United States Department of Agriculture

Forest Service

Pacific Southwest Region

Land Management Plan Monitoring and Evaluation Report

September 2013

Cleveland National Forest
Fiscal Year 2012

September 2013

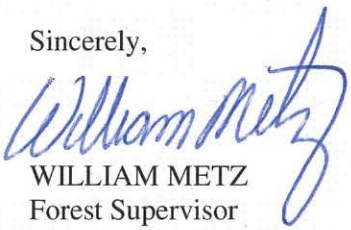
Dear Cleveland National Forest Stakeholders:

I am pleased to present the Cleveland National Forest's (Cleveland NF) annual monitoring and evaluation report for your review. The purposes of this report are to determine if plans, projects, and activities are implemented as designed and in compliance with the Cleveland NF Land Management Plan (LMP); to evaluate the effectiveness of the LMP; and to help identify potential future adjustments to the LMP.

Monitoring is emphasized and identified as a key element in all programs to ensure achievement of the LMP's desired conditions over time. Each year we report on annual indicators of progress and every fifth year include a comprehensive review of any trends. This is the seventh monitoring and evaluation report produced since the LMP was revised in 2005.

Keeping Cleveland NF stakeholders informed of the results of our monitoring is important to me. This report will be posted on the Cleveland NF website at **http://fs.usda.gov/cleveland/**. If you are interested in becoming involved in project or other planning, please also see our Schedule of Proposed Actions at **http://www.fs.fed.us/sopa/forest-level.php?110502**.

Sincerely,



WILLIAM METZ
Forest Supervisor
Cleveland National Forest

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Cleveland National Forest
Land Management Plan Monitoring and Evaluation Report
Fiscal Year 2012

1. Introduction

This report documents the evaluation of projects selected from activities that were implemented on the Cleveland National Forest (Cleveland NF) during fiscal year 2012, which began on October 1, 2011 and ended on September 30, 2012. The Cleveland NF Land Management Plan—referred to as the "Land Management Plan" or "LMP" throughout this document—went into effect on October 1, 2005. Projects with decisions signed after this date must comply with direction in the Land Management Plan. Decisions approved prior to this date that are not under contract or permit but continue to be implemented in phases are also expected to be consistent with the Land Management Plan. This report documents the evaluation of activities and the interpretation of monitoring data to determine the effectiveness of the Land Management Plan and addresses whether changes in the plan or in project or program implementation are needed.

2. Methodology

Monitoring is described in all parts of the Land Management Plan, with monitoring requirements summarized in Part 3, Appendix C. The Cleveland NF monitoring guide further details the protocols that were used in this review. This guide is available on request from the Cleveland NF environmental coordinator.

Part 1 of the Land Management Plan identifies outcome questions that will help to evaluate movement toward the desired conditions over the long term. The monitoring guide describes the baseline data that will be used to answer these questions and evaluate progress. A comprehensive evaluation of this progress is prepared every five years and is included in this monitoring and evaluation report. Part 2 monitoring is focused on program implementation including inventory. The current system tracks performance measures linked to the National Strategic Plan and reports accomplishments through a national reporting system called the Performance Accountability System.

Implementation and effectiveness monitoring for Part 3 of the Land Management Plan was conducted at the project or activity level. A 10 percent sample of projects and ongoing activities was randomly selected and visited to review the application and effectiveness of the design criteria. If problems with documentation or implementation were detected or if the design criteria were determined to be ineffective, then the monitoring team – an interdisciplinary team of specialists listed on p. 49 – recommended possible corrective actions to Forest officials. All recommendations are deliberative in nature and do not constitute a management requirement nor

a commitment of funds. The following questions were asked for each reviewed project or ongoing activity:

1. By comparing expected results to actual results, did we accomplish what we set out to do?

Were relevant legal and other requirements applied to the project or site? Were Land Management Plan goals, desired conditions, and standards incorporated into operational plans, such as burn plans, allotment management plans, and facility master plans? Is LMP consistency documented, such as by a project-specific consistency review checklist?

Were National Environmental Policy Act (NEPA) mitigation measures or Land Management Plan project design criteria implemented as designed? Were requirements from biological assessments, biological evaluations, heritage evaluations, and watershed assessments implemented?

To evaluate effectiveness, the review team asked: Have the project design criteria applied effectively improved environmental conditions as expected?

2. Why did it happen? If the Cleveland NF did accomplish what it had set out to do, the review team attempted to identify the reasons for success; conversely, if not, reasons why not. The Cleveland NF emphasizes and seeks out underlying cause-and-effect relationships, not individual performance or behavior.

3. What are we going to do next time? What activities should be continued to sustain success? Are changes needed to correct any implementation- or effectiveness-related failures? If change is needed, is an amendment or administrative correction to the LMP required?

All results, conclusions, and recommendations are documented on Land Management Plan monitoring and tracking forms and in this monitoring and evaluation report.

3. LMP Part 1 and Part 2 Monitoring

This chapter documents the monitoring of indicators of progress toward the desired conditions described in the Cleveland NF Land Management Plan (LMP, Part 1 monitoring) as well as addresses program implementation (LMP, Part 2 monitoring). Tracking annual indicators will help identify trends over time, as well as support comprehensive evaluations that will be prepared every five years after implementation of the LMP, including in this section.

The following goals are listed in Part 1 of the LMP.

Forest Goal 1.1: Community protection (LMP, Part 1, pg. 19)

Goal: Improve the ability of southern California communities to limit loss of life and property and recover from the high intensity wildland fires that are part of California's ecosystem.

Activity, practice, or effect to be monitored: Vegetation treatments in the wildland/urban interface.

Monitoring questions: Has the Cleveland NF made progress in reducing the number of acres that are adjacent to development within wildland/urban interface defense zones that are classified as high risk?

Reference values (long-term/annual): Fire hazard/risk; annual indicators.

In fiscal year 2011, hazardous fuel treatments occurred on 1,145 acres in the wildland/urban interface. 1,872 acres were reported accomplished in the Forest Activity Tracking System database (FACTS) because some acreages received more than one type of treatment. This contributes to the National Strategic Plan (objectives 1.1 and 1.3). The LMP identifies a more specific indicator focused on measuring progress toward increasing the level of the Cleveland NF fuels program in the wildland/urban interface defense zone described in the LMP.

Background on this indicator

The wildland/urban interface defense zone—that portion of the wildland/urban interface that is directly adjacent to structures (LMP, Part 3, pg. 5, Standard S7; LMP, Appendix K)—has a variable width determined at the project level. The maximum width of the defense zone is defined for general vegetation types in Standard S7. For the LMP analysis, the maximum width was used. This information was used to represent the present, or "baseline," extent of the wildland/urban interface defense zone.

High hazard fuels are those that have the potential to burn with high intensity. Fire intensity affects suppression effectiveness in protecting structures in interface areas. A key strategy in the LMP is to reduce fire hazard adjacent to communities and structures to improve suppression effectiveness and provide defensible space in interface areas.

Risk is related to human values or risk of loss. The presence of structures is the indicator of risk in this analysis. Due to rapid development of private land in southern California, the inventory of areas with structures is constantly changing. Maps representing the wildland/urban interface defense zone are typically a year or more old and therefore should only be considered an estimate of the actual area pending period updates. The actual presence of communities and substantial structures is determined at the project level. In other words, the defense zone coverage or map is not an LMP decision. The decision is to apply the direction in LMP standards S7 (including Appendix K) and S8 to areas that are actually adjacent to communities or substantial structures at the time of project planning. Areas where old structures have been removed are not part of the defense zone. No Cleveland NF-wide, site-specific inventory of fuel hazard within the defense zone exists. In addition, high hazard conditions can be dynamic, returning in as little as five years after a fire in some vegetation types. For this reason, the

hazard indicator is assumed to be high in all areas until a project level assessment determines otherwise. Therefore, the monitoring task is to track the level of management effort directed at reducing fire hazard in the wildland/urban interface defense zone including keeping the inventory of the actual defense zone up-to-date.

The method of calculating progress toward Goal 1.1 is summarized in Table 1. Indicators of progress toward Goal 1.1 will be calculated by using the wildland/urban defense zone from the Land Management Plan analysis database. Acres of treatments in the wildland/urban defense zone were calculated for each of the fire regimes and entered into column D in Table 1. These entries represent the annual indicator of progress toward the desired condition.

Every five years the number of high hazard acres within the defense zone should be calculated to use for documenting the trend as a long-term indicator. As part of the five-year monitoring process, the number of high-hazard acres will be re-calculated as the new baseline. Acres documented as being treated in the corporate reporting system can be assumed to no longer be considered a high hazard. The first monitoring and evaluation report after revision of the LMP, prepared for fiscal year 2006, showed that baseline acres from the previous year's analysis was 10,230 acres. This year's results (Table 1) show that this area had already been reduced to 8,172 baseline acres, and 253 additional acres of treatment in the wildland/urban interface defense zone during fiscal year 2012 leaves 7,919 adjusted acres.

Table 1: Progress in treatment of wildland/urban interface (WUI) defense zone, adjustments to baseline.

A	B	C	D	E
Baseline acres from fiscal year 2011 LMP analysis	**Acres removed due to new info on presence of substantial structures**	**Acres added due to new info on presence of substantial structures**	**Acres treated in WUI defense zone, per corporate database**	**(A-B) + (C-D) (adjusted acres)**
Fire regime I: **5,520** acres	0	0	0	**5,520**
Fire regimes III, IV, and V: **2,652** acres	0	0	253	**2,399**
Total: 8,172 acres	**0**	**0**	**253**	**7,919**

Table 2 shows the status of fuels accomplishment as per the Forest Service Activity Tracking System database. An annual query of this database measures the progress that the Cleveland NF has made to reduce the number of acres adjacent to development within wildland/urban interface defense zones and that are classified as high risk. Use of spatially explicit information for adjusting the baseline is important so the cause of changes in the numbers can be evaluated. Knowing if the change is due to improved inventory information, actual treatments, or both is important. Simply adding the annual indicator—that is, the number of acres treated—and subtracting it from the baseline could over-count maintenance treatments and would not take into account acres added due to new development. Part of our evaluation should determine if new development is adding to the defense zone increase because we have an LMP strategy to prevent that from happening through involvement in local planning.

The Cleveland NF focused vegetation treatments in the wildland/urban interface threat and defense zones (see Table 2). Approximately 1,872 acres were treated during fiscal year 2012.

Some 58 percent of the acres treated were in the threat zone, while 42 percent of the acres treated were in the defense zone. Only 6.5 acres were treated in the wildland/urban interface environment zone, which is defined as that part of the national forest that lies outside the threat and defense zones, and this occurred as part of a linear fuels project in the threat zone along a road that enters into the environment zone for a short distance before leaving it.

Table 2: Treatments in 2012.

Activity	Wildland/Urban Interface Class			Total
	Threat zone	Environment	Defense zone	
Broadcast burning	430	0	38	**468**
Burning of piled material	199	0	191	**390**
Fuelbreak	0	0	42	**42**
Piling	172	0	219	**391**
Rearrangement of fuels	35	0	49	**84**
Thinning for hazardous fuel reduction	251	6.5	246	**497**
Sum of all acres treated (some areas had more than one activity type)	**1080**	**6.5**	**785**	**1872**
Percent of total	**58**	**< 1**	**42**	**100**

Trends in annual indicators for Goal 1.1: The Cleveland NF has achieved progress in meeting this goal. Starting with a baseline of 6,656 acres in the wildland/urban interface defense zone in Fire Regime I in fiscal year 2006, some 1,136 acres had been treated by the end of fiscal year 2012. Starting with a baseline of 3,574 acres in the wildland/urban interface threat zone in fire regimes III, IV, and V in fiscal year 2006, some 1,175 acres had been treated by the end of fiscal year 2012.

Overall, between fiscal years 2006 and 2011, approximately 2,311 acres have been treated in the wildland/urban interface defense zone. Many of these acres had multiple activities undertaken, such as an area that underwent piling and then burning of piles to reduce fuel loads.

Forest Goal 1.2: Restoration of forest health (LMP, Part 1, pg. 20)

Goal: Restore forest health where alteration of natural fire regimes has put human and natural resource values at risk.

Activity, practice, or effect to be monitored: Vegetation condition.

The overall long-term goal is to perpetuate plant communities by maintaining or re-introducing fire regimes appropriate to each type while at the same time protecting human communities from destructive wildland fires.

This indicator gauges departure from either the minimum or the maximum fire return interval. In 2006, the fire regime condition class monitoring indicator was updated using new mapping procedures. In the new GIS maps, information is provided on presumed fire return intervals

from the period preceding Euroamerican settlement ("presettlement") and for contemporary fire return intervals, and comparisons are made between the two.

Current differences between presettlement and contemporary fire return intervals are calculated based on mean, maximum, and minimum values. This map is a joint project of the California chapter of The Nature Conservancy and the U.S. Forest Service Region 5 Ecology Program (David Schmidt, fire ecologist, The Nature Conservancy; Hugh Safford, regional ecologist, U.S. Forest Service, Region 5).

The information was compiled from the fire history literature, expert opinion, data collection, and vegetation modeling. The California Department of Forestry and Fire Protection's Fire and Resource Assessment Program fire history database was used to characterize current fire regimes. The vegetation type stratification was based on the 1996 CALVEG map (U.S. Forest Service Remote Sensing Lab) for the four national forests in southern California.

For data limitations in these datasets, see the CALVEG mapping metadata:

http://www.fs.fed.us/r5/rsl/clearinghouse/data.shtml

and the California fire history database metadata:

http://www.frap.cdf.ca.gov/data/frapgisdata/select.asp

Table 3 displays the baseline status as of 2006 for departures from the mean fire return intervals. Areas where the current interval is more frequent than expected are shown as negative numbers, while areas that have had longer than expected fire return intervals are shown as positive numbers.

A condition class of either 1 or -1 indicates that fire return intervals are within the expected range of variability around the mean for a given fire regime. Condition classes 2 or -2 indicate a moderate departure from the expected mean, while condition classes 3 or -3 indicate a high departure from the expected mean. Both moderate and high departures may indicate that altered fire regimes pose a risk to the ecological condition of the site. Type conversion from high fire frequencies (Condition Class -3) or de-forestation from wide-spread high severity crown fires (Condition Class 3) are more likely as the condition class rating increases.

Table 3: 2012 status of departures from mean fire return interval.			
Fire Return Interval Departure	**Acres**	**Percent of total (2006)**	**Percent of total (2012*)**
-3	23,210	6	4
-2	195,750	43	46
-1	134,286	33	33
1	12,408	7	3
2	36,494	2	9
3	12,891	5	3
Unclassified	7,803	2	2
Total	**422,842**	**100**	**100**

*GIS data published May 2012 – can be found at http://www.fs.usda.gov/detail/r5/landmanagement/gis/?cid=STELPRDB5327836

Trends in annual indicators for Goal 1.2: From 2006 to 2012 the percent of the forest in condition class -2 (too frequent fire) increased from 43% to 46%, with a corresponding decrease in areas in condition class 1. This represents the 2007 wildfires reburning several areas burned in the 2003 wildfires. There was an increase in areas in condition class 2 (too infrequent fire). Some of this was due to wildfire and fuel treatments moving the condition class from class 3 to class 2 and also from a decrease in lands in condition class 1 due to lack of wildfire. In general, the trend in this indicator is away from the LMP desired condition due to two unprecedented, large wildfire events in 2003 and 2007. On the other hand, 5% less of the forest in 2012 existed in the worst condition classes of 3 and -3 relative to 2006.

Forest Goal 1.2.1: Fire Regime I, 0 to 35 years, low severity (LMP, Part 1, pg. 22)

Goal: Reduce the potential for widespread losses of montane conifer forests caused by severe, extensive, stand-replacing fires.

Activity, practice, or effect to be monitored: Vegetation condition.

Monitoring questions: Is the Cleveland NF making progress toward increasing the percentage of montane conifer forests in Condition Class 1?

Reference values (long-term/annual): Condition Class Fire Regime I; annual indicators.

Table 4 shows that in fiscal year 2012 a total of 239* acres were treated in montane conifer, and all treated acres were in Condition Class 3, which are most in need of treatment. This represents an improvement over previous years, when other Condition Classes were also treated. Treating hazardous fuels in these areas that have missed expected fires is consistent with Goal 1.2.1 of the LMP, which directs the Cleveland NF to reduce the potential for widespread losses of montane conifer forests caused by severe, extensive, stand replacing fires (LMP, Part 1, pg. 22).

Table 4: Acres treated in montane conifer by fire regime condition class.						
Activity	**Fire Regime Condition Class**					**Total**
	-2	**-1**	**1**	**2**	**3**	
Broadcast Burning	0	0	0	0	152	**152**
Burning of piled material	0	0	0	0	87	**87**
Precommercial thinning	0	0	0	0	0	**0**
Underburn	0	0	0	0	0	**0**
Piling of fuels	0	0	0	0	0	**0**
Pruning to reduce canopy heights	0	0	0	0	0	**0**
Thinning for hazardous fuel reduction	0	0	0	0	0	**0**
Total	**0**	**0**	**0**	**0**	**239**	**239**

*****Some units received more than one treatment in FY2012

Trends in annual indicators for Goal 1.2.1: Based on reported fuel reduction activities that have occurred from fiscal year 2008 through fiscal year 2012, approximately 2,527 acres were treated in montane conifer. Some 2076 acres of the total, or 82 percent, were treated in Condition Class 3, while 196 acres, or 8 percent, were treated in Condition Class 2. Over that same period, only 254.5 acres, or 10 percent of the total, were treated in all other condition classes.

Based on these data, the Cleveland National Forest has made good progress toward increasing the percentage of montane conifer forests in Condition Class 1.

Forest Goal 1.2.2: Maintain or increase percent chaparral and coastal sage scrub in condition class 1 (LMP, Part 1, pg. 25)

Goal: Restore forest health where alteration of natural fire regimes has put human and natural resource values at risk. Reduce the number of acres at risk from excessively frequent fires while improving defensible space around communities.

Activity, practice, or effect to be monitored: Vegetation condition.

Monitoring questions: Is the Cleveland NF making progress toward maintaining or increasing the percent chaparral and coastal sage scrub in Condition Class 1?

Reference values (long-term/annual): Condition Class Fires Regime IV, annual indicators.

As shown in Table 3, as of 2006, approximately 49 percent of the forest land area was at moderate to high risk of type conversion from excessively frequent fires (i.e., in condition classes -2 and -3). Unlike in Fire Regime I (conifer forest), vegetation treatments in condition class -2 or -3 move the area away from the desired condition by adding another burn or disturbance to a location that has already burned too frequently. The Cleveland NF strategy in treatment of chaparral and coastal sage scrub, therefore, is to focus vegetation management into

direct protection of communities or in pre-identified strategic locations where protection of communities can be improved, such as major ridge tops that are upslope from developed areas. Fire history patterns show that fires often stop in the same locations due to topography or, sometimes, man-made features such as reservoirs or highways.

Table 5 shows that 1,633 total acres were treated in chaparral and coastal sage scrub, 41 percent of which were in condition classes -1 or 1, meaning that they were within the natural range of variability expected for this vegetation type. Most of the acres in negative condition classes—47 percent of the total acres treated in chaparral and coastal sage scrub—were treated by cutting, piling, burning piled materials, or broadcast burning. All of these fuels activities in chaparral and coastal sage scrub were conducted for community defense against wildfire in the wildland/urban interface, and therefore condition class was not a primary factor in determining their location, as is generally the case for montane conifer ecosystems on the Forest.

Table 5: Acres treated in chaparral and coastal sage scrub by fire regime condition class.

Activity	Fire Regime Condition Class						Total
	Undeter-mined	-3	-2	-1	1	>2	
Broadcast burning	0	0	36	105	0	26	**166**
Burning of piled material	27	16	140	139	5	54	**381**
Precommercial thinning	0	0	0	0	0	0	**0**
Piling of fuels	25	16	137	47	12	36	**274**
Rearrangement of fuels	3	7	58	7	4	0	**80**
Thinning for hazardous fuel reduction	42	16	178	308	11	104	**660**
Fuelbreak	10	0	1	34	0	26	**72**
Total	**107**	**57**	**549**	**641**	**32**	**246**	**1,633**

Another measure of effective protection of chaparral and coastal sage scrub ecosystems from overly frequent fire consists of the Cleveland National Forest's fire suppression efforts. Over the course of fiscal year 2012, firefighters put out 69 fires that would have consumed Cleveland National Forest lands. The largest of these fires was only 14 acres in size, and most were smaller than a tenth of an acre in size. For the long term protection of these overly burned ecosystems, such effective fire suppression is essential.

Trends in annual indicators for Goal 1.2.2: Based on reported fuel reduction activities that have occurred from fiscal year 2008 through fiscal year 2012, approximately 8,428 acres were treated in chaparral and coastal sage scrub. Some 758 acres of the total, or 9 percent, were treated in condition classes 2 and 3, while 2,674 acres, or 32 percent, were treated in condition classes -2 and -3. Over that same period, 4,663 acres, or 55 percent of the total, were treated in condition classes -1 and 1. A small percentage was conducted in land mapped as an undetermined condition class.

Although 2,674 acres were treated in condition classes -2 and -3, which represent areas that have experienced fire or disturbance more frequently than would be naturally expected, the areas that

were treated are found mainly in areas that comprise wildland/urban interface defense or threat zones. Fuel reduction activities in these areas are expected to reduce the potential for wildfires to threaten the safety of persons living near the perimeter of the national forest.

Goal 1.2.3: Goal 1.2.3, which relates to maintaining long fire-free intervals in habitats where fire is naturally uncommon, is not addressed in this report because this goal was developed at a scope that accounted for all four southern California national forests and is primarily important on the three other national forests, not the Cleveland NF.

Forest Vegetation and Health Monitoring
The Forest Service Remote Sensing Lab provides inventories of vegetation resources in an ecological framework for determining changes, causes, and trends to vegetation structure, health, biomass, volume, growth, mortality, condition, and extent. For details of the vegetation monitoring section, see: http://www.fs.fed.us/r5/rsl/projects/.

Aerial detection surveys are conducted annually. An overview of these surveys, as well as maps for the Cleveland NF, may be found at: http://www.fs.usda.gov/detail/r5/forest-grasslandhealth/?cid=fsbdev3_046696

Widespread oak tree mortality is occurring on federal, state, private, and Native American lands in San Diego and Riverside Counties, including the southern portion of the Cleveland NF. Researchers from the Forest Service and other agencies discovered that dead and dying oaks were infested with a beetle called the gold-spotted oak borer (*Agrilus coxalis).* The oak borer infests and kills California black oak, coast live oak, and canyon live oak. Due to current and potential impacts, both regionally and throughout California, multiple agencies and organizations are working together in the research, education, and outreach efforts regarding this pest. Information on the gold-spotted oak borer may be found at: http://www.gsob.org.

Forest health is monitored via annual aerial surveys that detect tree mortality. Survey information and mapping (in pdf format or view using Google Earth and Google Maps) is available at the following website, shown by year of survey:

http://www.fs.usda.gov/detail/r5/forest-grasslandhealth/?cid=fsbdev3_046696

Forest Goal 2.1: Invasive species (LMP, Part 1, pg. 31)

Goal: Reverse the trend of increasing loss of natural resource values to invasive species.

Activity, practice, or effect to be monitored: Invasive species.

Monitoring questions: Does the Cleveland NF inventory of invasive plant and animal species show a stable or decreasing trend in acres of invasive species?

Reference values (long-term/annual): Invasive plants and animals; annual indicators

During fiscal year 2012, according to the Forest Service Activity Tracking System database, approximately 100 acres of invasive species were treated on the Cleveland NF. This included 51.5 acres of giant reed (*Arundo donax*) treatment on the Trabuco Ranger District and 47.9 acres of tamarisk treatment on the Descanso Ranger District. In addition, invasive fish and bullfrogs were removed from 10 miles of San Mateo Creek, 3 miles of San Juan Creek, and 1 mile of Trabuco Creek.

Trends in annual indicators for Goal 2.1: Because the Forest does not receive a level of funding sufficient to conduct a comprehensive inventory, we are unable to identify a stable or decreasing trend based on change from total inventoried acres. However, survey data is entered into the NRIS corporate database and acres treated are recorded in the FACTS database. Based on reported activities that have occurred from fiscal year 2008 through fiscal year 2011, approximately 719 acres were treated or retreated for invasive species on the Cleveland National Forest. Invasive species that were removed include giant reed (*Arundo donax*), tree tobacco, tamarisk, yellow star thistle, Spanish broom, and mustard. Eradication of new infestations and planning and treatment of riparian areas were emphasized. In addition to those acres being treated, each year six miles of San Mateo Creek were enhanced by removal of invasive fish and bullfrog species, with the exception of fiscal year 2012, when 14 miles of Trabuco Ranger District creeks were enhanced.

Forest Goals 3.1 and 3.2: Managed recreation in a natural setting (LMP, Part 1, pp. 33 to 36)

Goals: (3.1) Provide for public use and natural resource protection.
(3.2) Retain a natural-evolving character within wilderness.

Activity, practice, or effect to be measured: (3.1) Visitor use of the Cleveland NF. (3.2) Wilderness use.

Monitoring questions: (3.1) Are trends in indicators and visitor satisfaction surveys indicating that the Cleveland NF has provided quality, sustainable recreation opportunities that result in increased visitor satisfaction? (3.2) Are trends in indicators and visitor satisfaction surveys depicting the Cleveland NF has provided solitude and challenge in an environment where human influences do not impede the free play of natural forces?

Reference values (long-term or annual): (3.1) Visitor satisfaction; annual indicators. (3.2) Natural processes wilderness; annual indicators.

Annual indicators are recreation facilities managed to standard including natural resource protection as described in Goal 3.1. Meaningful Measures provides a framework for measuring this but the linkage to resource protection is not as clear. Implementation and effectiveness monitoring of resource protection actions required by standards S34 and S50 (including Appendix D) help to measure the resource protection element of this goal.

Long-term indicators are visitor use trends by activity and overall satisfaction from the National Visitor Use Monitoring ("NVUM") survey. The baseline NVUM survey reported 97 percent visitor satisfaction. The current report summarized data which were collected in 2009. Some 84.9 percent of respondents were satisfied with developed sites on the Cleveland NF; 95.5 percent were satisfied with access, including road and trail condition and parking availability; 79.4 percent were satisfied with services such as availability of information and signage; and 92.9 percent were satisfied with their perception of safety when they were recreating on the Cleveland NF. The report is available online at: http://www.fs.fed.us/recreation/programs/nvum/.

The third round of NVUM surveys is scheduled to begin in 2013.

Trends in annual indicators for Goal 3.1 and 3.2: Based on both the baseline NVUM survey and the current report from data collected in 2009, the Cleveland National Forest maintains a high level of user satisfaction. No trends can be determined between the two reports, however, because different methodology was used. The current report will serve as the baseline for determining trends in goals 3.1 and 3.2 for the next five-year reporting period due in fiscal year 2015.

Forest Program Goal – Her 1: Heritage Resource Protection

The desired condition is to preserve or enhance significant heritage resources. Fiscal year 2012 heritage program accomplishments under the Regional Programmatic Agreement ("RPA") include:

A total of forty proposed undertakings were analyzed for potential effects on historic properties by the CNF Heritage Program Manager (HPM) in FY2012. Thirty-six of these forty proposed undertakings were determined to be compliant with Section 106 through the application of the stipulations of the Regional Programmatic Agreement (RPA). Four of the forty proposed undertakings were reviewed and approved through the application of the Section 106 process, in consultation with SHPO, as appropriate.

Of the thirty-six projects approved as compliant under the RPA in FY2012, four required cultural resource survey for the identification of historic properties and the assessment of the potential for effects. The four undertakings for which cultural resource surveys were conducted were completed in support of proposed undertakings associated with CNF Special Uses (2), Fish/Wildlife/Plants (1), and Fire/Fuels (1). The cultural resource surveys conducted in support of proposed undertakings resulted in the survey of approximately 807 acres and the identification and recordation of twelve previously unrecorded archaeological sites.

Of the thirty-six undertakings determined to be compliant under the RPA, twelve were determined to have historic properties (National Register eligible or unevaluated cultural resources) within the area of potential effects (APE) that would require the implementation of Standard Resource Protection Measures (SRPM) to avoid the identified potential for effects to historic properties. Historic properties were not identified within the APE of twenty-four of the thirty-six undertakings determined to be compliant under the RPA, and no potential for effects to

historic properties was identified for these undertakings. Twenty-seven of these undertakings were within areas that had been previously surveyed for the presence of cultural resources. The Archaeological Reconnaissance Report(s) (ARR) for previous survey within the APE of each of these proposed undertakings were reviewed by the HPM and determined to be adequate under the requirements of the RPA for the identification of historic properties and determination of the potential for effects to historic properties.

Table 1 provides a summary of the thirty-six proposed undertakings that were analyzed for potential effects and authorized under the RPA in FY2012 and the type of data utilized for the identification and avoidance of potential effects (if any) to historic properties (i.e. previous survey data or required survey data), and the number of proposed projects determined to have no potential for effects (Screened Exemptions). Of these thirty-six undertakings, four of the associated Area of Potential Effects (APE) required survey, twenty-seven had been adequately surveyed in association with previous projects, and five undertakings met the requirements for approval as Screened Exemptions. Table 2 summarizes the number of acres surveyed (807), the number of new cultural resources identified and recorded (12), the number of previously recorded resources for which site record updates were completed (22), the number of historic properties that were protected from potential effects through the implementation of Standard Resource Protection Measures (SRPM) (65), the number of sites that were monitored for the avoidance of potential effects (39), and the number of Inadvertent Effects (0) associated with projects approved or implemented under the RPA in FY2012. Table 3 provides additional information on the Category of Undertaking for the thirty-six proposed projects that were reviewed and approved on the CNF under the RPA in FY2012. These thirty-six projects were associated with the CNF program areas of Recreation (5), Facilities (3), Special Uses (19), Fish/Wildlife/Plants (5), Engineering/Roads (2), and Fire/Fuels (2).

Table 1 - Project Summary

Total Projects	36CFR800 Projects	PA Projects	Survey Projects	Previously Surveyed	Screened Exemptions
40	4	36	4	27	5

Table 2 - Historic Property and Survey Data

Acres Surveyed	New Sites Recorded	Sites Updated	Sites Protected	Sites Monitored	Inadvertent Effects
807	12	22	65	39	0

Table 3 - Category of Undertakings

Type of Project	Surveys (Table 4)	Screened Exemptions (Table 5)	Previously Surveyed (Table 6)	Total
Timber	0	0	0	0
Recreation	0	1	4	5
Facilities	0	0	3	3
Special Uses	2	2	15	19
Vegetation Management	0	0	0	0
Fish/Wildlife/Plants	1	2	2	5
Hydrology	0	0	0	0
Engineering/Roads	0	0	2	2
Fire/Fuels	1	0	1	2
Range	0	0	0	0
Minerals	0	0	0	0
Heritage 110	0	0	0	0
Total	**4**	**5**	**27**	**36**

Air Resources
The desired condition is to remediate and prevent human caused impairments to air quality values. Under the USDA-Forest Service Region 5 air quality monitoring program, a sampling station near the Agua Tibia Wilderness Area monitors the air quality near this Class I airshed. Information about this station, which is part of the Interagency Monitoring of Protected Visual Environments (IMPROVE) national monitoring network, can be found at:

http://vista.cira.colostate.edu/improve/Data/data.htm (raw data)
http://vista.cira.colostate.edu/improve/Publications/improve_reports.htm (reports)

Forest Goals 4.1a and 4.1b: Energy and minerals production (LMP, Part 1, pp. 37 and 38)

Goals: (4.1a) Administer minerals and energy resource development while protecting ecosystem health.
(4.1b) Administer renewable energy resource developments while protecting ecosystem health.

Activity, practice, or effect to be measured: (4.1a) Mineral and energy development. (4.1b) Renewable energy resource development.

Monitoring questions: (4.1a) Has the Cleveland NF been successful at protecting ecosystem health while providing mineral and energy resources for development? (4.1b) Has the Cleveland

NF been successful at protecting ecosystem health while providing renewable resources for development?

Reference values (long-term or annual): (4.1a) Energy success at protecting ecosystem health; annual indicators. (4.1b) Renewable resources success at protecting ecosystem health; annual indicators.

In FY 2012, the Forest monitored the construction and operation of the Sunrise Powerlink, a 500kV powerline across Forest Service land for which construction was completed in the summer of 2012. The project contained significant mitigation elements to protect ecosystem health and preserve habitats that would otherwise be impacted by construction and operation.

Trends in annual indicators for Goal 4.1a and Goal 4.1b: Based on projects and activities that have been analyzed and authorized via the National Environmental Policy Act process, the Cleveland National Forest continues to meet the intent of both these goals. Projects that meet the criteria of these goals include the Sunrise Powerlink, temporary wind testing, and approval of various plans of operation for hard rock mines on National Forest System lands.

Forest Goals 5.1 and 5.2: Watershed function (LMP, Part 1, pg. 39) and riparian condition (LMP, Part 1, pg. 41)

Goals: (5.1) Improve watershed conditions through cooperative management. (5.2) Improve riparian conditions.

Activity, practice, or effect to be monitored: (5.1) General forest activities and watershed improvement projects. (5.2) General forest activities.

Monitoring questions: (5.1) Is the Cleveland NF making progress toward improving the Watershed Condition Class in Priority Watershed designated during the Watershed Condition Framework and sustaining or improving Watershed Condition Class in other watersheds? (5.2) Is the Cleveland NF making progress toward improving riparian condition?

Reference values (long-term/annual): (5.1) Sustaining Class 1 watershed conditions while reducing the number of condition class 2 and 3 watersheds; annual indicators. (5.2) Best management practice evaluation protocols, water quality and aquatic habitat attributes from the Watershed Condition Framework, and general field review of riparian areas on the Cleveland NF.

Table 6: Watershed Condition Framework – Initial Rating 2010					
Outcome indicator	**Desired condition**	**Baseline Watersheds**	**Year 5**	**Trend**	**Trigger**
Watersheds in Condition Class 1, Properly Functioning	Maintained condition ratings	9			Decrease in number of Class 1 watersheds
Watersheds in Condition Class 2, Functioning at Risk	Maintained or improved condition ratings	10			Decrease in number of Class 2 watersheds
Watersheds in Condition Class 3, Impaired Function	Improved condition ratings	28			Degrading conditions in Class 3 watersheds

In fiscal year 2012, the Cleveland NF began to implement Watershed Restoration Action Plans in two priority watersheds: Cedar Creek on the Palomar Ranger District and Kitchen Creek-Cottonwood Creek watershed on the Descanso Ranger District. For Cedar Creek, planning was conducted during fiscal year 2012 to manage recreational use at Cedar Creek Falls through a permit system, with an adaptive management system including riparian condition used to fine-tune the permit numbers. In the Cottonwood Creek watershed, further tamarisk treatment was implemented during fiscal year 2012 to lead to the eventual restoration of native plant communities. Through coming years we will continue to designate priority watersheds and track watershed condition. Additionally the Cleveland will be assessing watershed change yearly if large disturbance events occur as well as better refine the attributes that define the watershed condition class.

The Cleveland NF's annual Best Management Practices Evaluation Program report is currently being prepared and will be sent to the Regional Water Quality Control Boards. In addition, periodic road decommissioning projects contribute to improved watershed function as well as projects to remove Aquatic Organism Passage barriers. We continue to look for watershed restoration projects that will improve watershed condition classes.

Forest Goal 6.1: Rangeland condition (LMP, Part 1, pg. 42)

Goal: Move toward improved rangeland conditions as indicated by key range sites.

Activity, practice, or effect to be measured: Livestock grazing.

Monitoring questions: Is forest rangeland management maintaining or improving progress toward sustainable rangelands and ecosystem health by increasing the number of key areas in good and fair condition?

Reference values (long-term or annual): Rangeland condition; annual indicators.

Table 7 displays the baseline and trend monitoring for the range and grazing for fiscal year 2012.

Table 7: Baseline and trend monitoring for range allotments in fiscal year 2012.					
Outcome indicator	**Desired condition**	**Previous monitoring**	**Current**	**Trend**	**Trigger**
Livestock grazing areas in **good** condition	Maintain condition rating	13	13	Stable	Decrease in number of key areas in good condition
Livestock grazing areas in **fair** condition	Maintain/improve condition rating	12	12	Stable	Decrease in number of areas in fair condition
Livestock grazing areas in **poor** condition	Improve condition rating	1	1	Stable	Degrading conditions in key areas poor condition

Table 8 displays the most recently available allotment conditions.

Table 8: Allotment grazing conditions.			
Allotment, pasture	**Condition**	**Assessment type**	**Year**
Black Mountain	Good—stable	Annual compliance monitoring	2009
Corte Madera, Lower Bear Valley	Good	Annual compliance monitoring	2011
Corte Madera, Lower Bear Valley	Good – continued OHV trespass	Annual compliance monitoring	2011
Guatay	Good—good rainfall year, good diversity of desirable species, high ground cover	Annual compliance monitoring	2011
Indian Creek	Ungrazed, not monitored	--	n/a
Laguna, Kitchen Valley	Moderate	Annual compliance monitoring	2011
Laguna, Cameron, La Posta Creek	Moderate	Region 5 long-term trend monitoring	2010
Laguna, Joy Pasture	Low—2006 , Low - 2011	Region 5 long-term trend monitoring	2011
Laguna, Long Canyon Pasture	Low—2006; Moderate—2009	Region 5 long-term trend monitoring	2009
Laguna Meadow, mid-meadow plot	Good—not grazed	Annual compliance monitoring	2011
Laguna Meadow, Las Rasalies plot	High 2000, moderate 2005, moderate 2009, trend stable	Region 5 long-term trend monitoring, Annual compliance monitoring	2011
Love Valley	High—stable to improving	Annual compliance monitoring	2011
Mendenhall, Lower	Good—highly productive year	Annual compliance monitoring	2011
Mendenhall, Upper	High	Region 5 long-term trend monitoring	2011
Mesa Grande, Kelley unit	Fair – difficult to monitor	Rapid	2008
Miller Mountain	Good	Annual monitoring compliance	2011
Samataguma	Good	Annual monitoring compliance	2011
Tenaja	Good - ungrazed	Region 5 long-term trend monitoring	2011
Verdugo	Good	Annual compliance monitoring	2010
Warner Ranch	Good	Annual compliance monitoring	2008

Trends in annual indicators for Goal 6.1: Based on period monitoring, a majority of allotments or pastures remain in good to high condition (Table 8). One livestock area was found to be in poor condition (Table 7) due to the fact that unauthorized vehicle activity damaged the area. The monitoring report for fiscal year 2007 indicated that a downward trend for two locations was tied to the effects of drought and the Cedar Fire. These areas have recovered and

no longer have a downward trend. Several issues with range condition are tied to illegal OHV use and not grazing management. These include areas on the Corte Madera allotment and on the Laguna Allotment. Work has occurred to barrier off sensitive meadow areas from vehicular trespass at Bear Valley and along Kitchen Creek Road.

Forest Goal 6.2: Biological resource condition (LMP, Part 1, pg. 44)

Goal: Provide ecological conditions to sustain viable populations of native and desired non-native species.

Activity, practice, or effect to be measured: General forest activities.

Monitoring questions: Are trends in resource conditions indicating that habitat conditions for fish, wildlife, and rare plants are in a stable or upward trend?

Reference values (long-term or annual): Threatened, endangered, proposed, candidate, and sensitive species baseline; management indicator species habitat trends; annual indicators.

Species monitoring: In 2012, the Cleveland NF continued with monitoring specified in applicable biological opinions. The Cleveland NF annual report to the US Fish and Wildlife Service included the following species and monitoring activities, where applicable:

- Laguna Mountains skipper: Surveys were conducted to monitor skipper populations at Palomar Mountain in 2012. Survey report sent separately to US Fish and Wildlife Service.
- Arroyo toad: Arroyo toad populations were monitored where occurrences are near roads and campgrounds.
- California red-legged frog: No action. This species is extirpated from the Cleveland NF.
- Mountain yellow-legged frog: No action. This species is extirpated from the Cleveland NF.
- Southwestern willow flycatcher: No action in 2012.
- California gnatcatcher: No action in 2012.
- Least Bell's vireo: Monitored Hauser Canyon population in 2012, population appears to be stable.
- Western yellow-billed cuckoo: No action in 2012.
- Stephen's kangaroo rat: No action in 2012.
- San Diego thornmint: No action in 2012.
- Munz's onion: No action in 2012.
- Braunton's milkvetch: No action in 2012.
- Encinitas baccharis: No action in 2012.
- Nevin's barberry: No action in 2012.
- Thread-leaved brodiaea: No action in 2012.
- Vail Lake ceanothus: No action in 2012.

- Slender-horned spineflower: No action in 2012.
- Oval-leaved dudleya: No action in 2012. The Cleveland NF population formerly thought to be this subspecies has been determined to be a different, non-listed subspecies of Dudleya cymosa (pumila).
- San Bernardino bluegrass: No action in 2012.
- Southern steelhead: Forest is continuing to plan to address fish passage issues in Trabuco Creek, San Juan Creek, and San Mateo Creek. One existing creek crossing is planned for removal and five culvert crossings will be replaced with bridges, and approximately 81 small dams will be removed.

In addition, projects to benefit, the following threatened and endangered species occurred: Munz's onion. Habitat was improved by removing a population of an invasive weed, yellow starthistle, near Elsinore Peak.

Laguna Mountains skipper. The Cleveland NF no longer surveys the Laguna Mountains for the skipper because the species is considered to be extirpated in the area. A contractor continued surveys in the Palomar Mountains. The Cleveland NF continued monitoring recreation use at the El Prado and Laguna campgrounds and the Meadow Kiosk. No problems were identified. Monitoring for impacts to habitat continued at eight grazing exclosures on Laguna Meadow.

Arroyo toad. Monitoring of road killed arroyo toads was completed. No mortality was detected. Habitat improvement work (e.g., noxious weed removal) was completed in Trabuco and San Juan canyons.

California gnatcatcher. Forest has initiated planning for a habitat restoration project at San Diego River.

Monitoring requirements are being updated through new site-specific biological opinions that will be issued in 2013. These will be updated on a priority basis.

The environmental baseline identifies the extent of occupied and suitable habitat for each species and describes ongoing activities authorized by the Forest Service in relation to the occupied and suitable habitats. Implementation of LMP strategies over time is expected to cause changes, both positive and negative, in the baseline. Annual reporting of activities that may change the baseline conditions—including recovery actions proposed, new conservation strategies and new information from surveys or inventory—for threatened, endangered, proposed, and candidate species is recommended by the U.S. Fish and Wildlife Service.

The Cleveland NF will continue to consult, as needed, with the US Fish and Wildlife Service regarding riparian obligate species and ongoing activities.

Conclusions
The threatened and endangered species monitoring program is adequate. More funding and staff time is needed for additional species monitoring. A process is in place to update procedures based on updated information and monitoring results.

Management Indicator Species
Twelve management indicator species were selected to monitor certain habitat types and issues (LMP, Part 1, pp. 44 to 45). Ten of these species are found on the Cleveland NF and will be monitored along with other indicators of progress toward achieving desired conditions for biological resources. A Cleveland NF management indicator species report was prepared to describe the environmental baseline conditions. For California black oak there is also tracking of mortality (LMP, Part 1, Goal 1.2, pp. 20 et seq.). Approximately 30 management indicator species reports were completed for projects on the Cleveland NF for fiscal year 2012. None of the reports found that project implementation would affect populations or habitat trends for management indicator species. For the fifth year report, the individual MIS accounts were updated.

Recommendations
Continue required monitoring.

As operational plans are developed for recreation sites, ensure institutional memory of problem resolution by documenting past protection measures, whether on an annual, periodic, or one-time basis. These may be documented in the INFRA database for each site.

Trends in annual indicators for Goal 6.2: Monitoring has not identified any trends in resource conditions that indicate habitat conditions for fish, wildlife, and rare plants are not stable.

Forest Goal 7.1: Natural areas in an urban context (LMP, Part 1, pg. 46)

Goal: Retain natural areas as a core for a regional network while focusing the built environment into the minimal land area necessary to support growing public needs.

Activity, practice, or effect to be measured: Built landscape extent land adjustment.

Monitoring questions: Is the Cleveland NF balancing the need for new infrastructure with restoration opportunities or land ownership adjustment to meet the desired conditions?

Reference values (long-term or annual): Built area and land ownership complexity; annual indicators.

Goal 7.1 calls for minimization of the built environment. Roads are one element of the built environment and are part of the outcome indicators for this goal. In addition, Goal 3.1 instructs the Cleveland NF to remove roads that are determined to be unnecessary through a roads analysis and the analysis required by NEPA.

Table 10 below shows that the Cleveland NF has analyzed approximately 69 miles of unauthorized routes—many of which impact riparian conservation areas or habitat for endangered or threatened species—between 2006 and 2011 to determine if they should be closed and decommissioned to preserve resource values. Approximately 69 miles of unauthorized

routes have been decommissioned. Current NEPA analyses may result in additional miles of unauthorized, unneeded routes being decommissioned.

Table 10: Miles of road in Forest Service jurisdiction by type, 2006 baseline and 2012.						
Maintenance level		**NFS road**	**Permitted road**	**Unauthorized, undetermined**	**Unauthorized, unneeded, existing**	**Unauthorized, unneeded, decommissioned**
Not applicable	2006	--	--	154.0	--	4.0
	2012	--	--	98.9	13.4	69.0
1: Basic custodial care (closed)	2006	34.4	--	--	--	--
	2012	41.3	--	--	--	--
2: High clearance vehicles	2006	280.9	136.9	--	--	--
	2012	258.7	133.5	--	--	--
3: Suitable for passenger cars	2006	11.5	--	--	--	--
	2012	25.5	--	--	--	--
4: Moderate degree of user comfort	2006	54.2	--	--	--	--
	2012	54.5	--	--	--	--
5: High degree of user comfort	2006	18.1	--	--	--	--
	2012	19.1	--	--	--	--
Totals	2006	399.1	136.9	154.0	--	4.0
	2012	399.1	133.5	98.9	13.4	69.0

Trends in annual indicators for Goal 7.1: Between fiscal years 2006 and 2012, the Cleveland NF conducted NEPA analyses to determine if unauthorized routes are necessary for potential inclusion as part of its transportation system, if such routes should be actively decommissioned, or if such routes have already been naturally decommissioned by non-use and vegetation growth. Pending adequate funding, these analyses will continue in the future.

4. Part 3 Monitoring

This section addresses the monitoring and evaluation of projects and activities. As per the methodology described in the monitoring guide, 10 percent of new projects or ongoing activity sites for each type of activity were randomly selected for review and are listed in Table 11.

Ranger district	Project name (type and number)	Section in monitoring report
Descanso	Spanish Broom Eradication, Wildwood Glen Road	***4.2.1***
	Bear Valley Road Maintenance	***4.7.1***
	Long Valley Loop Road Maintenance	***4.7.2***
	Bronco Peak Connector OHV Trail	***4.7.5***
	Wooded Hill Fuels Management (Prescribed Fire)	***4.1.1***
	Burnt Rancheria Campground	***4.6.1***
	Laguna Recreational Residence Tract	***4.5.1***
	Laguna Grazing Allotment	***4.3.1***
	Deerpark Road Unauthorized Route Decommissioning	***4.7.3***
Palomar	Reconductor Boulder Creek Electric Transmission Line Special Use Permit	***4.4.1***
	Cedar Creek Road	***4.7.4***
	Warner Ranch Grazing Allotment	***4.3.2***
	Henshaw Scenic Vista	***4.6.3***
	Fry Creek Campground	***4.6.2***
	Palomar Mountain and Middle Peak Reforestation Project (French Creek)	***4.2.2***
Trabuco	San Juan Recreational Residence Tract	***4.5.2***
	Hotsprings Trailhead	***4.6.4***

4.1 Fuels Projects

4.1.1 Wooded Hill Fuels Management (Prescribed Fire)

Monitoring
The site is located in the Laguna Place on the Descanso Ranger District. The project was designed to treat fuels in the understory of Montane Conifer forests for forest health protection to prevent stand-replacing fires and restore the natural fire regime while protecting homes and business on Mount Laguna. It falls within the Wildland-Urban interface within the Threat zone.

Results
During fiscal year 2012, the district conducted prescribed burning to reduce fuel loads in the understory of the montane conifer forests in the Wooded Hill area. The purpose of the treatments was to alter the behavior of future fires to maintain the natural fire regime for this ecosystem: frequent, low-intensity fire. Sixty-five (65) acres were treated during the winter of 2012/2013.

The monitoring team found no problems with the way the project was conducted, despite that its authorizing NEPA document was a Decision Memo signed in 2000. A letter to the file was prepared and signed in 2005 that updated the decision to achieve consistency with the newly revised LMP. A second letter to the file updated the decision again in 2011. The area is covered by the Laguna Place Fuels Management Environmental Assessment that is currently underway and will replace the earlier decision.

Several mitigation measures were followed. As pre-treatment, the fuels crew masticated around brush islands that, as a result, didn't carry the fire further into the islands. Wherever mastication was used, it ended before entering areas with significant amounts of rock in order to protect archaeological resources. Before the treatment was carried out, the District Fire Management Officer (FMO) verified the lack of mapped archaeological sites for this unit with the Forest Heritage Manager. A wet line was placed around a small drainage that had Horkelia (the host plant for the Endangered Laguna Mountain Skipper) present, and the plants appeared healthy at the time of the field visit. No handline was dug except around the perimeter of the unit, and that line followed an existing trail for much of its length. The FMO also came out after the burn to monitor fuel consumption, which was a little lower than planned for the heavier fuels but sufficient to meet burn objectives. Finally, the District Wildlife Biologist was present during the burn as a Fire Effects Monitor.

Conclusions
The project directly addressed Goal 1.2.1 of the LMP, which directs the Cleveland NF to reduce the potential for widespread losses of montane conifer forests caused by severe, extensive, stand-replacing fires (LMP, Part 1, pg. 22), as well as other LMP objectives, standards, and place emphases. The Decision Memo, a 2005 letter to the file to update the project for consistency with the revised LMP, and fire management documents for the project are on file at the Descanso Ranger District office.

The Best Management Practices (BMP) evaluation protocol completed for the project determined that all BMPs were implemented and effective for the protection of water quality.

Recommendations
Finalize the Laguna Place Fuels Management Environmental Assessment and Decision Notice.

The detailed District Battalion Chief describes the Wooded Hill prescribed burn to the Monitoring Team.

4.2 Vegetation Projects

4.2.1 Spanish Broom Eradication, Wildwood Glen Road

Monitoring

This activity occurred in the Sweetwater Place of the Descanso Ranger District along the Los Terrenitos Road. This activity was analyzed in the Spanish Broom Eradication along Los Terrenitos Road Decision Memo in 2011. The purpose of this project was to protect the road from damage and the surrounding area from fire that could be caused by the invasive Spanish broom plants growing out of the road bed.

Results

The activities in October 2011 comprised the first year of treatment for these infestations, as authorized to occur within 50 feet of the road along a tenth of a mile stretch. The monitoring team found no problems with the implementation of the decision. The success of treatments in the first year was 90 percent, which exceeded expectations for effectiveness. Where before there were dense, monotypic stands of the invasive Spanish broom, as of the field visit only scattered individuals remained. The species has a major seedbank, and so retreatment will be performed annually, beginning in August 2012, for approximately 3-5 years. Monitoring of the site will continue until it has been eradicated.

Conclusions

The project has been implemented as designed. The project is consistent with Goal 2.1 of the LMP, which directs the Cleveland NF to reverse the trend of increasing loss of natural resource values due to invasive species (LMP, Part 1, pg. 31), as well as other LMP objectives, standards, and place emphases.

Recommendations
Continue to monitor the site for new infestations and retreat as necessary.

The Monitoring Team surveys the control of invasive Spanish broom along Los Terrenitos Road.

4.2.2 Palomar Mountain and Middle Peak Reforestation Project (French Creek)

Monitoring
This project occurred in the Palomar Mountain Place on the Palomar Ranger District. It involved the planting of conifer seedlings, bigcone Douglas-fir and Jeffrey pine in particular to mitigate for tree mortality that resulted from the 2007 Poomacha fire, as authorized by the 2009 Palomar Mountain and Middle Peak Reforestation Project Decision Memo.

Results
The project was implemented by a field crew in March 2012. One finding of the visit is that the area that was replanted did not necessarily need to be replanted, since many of the oaks in the area survived, and other conifers were found to be naturally regenerating. Moreover, the area was not replanted until 4 years after the fire, by which time other plants, such as the annual grasses and shrubs, had gotten a head start on recolonization. Very few seedlings survived for a year and a half, estimated at 1% or less of the plantings. The planting strategy outlined in the Decision Memo, to cluster plantings across the area, was not implemented in the field, where they were evenly dispersed. Finally, the Decision Memo authorized the planting of 15 acres in this area, while the accomplished area was reported as 23 acres and included the surroundings of the area authorized for planting.

In addition to the challenges of natural drought, competition, and shade from the oaks, fuels management work had been performed within the replanting area that likely resulting in seedling mortality due to burning piles of downed materials and tracking a masticator around the site to arrange the piles for burning. This was considered to be an example of communication

breakdown between the fuels management staff and the resources staff that needs to be improved, both through planning and in the field.

Conclusions
This project was consistent with Goal 6.2 in the LMP, which directs the Cleveland NF to provide ecological conditions to sustain viable populations of native and desired nonnative species (LMP, Part 1, pg. 44), as well as other LMP objectives, standards, and place emphases. The low survival rate of plantings, however, rendered this project relatively ineffective at achieving Goal 6.2 for a variety of reasons detailed above.

Recommendations
Ensure that project Purpose and Need are clearly outlined and agreed upon by all project staff. Refer to the signed Decision document before implementing the project to avoid going beyond authorized project boundaries. Initiate replanting efforts swiftly after wildfires to promote survival, and focus on areas that are deforested or understocked and in need of reforestation, following prescribed reforestation procedures. Promote coordination among resource and fire management staffs for both planning and fieldwork to avoid conflicting activities.

The Monitoring Team searches for surviving seedlings from a reforestation effort on Palomar Mountain.

4.3 Livestock Grazing Allotments

4.3.1 Laguna Grazing Allotment

Monitoring
The allotment is in the Laguna and Morena Places on the Descanso Ranger District. This was one of two allotments visited during the monitoring process.

Results
The allotment was reviewed and the permit reauthorized under the 2010 Laguna Allotment Environmental Assessment Decision Notice. The allotment is managed via term permit and annual operating instructions. At 24,910 acres, this is the largest grazing allotment on the Cleveland National Forest by far.

On this allotment, Cleveland National Forest lands are grazed less than authorized, since they simply provide a crossing between the permittee's private land holdings. Twice a year, the permittee drives the cattle up Kitchen Creek Road rather than up the riparian area, to comply with mitigation measures and thereby avoid impacts to the endangered Arroyo Toad.

The only watering site for the cattle on Forest property is found at the Rodeo Grounds, a developed spring, and this site was visited in early summer 2013 by the Grazing Program Manager, who determined that previously documented damage to Laguna Mountain Skipper habitat there had been effectively repaired. Specifically, the spring box, exclusion fencing, and piping to the cattle trough were repaired by the permittee. Archaeological sites at the same location have been unaffected by the grazing.

The Forest Grazing Program Manager monitors two areas regularly, which would be the first to show damage resulting from grazing practices. The Rodeo Grounds are monitored twice each winter, and La Posta Creek is monitored twice each summer. Recent monitoring visits have confirmed that the areas are in good condition.

Altogether, the allotment is being managed according to the design features and mitigation measures of the NEPA decision as well as the terms of the grazing permit.

Conclusions
The project is consistent with Goal 6.1 of the LMP, which directs the Cleveland NF to move toward improved rangeland conditions as indicated by key range sites (LMP, Part 1., pg. 42), as well as with other objectives, standards and place emphases found in the LMP. Grazing management complies with the terms and conditions of the April 27, 2001 biological opinion for the Cleveland NF grazing program.

The BMP evaluation protocol completed for the project determined that all BMPs were implemented and effective.

Recommendations
Continue to manage the allotment to standard.

The Laguna Allotment as seen from Kitchen Creek Road.

4.3.2 Warner Ranch Grazing Allotment

Monitoring
The allotment is in the Palomar Mountain Place on the Palomar Ranger District. This was one of two allotments visited during the monitoring process.

Results
The Warner Ranch allotment was analyzed and a permit was reissued based on the 2006 Decision Memo for Black Mountain, Love Valley, and Warner Ranch Allotments. Monitoring done as part of routine permit administration on the Warner Ranch allotment has determined that existing resource conditions are meeting or moving toward desired conditions and the planning project file documents that management is consistent with all standards and goals detailed in the LMP.

There were no cattle on the allotment at the time of the monitoring visit. The permittee uses the allotment less than authorized, since the primary forage is on private lands. As a result, the use of the Forest can be considered "incidental." A previous monitoring visit resulted in a Hydrologist considering the area surrounding their watering site to be a riparian area, however the Hydrologist present for this visit denied this claim, suggesting that the area is too dry to support a riparian area for such a small drainage area. The water to the trough had been turned off as of the monitoring visit, despite that the tank contained water, and so the Grazing Program Manager will contact the permittee to determine why the water had been turned off.

A new EA for this allotment will be prepared in 2016, when the permit is up for renewal.

The project file documents LMP consistency. Standards from the LMP regarding livestock grazing were incorporated into the permit. The allotment is managed via term permit and annual operating instructions. The project was implemented as designed. Mitigation and other design

criteria implemented for the allotment include an adjusted season of use based on annual monitoring.

Conclusions
The project is consistent with Goal 6.1 of the LMP, which directs the Cleveland NF to move toward improved rangeland conditions as indicated by key range sites (LMP, Part 1., pg. 42), as well as with other objectives, standards and place emphases found in the LMP. Grazing management complies with the terms and conditions of the April 27, 2001 biological opinion for the Cleveland NF grazing program.

The BMP evaluation protocol completed for the project determined that all BMPs were implemented and effective.

Recommendations
Continue to manage the allotment to standard.

The Warner Ranch watering trough is described to the Monitoring Team and Palomar District Ranger by the Forest Grazing Program Manager.

4.4 Lands Special Uses

4.4.1 Reconductor Boulder Creek Electric Transmission Line Special Use Permit

Monitoring
The project occurred in the Upper San Diego River Place of the Palomar Ranger District. The project involved the issuance of a special use permit to San Diego Gas and Electric (SDGE) for restringing their electric transmission lines in the vicinity of Boulder Creek Road.

Results
The monitoring team examined whether mitigations and design features were implemented according to the specifications of the 2012 Reconductor Boulder Creek Electric Transmission Line (TL626) Decision Memo. For this restringing project, the primary land impact occurred as the result of increased traffic along the powerline access road that descends to Cedar Creek from Boulder Creek Road. What was previously a small 2-track road was used and maintained to the degree that it resembles a Forest road, in terms of lack of vegetation. The road is so steep that it has required frequent maintenance, with staff reports that it had been graded at least 4 times in the past year. While there is some concern that the maintenance level is excessive, demonstrating that the road isn't suitable for continued use, the retired Road Manager suggested that overly frequent maintenance should not be a major concern. Altogether, the steepness of this road is an inherent problem, but the heavy maintenance of the road has kept any major problems at bay. As improvements, a greater frequency of rolling dips should have been included, and dust control measures weren't evident and would be worthwhile.

The project lead left the Forest, and no one has taken over since his departure, such that communication with SDGE has suffered as a result. SDGE notification to the Forest of when maintenance will be conducted has risen and fallen over time; rising after Forest requests for better notification and then falling again later.

Conclusions
The project is consistent with Goal 7.1 of the LMP, which directs the Cleveland NF to focus the built environment into the minimum land area needed to support growing public needs (LMP, Part 1, pg. 46), as well as other LMP objectives, standards, and place emphases.

The BMP evaluation protocol completed for the project determined that all BMPs were implemented and effective.

Recommendations
Ensure that whenever a project leader departs the Forest, their projects have clearly designated leaders for the future. Request notification from SDGE of upcoming maintenance operations to a single Forest point of contact.

The District Recreation and Lands Officer tells the Monitoring Team about the road maintenance associated with an electric line restringing project in the Cedar Creek watershed.

4.5 Recreation Special Uses

4.5.1 Laguna Recreation Residence Tract

Monitoring
This tract, which consists of 13 cabins, is located in the Laguna Place on the Descanso Ranger District. This was one of two recreation residents tracts visited during the monitoring process.

Results
NEPA for the recreation residence tracts was complete with a Decision Notice signed on May 11, 2009. New special use permits with a 20-year duration were issued to current permit holders who were found to be in full compliance with the terms and conditions of their existing permits. Current permit holders who were found not to be in full compliance with the terms and conditions of their existing permits were issued short-duration permits to take actions to achieve full compliance. Permit holders who do not achieve full compliance within the allotted timeframe may be required to sell or remove all structures. The biological evaluation and biological assessment, as well as the heritage report, are up-to-date.

Information on maintaining 30-foot and 100-foot fuels clearances around structures, as required to reduce the threat of wildfire damage, was sent to all recreation residence permittees in the area.

In FY11, a checklist was developed for internal permit administration to help determine when actions taken on cabins require heritage resource review. All cabins in this tract have been evaluated for their eligibility for the National Register of Historic Places, and several cabins were determined eligible.

Although the tract as a whole appeared to be in good condition, inspections should be done annually but haven't been done since December 2011, when an employee retired, leaving no one to fill the personnel void. Since then, Descanso Ranger District inspections have been driven by permit transfers and known issues. The entire Cleveland National Forest is struggling to keep up with inspections recently.

The fence protecting Laguna Meadow was slightly damaged and should be fixed, since it provides mitigation of impacts to Laguna Mountain Skipper Critical Habitat. A pile of cleared fuels was found at the end of the access road; it should be taken to the designated collection site at Camp Ole. Minor non-compliance issues were observed, including peeling paint, an unpermitted antenna, and insufficient defensible space. No septic inspections have been performed; it is assumed that County inspections are sufficient. A nearby archaeological site is in good condition, as recently reported to the Heritage Program Manager by a trusted partner.

Conclusions
Management of the recreation residence tract is consistent with Goal 3.1 of the LMP, which directs the Cleveland NF to provide for public use and natural resource protection (LMP, Part 1, pg. 33), as well as other LMP objectives, standards, and place emphases.

Recommendations
Continue administration in accordance with the new permits. Fix the fence that protects the Laguna Meadow. Move cleared fuels to collection site and post notice indicating that instruction for the future. Investigate whether San Diego County does regularly inspect Recreational Residence septic systems.

The District Recreation and Lands Officer describes the management of the Laguna Recreational Residence Tract to the Monitoring Team.

4.5.2 San Juan Recreation Residence Tract

Monitoring
This tract is located in the San Mateo Place on the Trabuco Ranger District. This was one of two recreation residence tracts visited during the monitoring process.

Results
NEPA for the recreation residence tracts was complete with a Decision Notice signed on May 11, 2009. New special use permits with a 20-year duration were issued to current permit holders who were found to be in full compliance with the terms and conditions of their existing permits. Current permit holders who were found not to be in full compliance with the terms and conditions of their existing permits were issued short-duration permits to take actions to achieve full compliance. Permit holders who do not achieve full compliance within the allotted timeframe may be required to sell or remove all structures. The biological evaluation and biological assessment, as well as the heritage report, are up-to-date.

Information on maintaining 30-foot and 100-foot fuels clearances around structures, as required to reduce the threat of wildfire damage, was sent to all recreation residence permittees in the area.

Only 5 cabins remain in the San Juan Tract because the remainder burned in the Ortega Fire of 1993. In FY11, a checklist was developed for internal permit administration to help determine when actions taken on cabins require heritage resource review. All cabins in this tract have been evaluated for their eligibility for the National Register of Historic Places, and several cabins were determined eligible. One is already listed on the National Register of Historic Places, and it was found to be in compliance with Register requirements.

The remaining residences are in good condition, with the only known issue of excess storage of items on properties, which is being dealt with through the special use permit process. Invasive weed control treatments need to be completed by the Cleveland National Forest rather than the permittees, since most of the species, including oleander and pasture bean among others, occur primarily on the burned sites. Old foundations of burned residences could be removed if a funding source could be found, providing safety and aesthetic benefits as well as enabling native vegetation to recolonize the sites.

Conclusions

Management of the recreation residence tract is consistent with Goal 3.1 of the LMP, which directs the Cleveland NF to provide for public use and natural resource protection (LMP, Part 1, pg. 33), as well as other LMP objectives, standards, and place emphases.

Recommendations

The Trabuco Ranger District should continue managing this tract in the direction of full compliance and desired conditions. Funding should be sought for invasive weed treatments and building foundation removal.

The Trabuco District Ranger and Monitoring team assess the San Juan Recreation Residence Tract.

4.6 Recreation Ongoing Activities

4.6.1 Burnt Rancheria Campground

Monitoring
The campground is an ongoing activity in the Laguna Place on the Descanso Ranger District. This was one of two campgrounds visited during the monitoring process.

Results
Burnt Rancheria Campground lies within the Laguna Mountain Recreation Area, contains 109 single sites, and receives light use. The campground is open annually from roughly the beginning of May until the end of October.

The campground was found to be in very good condition by the monitoring team, as maintained by a new concessionaire. The transition to this concessionaire was smooth, with very few changes to the site's management.

Burnt Rancheria Campground has also been the focus of oak restoration efforts in recent years, in an effort to bolster black oak populations that have been reduced by mortality caused by the invasive Gold-spotted Oak Borer. In fiscal year 2012, 200 black oak acorns were planted in portions of the campground where infested oaks had been removed but no seedlings were found to be regenerating. Of these plantings, 81% survived for a year and a half, a rate that is especially encouraging given the experimental nature of the plantings.

Conclusions
The overall operation of the campground is consistent with Goal 3.1 of the LMP, which directs the Cleveland NF to provide for public use and natural resource protection (LMP, Part 1, pg. 33), as well as other LMP objectives, standards, and place emphases.

The BMP evaluation protocol completed for the site determined that all BMPs were implemented and effective.

Recommendations
Continue to administer the concession permit to standard and implement revegetation as needed to replace black oaks killed by the invasive Gold-spotted Oak Borer.

4.6.2 Fry Creek Campground

Monitoring
The campground is an ongoing activity in the Palomar Mountain Place on the Palomar Ranger District. This was one of two campgrounds visited during the monitoring process.

Results
Fry Creek Campground lies on top of Palomar Mountain, contains 20 single sites, and receives light use. The campground is open annually from roughly the beginning of April until the end of November.

The campground was found to be in decent condition, with toilet facilities that were replaced in 2008 and hazard tree removal conducted in July 2013, although one hazard tree remained to be removed. Metal barrier posts have also recently been installed to prevent vehicles from driving into the campsites off of paved surfaces, and recycling cans have also recently been added to the site as an improvement.

Altogether, the campsites could use some upgrading and stabilization, because their relatively primitive condition in combination with sloped terrain is leading to soil erosion, exposure of tree roots, and uneven tent sites in certain areas. At some campsites, there was a need to prevent soil erosion into Fry Creek or its tributaries, and some litter was found in the creek channel. Large areas of bare soil exist in several parts of the campground, such as behind the upper restroom structure, which sits near an ephemeral stream channel. The 2008 Decision Memo that authorized its installation applied the wrong Category and made no mention of mitigation measures or best management practices to prevent erosion. One measure that could reduce soil erosion in this area is better signage for the Fry Creek Trail, because its route through the campground is currently unclear.

Several problems were evident with the drainage of both the unpaved roads just above the campground, one of which is under permit and will be addressed through the permit compliance process, and the campground road itself. Specifically, the roads are concentrating runoff and directing it into the campground and Fry Creek, which is contributing sediment to the system and also resulting in an incised stream channel. This can be seen next to the crossing by the welcome kiosk, upstream of which exposed roots, sloughing, and undercutting end abruptly at an ineffective inlet structure to a culvert. The pinch point at the top of the inlet structure speeds the water up only to let it slow down and deposit sediment just upstream of the culvert, which will eventually plug it. Multiple small culverts throughout the campground had maintenance issues that need to be addressed, such as being plugged, crushed, or buried. The hydrologist recommended outsloping the unpaved roads above the campground in order to disperse rather than concentrate runoff.

Conclusions
Operation of the campground falls somewhat short of consistency with Goal 3.1 of the LMP, which directs the Cleveland NF to provide for public use and natural resource protection (LMP, Part 1, pg. 33), due to its failure to meet water quality BMPs. Specifically, the BMP evaluation protocol completed for the site determined that BMPs were neither implemented nor effective due to the location of the campground within the Riparian Conservation Area for Fry Creek in addition to sediment contribution to the stream.

Recommendations
Pursue funding both to stormproof the campground by stabilizing eroding campsites, maintaining degraded culverts, and redesigning and maintaining the upslope roads. Install trail signage.

The Forest Hydrologist shows a wattle left behind to control erosion after the upper restroom was installed at the Fry Creek Campground.

4.6.3 Henshaw Scenic Vista

Monitoring

The picnic area and information kiosk is an ongoing activity in the Palomar Mountain Place on the Palomar Ranger District. This was a minor recreation site visited during the monitoring process, as established by monitoring protocol.

Results

The Henshaw Scenic Vista was constructed in 2002, as authorized by a 2001 Decision Notice, resulting in a parking area and vista deck that were found by the monitoring team to be in good condition. Henshaw Fire Station Engine 32 has been maintaining defensible space around the facility, which was helpful when on July 4th, 2013, someone started a fire through the use of fireworks from the vista deck. The fire was swiftly contained to less than an acre in size, and the fuels management and deck design prevented damage to the deck itself.

Initial plans for the project called for a restroom at the site, but lack of funding prevented its construction. The lack of a restroom has led to public use of the surrounding brush for this purpose, which led to health concerns for firefighters and subsequent reduction of fuels management activities.

Native revegetation was determined to be satisfactory, with some annual grass present but kept in check through fuels management. On the slope adjacent to East Grade Road, some minor rilling was observed in areas of bare soil. While wood chips had been spread over portions of the slope, additional wood chips would be helpful for bare areas to prevent soil erosion.

Conclusions
The Henshaw Scenic Vista is consistent with Goal 3.1 of the LMP, which directs the Cleveland NF to provide for public use and natural resource protection (LMP, Part 1, pg. 33), as well as other LMP objectives, standards, and place emphases. The site is well designed and in overall good condition.

Recommendations
Continue periodic checks of the location to report any potential problems with sanitation. Evaluate the potential for installation of a toilet at the site if funding can be identified.

The slope below the parking area at Henshaw Scenic Vista was burnt in a July 4, 2013, wildfire.

4.6.4 Hotsprings Trailhead

Monitoring
The trailhead is an ongoing activity in the San Mateo Place on the Trabuco Ranger District. This was a trailhead visited during the monitoring process, as established by monitoring protocol. The trailhead provides the lower elevation access point to the San Juan Trail.

Results
There was no operation and maintenance file nor any NEPA decision for this site, which was nevertheless found to be in good condition.

Conclusions
The trailhead is consistent with Goal 3.1 in the LMP, which directs the Cleveland NF to provide for public use and natural resource protection (LMP, Part 1, pg. 33), as well as other LMP objectives, standards, and place emphases.

The BMP evaluation protocol completed for the site determined that all BMPs were implemented and effective.

Recommendations
Continue to monitor the condition of the trailhead.

4.7 Road and Trail Maintenance and Ongoing Activities

4.7.1 Bear Valley Road Maintenance

Monitoring
This road is in the Sweetwater and Morena Places on the Descanso Ranger District. It is an official Forest Service System road and is open to the public year-round, with the exception of infrequent wet weather closures.

Results
Bear Valley Road was maintained as part of the annual maintenance contract with the Eldorado National Forest Road Crew in March 2012. Treatments included surface blading and maintenance of rolling dips and overside drains. According to the retired Forest Roads Manager, Bear Valley Road was in very poor condition prior to this maintenance, due to riders "driving through every puddle they could find" after rain events. Mitigations were followed during maintenance, primarily consisting of not blading where the road crosses streams.

While this work was initially successful, this road is rarely closed after rain events, when the hard surface suddenly becomes quite soft. As a result, substantial rilling was observed on the road surface, leading to sediment contribution to the riparian area very near to the start of the road. Annual road maintenance is needed without a wet weather closure. Current funding levels, however, only enable 200 miles of road maintenance annually out of 400 miles of CNF roads. This results in a trade-off each year between maintaining roads to ensure access for fire suppression and maintaining roads for recreational access.

This road in particular is a "designated green sticker route," which is why it hasn't regularly been closed after wet weather. Bear Valley Road provides the first opportunity to ride off-highway vehicles (OHVs) for those coming east from San Diego, and dirt bikers can connect to the Corral Canyon OHV Area via the Kernan Cycle Trail. The DRD Recreation Officer suggested that closing Bear Valley Road for wet weather could result in the development of new unauthorized routes by these riders in particular.

Metal overside drains and lead-offs need stones at their ends to dissipate the energy of the water flow. Fences that would prohibit unauthorized OHV use from leaving the road would make road maintenance more difficult. In the past, CNF Hydrologists have recommended outsloping the road to alleviate soil erosion, but the Roads program has disagreed with that change, since it would increase the safety issues associated with some CNF roads.

Conclusions
The road itself is consistent with Goal 3.1 in the LMP, which directs the Cleveland NF to provide for public use and natural resource protection (LMP, Part 1, pg. 33), as well as other LMP objectives, standards, and place emphases. The current condition of the road, however, falls somewhat short of meeting the direction in Goal 3.1 to maintain a transportation system of roads and trails that is environmentally sound and efficient to manage due to contribution of sediment to a stream. The Recommendation below would enable Goal 3.1 to be fully attained for Bear Valley Road.

The BMP evaluation protocol completed for Bear Valley Road determined that while BMPs were implemented for the road maintenance project, they were at risk for effectiveness due to lack of wet weather restrictions.

Recommendations
In order to comply with Best Management Practice requirements for roads, a decision should be made about whether to close Bear Valley Road regularly after wet weather, ensure that maintenance occurs every year, or redesign the road to withstand wet weather use without compromising water quality.

The Monitoring Team and Descanso District Ranger evaluate soil erosion on Bear Valley Road.

4.7.2 Long Valley Loop Road Maintenance

Monitoring
This road is in the Morena Place on the Descanso Ranger District. This road is an official Forest Service System road and is open to the public year-round, with the exception of infrequent wet weather closures.

Results
Long Valley Loop Road was maintained as part of the annual maintenance contract with the El Dorado National Forest Road Crew in March 2012. Treatments included surface blading and maintenance of rolling dips and overside drains. Mitigations were followed during maintenance, primarily consisting of not blading where the road crosses streams.

Long Valley Loop Road was in substantially better condition than Bear Valley Road, despite that it was maintained at the same time. The road has big rolling dips that effectively managed runoff, little rilling was observed, and overside drains were in good condition, including stones at the bases of metal drains for energy dissipation.

At the site of the riparian area crossed by the road at the western end of the loop, there were multiple unauthorized routes and crossings. Barriers could be used to prevent further use of these routes that contribute sediment to the stream and degrade sensitive oak habitat.

Conclusions
The road segment is consistent with Goal 3.1 in the LMP, which directs the Cleveland NF to provide for public use and natural resource protection (LMP, Part 1, pg. 33), as well as other LMP objectives, standards, and place emphases. In particular, Goal 3.1 includes direction to maintain a transportation system of roads and trails that is environmentally sound and efficient to manage.

The BMP evaluation protocol completed for the road determined that all BMPs were implemented and effective.

Recommendations
Continue wet weather closures of Long Valley Loop Road. Install barriers to contain vehicles to a single crossing of the riparian area at the western end of the loop.

The Monitoring Team assesses the maintenance of Long Valley Loop Road.

4.7.3 Deer Park Road Unauthorized Route Decommissioning Project

Monitoring
This project occurred in the Laguna Place on the Descanso Ranger District and involved decommissioning a 0.15-mile-long unauthorized vehicle route that began from Deer Park Road.

Results
This unauthorized route off Deer Park Road was decommissioned in December 2011. Water bars and barriers were installed as specified in the project contract and have performed their intended purposes effectively. While the route was supposed to have been scarified, instead it appeared that it was ripped, as evidenced by two trenches 36" apart, rather than no greater than 6" apart as specified in the contract. As a result, the project continues to contribute to erosion and water quality degradation by channeling water straight down the old route. The monitoring team Hydrologist would have preferred the pocking method, which doesn't leave any channels behind. All Forest staff involved in decommissioning should be informed of this recommendation.

A NEPA decision for this project couldn't be found in any files on the Cleveland National Forest. As for specialist reports, only a heritage resource programmatic agreement compliance form could be found that listed the project, while biological and hydrologic reports were missing. A 2010 Decision Memo entitled "Descanso Unauthorized Route Decommissioning Project, 2009" was found but doesn't include the Deer Park Road project among the list of routes to be decommissioned.

The contract, which was developed from an old template, included language referencing CalTrans Best Management Practices (BMPs) for water quality protection, whereas US Forest Service BMPs have been in place for a long time and should have been used instead. All Contracting Officer Representatives on the Forest should be made aware of the correct BMPs to use.

Conclusions
This project was mostly consistent with Goal 3.1 in the LMP, which directs the Cleveland NF to provide for public use and natural resource protection (LMP, Part 1, pg. 33), with a weakness of continued soil erosion. In particular, Goal 3.1 includes direction to maintain a transportation system of roads and trails that is environmentally sound and efficient to manage, as well as reduce the number of inventoried unclassified roads. While minor effects to water quality were observed during the monitoring, vehicles can no longer access the route, and the route is in better condition for soil retention than before it was decommissioned.

The omission of this unauthorized route from the Decision Memo that specifically authorizes this work on other routes is a NEPA compliance issue. It is essential for analysis and decision documents to be cross-referenced with specialist reports before finalization. While this route was identified by the 2009 Travel Management Decision Notice as unnecessary, site-specific resource concerns were not thoroughly documented, since only a heritage resources report was found for the project.

The BMP evaluation protocol completed for the site determined that all BMPs were implemented and effective.

Recommendations
Most importantly, road decommissioning projects should not be implemented without signed NEPA decision documents in place. In addition, all Forest staff involved in decommissioning should be advised that pocking is the preferable method over scarification and particularly ripping. Finally, all Contracting Officer Representatives on the Forest should be made aware to use US Forest Service BMPs, rather than those of CalTrans, for protecting water quality.

The Monitoring Team Hydrologist points out trenches left behind by the decommissioning of an unauthorized route off Deer Park Road.

4.7.4 Cedar Creek Road

Monitoring
This road is in the Upper San Diego River Place on the Palomar Ranger District. This road is an official Forest Service System road and is open to the public seasonally.

Results
There was no operation and maintenance file to be found for Cedar Creek Road, which is closed to vehicle traffic for the duration of each winter, lasting for 3 to 4 months beginning with the first major rain event of the season. The closure is agreed upon by District staff through consensus among the District Ranger and Resource, Fire, and Recreation Staff Officers, but there is no documentation of closures or openings.

Seasonal closure is working well to maintain good road condition, with little visible erosion on the road surface. At the Ritchie Creek crossing, however, minor rilling was found to be contributing sediment to the stream after rain events, which could be addressed through preventive maintenance, including rolling dips and overside drains. Finally, a rock sweep in the spring of 2013 addressed rockfall from the preceding winter season and is performed annually to keep the road in safe driving condition.

Conclusions
Cedar Creek Road management falls somewhat short of consistency with Goal 3.1 in the LMP, which directs the Cleveland NF to provide for public use and natural resource protection (LMP, Part 1, pg. 33), due to the contribution of sediment to Ritchie Creek. In particular, Goal 3.1 includes direction to maintain a transportation system of roads and trails that is environmentally sound and efficient to manage. Road closures in the winter ensure that the cost of maintenance of the road does not exceed budgetary requirements.

The BMP evaluation protocol completed for Cedar Creek Road determined that while BMPs were implemented, they were at risk for effectiveness due to contribution of sediment to a stream channel.

Recommendations
Continue seasonal closure of Cedar Creek Road and perform preventive maintenance of its stream crossings to protect water quality.

4.7.5 Bronco Peak Connector Off-Highway Vehicle Trail

Monitoring
This off-highway vehicle (OHV) trail is in the Morena Place on the Descanso Ranger District, within the Corral Canyon OHV Area.

Results
The 2005 Decision Memo that authorized a trail reroute resulting in the Bronco Peak Connector Trail provided decent information about the decommission of the old route but very little information about the construction and layout of the new route. A map and description of design and methods would have improved the ability to evaluate the decision's implementation.

There was a major gully, directly contributing sediment to a stream channel, at the start of the trail as it left the Corral Canyon Campground. Apart from this gully, some rilling was observed on the trail surface, but it was not extensive. The trail is brushed each spring, but there has been no recent surface maintenance. Within the first 100 yards of the trail after crossing the stream, 3 breaches of a fence protecting the riparian area were found that need to be mended and monitored. In addition, two unauthorized routes were found leading away from the Bronco Peak Connector and Bobcat Trails that could be decommissioned.

The Corral Canyon OHV Area is not closed for wet weather, unlike the Wildomar OHV Area on the Trabuco Ranger District. A 2010 Monitoring and Soil Conservation Standard Report found the overall trail system to be dealing properly with soil erosion, which had been a concern since the 2006 Horse Fire. However, the report encouraged both annual monitoring and annual maintenance, neither of which has occurred since 2010.

Conclusions
The route segment falls somewhat short of consistency with Goal 3.1 in the LMP, which directs the Cleveland NF to provide for public use and natural resource protection (LMP, Part 1, pg. 33),

due to the contribution of sediment to a stream. In particular, Goal 3.1 includes direction to maintain a transportation system of roads and trails that is environmentally sound and efficient to manage, as well as reduce the number of inventoried unclassified roads.
The BMP evaluation protocol completed for Bronco Peak Connector Trail determined BMPs to be at risk for implementation and at risk for effectiveness due to minor sedimentation of a stream and minor erosion at a stream crossing.

Recommendations
Ensure that NEPA decision documents clearly convey the instructions for all components of a project. Perform annual monitoring to evaluate soil erosion throughout the Corral Canyon OHV Area, and seek funding for tread maintenance to repair existing issues, like the gully adjacent to the campground, and prevent future issues. Seek funding to decommission unauthorized routes.

The Monitoring Team climbs up an OHV trail alongside the gully that contributes sediment to a stream adjacent to Corral Canyon Campground.

5. LMP Monitoring Protocol Recommendations

This year the team continued with the open-ended-question format used for the first time in the fiscal year 2008 monitoring and evaluation report. The monitoring guide, as revised in the spring of 2009, was used. The guide is available to the public upon request to the Cleveland NF environmental coordinator. This guide needs to be updated again to help streamline monitoring activities and blend this effort with other monitoring and reporting requirements for various program areas. The update will occur in time for the fiscal year 2013 report, following the selection in fiscal year 2014 of a Monitoring Alternative as part of the Southern California National Forest Land Management Amendment project that is nearing completion.

6. Monitoring Team Recommendations

Altogether, the fiscal year 2012 monitoring team found that the Land Management Plan goals, strategies, and design features are taken seriously and incorporated into project planning, and they are generally manifested in the field by project results.

Project interdisciplinary communication has substantially improved over prior years, maps are being regularly incorporated into project documentation, and specialist review of Enterprise and consultant reports has become standard practice. Each of these improvements has been recommended by this report in prior years.

The fiscal year 2012 monitoring team provides the following core recommendations to improve Land Management Plan implementation on the Cleveland National Forest:

Ensure that new projects are implemented according to specific instructions provided by signed NEPA decisions in all cases. Cross-reference to make sure that specialist reports match analysis and decision documents and that language and locations for contract specifications, permits, and project plans are derived from decision documents.

Develop a prioritized plan for improving the condition of roads, trails, and facilities that do not meet Best Management Practice standards for protecting water quality, given currently insufficient funding for their maintenance.

Arrange for the transfer of project leadership duties from departing staff members to new personnel to avoid communication issues and lack of project oversight.

7. Potential LMP Amendments and Corrections

Monitoring did not surface a need for a significant amendment of the plan. To date, the following individual project decisions have included insignificant amendments of the Cleveland

LMP: 1) Motorized Travel Management (November 12, 2008); 2) West-Wide Energy Corridor (January 14, 2009); and Sunrise Powerlink (July 9, 2010).

An amendment to the LMP is currently in final planning stages that would alter the Land Use Zones of some of the Forest's Inventoried Roadless Areas as well as adjust the strategy to be used for LMP Monitoring in future years.

8. Action Plan, Forest Leadership Team

The following are the actions that will be taken in response to LMP monitoring, including those actions from past monitoring that need to continue:

Follow through on this year's recommendations throughout the coming fiscal year by incorporating them into program and project management and revising internal processes as necessary.

Prepare this report earlier in the coming fiscal year to contribute to the program of work planning for the following fiscal year that begins in the springtime.

Emphasize requirement to screen all projects for consistency with the current LMP, especially when implementing projects with "refreshed" NEPA that was started before the adoption of the LMP. Continue work to build NEPA ready fuels management projects for outyears that are consistent with the current LMP.

Ensure local Forest specialists review all NEPA work conducted for the Forest by Enterprise Teams or private contractors to ensure all design criteria and mitigations are appropriate and implementable by the local unit.

Specialists must continue to be engaged through project implementation, especially when field realities necessitate changes in projects that may have not been fully analyzed during the NEPA process.

Continue to emphasize decommissioning of undetermined, unneeded roads and resolving the status of "temporary roads." This work serves to improve watershed function and further LMP goals and objectives.

For roads under special use permit (where the permittee is required to maintain), work to ensure that permittee is aware of current road management standards and monitor condition of roads. Issue notices of non-compliance for roads not meeting forest standards that are contributing to degraded watershed conditions.

Continue to fine tune an interdisciplinary process for developing the program of work, striving to create an integrated program of work that is responsive to common priorities under the LMP.

Continue to prepare operations and maintenance plans for Forest Service recreation sites over time.

9. Public Participation

Groups or individuals who have indicated an interest in Land Management Plan monitoring received a postcard notifying them of the availability of this report on the Cleveland NF web site, or whom to contact to obtain a print version of this document.

10. Members of the Monitoring Team

Members of the fiscal year 2012 monitoring team were:

Archaeology:	Steve Harvey, Cleveland NF heritage resource program manager
Fuels/Fire:	Stephen Fillmore, Cleveland NF fuels specialist
Planning:	Jeff Heys, Cleveland NF planner
Resources/Planning:	Gloria Silva, Cleveland NF resources staff officer
Roads/Engineering:	Mark Marquette, Cleveland NF road manager, retired
Soils/Hydrology:	Chad Hermandorfer, USFS TEAMS Enterprise hydrologist, and Emily Fudge, Cleveland NF hydrologist
Wildlife:	Kirsten Winter, Jeff Wells, and Megan Jennings, Cleveland NF biologists

Program monitoring information was contributed by:

Archaeology:	Steve Harvey, Cleveland NF heritage resource program manager
Fuels/Fire:	Stephen Fillmore, Cleveland NF fuels specialist
Range:	Lance Criley, Cleveland NF range management specialist
Wildlife:	Kirsten Winter, Cleveland NF biologist

Members of the monitoring team express their gratitude to the program and project leaders on the Descanso, Palomar, and Trabuco Ranger Districts, for their support throughout the monitoring and evaluation process, including efforts to compile planning documents and host field project site visits.