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### 3.03 CULTURAL RESOURCES

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The Congress in 1966 declared a national policy that the Federal government “administer federally owned, administered, or controlled prehistoric and historic resources in a spirit of stewardship for the inspiration and benefit of present and future generations” (National Historic Preservation Act (NHPA) (16 U.S.C. 470-1(3)). This policy was made more explicit when the National Historic Preservation Act was amended in 1980 and Section 110 was added to expand and underscore Federal agency responsibility for identifying and protecting cultural resources and avoiding unnecessary damage to them. Many cultural resources are fragile and once damaged or destroyed they can not be repaired or replaced.

Section 106 of the NHPA compels federal agencies to take into account the effect of its undertakings on any district, site, building, structure, or object that is included in or eligible for inclusion in the National Register of Historic Places (36 CFR 60) (Cultural Resources). The 36 CFR 212 (Travel Management Rule) requires that the effects on cultural resources be considered, with the objective of minimizing damage, when designating roads, trails, and areas for motor vehicle use on National Forest lands (36 CFR 212.55(a), 212.55(b)(1)).

#### **Analysis Framework: Statute, Regulation, Forest Plan and Other Direction**

Direction relevant and specific to the proposed action as it affects cultural resources includes:

The Forest Service is directed to identify, evaluate, treat, protect, and manage cultural resources by several laws. However, the NHPA, as amended (16 U.S.C. 470 et seq.), provides comprehensive direction to federal agencies about their historic preservation responsibilities. Executive Order 11593, entitled *Protection and Enhancement of the Cultural Environment*, also includes direction about the identification and consideration of cultural resources in Federal land management decisions.

The NHPA extends the policy in the Historic Sites Act of 1935 (49 Stat. 666; 16 U.S.C. 461-467) to include resources that are of State and local significance, expands the National Register of Historic Places (NRHP), and establishes the Advisory Council on Historic Preservation and State Historic Preservation Officers. NHPA Section 106 directs all Federal agencies to take into account effects of their undertakings (actions, financial support, and authorizations) on properties included in or eligible for the National Register. The Advisory Council on Historic Preservation (ACHP) regulations (36 CFR 800) implements NHPA Section 106. NHPA Section 110 sets inventory, nomination, protection, and preservation responsibilities for Federally-owned cultural resources.

The Forest Service policy for compliance with Section 106 of the NHPA in travel management with respect to route designation for motor vehicle use was issued in 2005: *USDA Forest Service Policy for Section 106 of the NHPA Compliance in Travel Management: Designated Routes for Motor Vehicle Use* (project record). This policy was developed in consultation with the Advisory Council on Historic Preservation. It outlines minimal requirements for considering possible effects to cultural resources that may be associated with designating routes and areas as part of a National Forest’s transportation system. This policy statement recognizes that forests with programmatic agreements for compliance with Section 106 of the NHPA will follow the terms of those agreements.

Section 106 of the NHPA and the ACHPs implementing regulations, *Protection of Historic Properties* (36 CFR Part 800), require that federal agencies take into account the effect of their undertakings on cultural resources, and that agencies provide the ACHP with an opportunity to comment on those undertakings. Programmatic agreements (36 CFR 800.14(b)) provide alternative procedures for complying with 36 CFR 800. Region 5 has such an agreement: *Programmatic Agreement among the USDA Forest Service, Pacific Southwest Region, USDA Forest Service,*

*Intermountain Region's Humboldt-Toiyabe National Forest, California State Historic Preservation Officer, and Advisory Council on Historic Preservation Regarding the Process for Compliance with Section 106 of the National Historic Preservation Act for Designating Motor Vehicle Routes and Managing Motorized Recreation on the National Forests in California* (Motorized Recreation PA) (project record). This agreement defines the Area of Potential Effects (APE) (36 CFR 800.4(a)(1)) and includes a strategy outlining the requirements for cultural resource inventory, evaluation of cultural resources, and effect determinations; it also includes protection and resource management measures that may be used where effects may occur.

Executive Order 11593: *Protection and Enhancement of the Cultural Environment*, issued May 13, 1971, directs Federal agencies to inventory cultural resources under their jurisdiction, to nominate to the National Register of Historic Places all Federally owned properties that meet the criteria, to use due caution until the inventory and nomination processes are completed, and to assure that Federal plans and programs contribute to preservation and enhancement of non-Federally owned properties.

The Stanislaus National Forest cultural resource specific S&Gs are described below (see Appendix C).

- Complete a cultural resource inventory prior to any land disposal action or any Forest or Forest-permitted or assisted action, activity or program that has the potential of altering prehistoric or historic cultural values to identify all potentially eligible cultural properties which may be affected (36 CFR 219.24).
- Consult with members of the potentially affected local Native American community to identify specific locations and issues.
- Assess the scientific, historic and ethnic significance for each cultural property before determining further treatment (36 CFR 219.24).
- Use appropriate Programmatic Agreements and Treatment Plans whenever possible.
- Apply the National Register of Historic Places criteria in 36 CFR 60 and regulations in 36 CFR 63 to determine the eligibility of a cultural property to the National Register.
- Use FSM 2361, FSM 1680, and Advisory Council on Historic Preservation's "Treatment of Archaeological Properties: A Handbook", and the traditional values of local Miwok, Washoe and Paiute Indian communities as guidelines for evaluating significance.
- Evaluate the effect of Forest undertakings on the resource.
- Apply the Criteria of Effect in 36 CFR 800, and follow FSM 2361 for determining the effect of an undertaking.
- All identified cultural resources are to be protected until they are evaluated. The integrity and significant values of eligible properties and National Historic Landmarks are to be protected. When necessary, mitigative excavation or data recovery may be accomplished.
- Use the guidelines in FSM 2361 and FSM 1680 for developing and implementing protective measures.
- Comply with 36 CFR 800 regulations and follow the guidelines in 36 CFR 66, FSM 2361, and the 13 principles in the "Treatment of Archaeological Properties" Handbook (ACHP).
- Utilize law enforcement patrols to help prevent site vandalism and conduct law enforcement investigations when cultural resources are impacted using ARPA, 36 CFR 261.9, and other applicable laws and regulations.
- Plan interpretation, research and restoration projects for the benefit of the public and of cultural resources.
- Treatments of cultural properties, including maintenance of cultural resources, should be appropriate to their assessed values (as documented in the Statement of Significance in the Request for Determination of Eligibility and National Register nomination form), the state of knowledge and methods of cultural resource disciplines, and the public interest.

- The significant values of National Register and eligible historic structures shall be conserved by physical protection and maintenance or recording to professional standards if physical preservation is not possible.
- Work with Interpretive Services to develop high quality brochures, publications and/or audio-visual presentations. Work with cooperators to develop high quality interpretive, stabilization, and/or restoration projects.
- Encourage the Sierra Miwok, Washoe, and Mono Lake Paiute to contribute to the Forest's cultural resource management activities, to enhance public understanding of their traditional and contemporary cultures.

## **Effects Analysis Methodology**

### ***Assumptions Specific to Cultural Resources***

1. Unauthorized, user-created routes and areas have already affected cultural resources within route/area prisms.
2. Historic railroad grades and roads being used as routes were built for the purposes of travel and continued use of them will cause no effect.
3. Under the action alternatives, use will continue at current levels or increase over time on the designated system with the prohibition of cross country motorized travel.
4. Given identical environmental variables, no measurable difference in potential impacts to cultural resources exists between that generated by different vehicle classes (i.e., full-size four-wheel drive vehicles, off-road vehicles and motorcycles).
5. According to the Motorized Recreation PA, all archaeological and historical sites identified within the APE for all alternatives adding facilities to the National Forest's Transportation System (NFTS) are considered cultural resources for the purposes of this undertaking, unless they already have been determined not eligible in consultation with the SHPO or through other agreed on procedures (36 CFR 60.4; 36 CFR 800).
6. Changing vehicle class or season of use is not considered an undertaking subject to the NHPA. However, opening a road to public vehicle use when it was closed previously due to a resource conflict is considered an undertaking.
7. Changes to the existing NFTS, when combined with the past, present and foreseeable future actions are not expected to cumulatively lead to increased impacts to cultural resources.
8. Wheeled over snow use has no measurable potential impact to cultural resources.

### ***Data Sources***

1. Site-specific cultural resource inventories. The Forest conducted cultural resources field surveys for this undertaking throughout 2004–08. The primary objectives of these surveys were to identify cultural resources in the APE that may be affected by the undertaking and collect information on their current condition.
2. Existing information from cultural resource records, historic archives, maps, and GIS spatial layers was also used.

### ***Cultural Resources Indicators***

1. Degree to which the integrity of historic property values are diminished.
2. Number of cultural resources within unauthorized routes at risk from ongoing use.
3. Average number of cultural resources per acre at risk if new routes or areas are created.

### ***Cultural Resources Methodology by Action***

1. ***Direct and indirect effects of the prohibition of cross country motorized vehicle travel***

Short-term timeframe: 1 year

Long-term timeframe: 20 years.

Spatial boundary: Forest scale where motor vehicle use is not already prohibited by law (e.g., wilderness).

Indicator(s): Number of cultural resources within unauthorized routes at risk from ongoing use.

Methodology: GIS analysis to identify: (1) the number of cultural resources at risk within existing unauthorized routes (estimate of on-going direct and indirect effects curtailed); and (2) the average number of cultural resources per acre that would be protected from any new routes created in the future without a prohibition (estimate of indirect effects).

Rationale: Motorized Recreation PA.

**2. Direct and indirect effects of adding facilities to the NFTS including identifying seasons of use and vehicle class**

Short-term timeframe: 1 year

Long-term time frame: 20 years

Spatial boundary: Location of historic property.

Indicator(s): Degree to which the integrity of historic property values are diminished, related to: location, design, setting, materials, workmanship, feeling, or association.

Methodology: Use existing data from cultural resource site atlas, historic archives, maps, site record files, and GIS spatial layers, and information obtained from archaeological inventories of unauthorized routes, to identify cultural resources in the APE that may have direct or indirect effects.

Rationale: Motorized Recreation PA.

**3. Direct and indirect effects of changes to the existing NFTS including identifying seasons of use and vehicle class**

Changing vehicle class and/or season of use are not considered an undertaking subject to NHPA Section 106 compliance (USDA Forest Service Policy for Section 106 of the NHPA Compliance in Travel Management: Designated Routes for Motor Vehicle Use (2005)). Motorized vehicles can already use NFTS roads. Allowing or prohibiting non-highway vehicle use will have no direct, indirect, or cumulative effect on cultural resources. However, opening a road that was previously closed due to conflicts with cultural resources is considered an undertaking.

Short-term timeframe: 1 year

Long-term time frame: 20 years

Spatial boundary: Location of historic property.

Indicator(s): Degree to which the integrity of historic property values are diminished, related to: location, design, setting, materials, workmanship, feeling, or association.

Methodology: Use existing data from cultural resource site atlas, historic archives, maps, site record files, and GIS spatial layers, and information obtained from archaeological inventories of unauthorized routes, to identify cultural resources in the APE that may have direct or indirect effects.

Rationale: Motorized Recreation PA.

#### **4. Cumulative Effects**

Short-term timeframe: not applicable; cumulative effects analysis will be done only for the long-term time frame.

Long-term timeframe: 20 years

Spatial boundary: Forest administrative boundary (outside of designated wilderness).

Indicator(s): Degree to which the integrity of historic property values are diminished, related to: location, design, setting, materials, workmanship, feeling, or association.

Methodology: Use existing data from cultural resource site atlas, historic archives, maps, site record files, and GIS spatial layers, and information obtained from archaeological inventories of unauthorized routes, to identify cultural resources in the APE that may have cumulative effects.

Rationale: Motorized Recreation PA.

### **Affected Environment**

Cultural resources are archaeological, cultural, and historical legacies from our past that are more than 50 years old. Cultural resource information, combined with environmental data, can illuminate past relationships between people and the land. Cultural-ecological relationships, the result of both natural processes and approximately 10,000 years of human interaction in the central Sierra Nevada, are key topics in this region's anthropological, archaeological, and historical research.

The Forest currently contains 4,538 recorded prehistoric and historic archaeological sites (cultural resources). The vast majority of these (2,708) represent prehistoric Native Americans and ethnographic Miwok and Washoe land use. These include seasonal villages, temporary camps, toolstone quarries, and bedrock mortar milling locations. Today, the Miwok still actively use the Forest for gathering traditional food and medicine plants, hunting, and conducting ceremonies.

There are 1,501 recorded sites representing historic land use of the Forest. These include emigrant trails, historic cabins, roads, bridges, lumber or mining complexes and camps, ditches, homesteads, grazing camps, arbor glyphs (tree carvings), railroad grades, trestles, mining shafts and adits, and Forest Service administrative buildings and compounds. All of the historic sites found in the Forest, date from ca. 1846 to the present. Historic sites provide many opportunities for interpretation and public appreciation.

Since people today favor many of the areas preferred by Native people, there are 329 sites that have both a prehistoric and historic component.

#### **Existing Conditions**

This project constitutes one of the Forest's largest Section 106 compliance projects ever undertaken. The scale of this undertaking required that extensive field surveys be conducted to identify cultural resources in the APE that may be affected by the undertaking and collect information on their current condition. Cultural resources specialists conducted field surveys throughout the summers of 2004–08. They also reviewed existing archaeological, historic, and ethnographic literature in the Forest's Heritage Program files. The results of the cultural resource surveys and information from the Heritage files were used in the following analysis.

A cultural resources report on file with the Forest includes all of the data collected for this project (USDA 2008a). The report includes a site-specific analysis of the cultural resources associated with all routes or areas being considered for addition to the NFTS. No previously unidentified cultural resource sites were located during field surveys. In addition, sites were monitored and their current condition documented. The report provides background information, outlines the methodologies employed, describes the condition of cultural resource sites, describes results, and includes cultural

resource site records. Route specific survey coverage was entered into the forest’s digital Geographic Information Software (GIS) files.

The primary objectives of this project from its inception in 2004 have been to identify cultural resources in the APE that may be affected by the undertaking and collect information on their current condition. Surveys consisted of pedestrian transects conducted according to methods and standards mandated in the Motorized Recreation PA. The data reported in this section are reported at the forest-wide scale. As compiled and reported here, the data basically describe current conditions as reflected by the No Action Alternative.

The Motorized Recreation PA includes an identification strategy outlining cultural resource inventory requirements for most routes and areas considered for addition to the NFTS (project record). The current status of the cultural resources field survey is tabulated in Table 3.03-1. The Forest has calculated that 181.72 miles of unauthorized routes are being analyzed as potential additions to the NFTS. A total of 169.91 miles of routes had been surveyed prior to August 2008 at various periods in the past for both unrelated Forest undertakings and for associated OHV projects). The remaining 11.81 miles were surveyed in September and October 2008.

Table 3.03-1 Status of Cultural Resources Survey within APE

Item	Miles
Routes Previously Surveyed	169.91
Routes Surveyed for this project	11.81
Routes Unsurveyed	0
<b>total</b>	<b>181.72</b>

The existing condition of cultural resources in the APE provides baseline information in assessing the potential effect of adding routes to the NFTS. The first-order indicator of existing conditions is the total number of cultural resources located within the project APE—regardless of effects. Seventy-seven cultural resources have been identified within the APE forest-wide (Table 3.03-2). The sum includes all properties where any segment of an unauthorized route bisects the boundary of a historic property, regardless of scale or impact.

All cultural resources sites that have not been determined eligible for the NRHP are being considered eligible for the purposes of this undertaking unless they have previously been determined not eligible (project record). The process of completing evaluations of significance for the NRHP is often a time consuming and expensive undertaking. For that reason very few cultural sites have formally been evaluated. The current NRHP status of all sites located within the APE are reported in Table 3.03-2.

In addition to the procedures in the Motorized Recreation PA addressing potential effects, the integrity measures listed in the adverse effect criteria at 36 CFR 800.5(a) were also used to characterize the severity of any identified effects:

***Criteria of adverse effect:** an adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's **location, design, setting, materials, workmanship, feeling, or association.** [emphasis added] Consideration shall be given to all qualifying characteristics of a historic property, including those that may have been identified subsequent to the original evaluation of the property's eligibility for the National Register. Adverse effects may include reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance or be cumulative. (36 CFR §800.5(a))*

Different disturbance agents can combine in a variety of ways to create a potential threat to cultural resources. The results of field survey and the literature search demonstrated a number of potential adverse effects to cultural resources should certain routes be added to the NFTS. The analysis



documented both direct effects of designating specific routes (caused by the action and occur at the same time and place) as well as indirect (caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable). The more common threats identified are summarized in Table 3.03-3. The list is not exhaustive. Other disturbances have been noted, but those threats specified in Table 3.03-3 constitute the most common disturbances documented.

The undertaking's effect on the integrity of each of the 77 cultural resource sites currently identified in the APE was determined. Available data were reviewed for each cultural resource site in order to determine whether or not the proposed addition of any route to the NFTS would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association.

Table 3.03-2 Cultural Resources within APE

Site ID	Site Type	NRHP Status	Site ID	Site Type	NRHP Status
05165100023	prehistoric	unevaluated	05165100896	historic	unevaluated
05165100024	multi-component	unevaluated	05165100934	historic	unevaluated
05165100067	multi-component	unevaluated	05165100941	historic	unevaluated
05165100097	multi-component	unevaluated	05165100974	historic	unevaluated
05165100101	prehistoric	unevaluated	05165100976	prehistoric	unevaluated
05165100114	historic	unevaluated	05165101040	historic	unevaluated
05165100118	multi-component	unevaluated	05165101117	historic	unevaluated
05165100120	multi-component	unevaluated	05165101233	historic	eligible
05165100122	multi-component	unevaluated	05165200216	historic	unevaluated
05165100144	multi-component	unevaluated	05165200427	prehistoric	unevaluated
05165100156	multi-component	unevaluated	05165200826	prehistoric	unevaluated
05165100171	multi-component	unevaluated	05165400019	multi-component	contributing
05165100173	prehistoric	unevaluated	05165400031	historic	unevaluated
05165100228	multi-component	unevaluated	05165400034	prehistoric	unevaluated
05165100244	multi-component	unevaluated	05165400039	prehistoric	unevaluated
05165100257	prehistoric	unevaluated	05165400102	prehistoric	contributing
05165100263	historic	unevaluated	05165400120	multi-component	unevaluated
05165100270	multi-component	unevaluated	05165400193	multi-component	unevaluated
05165100282	historic	unevaluated	05165400232	prehistoric	unevaluated
05165100287	prehistoric	unevaluated	05165400285	prehistoric	unevaluated
05165100288	historic	unevaluated	05165400288	prehistoric	unevaluated
05165100302	prehistoric	unevaluated	05165400297	prehistoric	eligible
05165100303	historic	unevaluated	05165400351	prehistoric	unevaluated
05165100304	prehistoric	unevaluated	05165400404	historic	unevaluated
05165100388	prehistoric	unevaluated	05165400418	historic	unevaluated
05165100389	prehistoric	unevaluated	05165400433	prehistoric	unevaluated
05165100394	multi-component	unevaluated	05165400486	multi-component	unevaluated
05165100444	historic	eligible	05165400504	historic	unevaluated
05165100598	historic	unevaluated	05165400527	historic	contributing
05165100599	historic	unevaluated	05165400638	prehistoric	unevaluated
05165100612	prehistoric	unevaluated	05165401007	prehistoric	unevaluated
05165100625	historic	eligible	05165401009	historic	unevaluated
05165100638	historic	unevaluated	05165401283	prehistoric	unevaluated
05165100639	historic	unevaluated	05165401320	prehistoric	unevaluated
05165100646	historic	unevaluated	05165401359	prehistoric	unevaluated
05165100647	historic	unevaluated	05165401660	prehistoric district	eligible
05165100680	historic	unevaluated	05165401661	historic district	eligible
05165100690	prehistoric	unevaluated	05165401663	historic	unevaluated
05165100737	historic	unevaluated			

Table 3.03-3 Examples of Site Disturbances Documented within Project APE

Indirect Effects	Direct Effects
<ul style="list-style-type: none"> <li>- Driving off-established routes onto cultural sites</li> <li>- Motorized vehicle camping-related activities (e.g., digging fire pits) within boundaries of cultural sites that contain significant cultural features.</li> <li>- Motorized vehicle camping on site where the occupants conducted illicit digging activities within prehistoric and historic site boundaries.</li> </ul>	<ul style="list-style-type: none"> <li>- Routes bisect a primary locus in a prehistoric cultural resource site.</li> <li>- Routes promote direct vehicle contact with architectural features.</li> <li>- Routes promote direct vehicle contact with resource-procurement features</li> </ul>

The magnitude of any effect to a cultural resource site’s integrity determines the severity of any direct, indirect, or cumulative effects. The following effect analysis identifies the scale and severity of potential adverse effects. Accordingly, effects are categorized based on a professional assessment of the data available to date: no/negligible, minor, moderate, and major. These categories represent a progressive scale that provides a qualitative assessment of the severity of any direct, indirect, or cumulative effects to the integrity of a cultural resource site.

No distinction is made between “no” disturbance and “negligible” disturbance. All sites determined to be within the APE have been bisected in varying degrees by some route or area. Therefore it is more appropriate to describe the most innocuous effects as “negligible” as opposed to “none.” In either case, the threat to cultural resources is minimal and no mitigation measures are required.

Working definitions for the four severity categories are provided in Table 3.03-4. A severity rating of “minor” indicates that some relatively minor disturbance has been noted within the boundaries of cultural resource site. A “minor” value indicates that, if present patterns of use are indicative of future trends, direct and indirect effects can most likely be avoided by employing the simplest of protection measures. In most cases this will consist of installing signage in strategic locations informing the public of the presence of sensitive forest resources. In some locations, it may be necessary to prohibit motorized vehicle camping or use to eliminate the threat.

If a cultural resource site is “moderately” susceptible to direct, indirect or cumulative effects, evidence of more extensive site disturbance has been noted. In this case, mitigation measures to avoid or minimize identified effects are required. Prescribed mitigation measures for moderate severity effects will most often take the form of physical barriers that prohibit off-route travel that could adversely affect cultural resources. Materials used may consist of timber, boulders, vegetation or other materials, or a combination thereof. A number of alternative mitigation measures could be employed, many of which are expressly described in the Motorized Recreation PA (project record). In the event that the mitigation measures listed in the Motorized Recreation PA are inadequate or untenable, the PA will no longer apply and compliance with 36 CFR §800 regulations will be necessary.

An effect severity rating of “major” indicates that the integrity of cultural resource site values would be affected in a significant way unless appropriate mitigation measures are implemented. A “major” value is reserved for those cases where a cultural resource site exhibits evidence of an adverse effect associated with past activities either directly or indirectly associated with the motorized use of an unauthorized route and these adverse effects will continue or increase if the route or area is added to the NFTS. Mitigation measures associated with direct or indirect effects of “major” severity require a substantial investment of time and resources to implement.

Table 3.03-4 Severity of Effects

Severity of Effects	Working Definition	Explanatory Notes
Negligible	Cultural resources are adjacent to routes but are not bisected or route bisects some portion of the site, but the effect on NRHP values is insignificant	If the effect on integrity measures is determined to be “negligible,” there is essentially no measurable effect on the cultural resource; therefore no mitigation measures are prescribed.  No distinction is made between “no” disturbance and “negligible” disturbance. All sites determined to be within the APE have been bisected in varying degrees by some length of an unauthorized route. Therefore it is more appropriate to describe the most innocuous effects as “negligible” as opposed to “none.” In either case, no mitigation measures are necessary, so the outcome is identical.
Minor	Effects on cultural resources are relatively minor, but not insignificant. Integrity of the NRHP values may diminish if measures are not taken to alleviate the potential effect.	If the severity of effect is determined to be “minor,” some type of mitigation measure may be required. In most cases the preferred method of protection will be the erection of signs with wording to the effect that there are critical resource concerns in the area and certain activities (for example, camping) may be prohibited in localized areas. Most minor problems consist of indirect effects.  In some cases, monitoring is prescribed to ensure that the minor degree of disturbance (or potential for disturbance) initially noted does not increase in severity over time.  It is assumed for minor effects that an adaptive management strategy will be employed—a prescription specifically outlined in the Motorized Recreation PA. Signs, for example, may be erected as a first measure. If signs do not curtail potential adverse actions, more aggressive measures will be taken. Barriers (such as low impact barriers) are sometimes prescribed for minor threats when it appears as though the action responsible for the disturbance is well entrenched and not likely to be curtailed by the simple installation of a sign. The threshold between a “minor” and “moderate” threat is therefore more subjective than others.
Moderate	Effects on cultural resources are either localized or noted in multiple areas. Materials associated with NRHP values exhibit some degree of damage or alteration, but NRHP integrity can be retained or improved if the detrimental activity is curtailed	If the integrity measure is determined to be “moderate,” some types of mitigation measures are required. In most cases the preferred method will be to erect a barrier large enough to prohibit vehicle traffic off the designated route, thereby eliminating the potential for an adverse effect to cultural resources. Padding of the cultural material in order to eliminate potential effect is also an option.
Major	Effects on cultural resources are severe. If that particular route is added to the system without mitigation measures, the action would result in adverse effects to the NRHP values.	If the effect is determined to be “major,” more complex and potentially costly mitigation measures are required to prevent direct adverse effects to the resource. In some cases, potential mitigation measures can not be determined without additional consultation under 36 CFR §800 and evaluation against the NRHP criteria. Due to costs, the only viable option may be to not add the route to the system or re-route the activity around the resource.

Table 3.03-5 provides a summary of the effects to cultural resources based on an analysis of effects to site integrity. The data categorize current forest-wide severity of effects if no action is taken to avoid adverse effects. Several sites have multiple routes within their boundaries that have a range of effects. For purposes of this table, only the most severe effect is counted for each site.

Table 3.03-5 Cultural Resource Effect Severity

Negligible	Minor	Moderate	Major	Total
44	2	12	19	77

The mitigation measures initially prescribed may qualify as the minimal actions necessary to alleviate potential adverse effects. The Motorized Recreation PA mandates that all “at-risk” properties within

the APE be monitored over a two-year period after designation (project record). If monitoring demonstrates that mitigation measures initially prescribed prove ineffective, other protection measures in the PA will be used as appropriate or the SHPO will be consulted to identify other resource protection or management needs. This type of adaptive management policy is listed as an option in the Motorized Recreation PA (project record).

## Environmental Consequences

### Alternative 1 (Proposed Action)

#### Direct and Indirect Effects

Under this alternative, cross country travel is prohibited and a total of 157.39 miles of unauthorized routes (458 routes in total) would be added to the system. Of these, 71 cultural resource sites fall within the APE of 69 proposed routes. If these routes are added to the system, 35 routes would have a negligible/minor effect on 42 sites. Fourteen routes would have a moderate effect on 13 sites. Twenty-two routes would have a major effect on 17 sites.

Of the 13 sites with moderate effects, the use of low impact barriers or padding will reduce or eliminate the effects.

Of the 17 sites with major effects, the direct and indirect causes can not be reasonably mitigated without additional NHPA Section 106 consultation with SHPO (see Table 3.03-6). The routes range in length of between 0.02-0.84 miles. Estimated costs for mitigation (NRHP evaluation, archaeological data recovery, and then additional mitigations based on those findings [e.g., barriers, fencing, monitoring]) could range between \$10,000 for smaller sites to \$25,000 for larger complex sites. Consultation with SHPO is needed to refine mitigation requirements and respective costs, and this information will be included in the FEIS/ROD.

The locations of mitigations prescribed by other disciplines (soils, botany, etc.) were examined and none will cause any negative effect to cultural resources.

**Changes to Existing NFTS:** This alternative proposes to convert 69.11 miles of ML1 roads (113 routes in total) for use as trails open to all vehicles. Two sites are within the APE of two routes. One site is being moderately affected but can be mitigated through the use of barriers. One site has a major effect and will require further consultation with SHPO before the route could be opened (see Table 3.03-9).

Table 3.03-6 Summary of Effects to Cultural Resources: Alternative 1

Route ID	Site Number	Type	Nature of Effect	Severity	Protection/Mitigation
11808B	05165400418	direct/indirect	looting and camping	major	additional consultation with SHPO required
15EV43G	05165100444	none	none	negligible	n/a
15EV47A	05165100282	direct	bisected	negligible	n/a
16E182	05165100118	direct	bisected	negligible	n/a
16E182A	05165100118	direct	bisected	negligible	n/a
16EV154	05165100896	direct	none	negligible	n/a
16EV160	05165100114	none	none	negligible	n/a
16EV176	05165100156	none	none	negligible	n/a
16EV230	05165100302	none	none	negligible	n/a
16EV230	05165100304	none	none	negligible	n/a
16EV243	05165100690	direct	bisected and damaged	moderate	use padding (52 x 3 feet) to protect site
16EV259A	05165100257	direct	bisected and damaged	moderate	use padding (300 x 4 feet) to protect site
16EV266	05165100244	direct	bisected and damaged	moderate	use padding (300 x 4 feet) to protect site
16EV269	05165100287	direct	bisected	negligible	n/a
16EV272	05165100974	none	none	negligible	n/a

Route ID	Site Number	Type	Nature of Effect	Severity	Protection/Mitigation
16EV272	05165101040	none	none	negligible	n/a
16EV303	05165100976	direct	bisected	negligible	n/a
16EV79	05165100288	direct	bisected	negligible	n/a
16EV79	05165100303	direct	bisected	negligible	n/a
16EV79	05165100263	direct	bisected	negligible	n/a
16EV81	05165100270	indirect	off route travel	moderate	use low impact barriers (100 feet on each side of route) to keep users out of Feature One
17EV130	05165200826	indirect	off route travel	moderate	use low impact barriers (300 feet on north side of route) to keep users on route
17EV14	05165100612	direct/indirect	bisected and damaged	moderate	use low impact barriers (246 feet on each side of route) to keep users on route
17EV15B	05165100171	indirect	camping	moderate	use low impact barriers (50 feet on each side of route) to keep users on route and prevent parking
17EV192	05165400120	direct	off route travel	moderate	use low impact barriers (100 feet on each side of route) to keep users on the route
17EV192A	05165400120	direct	off route travel, rutting, damage, and camping	major	additional consultation with SHPO required
17EV241	05165100941	none	none	negligible	n/a
17EV249	05165100638	direct/indirect	rutting, damage, and camping	major	additional consultation with SHPO required
17EV249A	05165100638	direct/indirect	rutting, damage, and camping	major	additional consultation with SHPO required
17EV267	05165100144	direct/indirect	rutting, damage, and camping	major	additional consultation with SHPO required
17EV268	05165100144	direct/indirect	rutting, damage, and camping	major	additional consultation with SHPO required
17EV51	05165100599	none	none	negligible	n/a
17EV58	05165100173	direct	none	negligible	n/a
17EV901	05165400120	direct	bisected and damage	moderate	use low impact barriers (100 feet on each side of route) to keep users on the route
18EV105	05165100023	indirect	damage	minor	signage (No Motor Vehicles or camping)
18EV258	05165100024	direct/indirect	looting, rutting, damage, and camping	major	additional consultation with SHPO required
18EV281	05165100388	direct/indirect	rutting, damage, and camping	major	additional consultation with SHPO required
18EV283	05165100394	none	none	negligible	n/a
18EV308	05165100737	direct/indirect	rutting, off route travel, vandalism, damage, and camping	major	additional consultation with SHPO required
18EV67	05165100097	direct/indirect	bisected, damage, and camping	moderate	use low impact barriers (50 feet on each side of route) to define route and block camping area, signage (No Motor Vehicles or camping)
18EV67	05165100101	none	none	negligible	n/a
1S1727	05165400486	direct	off route travel	moderate	use low impact barriers (100 feet on north side of route) to keep users on route
1S1736	05165400285	direct	off route travel	moderate	use low impact barriers (1300 feet on each side of route) to keep users on route
1S1933	05165400193	indirect	looting	moderate	use low impact barriers (500 feet on each side of route) to keep users on route, signage (No Motor Vehicles or camping)
EV681	05165100389	direct	bisected	negligible	n/a
FR10178	05165400527	none	none	negligible	n/a
FR10178	05165401661	none	none	negligible	n/a
FR14721	05165401663	none	none	negligible	n/a
FR8165	05165401359	direct	damaged	major	additional consultation with SHPO required

Route ID	Site Number	Type	Nature of Effect	Severity	Protection/Mitigation
FR8601	05165400404	direct	off route travel	moderate	use low impact barriers (200 feet on each side of route) to keep users on route
FR9501	05165200427	direct	bisected	negligible	n/a
FR98477	05165401007	direct	bisected	negligible	n/a
FR98477	05165401009	direct	bisected	negligible	n/a
FR98481	05165400102	direct/indirect	looting, damaged, and camping	major	additional consultation with SHPO required
FR98482	05165400039	direct	damaged	major	additional consultation with SHPO required
FR98493	05165400232	direct	damaged	major	additional consultation with SHPO required
FR98504	05165400031	direct	bisected	negligible	n/a
FR98507	05165400034	direct/indirect	rutting, off route travel, damage, and camping	major	additional consultation with SHPO required
FR98507	05165400351	direct/indirect	rutting, off route travel, damage, and camping	major	additional consultation with SHPO required
FR98508	05165400288	direct	bisected	negligible	n/a
FR98523	05165400433	direct	bisected	negligible	n/a
FR98541	05165400297	direct/indirect	rutting, damage, and camping	major	additional consultation with SHPO required
FR98544	05165401320	direct	bisected	negligible	n/a
FR98547	05165401283	direct	bisected	negligible	n/a
FR98552	05165400034	direct/indirect	rutting, off route travel, damage, and camping	major	additional consultation with SHPO required
FR98552	05165400351	direct/indirect	rutting, off route travel, damage, and camping	major	additional consultation with SHPO required
FR98554	05165400019	direct/indirect	rutting, off route travel, damage, and camping	major	additional consultation with SHPO required
FR98554	05165401660	none	none	negligible	n/a
FR98566	05165400504	none	none	negligible	n/a
FR98592	05165400638	direct	bisected	negligible	n/a
FR98603	05165100067	indirect	off route travel and camping	minor	signage (No Motor Vehicles or camping)
FR98612	05165100122	direct/indirect	damaged	major	additional consultation with SHPO required
FR98616	05165100646	indirect	none	negligible	n/a
FR98616	05165100680	none	none	negligible	n/a
FR98616	05165101233	none	none	negligible	n/a
FR98663	05165200216	none	none	negligible	n/a
FR98671	05165400486	direct/indirect	rutting, off route travel, damage, and camping	major	additional consultation with SHPO required
FR98686	05165100228	indirect	camping	negligible	n/a
FR98690	05165100144	direct/indirect	rutting, off route travel, damage, and camping	major	additional consultation with SHPO required
FR98691	05165100144	direct/indirect	rutting, off route travel, damage, and camping	major	additional consultation with SHPO required
FR98704	05165100120	direct/indirect	rutting, off route travel, damage, and camping	major	additional consultation with SHPO required

Note: although there are no direct and indirect effects currently known, the following sites are near routes and should be monitored for effect: 05165100411, 05165400093, 05165400094, 05165400106, 05165400108, and 05165401240.

### Cumulative Effects

Prior to the 1974 Forest and Rangeland Renewable Resources Planning Act (RPA), effects to heritage resources were not considered during project planning or implementation. Consequently, cumulative impacts of varying degrees occurred within the project area from various land management activities including mining, logging, road construction, recreation development, dam construction, and hydroelectric development to name a few. Stochastic effects, such as natural environmental processes and unrestricted land uses, have also contributed to effects to heritage resources within the project area. These include dispersed recreation, looting and vandalism by the public, unregulated OHV use, illegal mountain bike trail construction, mining, previous road and trail construction and existing road and trail conditions, wildfires, erosion, and exposure to the elements.

Subsequent to the 1974 RPA, the vast majority of cultural resources were protected using “flag and avoid” measures. Unfortunately, this management practice, which is essentially deferred management, has resulted in a high number of recorded archaeological sites that have not been evaluated for inclusion into the NRHP resulting in the Forest managing hundreds of sites that may be not eligible for inclusion.

All projects listed in the Reasonably Foreseeable Future Actions Considered in Cumulative Effects Analysis (Appendix B) have been or will be subject to NHPA Section 106 compliance and potential effects to cultural resources would be identified at that time following stipulations in the *Programmatic Agreement Among the USDA Forest Service, Pacific Southwest Region, California State Historic Preservation Officer, and Advisory Council on Historic Preservation Regarding the Identification, Evaluation and Treatment of Historic Properties Managed by the National Forests of the Sierra Nevada, California* (Sierra PA; USDA 1996).

This alternative, when combined with the past, present and foreseeable future actions and events are not expected to cumulatively lead to increased impacts to cultural resources.

Alternative 1 will reduce potential effects to cultural resources through prohibition of cross country travel and the reduction in the number of motorized routes on the Forest. Unregulated cross country travel has the greatest potential for creating adverse impacts to cultural resources making the route designation process an important part of preventing long-term impacts to resources.

### **Alternative 2 (No Action)**

#### **Direct and Indirect Effects**

Under this alternative, cross country travel would not be prohibited. There would be no management of any known unauthorized motorized routes. An untold number of additional routes not being proposed in this project would continue to be used. Using Alternative 4 as a guide, there are 77 cultural resource sites located within the APE of the 181.72 miles proposed for addition; thirty-one of which are having moderate/major effects. Since cross country travel could occur anywhere on the forest, an unknown number of cultural resources, greater than 31, could be affected. This alternative does not propose any mitigation for these potential affects. Since Alternative 2 would have unmitigated adverse effect on an unknown number of cultural resources, it would not meet the requirements of Section 106 of the NHPA.

#### **Cumulative Effects**

This alternative, when combined with the past, present and foreseeable future actions are expected to cumulatively lead to increased impacts to cultural resources. Alternative 2 will increase the potential effects to cultural resources by allowing cross country travel. Over the next 20 years, it is estimated that an additional 2.25 miles of new routes will be created annually on the Forest, for a total of 45 new miles of unauthorized motorized routes (project record). An additional 50 cultural resource sites could be subject to moderate/major effects based on these projections.

### **Alternative 3 (Cross Country Prohibited)**

#### **Direct and Indirect Effects**

Under this alternative, cross country travel is prohibited; no unauthorized motorized routes would be added to the system and no changes made to the existing NFTS. No cultural resource sites would be affected.

#### **Cumulative Effects**

As noted in more detail under Alternative 1, this alternative, when combined with the past, present and foreseeable future actions are not expected to cumulatively lead to increased impacts to cultural resources. Alternative 3 will reduce potential effects to cultural resources through prohibition of cross

country travel and adding no new motorized routes on the Forest. Unregulated cross country travel has the greatest potential for creating adverse impacts to cultural resources making the route designation process an important part of preventing long-term impacts to resources.

### **Alternative 4 (Recreation)**

#### **Direct and Indirect Effects**

Under this alternative, cross country travel is prohibited and a total of 181.72 miles of unauthorized motorized routes (509 routes in total) would be added to the system. Of these, 77 cultural resource sites fall within the APE of 77 proposed routes. If these routes are added to the system, 38 routes would have a negligible/minor effect on 47 sites. Seventeen routes would have a moderate effect on 14 sites. Twenty-four routes would have a major effect on 19 sites.

Of the 14 sites with moderate effect, the use of low impact barriers or padding will reduce or eliminate the effects.

Of the 19 sites with major effects, the direct and indirect causes can not be reasonably mitigated without additional NHPA Section 106 consultation with SHPO (see Table 3.03-6). The routes range in length of between 0.02-0.84 of a mile. Estimated costs for mitigation (NRHP evaluation, archaeological data recovery, and then additional mitigations based on those findings [e.g., barriers, fencing, monitoring]) could range between \$10,000 for smaller sites to \$25,000 for larger complex sites. Consultation with SHPO is needed to refine mitigation requirements and respective costs, and this information will be included in the FEIS/ROD.

The locations of mitigations prescribed by other disciplines (soils, botany, etc.) were examined and none will cause any negative effect to cultural resources.

**Changes to Existing NFTS:** This alternative proposes to convert 104.80 miles of ML1 roads (151 routes in total) for use as trails open to all vehicles. Fourteen cultural resource sites are within the APE of six routes. Of these 14 sites, three are being moderately affected but can be mitigated through the use of barriers. For the remaining 11 sites with major effects, further consultation with SHPO is necessary before the routes can be opened (see Table 3.03-9).

Table 3.03-7 Summary of Effects to Cultural Resources: Alternative 4

Route ID	Site Number	Type	Nature of Effect	Severity	Protection/Mitigation
11808B	05165400418	direct/indirect	looting and camping	major	additional consultation with SHPO required
15EV43G	05165100444	none	none	negligible	n/a
15EV47A	05165100282	direct	bisected	negligible	n/a
16E182	05165100118	direct	bisected	negligible	n/a
16E182A	05165100118	direct	bisected	negligible	n/a
16EV154	05165100896	direct	none	negligible	n/a
16EV160	05165100114	none	none	negligible	n/a
16EV176	05165100156	none	none	negligible	n/a
16EV230	05165100302	none	none	negligible	n/a
16EV230	05165100304	none	none	negligible	n/a
16EV243	05165100690	direct	bisected and damaged	moderate	use padding (52 x 3 feet) to protect site
16EV259A	05165100257	direct	bisected and damaged	moderate	use padding (300 x 4 feet) to protect site
16EV266	05165100244	direct	bisected and damaged	moderate	use padding (300 x 4 feet) to protect site
16EV269	05165100287	direct	bisected	negligible	n/a
16EV272	05165100974	none	none	negligible	n/a
16EV272	05165101040	none	none	negligible	n/a
16EV273	05165100270	indirect	off route travel	moderate	use low impact barriers (100 feet on each side of route) to keep users out of Feature One
16EV303	05165100976	direct	bisected	negligible	n/a
16EV79	05165100288	direct	bisected	negligible	n/a
16EV79	05165100303	direct	bisected	negligible	n/a



Route ID	Site Number	Type	Nature of Effect	Severity	Protection/Mitigation
16EV79	05165100263	direct	bisected	negligible	n/a
16EV81	05165100270	indirect	off route travel	moderate	use low impact barriers (100 feet on each side of route) to keep users out of Feature One
17EV130	05165200826	indirect	off route travel	moderate	use low impact barriers (300 feet on north side of route) to keep users on route
17EV14	05165100612	direct/indirect	bisected and damaged	moderate	use low impact barriers (246 feet on each side of route) to keep users on route
17EV15B	05165100171	indirect	camping	moderate	use low impact barriers (50 feet on each side of route) to keep users on route and prevent parking
17EV192	05165400120	direct	off route travel	moderate	use low impact barriers (100 feet on each side of route) to keep users on the route
17EV192A	05165400120	direct	off route travel, rutting, damage, and camping	major	additional consultation with SHPO required
17EV212	05165100639	direct	none	negligible	n/a
17EV241	05165100941	none	none	negligible	n/a
17EV249	05165100638	direct/indirect	rutting, damage, and camping	major	additional consultation with SHPO required
17EV249A	05165100638	direct/indirect	rutting, damage, and camping	major	additional consultation with SHPO required
17EV267	05165100144	direct/indirect	rutting, damage, and camping	major	additional consultation with SHPO required
17EV268	05165100144	direct/indirect	rutting, damage, and camping	major	additional consultation with SHPO required
17EV51	05165100599	none	none	negligible	n/a
17EV51	05165100598	direct/indirect	looting, rutting, and camping	major	last .125 mile not recommended for inclusion
17EV51	05165100647	none	none	negligible	n/a
17EV58	05165100173	direct	none	negligible	n/a
17EV901	05165400120	direct	bisected and damage	moderate	use low impact barriers (100 feet on each side of route) to keep users on the route
18EV105	05165100023	indirect	damage	minor	signage (No Motor Vehicles or camping)
18EV258	05165100024	direct/indirect	looting, rutting, damaged, and camping	major	additional consultation with SHPO required
18EV281	05165100388	direct/indirect	rutting, damage, and camping	major	additional consultation with SHPO required
18EV283	05165100394	none	none	negligible	n/a
18EV308	05165100737	direct/indirect	rutting, off route travel, vandalism, damage, and camping	major	additional consultation with SHPO required
18EV51	05165100625	direct	off route travel	moderate	use low impact barriers (100 feet on each side of route) to keep users on route
18EV67	05165100097	direct/indirect	bisected, damage, and camping	moderate	use low impact barriers (50 feet on each side of route) to define route and block camping area, signage (No Motor Vehicles or camping)
18EV67	05165100101	none	none	negligible	n/a
1S1727	05165400486	direct	off route travel	moderate	use low impact barriers (100 feet on north side of route) to keep users on route
1S1736	05165400285	direct	off route travel	moderate	use low impact barriers (1300 feet on each side of route) to keep users on route
1S1907A	05165400297	direct/indirect	rutting, off route travel, damage, deterioration, and camping	major	additional consultation with SHPO required
1S1933	05165400193	indirect	looting	moderate	use low impact barriers (500 feet on each side of route) to keep users on route, signage (No Motor Vehicles or camping)
21711G	05165101117	direct	bisected	negligible	n/a
EV681	05165100389	direct	bisected	negligible	n/a
FR10178	05165400527	none	none	negligible	n/a
FR10178	05165401661	none	none	negligible	n/a
FR14721	05165401663	none	none	negligible	n/a
FR15091	05165100934	none	none	negligible	n/a
FR15091	05165100171	indirect	camping	moderate	use low impact barriers (50 feet on each side of route) to keep users on route and prevent

Route ID	Site Number	Type	Nature of Effect	Severity	Protection/Mitigation
					parking
FR15091	05165100934	none	none	negligible	n/a
FR8165	05165401359	direct	damaged	major	additional consultation with SHPO required
FR8601	05165400404	direct	off route travel	moderate	use low impact barriers (200 feet on each side of route) to keep users on route
FR9501	05165200427	direct	bisected	negligible	n/a
FR98477	05165401007	direct	bisected	negligible	n/a
FR98477	05165401009	direct	bisected	negligible	n/a
FR98481	05165400102	direct/indirect	looting, damaged, and camping	major	additional consultation with SHPO required
FR98482	05165400039	direct	damaged	major	additional consultation with SHPO required
FR98493	05165400232	direct	damaged	major	additional consultation with SHPO required
FR98504	05165400031	direct	bisected	negligible	n/a
FR98507	05165400034	direct/indirect	rutting, off route travel, damage, and camping	major	additional consultation with SHPO required
FR98507	05165400351	direct/indirect	rutting, off route travel, damage, and camping	major	additional consultation with SHPO required
FR98508	05165400288	direct	bisected	negligible	n/a
FR98523	05165400433	direct	bisected	negligible	n/a
FR98541	05165400297	direct/indirect	rutting, damage, and camping	major	additional consultation with SHPO required
FR98544	05165401320	direct	bisected	negligible	n/a
FR98547	05165401283	direct	bisected	negligible	n/a
FR98552	05165400034	direct/indirect	rutting, off route travel, damage, and camping	major	additional consultation with SHPO required
FR98552	05165400351	direct/indirect	rutting, off route travel, damage, and camping	major	additional consultation with SHPO required
FR98554	05165400019	direct/indirect	rutting, off route travel, damage, and camping	major	additional consultation with SHPO required
FR98554	05165401660	none	none	negligible	n/a
FR98566	05165400504	none	none	negligible	n/a
FR98592	05165400638	direct	bisected	negligible	n/a
FR98603	05165100067	indirect	off route travel and camping	minor	signage (No Motor Vehicles or camping)
FR98612	05165100122	direct/indirect	damaged	major	additional consultation with SHPO required
FR98616	05165100646	indirect	none	negligible	n/a
FR98616	05165100680	none	none	negligible	n/a
FR98616	05165101233	none	none	negligible	n/a
FR98663	05165200216	none	none	negligible	n/a
FR98671	05165400486	direct/indirect	rutting, off route travel, damage, and camping	major	additional consultation with SHPO required
FR98686	05165100228	indirect	camping	negligible	n/a
FR98690	05165100144	direct/indirect	rutting, off route travel, damage, and camping	major	additional consultation with SHPO required
FR98691	05165100144	direct/indirect	rutting, off route travel, damage, and camping	major	additional consultation with SHPO required
FR98704	05165100120	direct/indirect	rutting, off route travel, damage, and camping	major	additional consultation with SHPO required

Note: although there are no direct and indirect effects currently known, the following sites are near routes and should be monitored for effect: 05165100158, 05165100242, 05165100411, 05165400093, 05165400094, 05165400106, 05165400108, and 05165401240.

**Cumulative Effects**

As noted in more detail under Alternative 1, this alternative is not expected to cumulatively lead to increased impacts to cultural resources. Alternative 4 will reduce potential effects to cultural resources through prohibition of cross country travel and the reduction in the number of motorized routes on the Forest. Unregulated cross country travel has the greatest potential for creating adverse impacts to cultural resources making the route designation process an important part of preventing long-term impacts to resources.

**Alternative 5 (Resources)**

**Direct and Indirect Effects**

Under this alternative, cross country travel is prohibited and a total of 31.51 miles of unauthorized motorized routes (90 routes in total) would be added to the system. Of these, four cultural sites fall within the APE of four proposed routes. None of the routes are causing any effect (see Table 3.03-8).

The locations of mitigations prescribed by other disciplines (soils, botany, etc.) were examined and none will cause any effect to cultural resources.

**Changes to Existing NFTS:** This alternative proposes to convert 11.66 miles of ML1 roads (9 routes in total) for use as trails open to all vehicles. No cultural resource sites are located within the APE of these routes.

Table 3.03-8 Summary of Effects to Cultural Resources: Alternative 5

Route ID	Site Number	Type	Nature of Effect	Severity	Protection/Mitigation
16EV176	05165100156	none	none	negligible	n/a
17EV51	05165100599	none	none	negligible	n/a
17EV241	05165100941	none	none	negligible	n/a
16EV303	05165100976	direct	bisected	negligible	n/a

**Cumulative Effects**

As noted in more detail under Alternative 1, this alternative, when combined with the past, present and foreseeable future actions and events are not expected to cumulatively lead to increased impacts to cultural resources. Alternative 5 will reduce potential effects to cultural resources through prohibition of cross country travel and the reduction in the number of motorized routes currently being used on the Forest. Unregulated cross country travel has the greatest potential for creating adverse impacts to cultural resources making the route designation process an important part of preventing long-term impacts to resources.

## Summary of Effects Analysis across All Alternatives

Table 3.03-9 Effects to Cultural Resources: Changes to Existing NFTS

Route	Site Number	ALT	Site	Eligibility	Type	Nature of Effect	Severity	Protection/Mitigation
02S59A	05165400528	4	multi	unevaluated	direct	bisected/damaged	major	use low impact barriers (500 feet both sides of road) to keep users on route
02S20C	05165400657	1,4	historic	unevaluated	direct	bisected/damaged	major	additional consultation with SHPO required
01S38Y	05165400550	1,4	historic	unevaluated	direct	bisected/damaged	moderate	use low impact barriers (500 feet both sides of road) to keep users on route
02S05C	05165400455	4	prehistoric	unevaluated	direct	bisected/damaged	moderate	use low impact barriers (688 feet both sides of road) to keep users on route
02S22	05165400241	4	prehistoric	contributing	direct	bisected/damaged	major	additional consultation with SHPO required
02S22	05165401025	4	prehistoric	contributing	direct	bisected/damaged	major	additional consultation with SHPO required
02S22	05165401660	4	prehistoric	eligible	direct	bisected/damaged	major	additional consultation with SHPO required
02S26	05165400113	4	prehistoric	contributing	direct	bisected/damaged	major	additional consultation with SHPO required
02S26	05165400245	4	prehistoric	contributing	direct	bisected/damaged	major	additional consultation with SHPO required
02S26	05165400247	4	prehistoric	contributing	direct	bisected/damaged	major	additional consultation with SHPO required
02S26	05165400757	4	prehistoric	unevaluated	direct	bisected/damaged	major	additional consultation with SHPO required
02S26	05165400758	4	prehistoric	contributing	direct	bisected/damaged	major	additional consultation with SHPO required
02S26	051654001494	4	prehistoric	contributing	direct	bisected/damaged	major	additional consultation with SHPO required
02S26	05165401660	4	prehistoric	eligible	direct	bisected/damaged	major	additional consultation with SHPO required

Table 3.03-10 Summary of Effects to Cultural Resources

Indicators – Cultural Resources	Rankings of Alternatives for Each Indicator <sup>1</sup>				
	1	2	3	4	5
Degree to which the integrity of cultural resource values are diminished	3	1	5	2	4
Number of cultural resources within unauthorized routes at risk from ongoing use	3	1	5	2	4
Average number of cultural resources per acre protected from creation of new routes	3	1	5	2	4
Average for Cultural Resources	3	1	5	2	4

<sup>1</sup> A score of 5 indicates the alternative is the least impact for this resource; a score of 1 indicates the alternative is the most impact.

## Compliance with the Forest Plan and Other Direction

Alternatives 1, 3, 4 and 5 comply with all Forest Plan S&Gs as well as with all federal laws identified in the Analysis Framework Section. Alternative 2 does not comply with Forest Plan S&Gs or with the federal laws identified in the Analysis Framework Section.