



United States  
Department  
of Agriculture



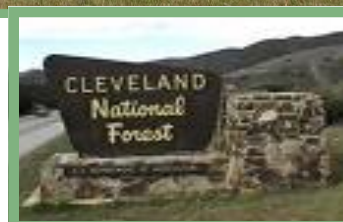
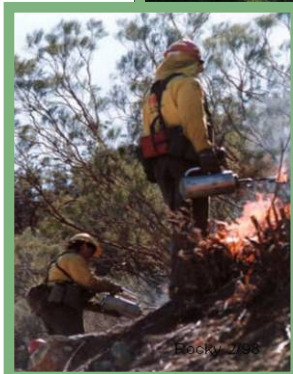
Forest Service

Pacific  
Southwest  
Region

September 2009

# Land and Resources Management Plan Monitoring and Evaluation Report

## Cleveland National Forest Fiscal Year 2008



September 2009

Dear Forest Stakeholders:

I am pleased to present the Cleveland National Forest's Annual Monitoring and Evaluation Report for your review. The purpose of this monitoring and evaluation is to determine if plans, projects and activities are implemented as designed and in compliance with the Forest's Land and Resources Management Plan ("Plan"); evaluate Plan effectiveness; and help identify necessary future adjustments to the Plan.

In the revised Cleveland National Forest Land and Resources Management Plan, monitoring is emphasized and identified as a key element in all programs to assure achievement of the Plan's desired conditions over time. This is the third monitoring report produced under the revised Plan. Each year we report on annual indicators of progress. In our fifth year monitoring report we will address questions which are designed to help us evaluate progress toward the Plan's goals. This report also includes an action plan aimed at improving Plan implementation or effectiveness.

It is important to me to keep you informed of the results of our monitoring. This Monitoring and Evaluation Report will be posted on our Forest website at <http://www.fs.fed.us/r5/cleveland/>, along with additional information and opportunities on the Cleveland National Forest. If you are interested in becoming involved in project or other planning, please also see our national website (<http://www.fs.fed.us/sopa/>).

Sincerely,

*/s/ William Metz*

WILLIAM METZ  
Forest Supervisor  
Cleveland National Forest

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410, or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

# **Cleveland Land and Resources Management Plan Monitoring and Evaluation Report**

## **Table of Contents**

I.	Introduction.....	1
II.	Methodology.....	1
III.	Land Management Plan Monitoring and Evaluation of Projects, Activities, and Programs .....	3
IV.	Annual Indicators of Progress toward Forest Goals.....	40
V.	LRMP Monitoring Protocol Recommendations.....	55
VI.	Overall Recommendations.....	55
VII.	Potential LRMP Amendments or Corrections.....	55
VIII.	Action Plan.....	56
IX.	Public Participation.....	58
X.	List of Preparers.....	58
XI.	Appendix.....	59

# Cleveland Land and Resources Management Plan Monitoring and Evaluation Report

## I. Introduction

---

This Monitoring and Evaluation Report documents the evaluation of projects randomly selected from projects that were implemented during the previous fiscal year (FY), in this case FY 2008. Fiscal year 2008 ran from October 1, 2007 through September 30, 2008.

The revised Cleveland National Forest Land Management Plan went into effect October 1, 2005. Projects with decisions signed after this date must comply with direction in the revised 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 revised plan. This report documents the evaluation of activities and the interpretation of monitoring data to determine the effectiveness of the LRMP and addresses whether changes in the plan, or in project or program implementation, are necessary.

On July 1, 2008, the Forest Service implemented a national environmental management system (EMS). The EMS provides a framework in which to practice adaptive management and meet our environmental policy to comply with applicable legal and other requirements, prevent pollution and practice continual environmental improvement (<http://www.fs.fed.us/ems/>).

## II. Methodology

---

The monitoring plan for the Cleveland National Land Management Plan is described in all parts of the plan. The monitoring requirements are summarized in LRMP Part 3, Appendix C. The Cleveland Monitoring Guide further details the protocols that were used in this review. This year the monitoring guide was updated to reflect the use of a new mapping in fuels treatment effectiveness monitoring. The fire regime condition class mapping reflects the ecologists' review of scientific literature, modeling of fire regime condition class (FRCC), and mapping of FRCC for the southern California province. Also, roads monitoring is now in accordance with a national not regional roads monitoring protocol. Finally, the guide is adjusted to reflect that the region plans for a vegetation snapshot every ten years. This guide was last modified in April 2009 and is available to the public upon request to the Forest Environmental Coordinator.

In Part 1, the LRMP 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 over time toward desired conditions. A comprehensive evaluation of this movement will be prepared in the fifth year following plan implementation.

Corporate databases track accomplishment of work related to objectives and strategies (LRMP Part 2).

Implementation and effectiveness monitoring for Part 3 of the LRMP was conducted at the project or activity level. A ten percent sample of projects and ongoing activities was randomly selected and visited to review the application and effectiveness of the design criteria. If problems in implementation were detected or if design criteria were determined to be ineffective, then the team recommended corrective actions.

The Forest asked the following questions of each reviewed project or ongoing activity:

1. **Did we accomplish what we set out to do? (Compare expected results to actual results)**— The protocol monitoring questions for review of each project/activity are:

- Were LRMP goals, desired conditions and standards incorporated into operational plans (i.e. burn plans, allotment plans, facility master plan, etc.)? Review site-specific checklists.
- Were NEPA mitigation measures or LRMP project design criteria implemented as designed?
- Were requirements from biological assessments/ evaluations and heritage evaluations (ARRs) and watershed assessments implemented?
- Were legal and other requirements (LRMP consistency review checklists) identified as applicable to the project or site?
- Were operational controls effective at protecting the environment as intended?

If no, the team aims to identify the deficiency. If yes, the team seeks to identify key reasons for the success. To evaluate effectiveness the team asked: Has project design criteria been effective at improving environmental conditions as expected?

2. **Why did it happen?** The Forest emphasized and sought out underlying cause-and-effect relationships not individual performance or behavior.
3. **What are we going to do next time?**
- a. What activities should be continued to sustain success?
  - b. Are changes needed to correct any implementation or effectiveness-related problems?
  - c. If change is needed, will it require an amendment or administrative corrections to the Land Management Plan?

Results, conclusions, and recommendations were documented on the Cleveland National Forest LRMP Monitoring and Tracking forms and in this annual LRMP Monitoring and Evaluation Report.

### III. Land Management Plan Monitoring and Evaluation of Projects, Activities, and Programs

---

In accordance with the methodology described in the monitoring guide, ten percent of new projects or ongoing activity sites for each type of activity were randomly selected for review and are listed in Table 1 in the appendix of this report.

#### **FUELS PROJECTS:**

##### ***Hazardous fuels reduction (100-ft. clearance -- SDSU observatory)***

---

#### **Monitoring**

The monitoring team visited the SDSU observatory site on March 12, 2009, to review consistency with the Forest Land Management Plan. This observatory is located on Laguna Mountain in the Laguna Place on the Descanso Ranger District and operated under permit from the Forest Service. The project purpose is to provide 100' clearance of hazardous fuels around the permit area.

---

*The Forest works to help create defensible space around substantial structures. This project provided clearance around observatory infrastructure.*

---



#### **Results**

Down woody material was piled and chipped. Prescribed fire treatments were not applied. A locked gate prevented public from entering the area to remove down wood material for firewood, reducing utilization.

#### **Conclusions**

The project is consistent with LRMP goals, objectives, standards and Place emphases. Project implementation was as planned.

## **Recommendations**

To sustain success, maintain the project over time by continuing to gather/chip woody material as necessary. Selling firewood or likewise increasing biomass utilization is encouraged.

## ***Carveacre Prescribed Burn***

---

### **Monitoring**

The monitoring team visited the project site on March 11, 2009, to review consistency with the Forest Land Management Plan and also to evaluate the use of Best Management Practices (BMPs) for a prescribed burn (BMP F25). The site is located adjacent to a community south of Alpine CA in the Sweetwater Place on the Descanso Ranger District. The project purpose is to, in partnership with the Carveacre Fire Safe Council (FSC), reduce hazardous fuels around the community of Carveacre, a residential development of about 100 homes in eastern San Diego County. This 480-ac development is entirely surrounded by national forest system (NFS) lands. The heavy chaparral in the area is 30+ years old and has a large component of dead material. The project uses mechanical treatments and prescribed fire to create a defensible zone on NFS lands around the community. On private lands the Carveacre FSC is reducing the fire hazard by mastication, hand clearing and chipping. The project is approximately 1,100 acres. The project includes a fuelbreak 300 to 500 feet wide. The 12/4/03 decision approves mechanical treat (brush crushing, mastication, and/or chipping), handwork, and prescribed fire. The approved project design includes retaining brush barriers along roads to prevent off-road vehicle activity; minimizing ground disturbance for protection of sensitive resources (and coordination with Heritage Resources; and sensitive plant survey after the initial treatment.

### **Results**

The Carveacre broadcast prescribed burn was conducted in April 2008. This project combines mastication and prescribed fire. The prescription for the masticated acres called for removal of 70% of the fuels, leaving 20 to 40% of the fine fuels. The prescription for mastication was met. Masticated fuel burned well, but standing fuel did not. For non-masticated areas, the standing brush did not burn at the level prescribed. This was due to weather that was too cool and fuels that were too moist. From an erosion standpoint, the reduced consumption left more groundcover and no rills or sediment movement was detected. Coordination with Heritage Resources occurred during implementation. The area had been surveyed and was flagged. Brush barriers were retained; off-road vehicle use was not detected.

Lack of road maintenance on the access road has resulted in gullying on this non-system road. Multiple rolling dips had been broken down and the lead offs were not working. This led to a wide gully forming on Forest Service Road 16S03 that was delivering a significant amount of sediment to the Taylor Creek watershed. There was no direct delivery to a riparian conservation area (RCA) at this time. The project design did not address the associated road issues.

The 2003 decision was noted to be consistent with the 1986 LRMP, notes activities will take up to 3 years and recommends maintenance every five years thereafter. It is commendable that the decision highlighted resources actions to take during implementation. However, the 2003 decision memo does not mention the recommendations from the 2004 BE addendum. The addendum recommends a 50' buffer for the riparian areas and excluding isolated oak clumps from fuels treatments by handline or trimming branches, but the areas are not mapped. The 2008



Burn Plan says to limb oaks if feasible and says fire is allowed to back into and through riparian areas.

### **Conclusions**

The fuels project design is consistent with 2005 LRMP goals (1.1 Improve the ability of southern California communities to limit loss of life and property and recover from wildfires), objectives, standards and Place emphases. However, review for 2005 LRMP consistency should be documented in an updated NEPA decision. The project was implemented as designed other than burning of standing fuels. The criteria about exclusion of oaks and riparian buffer was not incorporated into the burn plan as described in the 2004 BE. If the 2004 BE mitigation is approved, this should be documented in an updated NEPA decision. In addition, the BE should include applicable maps. Other than the road issues that still remain to be addressed, project design criteria protected the environment as intended.

Fuel treatments completed within this project area have helped the Forest progress towards reducing the number of high risk acres adjacent to structures within the Wildland Urban Interface (WUI) defense zone. These acres will be incorporated into the trend monitoring that will occur at the 5<sup>th</sup> year comprehensive evaluation.

Key reasons contributing to success include maintaining a vegetative barrier between the road and unit, which kept OHV use from intruding on the hillside. Soil moisture was too high and air temperature was on the cooler end of the prescription. Better burning conditions would have resulted in higher rates of fuel consumption. Mastication worked well. More mastication would have been good. Lop and scatter along the road.

### **Recommendations**

- Road 16S03 should be maintained when funds become available. When the NEPA decision is updated, address the road. Either make the road part of the transportation system and its maintenance schedule or allow Carveacre Ranch to operate and maintain it under special use permit.
- Update the NEPA decision including documentation of consistency with the 2006 LRMP. Update BE and map(s). List all approved resource actions (along with maps) in the decision document; carry these actions forward into burn plans.

### ***North Main Divide Fuelbreak***

---

#### **Monitoring**

The monitoring team visited the project site on March 10, 2009, to review consistency with the Forest Land Management Plan and also to evaluate the use of Best Management Practices (BMPs) for a prescribed burn (BMP F25). The site is located in the Elsinore Place on the Trabuco Ranger District. The North Main Divide Fuelbreak system consists of approximately 10 miles of fuelbreaks extending from Bald Peak to Sierra Peak and includes ridges running northeast above Bedford, Eagle, Manning, Main Street, Hagador, and Wardlow Canyons. The purpose of the project is to maintain the fuelbreak system in a condition that can limit the spread of wildfire and provide a safe point of access for firefighters to attack any wildfires in the area.





---

*Left: Background shows landscape where fuelbreak is located. Foreground shows that there is sufficient groundcover.*

*Right: Evaluation of Best Management Practices (BMPs). Fuels project leader explains to the Hydrologist how BMPs were used.*

---

The 6/24/04 decision approves the use of prescribed fire as well as pretreatment by cutting or crushing using hand or mechanical means. The approved project design includes: burn 60-80% of the standing broadleaf chaparral, converting it to annual grass or sub-shrub dominated plant community with low fuel volume; burn 80-100% of all fine fuels within existing perimeter; use moderate to high intensity fire, burning during the cooler spring months; apply best management practices (BMPs); install barriers or gates where the fuelbreak meets the existing forest road system to reduce off-road vehicle use of the fuelbreak system; construct lines around any heritage sites or stands of trees within the burn area; prior to treatment, check for nests to avoid damage to ground nesting birds; notify the archaeologist prior to project implementation and avoid all known historic properties; and review NEPA prior to burning to ensure documentation still viable.

## **Results**

The North Main Divide Fuelbreak project was conducted in spring and summer of 2008. This project includes both mastication and prescribed fire. The 2004 decision was noted to be consistent with the 1986 LRMP and estimates that an average of two miles of fuelbreak each year will be implemented over the next five years. The decision approved seven items to be incorporated into the project including NEPA review prior to burning, burn objectives, BMPs,

barrier installation and a ground nest check prior to treatment. Other items under the Findings Required by Other Laws include tribal consultation comment requesting involvement in post fire historical surveys, heritage monitoring and delineation and avoidance of all known historic properties in the area.

The 2007 Burn Plan incorporates applicable design criteria and contains discussion of elements such as smoke management, air quality, and monitoring that were adhered to through project implementation. The project design criteria protected the environment as intended. Implementing the project during the proper time of year and on the proper slope conditions allowed for project success. Protection and avoidance of the Tecate Cypress, as noted in the BE, is prescribed in the burn plan.

Review of the BMP implementation protocol indicated that soil and water quality protection measures were discussed in the environmental documents in relationship to the Forest Plan, constraints of groundcover restrictions were incorporated into the project, treatments were as specified, the correct equipment was used, and the implementation was done in the spring and summer. The forest fuels personnel directing the work have experience in the ridge area, and applied their knowledge of the clay content of the soils (no work when wet), fueling of vehicles on the road (with protections for drips and spills), and keeping the equipment on slopes of 30-35%. Using these protocols, there was no evidence of rilling or rutting. There was sufficient groundcover and sufficient uncut buffer between the mastication and the nearest drainage channel. By applying these BMPs, the mastication met the effectiveness protocol. Some of the project area had barriers installed at strategic locations. It was noted that barriers will be updated/improved to limit OHV access to areas not already protected by vegetative buffers.

The project was implemented as designed including use of BMPs. Mitigation and other project design criteria protected the environment as intended. On-the-ground implementation was successful.

### **Conclusions**

The fuels project design is consistent with 2005 LRMP goals (1.1 Improve the ability of southern California communities to limit loss of life and property and recover from wildfires), objectives, standards and Place emphases. However, review for 2005 LRMP consistency should be documented in an updated NEPA decision. Mitigation and other project design criteria protected the environment as intended. No changes on the ground are needed to correct implementation or effectiveness-related problems.

### **Recommendations**

- Update the NEPA decision including documentation of consistency with the 2006 LRMP and inclusion of a list of any approved resource actions (e.g. add Tecate Cypress action to decision), with maps. List all approved resource actions together in the decision document; carry these actions forward into burn plans.
- Continue project implementation as funding/conditions allow. Update barriers as need be over time to limit OHV access.

## ***Laguna Recreation Area Fuels Treatment***

---

### **Monitoring**

The monitoring team visited the project site on March 12, 2009, to review consistency with the Forest Land Management Plan and also to evaluate the use of Best Management Practices (BMPs) for a prescribed burn (BMP F25). This project is located on Laguna Mountain in the Laguna Place on the Descanso Ranger District. The 8/3/04 NEPA decision approves thinning and understory brush removal by hand, dead tree removal and slash chipping, vegetation mowing, tree and brush trimming, fuelwood sales, and prescribed burning in seven identified recreation cabin tracts in the Laguna Mountain area. The approved project design included a number of provisions related to wildlife and plants, heritage resources and visual quality. The decision clearly lists these resources provisions to take during implementation. The environmental analysis for the project was completed in 2004 under the 1986 LRMP.

### **Results**

The Laguna Recreation Area prescribed burn was continued in spring 2008. Resources criteria from planning were incorporated into the burn plan. Maps in the project planning file clearly display species locations in relation to project activities.

The burn was well executed. The burn and intensity met the objectives as planned. A cool, slow backing fire was used to burn down into riparian areas. Ground cover and in some cases lower limbs burned. The prescribed post-fire heritage resources monitoring and survey was completed and a site was found.

---

*Historically fires occurred more frequently in the conifer forests. Less frequent fire and high fuel loads makes widespread high severity crown fire, deforestation and/or structure damage more likely. Treating the conifer forest on Laguna Mountain introduces fire back into the ecosystem and creates defensible space around the structures.*

---



Although the project NEPA planning file had no hydrologist report the project met all requirements including Best Management Practices per review by the Forest hydrologist on the monitoring team. Though there was no hydrology specialist report, the burn plan Goal #6 states “conserve or improve long-term soil productivity” as well as consistency with the Forest Plan. One of the supplements of the Forest Plan is the Soil and Water Conservation Protection Policy, which specifies the types of BMPs required on different types of projects including prescribed fire. The burn did meet the prescription. Ground disturbance was minimal. The chipper was kept on roadway to prevent rutting and erosion on hillsides. From an effectiveness standpoint, the burn met the BMP objectives of suitable groundcover (partial to high needle cast in the area), lack of hydrophobic soils, and rilling at a rate of less than 1 rill per 100 feet of transect. The burn was backed down into the riparian conservation area and there was sufficient regrowth one year later to provide a buffer to the flowing water. The fire management specialists on the ground made sure that the objectives for soil and water protection were being met, such as fuel moisture limitation, time of year for burns, and backing fire into the RCA.

### **Conclusions**

The fuels project design is consistent with 2005 LRMP goals (1.1 Improve the ability of southern California communities to limit loss of life and property and recover from wildfires), objectives, standards and Place emphases. However, review for 2005 LRMP consistency should be documented in an updated NEPA decision. The project was implemented as designed. Mitigation and other project design criteria protected the environment as intended. No changes on the ground are needed to correct implementation or effectiveness-related problems.

Fuel treatments completed within this project area have helped the Forest progress towards reducing the number of high risk acres adjacent to structures (in this case a mountain community and recreational structures) within the Wildland Urban Interface (WUI) defense zone. It was discussed by the District that photos might help to visually document implementation and display the progress being made. These acres will be incorporated into the trend monitoring that will occur at the 5<sup>th</sup> year comprehensive evaluation.

### **Recommendations**

- Update the NEPA decision including documentation of consistency with the 2006 LRMP
- The implementation was well done. Continue project implementation as funding/conditions allow.
- Emphasize these kinds of treatments in montane conifer with missed fire return intervals as they are consistent with the LRMP and they have a wide range of public support.
- Consider using photo points for before/after comparisons.

## **Aguanga Fuelbreak**

---

### **Monitoring**

The monitoring team visited the project site on March 9, 2009, to review consistency with the Forest Land Management Plan and also to evaluate the use of Best Management Practices (BMPs) for a prescribed burn (BMP F25). This project is located north of Palomar Mountain in the Aguanga on the Palomar Ranger District. The 4/1/02 decision approved burning approximately 2528 acres over a five year period. The project purpose is to provide fire



protection for local communities. This project on the Aguanga ridge maintains a fuelbreak (type converted vegetation). The intent is to help hold fires from the east and keep such fires from burning into the forested and inhabited area on Palomar Mountain. This type of strategically placed vegetation treatment is consistent with the LRMP even though it is not immediately adjacent to the community it protects.

---

*This fuelbreak along the Aguanga Ridge is maintained to help hold fires and keep them from burning into the forested and inhabited areas on Palomar Mountain.*

---



## Results

The Aguanga Ridge prescribed burn was continued in FY08. The same burn plan previously described in the FY08 BMPEP report was used. It is good that the burn plan carries out the BE in noting that implementers are to protect species. The BE was not specific as to whether “protect” means from fire and/or from mechanical disturbance.

Though the planning documents did not speak directly to soil and water considerations, the fire management specialists on the ground made sure that the objectives for soil and water protection were being met, such as fuel moisture limitation, time of year for burns, and sufficient buffer left between the burn and drainage channels. The portion of the burn evaluated this year burned hotter than expected. Although intended to burn at low soil burn severity, this burn showed moderate burn severity, a minor departure from the project requirements. The result of the hotter burn was reduced groundcover below the objective (<50%). A 600-foot transect was used to assess the slope for hydrophobicity and rilling, neither of which showed any problem. There was no evidence of sediment transport to any streamside management zone. The project was on a ridge, far from any flowing water.

## **Conclusions**

The fuels project design is consistent with 2005 LRMP goals (1.1 Improve the ability of southern California communities to limit loss of life and property and recover from wildfires), objectives, standards and Place emphases. However, review for 2005 LRMP consistency should be documented in an updated NEPA decision. Project implementation was generally as planned although intensity was hotter than desired. No design changes are needed to correct implementation or effectiveness-related problems. As was reported in last year's monitoring report, the BE/BA needs to be specific about what "protection" means for each species as plant species in this area are well adapted to fire.

## **Recommendations**

- The updated NEPA decision should define all approved actions including specialist mitigation in order to help carry forward measures from planning to decision to implementation.
- Carry forward all approved actions in the decision into the burn plan (including project map and any maps associated with sensitive areas to be treated differently). For example, the burn plan prescription should reflect soil and water protection considerations and describe BMP objectives.
- Specialist reports should be specific in their prescriptions such that the needed actions are understood and carried out by the on-the-ground implementers. In this case the BE needs to better define what is meant by "protect".

## **VEGETATION PROJECTS:**

### ***Burnt Rancheria CG Reforestation***

---

#### **Monitoring**

The monitoring team visited the project site on March 12, 2009, to review consistency with the Forest Land Management Plan and also to evaluate the use of Best Management Practices (BMPs) for a vegetation project (BMP V29). This project is located on Laguna Mountain in the Laguna Place on the Descanso Ranger District. The 10/30/02 decision (Burnt Rancheria Campground Reconstruction Phase 2 and 3) also approved planting native shrubs and trees to replace the dying overstory and to revegetate denuded areas within the campground. The Forest is planting new trees in areas of surface disturbance and in areas that have experienced tree mortality due to drought or disease. This site is in a developed campground with lack of vegetation near some of the campsites. In 2008, the Cleveland National Forest used 2-year old nursery stock of Jeffrey pine, Coulter pine, and incense-cedar trees to plant additional trees in the Burnt Rancheria Campground. Volunteers were assembled and planted the area.

#### **Results**

No specific project file was put together for this project; however, reforestation is mentioned as part of the campground capital investment project, the operations and maintenance plan allows for reforestation, and specialists were consulted. This is a concessionaire campground so there is an operations and maintenance plan for the site and site reforestation is a component of this plan.

An inspection of the effectiveness of the activity revealed no survival of the trees. The monitoring team was advised of a number of likely contributing factors. The wrong species of tree were used, no moisture was provided to the planted seedlings, and insufficient post-planting monitoring and care occurred. Historically, volunteer planting efforts have resulted in lower survival percentage than professional planting, all other things being equal. Volunteers who planted seedlings may not have been adequately trained. The need for adequate vegetative cover has not been fully met. The BMP monitoring showed compliance as there was sufficient ground cover, no rilling, and no delivery, but the project did not achieve its primary purpose.

### **Conclusions**

The project effort is consistent with LRMP goal 3.1 (Provide for Public Use and Natural Resource Protection), objectives, standards and Place emphases. Updated NEPA including review for consistency with the current LRMP is needed. Although the resources were protected during implementation, there was no survival so the results are not as desired. Further reforestation or restoration efforts are needed.

### **Recommendations**

- Continue planting and restoration efforts in developed recreation sites where the vegetation is not adequate to protect the soil resource.
- Update NEPA documentation to cover reforestation in developed sites needing planting.
- Make improvements in planting and monitoring planted trees to increase the chance of success. A silvicultural prescription can help ensure the species and ages of trees selected for the planting are appropriate to the site. For planting in developed recreation sites, consider enlisting the help of a concessionaire or the campers to water and tend the seedlings for the first 5 years or when survival is assured.

## **LIVESTOCK GRAZING ALLOTMENTS:**

### ***Warner Ranch Allotment***

---

#### **Monitoring**

The monitoring team visited the project site on March 9, 2009, to review consistency with the Forest Land Management Plan and also to evaluate the use of Best Management Practices (BMPs) for a range management (BMP G24). This project is located north of Warner Springs in the Palomar Mountain Place on the Palomar Ranger District. The 9/26/06 decision authorized continued grazing use on this allotment as well as two others. The 815-acre Warner Ranch allotment was subsequently authorized through a ten-year term grazing permit with on-off provisions with adjacent land owned by the Vista Irrigation District. The NEPA decision incorporates the 2005 LRMP grazing use standards as well as BMPs applicable to grazing. There was no specific mitigation other than the LRMP standards.

#### **Results**

Range allotments on the Cleveland National Forest are managed to standard by local staff. Monitoring done as part of permit administration 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 LRMP.



When problems are identified the Forest works with the permittees through their annual operating plans. The file documents LRMP consistency and is complete except for specific LRMP consistency checklist. Standards from the LRMP 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

The 2001 BMPEP Handbook draft procedure was used to evaluate the allotment. Site-specific standards and guidelines have been developed and implemented correctly for this allotment for herbaceous utilization (residual dry matter, plan standards). No streams are accessed by the livestock. Implementation BMPs met protocols.

Effectiveness protocols are being met for groundcover, rilling, bank stability, floodplain erosion, riparian vegetation, and herbaceous vegetation. There was a water trough being fed by a water tank that was filled by a spring. The water trough was continually draining through a point source discharge to the surface. In effect, the spring in the upper canyon was being continually diverted and drained to the lowland. Inspecting the spring area indicated that there was a reduction in soil saturation and vegetation near the spring.



---

*Left: Water improvements on the Warner Ranch allotment.  
Right: Team hydrologist monitoring the spring above the allotment.*

---

## Conclusions

The project effort is consistent with LRMP goal 6.1 (Move toward improved rangeland conditions as indicated by key range sites), objectives, standards and Place emphases, and the environment was protected. The project design is protecting the environment as intended. Follow-up is needed on the BMPEP issues (see trough and spring issues below).

## Recommendations

- Per the BMPEP report it is recommended that the water trough have an added float valve so when the trough is full, the system stops flowing. A NPDES permit may possibly be needed for outlet pipe on water trough.
- There should be a check of the State database to determine if there is a standing water right to the spring. There should also be a gauge added to determine the total usage of the livestock on the Forest spring.
- Manage off-road use and potentially pave with asphalt up to location of water trough
- To continue success, maintain periodic evaluation of area to ensure accuracy of annual operating instructions

## Laguna Allotment

---

### Monitoring

The monitoring team visited the project site on March 12, 2009, to review consistency with the Forest Land Management Plan and also to evaluate the use of Best Management Practices (BMPs) for a range management (BMP G24). This project is located south of Interstate 8 in the Morena Place on the Descanso Ranger District. The CNF is currently in the process of NEPA to evaluate the proposal of renewing grazing permits for the next 20 years. Planning will be completed by the end of 2009. At the time of the monitoring specialist reports were not completed. Standards from the current LRMP will be included in the grazing permit.

---

*View of  
Portion of  
Laguna  
Allotment*

---



## Results

Range allotments on the Cleveland National Forest are managed to standard by local staff. LRMP standards and site specific requirements are incorporated into the permits. When problems are identified, the Forest works with the permittee through their annual operating plans. The allotment is managed via term permit and annual operating instructions. Threatened and endangered species are managed via the permit, which requires avoidance of arroyo toad habitat. No grazing is allowed in portions of Kitchen Creek due to endangered species concerns. Cattle are kept from the riparian area using herding and natural barriers.

As planning is currently underway, each of the grazing allotments is being evaluated for current hydrologic and soils processes and BMP implementation and effectiveness. The NEPA process and new permits, if approved, give the CNF an opportunity to impose mitigations, standards, and guidelines that were previously not implemented. Updated standards and guidelines should better allow the CNF to follow the changing laws and policies of the Federal Government and State of California.

The 2001 BMPEP Handbook draft procedure was used to evaluate the Laguna allotment. Perennial La Posta Creek is a part of the Lower Canyon Unit of the Laguna allotment. The allotment permittee has a lot of private land through the Cameron Valley and generally does not leave the livestock on the Forest for long periods of time.

Site-specific standards and guidelines were developed and implemented correctly for this allotment in the following categories: herbaceous utilization (top units); residual dry matter (lower unit); streambank alteration (utilization table); and woody utilization (woody browse guidelines).



---

*The condition of the riparian area was evaluated and found consistent with the Land Management Plan. Here the team monitors the Narrows.*

---



The Narrows was inspected for streambank stability. There was much evidence of human traffic and less so of livestock traffic. The monitoring team observed that livestock get into the stream in the vicinity of the Narrows, possibly because a salt lick was located in the uplands near the stream. Within the area of the crossing, there is a 300 foot wide area where less than 30% of the streambanks are stable. But once the livestock is across the creek, the streambank is stable for the hundreds of feet. Overall, the 80% stability requirement is met. Groundcover and vegetative age class requirements are met.

### **Conclusions**

The project effort is consistent with LRMP goal 6.1 (Move toward improved rangeland conditions as indicated by key range sites), objectives, standards and Place emphases, and the environment was protected. Grazing management complies with the terms and conditions of the biological opinion for the USFS CNF livestock grazing program (4/27/2001). BMP implementation met protocols.

### **Recommendations**

- Continue managing to standards. Seasons of use and rotations are appropriate.
- Move the salt lick further away from the stream in the vicinity of the Narrows.

## **LANDS (NON-RECREATION) SPECIAL USES:**

### ***Geotechnical Investigation (special use permit TRD0830)***

---

#### **Monitoring**

The monitoring team visited the Trabuco District on March 10, 2009, to review consistency with the Forest Land Management Plan. This project is located south of North Main Divide Road in the vicinity of Pleasants Peak in the Elsinore and Silverado Places on the Trabuco Ranger District. The 4/2/08 decision authorized the drilling of five of seven potential sites for exploratory boreholes to conduct a subsurface geotechnical exploration to be used to evaluate the feasibility of a potential underground transportation tunnel linking Riverside and Orange counties as part of the Irvine-Corona Expressway project. Some issues were raised internally and during public scoping. The decision noted consistency with the revised forest plan. Biological and botanical assessments were noted as completed, but that the project has no TEPCS species or habitat affected by the project. The permit is subject to named conditions as well as an operating plan with stipulations that include fire prevention; instructions to avoid destruction of growing trees and shrubs; instructions not to cut, damage, or destroy any vegetation while surveying, keeping vehicles on designated roads, and preventing pollution. A related decision memo signed 9-12-08 approved P-lines which provided monitoring crews access to surface water sites including springs and streams within the project area.

#### **Results**

Permits are administered/ monitored by special uses staff. The project file NEPA decisions document LRMP consistency. The project was implemented as authorized. The project monitoring will be ongoing through the end of 2010. The sites are remote and spread out; the monitoring team did not hike to each site. Ongoing well monitoring is being accomplished under

the terms and conditions of the special use permit and via the operating plan. No adverse environmental effects were reported by administering staff.

### **Conclusions**

The project effort is related to LRMP goal 7.1 (Retain natural areas as a core for a regional network while focusing the built environment into the minimum land area needed to support growing public needs). The field staff reports that the project design is protecting the environment as intended.

### **Recommendations**

Continue administration of permit as authorized.

## **San Diego Gas and Electric Site Survey/Testing (special use permit DRD 418697)**

### **Monitoring**

The monitoring team visited the Descanso District on March 12, 2009, to review consistency with the Forest Land Management Plan. This project involves authorization of surveys to study the Sunrise Powerlink areas. A 11-18-08 temporary special use permit was issued that authorized non-invasive field surveys, including biological resource surveys, cultural resource surveys, water and wetland delineation surveys, engineering surveys, non-invasive geological investigation work, monument search and recovery, and boundary line retracement. No mitigation for non-invasive surveys is necessary. The terms and conditions of the permit and attached exhibits outline the measures to ensure that the surveys are non-invasive and resources protected. The operating plan (exhibit A) provided stipulations including avoiding destruction, defacement or carving of growing trees, shrubs and natural features; do not cut, damage, or destroy any vegetation while surveying; prohibition of off-road travel, and so on. Exhibit C provided a survey plan.

### **Results**

Permits are administered/ monitored by special uses staff. The project monitoring will be ongoing through the end of 2009. The project has been implemented as designed. No adverse environmental effects from this work have been reported by administering staff. The environment has been protected as intended during survey.

### **Conclusions**

The project effort is consistent with LRMP goal 4.1a (Administer minerals and energy resource development while protecting ecosystem health), objectives and standards. The field staff reports that the permit terms, conditions and plans are protecting the environment as intended.

### **Recommendations**

Continue to finish surveys and administer the permit.

## RECREATION SPECIAL USES:

### ***Escondido Recreation Residence Tract***

---

---

*One of the  
cabins in the  
Escondido  
Recreation  
Residence  
Tract.*

---



#### **Monitoring**

The monitoring team visited the project site on March 12, 2009, to review consistency with the Forest Land Management Plan. This tract, consisting of four cabins, is located west of Sunrise Highway in the Laguna Place on the Descanso Ranger District.

#### **Results**

At the time of monitoring, the new NEPA analysis slated for a decision within one month contains no mitigation for recreation residence cabins on this tract. The planning file for the permit renewal NEPA contains the BE/BA and heritage specialist report. No issues were raised with regard to this tract during the permit renewal NEPA process. Terms and conditions applicable to recreation residence use will be in the permits.

#### **Conclusions**

Management of the recreation residence tract is consistent with LRMP goal 3.1 (Provide for public use and natural resource protection). The District is providing good permit administration of the recreation residence tracts. No changes are needed.

#### **Recommendations**

Continue administration in accordance with the new permits.

## ***Piedra Recreation Residence Tract***

---



---

*One of the cabins  
in the Piedra  
Recreation  
Residence Tract.*

---

### **Monitoring**

The monitoring team visited the project site on March 12, 2009, to review consistency with the Forest Land Management Plan. This tract, consisting of two cabins, is located just east Sunrise Highway in the Laguna Place on the Descanso Ranger District.

### **Results**

At the time of monitoring, the new NEPA analysis slated for a decision within one month contains no mitigation for recreation residence cabins on this tract. The planning file for the permit renewal NEPA contains the BE/BA and heritage specialist report. No issues were raised with regard to this tract during the permit renewal NEPA process. Terms and conditions applicable to recreation residence use will be in the permits.

### **Conclusions**

Management of the recreation residence tract is consistent with LRMP goal 3.1 (Provide for public use and natural resource protection). The District is providing good permit administration of the recreation residence tracts. No changes are needed.

### **Recommendations**

Continue administration in accordance with the new permits.



## ***Hermosa Mountain Bike Tours Outfitter Guide Special Use Permit***

---

### **Monitoring**

The monitoring team visited the Trabuco Ranger District on March 10, 2009, to review consistency of this permit with the Forest Land Management Plan. A special use permit was issued that authorizes 10 two-day bicycle tours with a maximum of 15 riders during November/December 2008 and March/April 2009. Trails to be used include Holy Jim, Trabuco, and San Juan. Upon notification and approval by the authorizing officer, use may include the Joplin, West Horsethief, and Santiago truck trails. The permit area is in the San Mateo and Silverado Places on the Trabuco Ranger District. The proposed special event is categorically excluded from documentation in an EIS or EA, as well as falls in a category established by the Chief in which a decision memo/file is not required unless there are extraordinary circumstances (there were not).

### **Results**

The permit was issued with the applicable terms and conditions; no additional mitigation was needed. The race was held and presumably the racers enjoyed the exercise and outdoor recreation. The environment was protected.

### **Conclusions**

Issuance of this temporary recreation special use permit is consistent with LRMP goal 3.1 (Provide for public use and natural resource protection). No changes are needed.

### **Recommendations**

No changes are needed. Continue to similarly respond to applications for use.

## **RECREATION PROJECTS AND ONGOING ACTIVITIES:**

### ***Cibbets Flat Campground***

---

#### **Monitoring**

The monitoring team visited Cibbets Flat Campground on March 11, 2009, to review consistency with the Forest Land Management Plan and also to evaluate the use of Best Management Practices (BMPs) for a recreation developed site (BMP R22). This campground is located off Kitchen Creek Road in the Morena Place on the Descanso Ranger District. The campground was constructed in the 1960s. The entry road has a paved creek crossing. The Forest Service operates the camp with a campground host and is open year round. The BMP field survey included visual inspection of toilet facilities, refuse disposal facilities, the water faucets in the campground, and the distance of campsites from the stream. The Forest Plan standard is to discourage camping within 100 feet of perennial streams. Recreation operation and maintenance is an ongoing activity.

## Results

Two new vault toilets were installed in August 2007 in a manner to keep equipment 100 feet from the creek. In review of the NEPA documentation file, the BA/BE determined no effect to species and the heritage report notes that undertaking is exempt. ADA parking apron and paved access to ADA-compliant toilets was not in place.

The campsite has signs for the public in English and Spanish about sanitation and pet waste, among other rules. The trash cans were in good repair and there was little trash on the ground.

The water faucets at campsites #21, 22, and 23 are a minimum of 45 feet to the channel. Campsite #19 faucet was at 80 feet from the creek during the inspection, but only 20 feet from the high water mark. Campsite #21 also had rilling and exposed roots and delivery to the creek. There were no signs at the water faucets indicating that washing of dishes or food should not be done within 100 feet of the creek. Sediment reaches the channel and there is evidence that runoff from roads and trails reach the area within 100 feet of the creek. In addition, instead of just raking the area within 10 feet of the fire pits, in many cases the entire campsite was raked, contributing to bare ground of greater than 10%.

The ongoing activity is being managed through periodic monitoring and presence of an on-site campground host. There is no operations and maintenance plan in place for this site.



*Left: Entrance to Cibbets Flat.*

*Right: Wet crossing and riparian conservation area adjacent to the campground.*




---

*Left: Dead and dying oak trees in the area.*  
*Right: Consistent with the Land Management Plan, the new restroom provides visitors with improved facilities while protecting resources.*

---

## Conclusions

The restroom construction project is consistent with LRMP goals (3.1 Provide for Public Use and Natural Resource Protection), objectives, standards and Place emphases. Planning was appropriate and the project was implemented as designed although ADA access was not yet installed. Project design criteria protected the environment as intended.

Management of the campground was found to not meet BMP effectiveness and implementation protocols. Inconsistent items are noted above and also in the Forest's annual BMP Evaluation Program Report.

## Recommendations

- Complete parking/ramp for restrooms for accessibility.
- Address BMP issues:
  - To reduce impacts to soil, raking of ground litter should occur only within 10 feet of fire rings.
  - Water bars should be installed on user-created trails to drain excess.
  - The fire pit of campsite 18 is draining directly to the creek. It should be moved or additional erosion control should be added.
  - Signs should be installed on campsites to discourage people from chopping trees with axes/knives.
  - Add signs specifying that no dishwashing or food washing should be done at water spigots within 100 feet of the creek.

- Water faucets should be moved to greater than 100 feet from the creek to prevent soil erosion. Potentially the water faucets at the tent only campsites could be removed to discourage camping within 100 feet of the creek.
- The groundwater well providing water for the site was located on a terrace about 20 feet above the creek and 60 feet away. The well completion report should be checked to ensure that the water being used is groundwater not under the direct influence of surface water.

## ***Bobcat Meadow Campground***

---

### **Monitoring**

The monitoring team visited Bobcat Meadow Campground on March 11, 2009, to review consistency with the Forest Land Management Plan and also to evaluate the use of Best Management Practices (BMPs) for a recreation dispersed site (BMP R30). This campground is located in the Corral Canyon OHV Area in the Morena Place on the Descanso Ranger District and is operated by the Forest Service. Bobcat Meadow is a dry campsite with a single vault toilet used primarily by OHV enthusiasts. Recreation operation and maintenance is an ongoing activity.



---

*Left: Bobcat Meadow site.*

*Right: fencing installed at the site to prevent off road travel.*

---

### **Results**

In the past, there was OHV activity into the meadow, but physical barriers were constructed to exclude activities from the meadow. Monitoring indicates that operations are appropriate in regard to refuse disposal (trash cans provided; limited trash seen on ground), sanitation, groundcover and sedimentation limited, and protection of the meadow. Some sediment is



draining from the roads to the meadow, but the topography of the area puts sediment into the meadow naturally. The riparian area was well-fenced for protection of riparian resources and heritage sites. OHVs are not accessing the meadow or riparian area. Campsites are protected by pipe barriers or fencing to keep OHVs on paved/graveled roads and camping turn-outs. Signage is clear. In 2007 the NEPA documentation for Corral Canyon OHV Area was reviewed and a new decision was made that there is no change in proposed activity; the analysis is still relevant; and operation and maintenance will continue. The BA/BE was done in 2000 and is cited in the decision document, although it was not filed in the project record. The Forest Service also consulted with the State Historic Preservation Officer.

### **Conclusions**

The activity and barrier project are consistent with LRMP goals (3.1 Provide for Public Use and Natural Resource Protection), objectives, standards and Place emphases. Key reasons for success include use of pipe barriers and fencing to reduce/eliminate resource damage; use of Forest Service employees, rather than contractors, for work in the area; and daily patrols in the area during the high-use season. The District is to be commended for providing recreational opportunities while also protecting natural resources.

### **Recommendations**

- To sustain success, maintain the patrol schedule and O&M as is. No changes are needed to correct implementation or effectiveness-related problems.

## ***El Cariso Information Kiosk***

---

### **Monitoring**

The monitoring team visited the El Cariso Information Kiosk on March 10, 2009, to review consistency with the Forest Land Management Plan. The information center is located just off Ortega Highway in the Elsinore Place on the Trabuco Ranger District.

### **Results**

The kiosk is an ongoing recreation activity; there are no planned projects regarding this use. The information site is being managed by a temporary employee three days a week during busy seasons. The site is closed during the rest of the year. Building redesign was done to provide an appropriate garage for fire engines; the reconstruction considered and accounted for historic uses of the structure.

### **Conclusions**

This information kiosk operation is consistent with the LRMP goals (3.1 Provide for Public Use and Natural Resource Protection), objectives, standards and Place emphases.

The hosted kiosk provides Forest visitors with a pleasant facility to acquire information about the Forest and resources. Success of the project is due to the location of the information site along the well-traveled Ortega Highway, adequate informational signage, and design of the building to incorporate the history of the structure as a garage for fire engines. The hours open are limited by recreation budget.

## **Recommendations**

- Continue to staff the information site at current or increased levels.
- Staffing hours are still to be determined. When they are determined, hours should be posted in the window of the site to allow the public to know when the site will be open.

## ***El Cariso Picnic Area***

---

### **Monitoring**

The monitoring team visited the El Cariso Picnic Area on March 10, 2009, to review consistency with the Forest Land Management Plan. This is a small picnic area adjacent to the El Cariso Campground, along the busy Ortega Highway corridor in the Elsinore Place on the Trabuco Ranger District. The Trabuco Ranger District manages this site seasonally from about Memorial Day to Labor Day due to low use and the need to prioritize use of limited staff and resources. This recreation facility is located on the Trabuco Ranger District near the ridge above Lake Elsinore, although note that water flows west towards San Juan Creek, not towards Lake Elsinore.

### **Results**

The picnic area is an ongoing recreation activity; there are no planned projects regarding this use. During Best Management Practices monitoring a year ago, the recommendation was made to remove the tree rounds from the Riparian Conservation Area and clean up the burn residue in the picnic area. In 2009, the team found that the tree rounds had been removed from the area. The trash cans were outside the RCA and there was sufficient groundcover.

Activity managed through frequent site visits by recreation staff to ensure trash pick up. Picnic area was free of trash. The signage looks good. The infrastructure is dated but functional, except for the one site at the rear that needs repair.

### **Conclusions**

The picnic area is consistent with the LRMP goals (3.1 Provide for Public Use and Natural Resource Protection), objectives, standards and the Elsinore Place emphasis to provide a variety of quality recreation experiences including the improvement of developed recreation facilities. Most of the facility is clean and in adequate repair.

There is no operations and maintenance (O&M) plan for the site. The District is to be commended for taking action on recommendations from the previous monitoring last year, including removing rounds of wood from the riparian area.

### **Recommendations**

- Continue O&M visits to the site to ensure that the location remains an appealing recreational facility. Schedule site for O&M including sanding and BBQ in far picnic site
- Prepare operations and maintenance (O&M) plan for site.

## ***Storm Canyon Vista and Pacific Crest Trailhead***

---

### **Monitoring**

The monitoring team visited Storm Canyon Vista and Pacific Crest Trailhead and parking area on March 12, 2009, to review consistency with the Forest Land Management Plan and also to evaluate the use of Best Management Practices (BMPs) for a recreation dispersed site (BMP R30). This lookout is located off Sunrise Highway in the Laguna Place on the Descanso Ranger District. The vista was funded by Adventure Pass funds and constructed in 2002. It receives heavy visitation from those traveling on this scenic byway. Recreation operation and maintenance of this site is an ongoing activity.

---

*Located just off Sunrise Highway  
on top of Laguna Mountain,  
Storm Canyon Vista provides  
forest visitors with a panoramic  
view of the desert.*

---



### **Results**

The project file contained the EA and the project design plans. The facility was designed and constructed to be compliant with the Americans with Disabilities Act.

The vista is located in the headwaters of Storm Canyon. This ongoing activity is being managed through periodic monitoring. Monitoring indicates that operations are appropriate regarding refuse disposal (trash can is emptied once or twice a week; limited trash seen on ground) and groundcover and sedimentation. There are no sanitation facilities, but the location of the site prevents delivery of trash or animal waste to water. There is no streamside management zone protection in the operation of the site, due to the ephemeral nature of the drainage, the ground cover, and the distance. There is no operations and maintenance plan in place for this site.



## Conclusions

The vista operation is consistent with the LRMP goals (3.1 Provide for Public Use and Natural Resource Protection), objectives, standards and Place emphases. The overlook is a success, providing many Forest visitors a comfortable, safe place to experience one of the most visually appealing scenic views on the national forest. The project was implemented as designed. The project design criteria effectively protected the environment as intended. The site is well managed.

## Recommendations

No changes are needed. Continue management as is, including trash and graffiti maintenance.

## ***Tenaja Trailhead***

---

### Monitoring

The monitoring team visited the Tenaja Trailhead on March 10, 2009, to review consistency with the Forest Land Management Plan. This is a trailhead area adjacent to the South Main Divide Road in the Elsinore Place on the southernmost part of the Trabuco Ranger District. The Trabuco Ranger District operates and maintains this site year round through site visits and patrols. The level of use of this site is moderate.

---

*Tenaja Trailhead provides parking, information and facilities for forest visitors seeking to hike and explore the San Mateo Wilderness*

---



### Results

The trailhead is an ongoing recreation activity; there are no planned projects regarding this use. The trailhead parking area was free of trash. The infrastructure is dated but functional. The facility was found clean. Barriers keep vehicles off the grass. Repairs are mostly adequate; however, two concrete posts (with rebar) that were installed to keep vehicles away from the water pump need to be reconstructed. Also, asphalt needs to be sealed to prevent degradation to parking surface.

## **Conclusions**

The trailhead is consistent with the LRMP goals (3.1 Provide for Public Use and Natural Resource Protection), objectives, standards and the Elsinore Place emphasis to provide a variety of quality recreation experiences including the improvement of developed recreation facilities. This location provides a good opportunity for equestrian use. There is no operations and maintenance (O&M) plan for the site.

## **Recommendations**

- Continue O&M visits to the site to ensure that the location remains an appealing recreational facility. Some parking lot maintenance is recommended.
- Prepare operations and maintenance (O&M) plan for site.

## **ROADS PROJECTS OR MAINTENANCE:**

### ***Bear Valley Road (16S12)***

---

#### **Monitoring**

The monitoring team visited Bear Valley Road on March 11, 2009, to review consistency with the Forest Land Management Plan and also to evaluate the use of Best Management Practices (BMPs) for roads (BMP E08, E09, E11, and E20), which are in place to protect water quality and comply with the Clean Water Act. Located in the Morena Place on the Descanso Ranger District, the road extends from just south of Pine Valley to Buckman Springs Road and is gated at both ends. Bear Valley Road is a natural surface road that was maintained in 2007 (fiscal year 2008) including installation of overside drains, following fire suppression of the Pine Fire. The Forest's road maintenance NEPA includes design criteria such as for heritage site protection and limiting the spread of noxious weeds. Standard road BMPs apply.

#### **Results**

Bear Valley Road is dual use and very popular with off-highway vehicles (OHVs). OHVs can break down rolling dips faster than a road without heavy use. The implementation protocols were met. However, with two years between maintenance, the highly erosive soils and heavy use caused many of the overside drains to be bypassed, leading to excessive rilling, rutting, movement of greater than 5 cubic yards of material, and scouring at outlets of the drains. The road is managed as being open during the wet season. No sidecast material was observed. The road is far from any drainage channel so none of the excess sediment is reaching a Riparian Conservation Area.

#### **Conclusions**

The state of maintenance of the road when monitored was not consistent with LRMP goals (5.1 - Improve watershed conditions through cooperative management; and 3.1 --Provide for public use and natural resource protection). Reduced budgets result in less maintenance of the road system. Monitoring by engineering and others has surfaced this issue, which is being addressed for this road but is likely to be an issue for other roads as well since budgets do not allow for annual maintenance. The problems with the effectiveness of BMPs on Bear Valley Road are

significant in nature, long in duration (2 years since last maintenance), and have near stream effects (large buffer). Maintenance on the current roadbed does not last long due to environmental circumstances. In situations where fire suppression in the area is required, activities will be limited to air attack until dozers can be brought on-site to make the road accessible to engines. Patrolling may be made more difficult by the sometimes poor condition of the road.



---

*Bear Valley Road, landscape and close up views.*

---

Given the use of the road and the issues surfaced in this BMP review, the team recommended that this road get annual maintenance or other treatment to reduce the sediment movement to the watershed. Subsequent to this monitoring finding, the road was maintained and drainage function was restored in Spring 2009. Kudos to Engineering for responsiveness in addressing the watershed issues and repairing the road.

### **Recommendations**

- Continue to address maintenance to the extent funded. If possible, provide for annual maintenance or other treatment for this road. Continue to take advantage of special funding to address roads issues.
- Continue with plans to update NEPA for road maintenance. The next project planning should address the entire road system and allow for maintenance of various levels of roads.

## ***Holy Jim Road (6S14)***

---

### **Monitoring**

The monitoring team visited Holy Jim Road on March 10, 2009, to review consistency with the Forest Land Management Plan and also to evaluate the use of Best Management Practices (BMPs) for roads (BMP E08, E09, E11), which are in place to protect water quality and comply with the Clean Water Act. Located in the Silverado Place on the Trabuco Ranger District, Holy Jim Road is a natural surface road that intersects with 6S13, Trabuco Canyon Road, toward the top of the canyon. The road was maintained in 2007, incidental with bridge construction at the Holy Jim trailhead. It is part of the Trabuco Canyon watershed.



---

*This view of upper  
Holy Jim Road  
shows one of  
several wet  
crossings.*

---

### **Results**

Road maintenance is undertaken under a decision memo and executed via contracts. All activities are within the existing road prism. Best Management Practices are included in every roads contract. The project was designed and implemented to avoid negative resource impacts. The timing of work was seasonally appropriate. The success of the road maintenance program is limited by funding that is inadequate to cover maintenance every year. Road maintenance NEPA for the forest is scheduled to be updated in 2009.

Overall, the protocols were met for this road. Two of the low water cemented crossings along the perennial creek were inspected. One of the crossings showed scour undercutting the crossing cement. The maintenance contract was for surface blading only, as there were no other identified problems. There was some evidence of rilling on less than 10% of the road length; where present, the rills did not leave the road surface. There was no evidence that sidecast material was put in the Riparian Conservation Area.

### **Conclusions**

The ongoing road maintenance on this road met BMP protocols. The roads work is consistent with LRMP goals (5.1 -- Improve watershed condition; and 3.1 --Provide for public use and natural resource protection) objectives and standards

Low levels of funding result in low levels of accomplished maintenance. No LRMP amendment/correction required. Often BAER money provides resources to improve or maintain roadways.

### **Recommendations**

- Continue to address maintenance to the extent funded. If possible, provide for annual maintenance or other treatment for this road. Continue to take advantage of special funding to address roads issues.
- Continue with plans to update NEPA for road maintenance. The next project planning should address the entire road system and allow for maintenance of various levels of roads.

### ***Skye Valley Road (17S06)***

---

#### **Monitoring**

The monitoring team visited Skye Valley Road on March 11, 2009, to review consistency with the Forest Land Management Plan and also to evaluate the use of Best Management Practices (BMPs) for roads (BMP E08, E09, E11 and E20), which are in place to protect water quality and comply with the Clean Water Act. Located in the Morena Place on the Descanso Ranger District, Skye Valley Road is a natural surface road that is part of the Corral Canyon Off Road Vehicle Area and the Cottonwood Creek watershed. A decision memo dated 8/21/08 approved the Horse Fire watershed improvement projects including a forest LRMP consistency finding.

#### **Results**

The road was last maintained in summer 2006. Due to the heavy use of OHVs and the time between maintenance, the road showed excessive rilling and greater than 5 cubic yards of material moved, with at least 1 cubic yard moved to a drainage channel. As the road is open during the wet season, it was evaluated for rilling, rutting, and sediment movement to channels and was found to fail all protocols. No sidecasting evidence was observed.

Two Watershed Improvement Needs (WIN) projects were inspected in the area at stream crossings (detailed as E13 - In-channel construction). At a natural ford crossing the water is captured below the road by an old road prism resulting in a large gully adjacent and parallel to the road. Where the gully parallels the road, the road itself was at risk. The gully extends into the meadow for up to 300' until reaching a flat meadow gradient. To protect the road and restore drainage function leading to the meadow, the compacted road segment in the meadow was removed, the gully was reshaped and grade stabilizers (rock) were installed to prevent down cutting on steeper gradient until natural vegetation recovery takes place and stabilizes the area. The stream crossing project on this road was implemented correctly during a dry period and did not disturb the channel or leave fill in the channel or on the floodplain. Unfortunately the rilling of the road is moving material into the area.

A second WIN project using the same project NEPA decision was evaluated on 17S04 (Corral Canyon Road). 17S04 has a section in a seasonally dry creek bed. The fix included rocking the inside ditch and providing a rocked crossing to give the seasonal water a path across. The hypothesis was that the crossing would silt in, then scour out, limiting the amount of sediment being transported across. The project was also designed to limit large amounts of pooling and



rutting of the road. The 2-year cycle of maintenance has led to a failed dip above the site; this failure has subsequently contributed excessive sediment to the channel, burying the rocks and leading to increased sediment delivery to the flowing channel.

### Conclusions

Roads maintenance is being appropriately handled; however, the scheduling is not frequent enough to be consistent with LRMP goals (5.1 -- Improve watershed conditions through cooperative management and 3.1 -- Provide for public use and natural resource protection). Reduced budgets result in less maintenance of the road system. Monitoring by engineering and others has surfaced this issue, which is being addressed for this road but is likely to be an issue for other roads as well since budgets do not allow for annual maintenance. Given the use of the road and the watershed issues surfaced in this BMP review, it is recommended that this road get annual maintenance or other treatment to reduce the sediment movement to the watershed.



*Top L and R: Soil scientist prescribing treatment for a Watershed Improvement Need project (Before photos taken in June 2008 just off Skye Valley Road.*

*Bottom L and R: The following fall, rock was used to help stabilize this area.*

The Watershed Improvement Needs (WIN) projects were identified as a result of a WIN analysis and made a reality through the timely planning and efforts of the District staff. As post-fire workload was peaking at the time, kudos are due for this extra effort. The projects were executed via a service contract, which included the design criteria. Hand placement and size of dissipater rocks were key to the success of project. Limited disturbance occurred on the uphill side of the stream. The project was done with a smaller excavator that resulted in lesser impacts. The design criteria protected the environment. No changes are needed to correct project implementation or effectiveness problems.

### **Recommendations**

- Continue to address maintenance to the extent funded. If possible, provide for annual maintenance or other treatment for this road. Continue to take advantage of special funding to address roads issues.
- Continue with plans to update NEPA for road maintenance. The next project planning should address the entire road system and allow for maintenance of various levels of roads.
- Continue to monitor the projects and area to sustain success and take action if need be.

### ***Upper Santa Ysabel Road (12S07)***

---

#### **Monitoring**

The monitoring team visited Road 12S07 (Upper Santa Ysabel Road) on March 11, 2009, to review consistency with the Forest Land Management Plan and also to evaluate the use of Best Management Practices (BMPs) for roads (BMP E08, E09, E11), which are in place to protect water quality and comply with the Clean Water Act. Located in the San Dieguito/ Black Mountain Place on the Palomar Ranger District, Upper Santa Ysabel Road is a natural surface road that is in the Santa Ysabel watershed along an unnamed tributary of Temescal Creek.

---

*Overside drain with  
rip rap below on  
Upper Santa Ysabel  
Road*

---





## **Results**

Maintenance was completed on the road from Fall 2008. The project objective included blading, fixing rolling dips and overside drains (OSDs), and adding energy dissipation rip rap below certain OSDs. The drains and OSDs were a part of burned area emergency response work associated with the Witch Fire. Most of the drains were functional and protected the environment as intended; however, some had severe scour. The scour may have been in existence for years prior to recent maintenance. The distance between two rolling dips was over 200 feet, leading to excessive rilling. In addition, some of the rolling dips were not correctly cut to the entrance of the OSDs. This led to up to 20 cubic feet of sediment eroding and scouring near the OSDs. Overall, the effectiveness protocol E08 was not met. Engineering staff on site during the monitoring noted that implementation monitoring was missed for the rolling dips that were not working correctly. One of the stream crossings (E09) had nearly 300 feet before an OSD, leading to approximately 20 cubic feet of sediment being delivered to the creek. The rip rap was placed correctly and was working. There was no evidence of sidecast material.

## **Conclusions**

The main reason the project was not as effective as it could have been is not due to planning or the contract but to a delay in contracting that delayed the project from being implemented quickly and at an appropriate time to ensure maximum success of the repairs. In addition, presence of onsite implementation monitoring needed to be stronger.

Subsequent to the monitoring team surfacing these watershed issues, this road was repaired and drainage function was restored in Spring 2009. Kudos to the Engineering department for their responsiveness in addressing the watershed issues and repairing the road.

## **Recommendations**

- Continue to address maintenance to the extent funded. If possible, provide for annual maintenance or other treatment for this road. Continue to take advantage of special funding to address roads issues.
- Continue with plans to update NEPA for road maintenance. The next project planning should address the entire road system and allow for maintenance of various levels of roads.
- The monitoring team noted a non-functioning guzzler above this road that appears to be a good candidate for a watershed improvement need proposal (location is near the road's second stream crossing).

## ***Temporary Road SUA 76 (off Lusardi Road)***

---

### **Monitoring**

The monitoring team visited temporary road SUA76 on March 9, 2009, to review consistency with the Forest Land Management Plan and also to evaluate the use of Best Management Practices (BMPs) for a temporary road (BMP E14). This spur is located off 11S03 in the San Dieguito/ Black Mountain Place on the Palomar Ranger District. In the same area, the monitoring team also selected and intended to monitor four undetermined routes off 11S02 that have been naturally decommissioned. However, due to access problems, monitoring of these undetermined routes (UND7020, 7021, 774, and 773A) was deferred.

## Results

This “temporary” road was installed in the 1980s to provide access to a water development for fire fighting. No closure provisions were provided and the road was not added to the system. A helipad was also installed. The road was constructed before even the Forest’s first LRMP so it is not known if the project was implemented as designed. This dead end road also accesses a guzzler. Some unauthorized shooting is occurring especially at the end of the road. There is a riparian area below the road but the location of the site is far outside the perennial RCA of Temescal Creek. The road is only covered by the Forest Plan.



---

*Left: End of the road, where some unauthorized shooting is occurring.  
Right: The road has a water collection tank.*

---

The site is an abandoned FS facility that serves a quail guzzler and a water collection tank for fire suppression use. No active management is occurring on the site. The site visit was the first step for the future - either decommissioning or improving the site will benefit the watershed. The road needs work to improve drainage and fix the significant rilling and scouring. If the decision is to keep the road, then the turnaround should be improved and the area below the turnaround should be closed. The water source outlet should have energy dissipation to limit erosion and scour below the water.

## Conclusions

The current road status is inconsistent with LRMP goals (5.1 -- Improve watershed conditions through cooperative management; and 3.1 --Provide for public use and natural resource protection). The water development and guzzler may contribute towards meeting LRMP goals 1.1 (due to location of water on site) and 6.2 (due to quail guzzler on site). Changes are needed to correct the identified effectiveness-related problems. An LRMP amendment is not required.

## Recommendations

- Either decommission the road or add it to the road system. The team recommends maintaining the road open to the water pump access, then block the lower portion. This should improve the illegal shooting activity problem.

## ***Temporary Road SUA 28/29***

---

### Monitoring

The monitoring team visited temporary road SUA 28/29 on March 13, 2009, to review consistency with the Forest Land Management Plan and also to evaluate the use of Best Management Practices (BMPs) for a temporary road (BMP E14). This spur is located off 6S07 in the Elsinore Place on the Trabuco Ranger District.



---

*Closed at South Main Divide Road, this non-system road continues downhill and eventually dead ends at private property.*

---

### Results

These temporary roads are closed to vehicles by fence posts. SUA 28 and 29 were not added to the road system. The end of the road that connects to 6S07 is on private property and ends at a back yard. No water bars were installed. A 24" culvert that exists just below NFS on private land will eventually fail. The road has rilling. Decommissioning type work would reduce the erosion. This road has an off shoot that parallels below 6S07; this road revegetated nicely until the end at a slide below S.Main Divide Road. Outsloping would improve drainage on the spur.

## **Conclusions**

The current road status is inconsistent with LRMP goals (5.1 -- Improve watershed conditions through cooperative management). Changes are needed to correct the identified effectiveness-related problems.

## **Recommendations**

Either decommission the road or add a part of it to the road system. In addition, fence posts could be replaced by more permanent structures to more effectively close off the road to all motorized vehicles.

## **BURNED AREA EMERGENCY RESPONSE (BAER):**

### ***Harris Fire BAER***

---

#### **Monitoring**

BAER is a Forest Service program with the goal of protecting life, property, water quality, and deteriorated ecosystems from further damage from flooding in the initial year(s) after the fire is out. BAER does not seek to repair areas that were damaged by the fire, but to reduce watershed damage from flooding or landslides due to the land being temporarily exposed in a fragile condition. A BAER team assesses the area and recommends treatments, looking for opportunities to mitigate potential impacts to downstream values including infrastructure and critical wildlife, plant and fisheries habitat. They also seek to protect heritage resources and prevent noxious weed introductions.

The Harris Fire burned 90,416 acres of which 4,481 acres were on National Forest System lands. Two reasons that the area qualified for emergency response included a damaged road system with destroyed and non-functional drains and a landscape that became even more open and vulnerable to unauthorized off road use. Approved treatments included: noxious weed detection surveys and spot treatment, roads and trails drainage function projects, safety signage, storm patrols, and pipe rail barriers and gates. The Barbour Mountain project area was reviewed for consistency with the Forest Land Management Plan. This area is the site of authorized road drainage, fencing and barrier treatments in the wake of the Harris Fire.

#### **Results**

The road work had been completed and drainage appeared to be functional. The barriers were installed and appeared to be preventing new unauthorized vehicle use off the Barbour Mtn. Road.

#### **Conclusions**

Treatments were consistent with LRMP goal 5.1 to improve watershed conditions and goal 3.1 to provide for public use and resource protection. The weed survey was consistent with goal 2.1 to reduce impairment of natural communities from invasive species. Project implementation was as planned.




---

*In the Barbour Mountain area, road drainage was restored and barriers were installed in the burned area's open and accessible areas.*

---

### **Recommendations**

Continue to monitor the area and treatments to ensure treatments remain effective and take action if problems develop.

### ***Santiago Fire BAER***

---

#### **Monitoring**

The Santiago Fire burned 28,476 acres of which 6,701 acres were on National Forest System lands. The burned area included steep watersheds with no fire history or none since 1927. Canyon communities are situated below these burned watersheds. Approved treatments included: aerial hydromulching; noxious weed detection surveys and spot treatment; Blue Light Mine tailings stabilization and adit closure; roads and trails drainage function projects, safety signage, storm patrols, and pipe rail barriers. The canyon received heavy winter rains in the winters of 2007/ 08 and 2008/ 09. Most of the watershed had not had a previous fire recorded since 1927 if at all and the fire burned vegetative cover off steep slopes in an area that is geologically unstable, resulting in debris flows.

---

*Aerial application of hydromulch in the Santiago Fire burned area.*

---








---

*The burned area had numerous non-functional or destroyed drains and road failures including a headwall (top left) and a crib wall failure (top right). Lower photos show downstream and upstream view of one of the larger projects implemented to restore drainage on Harding Truck Trail.*

---

## Results

All BAER treatments were implemented. Monitoring, evaluation and action thereto has been ongoing on the Santiago BAER project. The hydromulching project has had extensive implementation monitoring by Pacific Southwest research station scientists; this effort is currently in its third year.

The road work drainage appears to function well. One major area of deposit was above the culvert crossing shown in the above photos. Engineers and the monitoring team reviewed this project site where the road section and drainage was reestablished.

The monitoring team reviewed the barriers that were installed, which appear to be preventing new unauthorized vehicle use off North Main Divide Road.

## Conclusions

Treatments were consistent with LRMP goal 5.1 to improve watershed conditions. Harding Road treatments fixed the drains and dips, restoring drainage function. Subsequent monitoring resulted in undertaking further treatments to improve stabilization of Harding Road, which were funded by normal appropriations and special post-fire restoration funding.

## Recommendations

Continue to monitor the area and treatments to ensure treatments remain effective and take action if problems develop.

## IV. Annual Indicators of Progress Toward Forest Goals

---

This section documents the monitoring of indicators of progress toward the desired conditions described in the Cleveland NF Land Management Plan (“LRMP”). Tracking annual indicators will help to identify trends over time and will support the comprehensive evaluation that will be prepared in the fifth year following plan implementation. Information below is presented for goals listed in Part 1 of the LRMP.

### **Forest Goal 1.1: Acres of high hazard and high risk in WUI defense zone (LRMP, Part 1, pg. 19)**

Goal Code	Forest Goal	Activity, Practice Or Effect To Be Measured	Monitoring Question	Reference Values (Long-term / Annual)
1.1	Improve the ability of southern California Communities to limit loss of life and property and recover from the high intensity wildland fires that are a part of this state’s ecosystem.	Vegetation Treatments in WUI	Has the forest made progress in reducing the number of acres that are adjacent to development within WUI defense zones that are classified as high risk?	<a href="#">Fire Hazard/Risk</a> <a href="#">Annual Indicators</a>

In 2008 a total of 3,659 acres of hazardous fuel treatments within Wildland/Urban Interface (“WUI”) was reported as accomplished. This contributes to the National Strategic Plan (objectives 1.1 and 1.3). The LRMP identifies a more specific indicator focused on measuring progress toward increasing the level of the Cleveland NF fuels program in the *defense zone* described in the LRMP.

### **Background on this indicator**

The WUI defense zone — that portion of the WUI that is directly adjacent to structures (LRMP, Part 3, pg. 5, Standard S7; LRMP, Appendix K) — has a variable width that is determined at the project level. The maximum width of the defense zone is defined for general vegetation types in Standard S7. For the LRMP analysis, the maximum width was used. This information was used to represent the present, or “baseline,” extent of the WUI 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 LRMP 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 lands in southern California, the inventory of areas with structures is constantly changing. Maps representing the WUI 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 LRMP decision. The decision is to apply the direction in LRMP 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 WUI 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 WUI defense zone from the LRMP analysis database. Adjustments to this coverage based on documented project analysis or other monitoring may be made. Select accomplishment polygons for accomplishment code FP-FUELS-WUI for the year or years being analyzed from the appropriate reporting system (FACTS). Report the acres of overlap of accomplishment polygons with defense zone polygons as 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. Acres documented as being treated in the corporate reporting system can be assumed to no longer be considered a high hazard.

**Table 1: Progress in Treatment of WUI Defense Zone, Adjustments to the Baseline**

<b>A = Baseline acres from LRMP analysis as adjusted in 2007 M&amp;E Report</b>	<b>B = Acres removed due to new info on presence of substantial structures</b>	<b>C = Acres added due to new info on presence of substantial structures</b>	<b>D = Acres treated in WUI defense zone, per corporate database</b>	<b>A-B+C-D (adjusted acres)</b>
Fire regime I: 6,119 acres	0	0	322	<b>5797</b>
Fire regimes III, IV, and V: 3,064 acres	0	0	27	<b>3037</b>
Total: 9,183 acres	0	0	349	<b>8834</b>

Table 2 shows the status of fuels accomplishment as per the Forest Service Activity Tracking System (FACTS) database, which is the corporate database of record for fuels accomplishment thereafter. Annual querying of the corporate database helps measure the degree to which the Cleveland NF has made progress in reducing the number of acres adjacent to development within WUI 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. Also, it is not appropriate to simply add up the annual indicator (acres treated) and subtract it from the baseline. This 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 LRMP strategy to prevent that from happening through involvement in local planning.

The Cleveland NF focused vegetation treatments in the WUI (see table 2). Some 80 percent of the acres treated were in the WUI — 2,570 in the WUI threat zone and 349 in the WUI defense zone. Wildfire burned a number of acres in the WUI; for example, the Witch Fire burned around Ramona. Of the total acreage treated outside of the WUI threat and defense zones, more than half were burned by wildfire. The Corte Madera project, which was needed to provide defensible space for firefighters and residents, also contributed to the acreage burned outside of the WUI defense and threat zones.

**Table 2: 2008 Fuels Treatment Accomplishment Detail**

Activity	Class			Total
	WUI threat zone	WUI Env.	WUI defense zone	
Burn of natural fuels piles	188	10	26	225
Chipping of natural fuels	--	23	--	23
Compacting/crushing of natural fuels	78	18	25	121
Broadcast burn of natural fuels	186	145	222	553
Piling of natural fuels	43	22	--	65
Rearrangement of natural fuels	61	36	--	97
Removal of activity fuels	12	15	--	28
Thin of natural fuels	31	81	65	177
Wildfire in natural fuels	1972	389	11	2371
<b>Total</b>	<b>2570</b>	<b>739</b>	<b>349</b>	<b>3659</b>

### **Forest Goal 1.2: Baseline conditions for monitoring fire regime condition class (LRMP, Part 1, pg. 20)**

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 USFS Region 5 Regional Ecology Program and the California chapter of The Nature Conservancy (David Schmidt, Fire Ecologist, The Nature Conservancy; Hugh Safford, Regional Ecologist, USDA-Forest Service, Pacific Southwest Region).

The information was compiled from the fire history literature, expert opinion, data collection, and vegetation modeling. The CDF-FRAP fire history database was used for characterizing current fire regimes. The vegetation type stratification was based on the 1996 CALVEG map (USDA-Forest Service Remote Sensing Lab) for the four national forests in southern California.

For data limitations in these datasets, see CALVEG mapping metadata (<http://www.fs.fed.us/r5/rsl/clearinghouse/data.shtml>) and California fire history database metadata (<http://www.frap.cdf.ca.gov/data/frapgisdata/select.asp>).

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

**Table 3: 2006 baseline status for departures from mean fire return interval**

Condition class	Acres
-3	40,319
-2	172,048
-1	138,992
1	30,466
2	9,503
3	21,932
Unclassified	9,197
<b>Total</b>	<b>422,457</b>



**Forest Goal 1.2.1: Increase percent montane conifer in fire regime condition class 1 (LRMP, Part 1, pg. 22)**

Goal Code	Forest Goal	Activity, Practice Or Effect To Be Measured	Monitoring Question	Reference Values (Long-term / Annual)
1.2.1	Restore forest health where alteration of natural fire regimes have put human and natural resource values at risk: Reduce the potential for widespread losses of montane conifer forests caused by severe, extensive, stand replacing fires.	Vegetation Condition	Is the forest making progress toward increasing the percentage of montane conifer forests in Condition Class 1?	<a href="#">Condition Class</a> <a href="#">Fire Regime I</a> <a href="#">Annual Indicators</a>

Table 4 shows that in fiscal year 2008 a total of 363 acres were treated in montane conifer in all fire regime condition classes. By far the majority of the montane conifer acres treated (261 acres) were in fire regime condition class +3. Treating hazardous fuels in these areas that have missed expected fires is consistent with LRMP Goal 1.2.1 and moves the Forest toward the desired condition. Treatment on Laguna Mountain contributed toward this progress.

**Table 4: Acres treated in montane conifer by fire regime condition class**

Activity	Fire regime condition class					Total
	-3	-2	1	2	3	
Burn of natural fuels piles	0	0	0	0	5	5
Compacting/crushing natural fuels	31	1	4	0	0	35
Broadcast burn of natural fuels	18	7	0	0	253	278
Piling of natural fuels	0	0	0	0	3	3
Removal of activity fuels	0	0	0	5	0	5
Thin of natural fuels	18	7	0	0	1	26
Wildfire in natural fuels	11	0	0	0	0	11
<b>Total</b>	<b>77</b>	<b>16</b>	<b>4</b>	<b>5</b>	<b>261</b>	<b>363</b>

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

Goal Code	Forest Goal	Activity, Practice Or Effect To Be Measured	Monitoring Question	Reference Values (Long-term / Annual)
1.2.2	Restore forest health where alteration of natural fire regimes have 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.	Vegetation Condition	Is the forest making progress toward maintaining or increasing the percentage of chaparral and coastal sage scrub in Condition Class 1?	<a href="#">Condition Class</a> <a href="#">Fire Regime IV</a>  <a href="#">Annual Indicators</a>

As shown in table 3 above, as of 2006, 51% of the forest land area was at moderate to high risk of type conversion from excessively frequent fires (condition classes -2 and -3). Unlike in Fire Regime I (conifer forest), vegetation treatment in condition class -2 or -3 moves the site away from the desired condition by adding another burn or disturbance event to an area that has already been burned too frequently. The Forest strategy in treatment of chaparral and coastal sage scrub, therefore, is to focus our 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 upslope from developed areas. Fire history patterns show that fires are often held in the same locations due to topography or sometimes manmade features such as reservoirs or freeways.

Table 5 shows that 78 percent of the chaparral and coastal sage scrub acres treated were in positive condition classes, meaning that they were within the natural range of variability expected for this vegetation type. Most of the acres in negative condition classes were burned by wildfire. The 155 acres of condition class -2 could be at risk of type conversion from this fire.

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

Activity	Fire regime condition class				Total <sup>1</sup>
	-2	-1	1	3	
Burn of natural fuels piles	0	0	5	1	5
Chipping of natural fuels	0	0	19	0	19
Compacting/crushing natural fuels	0	4	54	0	58
Broadcast burn of natural fuels	0	0	158	4	162
Rearrangement of natural fuels	0	0	44	0	44
Removal of activity fuels	0	2	3	0	5
Thin of natural fuels	0	0	19	34	54
Wildfire in natural fuels	155	395	1667	0	2217
<b>Total</b>	<b>155</b>	<b>401</b>	<b>1969</b>	<b>39</b>	<b>2564</b>
<sup>1</sup> – Totals may vary slightly due to rounding.					

Forest 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 as this goal was developed at a province level and is primarily important on other forests in southern California.

## Forest Vegetation and Health monitoring

The Forest Service Remote Sensing Lab provides vegetation resource inventories in an ecological framework for determining changes, causes, and trends to vegetation structure, health, biomass, volume, growth, mortality, condition, and extent. The existing Cleveland NF vegetation map was completed in 2003 and is scheduled to be redone in fiscal year 2010. Details are available in the vegetation monitoring section at <http://www.fs.fed.us/r5/rsl/projects/>.

Aerial detection surveys are conducted annually. For an overview of these surveys plus mapping for the Cleveland NF map, go to: <http://www.fs.fed.us/r5/spf/fhp/fhm/aerial/2007/index.shtml>.

Widespread oak tree mortality is occurring on federal, state, private, and Native American lands in San Diego County, including the southern portion of the Cleveland NF. Investigating scientists from the Forest Service and other agencies discovered that dead and dying oaks were infested with a beetle (*Agrilus coxalis*) that was subsequently named the goldspotted oak borer (GSOB). The GSOB has been found to infest and kill California black oak, coast live oak, and canyon live oak. Due to the current and potential impacts, locally and statewide, multiple agencies and organizations are working together in the research, education and outreach efforts regarding this pest. Information on the goldspotted oak borer may be found at: <http://groups.ucanr.org/GSOB/>.

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

2009: <http://www.fs.fed.us/r5/spf/fhp/fhm/aerial/2009/kmz/index.shtml>

2008: <http://www.fs.fed.us/r5/spf/fhp/fhm/aerial/draft/index.shtml>

2007: <http://www.fs.fed.us/r5/spf/fhp/fhm/aerial/2007/index.shtml>

Deforestation in the wake of the Cedar Fire of 2003 and the Witch and Poomacha Fires of 2007 was reported in a previous report. Reforestation efforts will be reported next year.

## **Forest Goal 2.1: Forest inventory of invasive plants and animals showing a stable or decreasing trend in acre of invasives (LRMP, Part 1, pg. 31)**

Goal Code	Forest Goal	Activity, Practice Or Effect To Be Measured	Monitoring Question	Reference Values (Long-term / Annual)
2.1	Reverse the trend of increasing loss of natural resource values to invasive species.	Invasive species	Are the national forests' inventory of invasive plants and animals showing a stable or decreasing trend in acres of invasives?	<a href="#">Invasive Plants and Animals</a> <a href="#">Annual Indicators</a>

During FY 2008 (October 1, 2007 to September 30, 2008), the corporate database of record (NRIS) shows that approximately 3 acres of arundo (*Arundo donax*) and one acre of tamarisk (*Tamarix spp.*) were added to the inventory. Per the FACTS database, 0.3 acres of yellow starthistle and 6.0 acres of meadow mustard were removed on the Cleveland NF in FY 2008. In addition, six miles of the San Mateo Creek was enhanced by removal of invasive species.

**Forest Goals 3.1 and 3.2: Provide quality sustainable recreation opportunities that result in increased visitor satisfaction from general and wilderness use and for natural/cultural resource protection (LRMP, Part 1, pp. 33 to 36)**

Goal Code	Forest Goal	Activity, Practice Or Effect To Be Measured	Monitoring Question	Reference Values (Long-term / Annual)
3.1	Provide for Public Use and Natural Resource Protection.	Visitor Use of the Forest	Are trends in indicators and visitor satisfaction surveys indicating that the forest has provided quality, sustainable recreation opportunities that result in increased visitor satisfaction?	<a href="#">Visitor Satisfaction</a> <a href="#">Annual Indicators</a>
3.2	Retain a Natural Evolving Character within Wilderness.	Wilderness Use	Are trends in indicators and visitor satisfaction surveys depicting the forest has provided solitude and challenge in an environment where human influences do not impede the free play of natural forces?	Natural Processes Wilderness <a href="#">Annual Indicators</a>

Annual indicators are recreation facilities managed to standard including natural resource protection as described in Forest 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. An updated NVUM survey is currently being planned for the Cleveland NF for 2009. Results will be reported in the monitoring and evaluation report when they become available in 2010. The baseline NVUM survey reported 97% visitor satisfaction.

### **Heritage Resources**

The desired condition is to preserve or enhance significant heritage resources. A total of 57 projects were evaluated under Section 106 of the National Historic Preservation Act (“NHPA”) by Heritage Resources in FY 2008.

- Of the 57 total projects, 8 involved consultation with the state historic preservation officer. These were projects that had effects on historic properties.
- The remaining 49 projects were considered under the Regional Programmatic Agreement.
- A total of 12 projects involved surveys.
- A total of 22 projects were located in previously surveyed areas.



- A total of 15 projects were exempted under the Programmatic Agreement from further Section 106 review.
- In FY 2008, one inadvertent effect was reported to the state historic preservation officer in the annual report.\
- One new site was reported.
- A total of 38 acres were surveyed.
- A total of 13 sites were updated.
- A total of 6 sites were monitored.
- A total of 8 sites were protected.

### **Air Resources**

The desired condition is to remediate and prevent human caused impairments to air quality values. Under the 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 IMPROVE national monitoring network, is found at:

- <http://vista.cira.colostate.edu/improve/Data/data.htm> (raw data)
- [http://vista.cira.colostate.edu/improve/Publications/improve\\_reports.htm](http://vista.cira.colostate.edu/improve/Publications/improve_reports.htm) (reports)

### **Forest Goals 4.1a and 4.1b: Provide mineral and energy resources for development while protecting ecosystem health (LRMP, Part 1, pp. 37 to 38)**

Goal Code	Forest Goal	Activity, Practice Or Effect To Be Measured	Monitoring Question	Reference Values (Long-term / Annual)
4.1a	Administer minerals and Energy Resource Development while protecting ecosystem health.	Mineral and Energy Development	Has the forest been successful at protecting ecosystem health while providing mineral and energy resources for development?	Energy Success at protecting Ecosystem Health  <a href="#">Annual Indicators</a>
4.1b	Administer Renewable Energy Resource Developments while protecting ecosystem health.	Mineral and Energy Development	Has the forest been successful at protecting ecosystem health while providing renewable resources for development?	Renewable Resources Success at protecting Ecosystem Health  <a href="#">Annual Indicators</a>

No minerals or energy development projects were approved in FY 2008.

## Forest Goal 5.2: Improving water quality (LRMP, Part 1, pg. 41)

Goal Code	Forest Goal	Activity, Practice Or Effect To Be Measured	Monitoring Question	Reference Values (Long-term / Annual)
5.1	Improve watershed conditions through cooperative management.	Watershed	Is the forest making progress toward sustaining Class 1 watershed conditions while reducing the number of Condition Class 2 and 3 watersheds?	<a href="#">Sustaining Class 1 watershed conditions while reducing the number of Condition Class 2 &amp; 3 watersheds</a>  <a href="#">Annual Indicators</a>

Regarding goal 5.1, a watershed assessment was done as part of the LRMP revision process (see table 6). Another assessment is not planned until the comprehensive evaluation.

**Table 6. Watershed Condition baseline**

Outcome Indicator	Desired Condition	Baseline	Year 5	Trend	Trigger
Watersheds in Condition Class I - Good	Maintained condition ratings	4 watersheds			Decrease in number of Class I watersheds
Watersheds in Condition Class II - Moderate	Maintained or improved condition ratings	8 watersheds			Decrease in number of Class II watersheds
Watersheds in Condition Class III - Poor	Improved condition ratings	2 watersheds			Degrading conditions in Class III watersheds

Goal Code	Forest Goal	Activity, Practice Or Effect To Be Measured	Monitoring Question	Reference Values (Long-term / Annual)
5.2	Improve riparian conditions.	General Forest Activities	Is the forest making progress toward reducing the number of streams with poor water quality or aquatic habitat conditions?	<a href="#">Stream Condition— in Impaired State listed 303(d) streams</a>  <a href="#">Annual Indicators</a>

Regarding goal 5.2, the LRMP baseline was four streams listed as 303(d) impaired streams: Santiago Creek, Reach 4; Silverado Creek; Aliso Creek; and San Juan Creek, Lower. Of those, the 303(d) mapped reaches for Silverado Creek and Santiago Creek are located on NFS land.

As of 2006, the following stream reaches on NFS lands were mapped in GIS files of the 303(d) List of Water Quality Limited Segments (requiring TMDLs, being addressed by USEPA approved TMDLs and being addressed by actions other than TMDLs) created for reporting purposes by the SWRCB and RWQCB: Santiago Creek; Silverado Creek; Long Canyon Creek; Temecula Creek; and Pine Valley Creek. In addition, portions of the following are listed as 303(d) and mapped segments are located below NFS lands: Aliso Creek; San Juan Creek; and the San Luis Rey River. There is a disclaimer on the SWRCB website that the TMDL (Total

Maximum Daily Load) GIS mapping is subject to change as the effort may ultimately address more or less area than shown in present files.

The Forest's annual Best Management Practices Evaluation Program report was prepared and sent to the Regional water board. In addition, road decommissioning accomplishment contributes to improved watershed function. Road decommissioning results are noted under the Forest Goal 7.1 section.

**Forest Goal 6.1: Maintain or improve progress toward sustainable rangelands by increasing key area in good and fair condition (LRMP, Part 1, pg. 42)**

Goal Code	Forest Goal	Activity, Practice Or Effect To Be Measured	Monitoring Question	Reference Values (Long-term / Annual)
6.1	Move toward improved rangeland conditions as indicated by key range sites.	Livestock Grazing	Is forest rangeland management maintaining or improving progress towards sustainable rangelands and ecosystem health by increasing the number of key areas in good and fair condition?	<a href="#">Rangeland Condition</a> <a href="#">Annual Indicators</a>

Table 7 displays the baseline and trend monitoring for the range and grazing for fiscal year 2008.

**Table 7: Baseline and trend monitoring for range allotments, FY 2008**

Outcome indicator	Desired condition	Previous monitoring	Current	Trend	Trigger
Livestock grazing areas in <b>good</b> condition	Maintain condition rating	12	13	Up	Decrease in number of key areas in good condition
Livestock grazing areas in <b>fair</b> condition	Maintain/improve condition rating	10	11	Up	Decrease in number of areas in fair condition
Livestock grazing areas in <b>poor</b> condition	Improve condition rating	2	2	Stable	Degrading conditions in key areas poor condition

Table 8 displays allotment conditions for fiscal year 2008. More recent assessment information is provided where it is available.

**Table 8: Grazing Allotment Conditions**

Allotment (or Pasture)	Condition	Assessment type	Year
Black Mountain	Good - stable	Annual Compliance Monitoring	2009
Corte Madera, Lower Bear Valley	High 2006 – plot not reread due to wildfire	Region 5 Long term trend monitoring	2006
Corte Madera, Lower Bear Valley, mesic	Moderate - 2006 – plot not reread due to wildfire	Region 5 Long term trend monitoring	2006

Guatay	Moderate	--	2003
Indian Creek	Ungrazed, not monitored	--	n/a
Laguna - Kitchen Valley	Moderate	Annual Compliance Monitoring	2009
Laguna -Cameron and La Posta Creek	Moderate	Annual Compliance Monitoring	2009
Laguna Meadow, mid-meadow plot	High in 2000; Moderate in 2005, High in 2009 – trend upward	Region 5 Long term trend monitoring	2009
Laguna Meadow, Las Rasalies plot	High in 2000; Moderate in 2005, Moderate in 2009 - stable	Region 5 Long term trend monitoring	2009
Love Valley	High - stable	Region 5 Long term trend monitoring	2008
Mendenhall, Lower	High functioning 2006, stable 5-year trend	Region 5 Long term trend monitoring	2006
Mendenhall, Upper	Moderate 2008, stable 5-year trend	Region 5 Long term trend monitoring	2008
Mesa Grande, Kelley unit	Fair, improving	Rapid	2008
Miller Mountain	Good	Rapid	2007
Samataguma	Good	Annual Compliance Monitoring	2009
Tenaja	Good	Rapid	2007
Verdugo	Good	Rapid	2007
Warner Ranch	Good	Annual Compliance Monitoring	2008

**Forest Goal 6.2: Threatened and endangered species monitoring—biological opinion adjustments to LRMP environmental baseline (LRMP, Part 1, pg. 44)**

Goal Code	Forest Goal	Activity, Practice Or Effect To Be Measured	Monitoring Question	Reference Values (Long-term / Annual)
6.2	Provide ecological conditions to sustain viable populations of native and desired nonnative species.	General Forest Activities	Are trends in resource conditions indicating that habitat conditions for fish, wildlife, and rare plants are in a stable or upward trend?	<a href="#">TEPCS Baseline MIS Hab Trends Annual Indicators</a>

**Species Monitoring**

In 2008, the Cleveland NF continued with monitoring specified in applicable biological opinions. The Cleveland NF annual report to the US Fish and Wildlife Service (FWS) included the following species and monitoring activities, where applicable:

- Quino checkerspot: No action in 2008.
- Laguna Mountains skipper: Survey report sent separately.
- Arroyo toad: Monitoring as per biological opinions.
- California red-legged frog: No action on 2008.
- Mountain yellow-legged frog: No action in 2008.



- Southwestern willow flycatcher: Species surveyed at San Luis Rey.
- California gnatcatcher: Restoration project underway.
- Least Bell's vireo: No action in 2008.
- Western yellow-billed cuckoo: No action in 2008.
- Stephen's kangaroo rat: No action in 2008.
- San Diego thornmint: No action in 2008.
- Munz's onion: No action in 2008.
- Braunton's milkvetch: No action in 2008.
- Encinitas baccharis: No action in 2008.
- Nevin's barberry: No action in 2008.
- Thread-leaved brodiaea: No action in 2008.
- Vail Lake ceanothus: No action in 2008.
- Slender-horned spinyflower: No action in 2008.
- Oval-leaved dudleya: No action in 2008.
- San Bernardino bluegrass: Contracted with consultant to check populations.

In addition, surveys for the following threatened and endangered species occurred:

**Laguna Mountains skipper.** A contractor continued surveys in the Laguna and Palomar mountains. No skippers were located in the Laguna 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 the species continued at eight grazing exclosures on Laguna Meadow.

**Arroyo toad.** Monitoring of road kill and the effects of recreation residence permit renewal on arroyo toads were completed.

**Southwestern willow flycatcher.** Monitoring indicates that the species continues to use existing habitat and territories near the San Luis Rey River.

**California gnatcatcher.** In 2008 the Palomar Ranger District started a coastal sage scrub restoration project in the upper San Diego River area. Seeding is being used to regenerate coastal sage scrub vegetation that has been lost due to wildfires. The project plans are to seed 331 acres of habitat.

**San Bernardino bluegrass.** Surveys for San Bernardino bluegrass were undertaken in the Mendenhall, Laguna Meadow, and Bear Valley areas. Monitoring requirements are being updated through new site-specific biological opinions. 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 the LRMP 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 TEPC species is recommended by the U.S. fish and Wildlife Service (page 296 Conservation Recommendation 1 – FWS-773.9).

The Cleveland NF re-initiated consultation with the FWS on the LRMP for critical habitat designations, which included updating the baseline for critical habitat and built area (see table 9).

**Table 9. Summary of Baseline Activities in Critical Habitat (as of 7/29/08)**  
**Cleveland National Forest**

Common name <i>Scientific Name</i>	Critical Habitat Status	Total Acres	Built Area	Dispersed Recreation	Fuel- break	WUI Defense	WUI Threat	Active Grazing
<b>Plants</b>								
San Diego thornmint <i>Acanthomintha ilicifolia</i>	P <sup>1</sup>	544.9	6.7	0.0	50.0	17.5	527.4	0.0
Munz's onion <i>Allium munzii</i>	D <sup>2</sup>	176.1	24.9	1.5	19.9	0.0	176.1	0.0
Nevin's barberry <i>Berberis nevinii</i>	D	0.4	0.0	0.0	0.0	0.0	0.4	0.0
Thread-leaved brodiaea <i>Brodiaea filifolia</i>	D	249.3	0.0	2.2	0.0	0.0	106.1	0.0
Vail Lake ceanothus <i>Ceanothus ophiocilus</i>	D	196.7	0.0	0.0	0.0	0.0	196.7	0.0
San Bernardino bluegrass <i>Poa atropurpurea</i>	P	1,357.9	63.1	338.5	0.0	211.1	1,140.8	1,281.4
<b>Invertebrates</b>								
Quino checkerspot butterfly <i>Euphydryas editha quino</i>	D/ P	23.1/ 914.0	.2/ 11.0	0.0/ 1.9	0.0/ 0.0	0.0/ 1.3	23.1/ 912.7	0.0/ 0.0
Laguna Mountains skipper <i>Pyrgus ruralis lagunae</i>	D	3,544.2	301.0	962.2	61.1	760.2	2,783.9	2,957.9
<b>Fish</b>								
Southern steelhead <i>Oncorhynchus mykiss</i>	D	84.7	0.0	0.0	0.0	0.0	0.0	0.0
<b>Amphibians/Reptiles</b>								
Arroyo toad <i>Bufo californicus</i>	E <sup>3</sup>	8007.5	310.8	381.8	553.1	380.7	5,797.6	1,057.5
<b>Birds</b>								
Southwestern willow flycatcher <i>Empidonax traillii extimus</i>	D	48.2	0.0	4.2	0.0	0.0	48.2	0.0
California gnatcatcher <i>Polioptila californica californica</i>	D	11,910.1	43.3	65.9	66.8	23.8	10,049.1	0.0
<sup>1</sup> = Proposed; <sup>2</sup> = Designated; <sup>3</sup> = Endangered								

The Forest is also continuing to consult with the FWS regarding riparian obligate species and ongoing activities.

## Conclusions

The threatened and endangered species monitoring program is working well in most areas. A process is in place to update procedures based on what is learned, and changes are expected through the updated consultations with the FWS.

## Management Indicator Species

Twelve management indicator species (MIS) were selected to monitor certain habitat types and issues, as described in Part 1 of the Cleveland NF Land Management Plan. These species 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 (see Forest Vegetation and Health Monitoring under Goal 1.2). Management indicator species reports were completed in-house by the Cleveland NF for approximately 20 projects and by project proponents for approximately five projects during fiscal year 2008. None of the reports found that project implementation would affect populations or habitat trends for management indicator species.

### Recommendations

- Continue required monitoring.
- As operational plans are developed for recreation sites, ensure institutional memory of problem resolution by making sure to document protection measures used in the past (whether on an annual, periodic, or one-time basis). These may be documented in the INFRA database for each site.

### **Forest Goal 7.1: Built landscape/land adjustment (LRMP, Part 1, pg. 46)**

Goal Code	Forest Goal	Activity, Practice Or Effect To Be Measured	Monitoring Question	Reference Values (Long-term / Annual)
7.1	Retain natural areas as a core for a regional network while focusing the built environment into the minimal land area needed to support growing public needs.	Built Landscape Extent Land Adjustment	Is the forest balancing the need for new infrastructure with restoration opportunities or land ownership adjustment to meet the desired conditions?	<a href="#">Built Area and Land Ownership Complexity</a>  <a href="#">Annual Indicators</a>

Land Management Plan Goal 7.1 calls for management efforts that minimize 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 the National Environmental Policy Act. Table 10 below shows that the Cleveland NF has analyzed approximately 55 miles of unauthorized routes—many of which impact riparian conservation areas or habitat for endangered or threatened species—between 2006 and 2008 to determine if they should be closed and decommissioned to preserve resource values. Approximately 50 miles of unauthorized routes have been decommissioned.

**Table 10: Miles of road in Forest Service jurisdiction by type, 2006 baseline and 2008**

Maintenance level		National Forest System road	Permitted road	Unauthorized, undetermined	Unauthorized, not needed, existing	Unauthorized, not needed, decommissioned
Not applicable	2006	--	--	154.0	--	4.0
	2008	--	--	99.1	11.6	49.5
1: Basic custodial care (closed)	2006	34.4	--	--	--	--
	2008	34.4	--	--	--	--

Maintenance level		National Forest System road	Permitted road	Unauthorized, undetermined	Unauthorized, not needed, existing	Unauthorized, not needed, decommissioned
2: High clearance vehicles	2006	280.9	136.9	--	--	--
	2008	281.2	133.5	--	--	--
3: Suitable for passenger cars	2006	11.5	--	--	--	--
	2008	11.5	--	--	--	--
4: Moderate degree of user comfort	2006	54.2	--	--	--	--
	2008	54.2	--	--	--	--
5: High degree of user comfort	2006	18.1	--	--	--	--
	2008	18.1	--	--	--	--
Totals	2006	399.1	136.9	154.0	--	4.0
	2008	399.1	133.5	99.1	11.6	49.5

## V. LRMP Monitoring Protocol Recommendations

---

This year the team replaced the yes/no structure of the monitoring questions with open-ended questions and also omitted or modified outdated EMS-related questions. The monitoring guide (as revised in Spring 2009) was used. The guide is available to the public upon request to the Forest Environmental Coordinator.

## VI. Monitoring Team Recommendations

---

- 1) Continue the fine progress made on decommissioning of undetermined, unneeded roads. Also work to resolve the status of “temporary roads.” This work serves to improve watershed function and further LRMP goals and objectives.
- 2) Bring silviculturist expertise onto planning IDTs for projects involving forest management.

## VII. Potential Land Management Plan Amendments and Corrections

---

- 1) As discussed in last year’s monitoring report, the travel management EA proposed action included a plan amendment to change 10 acres of Back Country Motorized Use Restricted (BCMUR) to Back Country (BC) land use zone in order to account for the location of gates on the ground. The travel management EA was approved on November 12, 2008.
- 2) Last year’s monitoring report anticipated the proposed exchange of the Viejas and Hulburt Tracts through a NEPA planning process, which would result in a plan amendment to remove these tracts from “Other Designations—Recreation Residence Tracts” table 479 (LRMP Part 2, p. 13). This project has not yet moved forward into the planning process.
- 3) A decision on the Sunrise Powerlink project may result in a plan amendment.



## **VIII. Action Plan, Forest Leadership Team**

---

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

- 1) Continue efforts to work together with other agencies and partners to plan and carry out a coordinated strategic plan of research and management actions to address the gold spotted oak borer and oak mortality situation.
- 2) Emphasize integrated fuels treatments in Fire Regime I (montane conifer) where there is work to be done to address the missed fire return, risk of loss, and protection of mountain communities, and also where the Forest can count on a broad range of public support for implementing treatments that are needed to move toward the desired condition. The Forest can also maintain existing fuelbreaks as well as include community protection projects in Fire Regime IV. Engage the interested public in a dialogue about fuels issues and collaboration on fuels treatments.
- 3) Address departures from BMPs on Forest Service projects and activities and for special uses, during the permit issuance process. The NEPA process and new permits, if approved, give the Forest an opportunity to impose mitigations, standards, and guidelines that were previously not implemented, or to eliminate a use as in the case of road decommissioning. This reports notes recommended corrective actions from this year's monitoring. The BMPEP report includes current year as well as previous year needs.
- 4) Continue to emphasize decommissioning of undetermined, unneeded roads and resolving the status of "temporary roads." This work serves to improve watershed function and further LRMP goals and objectives.
- 5) Update the Forestwide road maintenance NEPA documentation and clarify the scope of the work covered to Forest personnel.
- 6) Emphasize management of quality controls for the NEPA planning process to ensure consistency with the Plan and NEPA.
- 7) 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 Land Management Plan.
- 8) Prepare operations and maintenance plans for Forest Service recreation sites over time, beginning with the sites with the most sensitive resources to protect.

The following table notes follow-up action taken in response to the action plan in previous year's monitoring and evaluation report. Actions documented as taken will not be carried forward into future reports. For ongoing actions, once the leadership team feels that measures have become institutionalized as standard operating procedure, the actions will not be carried forward into future reports.

Action Item from previous years' report	Action Taken
Emphasize continued learning by researchers and management about the oak decline and begin to take management actions.	The Forest has taken management action in response to the oak mortality caused by the gold spotted oak borer. Together with other agencies and partners, the Forest established and carried out initial action to address the situation. Forest personnel continue to work on these actions. Some participate on committees formed to address issues and further specific objectives such as public outreach and education, while others work on GSOB-related issues in conjunction with existing organizations such as the Forest Area Safety Taskforce. Forest managers are participating on a steering committee of applicable agencies at various levels of government to work together on a coordinated, strategic action plan.
The leadership team will clearly assign responsibility for the variety of database stewardship duties. An assigned team will continue to address data entry in FACTS as per the Forest FACTS Guide. Database stewards will keep corporate data current including both tabular and spatial data so that data used for project analyses and management decisions is reliable and so that Forest accomplishments are given proper credit in the budget allocation process.	Assigned staff have cleaned up old data and entered current data into databases of record. This action item is considered ongoing and will be removed from the action plan.

## IX. Public Participation

---

People who indicated an interest in LRMP monitoring received a postcard notifying them of the availability of the Forest LRMP Monitoring and Evaluation Report on the Forest web page (or print version upon request).

## X. List of Preparers

---

Members of the FY 2008 monitoring team are:

Fuels/Fire: Tom Brand, Forest Fuels Management Officer;  
Roads/Engineering: Mark Marquette, Forest Road Manager;  
Soils/Hydrology: Robert Taylor, Forest Hydrologist (San Bernardino NF);  
Planning: Tom White, Forest Planner, and Pete Gomben, Forest Environmental Coordinator;  
Resources/Planning: Gloria Silva, Forest Resources Officer.

Program monitoring information was contributed by:

Archaeology: Steve Harvey, Forest Archaeologist;  
Wildlife: Kirsten Winter, Forest Biologist;  
Botany: Lisa Young, Forest Botanist.  
Range: Lance Criley, Range Management Specialist;



**FY 2008 LRMP monitoring team members:** Tom Brand, Forest Fuels Management Officer; Russ Lajoie, Descanso Resources Officer (presenting District projects to team); Pete Gomben, Forest Environmental Coordinator; Robert Taylor, Forest Hydrologist (San Bernardino NF); Gloria Silva, Forest Resources Officer; Mark Marquette, Forest Road Engineer; and Tom White, Forest Planner.

The team expresses its gratitude for the support from program and project leaders across the Forest -- including efforts to compile planning documents and host field project site visits.

## Appendix

**Table 1.** Projects and activities randomly selected for LRMP monitoring and evaluation on the Cleveland National Forest.

Ranger District *	Name	Project Type	Ongoing Activity Type	LRMP	BMPEP samples	Documentation Reviewed	Activity ID
Descanso	SDGE Sunrise Powerlink Site Surveys and Testing	Non-Recreation Permit		10% new projects		NEPA documentation, permit	08-Non Rec SUA - LRMP
Trabuco	Riverside County Irvine-Corona expressway geotech investigation	Non-Recreation Permit		10% new projects		NEPA documentation, permit	08-Non Rec SUA - LRMP
Palomar	Warner Ranch allotment	Grazing permit	Range	Grazing (2)	G24 (2)	NEPA documentation, permit, annual operating plan	08-Range -LRMP-BMP-1/2
Descanso	Laguna Allotment	Grazing permit	Range	Grazing (2)	G24 (2)		08-Range -LRMP-BMP-2/2
Descanso	Cibbets Flat	New restroom	Campground (water)	Campgrounds (2)	R22 (1)	NEPA documentation	08-Recreation Dev -LRMP-BMP-1/1
Descanso	Bobcat Meadow	Barriers	Campground (no water)	Campgrounds (2)	R30 (1)	NEPA documentation	08-Recreation Dev -LRMP-BMP-1/1
Trabuco	El Cariso Info Site		Interpretive/info site	Dispersed Rec Site (1)			08-Recreation Disp -LRMP-1/1
Trabuco	El Cariso Picnic Area		Picnic area (no water)	Dispersed Rec Site (1)			08-Recreation Disp -LRMP-2/1
Descanso	Storm Canyon Vista and Pacific Crest Trailhead		Trailhead	Trailhead (1)	R30 (1)		08-Recreation Disp -LRMP-BMP-2/1
Trabuco	Tenaja Trailhead		Trailhead	Trailhead (1)			08-Recreation Disp -LRMP-BMP-1/1
Descanso	Escondido Recreation Residence Tract	Permit Area	Recreation SUA	Rec SUA (2)		Permit (NEPA underway)	08-Recreation SUA -LRMP-BMP-1/2
Descanso	Piedra Recreation Residence Tract	Permit Area	Recreation SUA	Rec SUA (2)		Permit (NEPA underway)	08-Recreation SUA -LRMP-BMP-2/2
Trabuco	Hermosa Mtn Bike Tours	Outfitter guide permit		Rec SUA (2)		NEPA documentation, permit	08-Recreation SUA -LRMP-BMP- 3/2
Palomar	Temporary road SUA 76		Temp road	Road, other (1)	E14	Engineering documentation	08-Roads Temp -LRMP-BMP-1/0
Trabuco	Temporary road SUA 28/29		Temp road	Road, other (1)	E14		08-RoadsTemp -LRMP-BMP-2/0
Palomar	Lusardi Road (11S03)	Road maintenance	O&M road, native material ML2		E09		08-Roads -BMP- 5/4

Ranger District *	Name	Project Type	Ongoing Activity Type	LRMP	BMPEP samples	Documentation Reviewed	Activity ID
Palomar	Upper Santa Ysabel Road (12S07)	Road reconstruct./ drains	O&M road, native material ML2	Road contract (1); selected ML1 and 2 rds from R5 roads SOP (or 4)	E08, E09, E11	Road maintenance NEPA documentation	08-Roads -LRMP-BMP-1/4
Trabuco	Holy Jim Road (6S14)	Road maintenance	O&M road, native material ML2	Road contract (1); selected ML1 and 2 rds from R5 roads SOP (or 4)	E08, E09, E11		08-Roads -LRMP-BMP-2/4
Descanso	Bear Valley Road (16S12)	Road reconstruct./ drains	O&M road, native material ML3	Road contract (1); selected ML1 and 2 rds from R5 roads SOP (or 4)	E08, E09, E11	NEPA documentation	08-Roads -LRMP-BMP-3/4
Descanso	Skye Valley Road (17S06)	Road maintenance	O&M road, native material ML2	Road contract (1); selected ML1 and 2 rds from R5 roads SOP (or 4)	E08, E09, E11	Road maintenance NEPA documentation	08-Roads -LRMP-BMP-4/4
Descanso	Laguna Recreation Area Prescribed Burn	Rx burn		All burns (because 100% BMPEP)	F25		08-Rx Burns -LRMP-BMP-1/3
Descanso	Carveacre Prescribed Burn	Rx burn		All burns (because 100% BMPEP)	F25		08-Rx Burns -LRMP-BMP-2/3
Palomar	Aguanga Ridge prescribed burn	Rx burn		All burns (because 100% BMPEP)	F25	NEPA documentation	08-Rx Burns -LRMP-BMP-3/3
Descanso	Defensible space, SDSU observatory	Mechanical		10% new projects	V28	NEPA documentation	08-Veg -LRMP-BMP-1/3
Trabuco	North Main Divide fuelbreak	Mastication		10% new projects	V28	NEPA documentation	08-Veg -LRMP-BMP- 2/3
Descanso	Burnt Rancheria CG reforestation	Reforestation		10% new projects	V29	NEPA documentation	08-Veg -LRMP-BMP- 3/3
Palomar	Routes UND 7020, 7021, 774, 773A	Decommission	Undetermined, not needed road	Road, other (1)	E10		08-Roads -LRMP-BMP - 1/1
Descanso	Watershed Improvement Need (WIN) Project off Corral Cyn	Watershed		All in channel construct up to 5 (per BMPEP)	E13	NEPA documentation	08-Watershed -LRMP-BMP-1/4
Descanso	WIN Project off Skye Valley Road	Watershed		All in channel construct up to 5 (per BMPEP)	E15, E13	NEPA documentation	08-Watershed -LRMP-BMP - 2/4
Descanso	Harris Fire BAER	Watershed - Emergency		10% new projects		BAER report treatments	08-Watershed -LRMP - 3/4
Trabuco	Santiago Fire BAER	Watershed - Emergency		10% new projects		BAER report treatments	08-Watershed -LRMP - 4/4

Activity code consists of fiscal year – type project – LRMP and/or BMP - # sample/ total samples