 1 on p. 3.

## Infrastructure Improvements

12. **The proposed parking area should include a portable or composting toilet and trash bin**
    **Response:** The proposed action includes plans for "vault"-style toilets and trash cans in-line with other CNF facilities.

13. **The proposed parking area and trailhead should include a kiosk with health, safety, sanitation and environmental/habitat info.**
    **Response:** The construction of a rustic kiosk is included in the proposal. See Section 2.1.2.

14. **On Boulder Creek Road signs indicating speed limit, curve (blind curve), oncoming traffic should be installed**
    **Response**: Boulder Creek Road is a county maintained road. The Cleveland National Forest does not have the legal authority to post traffic signage on County-maintained roads. Only the County can install signage on County roads.

15. **Trail: Minimal construction for re-direction with arrows and restricted area signage.**
    **Response**: The proposed action will only reroute the existing trail in the following circumstances: 1) in areas of irreparable erosion 2) to protect the habitat or presence of sensitive species or 3) to protect water resources. These areas include riparian zones and steep slopes. Otherwise the System 2 trail will primarily follow the user-created route. See Figure 1 on p. 3 for further information.

## Visitor Use Permits

16. **Dated Day Use Permits: Weekends and holidays only to reduce staffing needs, pre-notification at the trailhead and media (including social media), Available online (to**

**insure availability) and/or pick up at FS station. Include health and safety info (water, footwear, etc)**
**Response:** The current proposal does not include a provision for implementing a visitor use permit system.

17. **Permit System ACSD *opposes* the implementation of a permit system without a clearly defined and documented direct negative impact on the resource that other means (education, ranger/volunteer presence, coordination with user groups, etc.) prove ineffective at resolving. Should a permit system be warranted, the permit area must be limited to the immediate area of the falls to avoid negatively impacting other visitors to the area. Parking at the trailhead parking area or along Boulder Creek Road must *not* require a permit.**
**Response:** See response to comment 16.

## Public Health and Safety

18. **The project proposes to improve access for public services. Nonetheless, the adequacy of vehicular access for public services at project completion should be clearly disclosed in the EA.**
**Response:** The proposed action only aims to improve access for public services insofar as the provision of a parking area for recreationists visiting Cleveland National Forest will improve road access. The proposal does not include a further provision to improve road access, but merely recognizes that if visitor vehicles are not parked on the roadway then public services (specifically emergency services) would be able to pass freely on the roadway. Further issues pertaining to accessibility on the county roadway is under the jurisdiction of San Diego County and is outside the scope of this proposal.

## Parking

19. **While an unpaved parking facility may be consistent with community character, the need to protect the areas natural resources must also be evaluated in the EA, including whether the establishment of a formal parking area will increase or decrease visitation.**
**Response:** It has been recognized that both the construction of the parking lot and trail improvement could potentially lead to an increase in visitation. However, visitation has already been increasing and, without adequate facilities to park and hike, is having an increasingly negative impact on natural resources.

20. **According to the public scoping notice, numerous people visit the falls during summer months, frequently reaching up to 200 visitors and exceeding 400 on peak visitation days. The EA should clearly evaluate the parking demand and propose an appropriately sized parking facility taking into consideration peak and average parking demand.**
**Response:** See Section 2.1.2.

21. **Boulder Creek Road is a County Maintained Public Road. Any work on Boulder Creek Road will require an encroachment and/or traffic control permit from the County. Access/Driveways onto Boulder Creek Road should be designed to meet the**

**County's Public Road Standards and San Diego County Design Standards. Any proposed "parking prohibition" on a public road will require review by the County's Traffic Advisory Committee.**
**Response:** The only work proposed for Boulder Creek Road is responsive to a recommendation by County staff that Boulder Creek Road be paved where roadside parking is acceptable. If this possibility is determined to be necessary, all necessary County permits would be sought at that time. The parking area access from Boulder Creek Road would be designed to meet the County's Public Road Standards and San Diego County Design Standards. It is recognized in the EA that the Cleveland National Forest has no jurisdiction to prohibit parking on a public, County-maintained road.

22. **Parking along Boulder Creek Road should not be prohibited, nor should parking be limited to a designated parking area. Such restrictions will negatively impact all visitors to the area including those not destined for the Three Sisters Falls and should be eliminated as an option. Existing vehicle code provides sufficient legal authority to manage parking along Boulder Creek Road by citing or towing illegally parked cars blocking the roadway. On narrower sections of the roadway, parking could be disallowed on only one side of the road to prevent parked vehicles from blocking the roadway.**
**Response:** See response to comment 21.

## Eagle Peak

23. **The Forest Service should adopt Eagle Peak Trail as a System Trail and Eagle Peak as a climbing resource.**
**Response:** The Cleveland National Forest has considered this request and added the adoption of Eagle Peak Trail as a system trail to this EA. The adoption of Eagle Peak as a Climbing Resource is outside the scope of this project and could be considered at a later time.