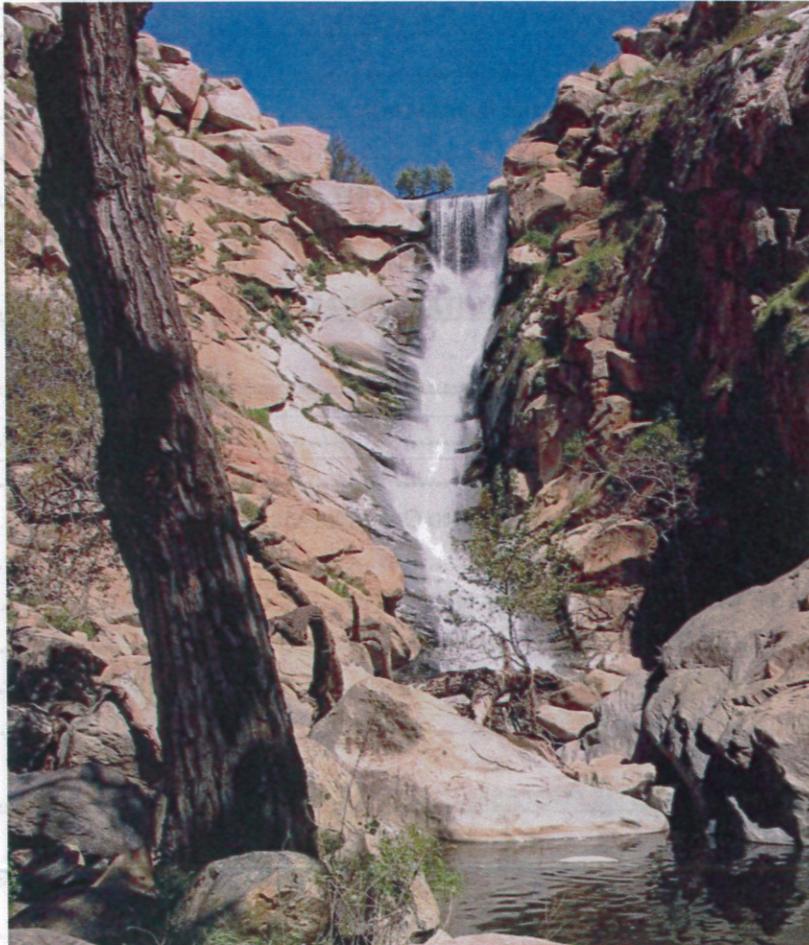


# Cleveland National Forest Travel Analysis Report

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Approved By:

**William Metz, Forest Supervisor**

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## Executive Summary

### 2016 Travel Analysis (TAP) Update Process

The Cleveland National Forest completed the Roads Analysis Process (RAP) from 2001 through 2004 as part of the Land Management Plan Revision for the four Southern California Forests which include the Angeles, Cleveland, Los Padres and San Bernardino National Forests. Within this effort, the Roads Analysis Process was conducted to analyze all maintenance level 1 through 5 roads on each of the forests. The process was a six-step process and the documents are available for review with references for their location documented in this report in the Purpose of this TAP Update Section on page 16. The process involved a large Interdisciplinary Team (IDT) of specialist from all fields and from all four forests as well as representation from four Regional Office road engineers. The science-based process was used to assess benefits, problems and risks of the current road system. The process included four rounds of public meetings with over 10,000 comments received pertaining specifically to access. The roads analysis was incorporated into the Land Management Plan (LMP) Revision final 2006 Record of Decision (ROD). That effort defined the minimum road system needed for safe and efficient travel and for administration, utilization, and protection of National Forest System lands. This effort constituted 'Subpart A' of the Transportation Analysis. The Regional Office reviewed the Roads Analysis Process for the four Southern California Forests and agreed that the process met the requirements of the Travel Analysis Process.

The four Southern California National Forests individually conducted Motorized Travel Management (Subpart B) during the period from 2008 to 2009. Roads and motorized trails were analyzed with the objective of designating those open for motorized public use. The Cleveland National Forest completed this process after two years of public involvement as documented in the Motorized Travel Management 2008 EA, DN and FONSI November 12, 2008. The end result of this process was the development of the CNF Motorized Vehicle Use Map (MVUM).

In 2011, the four Southern California Forests convened an Inventoried Roadless Area (IRA) Road and Trail Analysis Collaborative Group to develop criteria for decommissioning roads and trails in IRA's.

From 2011 through 2016 the Cleveland NF has conducted NEPA processes on a number of projects and has implemented decommissioning of roads identified as no longer needed under the Subpart A process. In 2014 an amendment to the LMP was issued, changing 43,000 acres of Back Country Non-Motorized (BCNM) to Recommended Wilderness (RW). There were no changes to system roads associated with this Amendment.

Under the 2005 RAP, 2006 LMP Revision and the 2011 Collaborative, the public submitted thousands of road related comments during these efforts. The key issues they identified were economic and natural resource sustainability of the existing road system, the effects of roads in watersheds and on species of animals and plants, too much or too little public motorized access, and the need for more public rights-of-way.

This Travel Analysis Update Report describes that previous work and the progress made on the Cleveland NF to implement the recommendations and decisions made to date. The recommendations from RAP, Subpart A and the IRA Collaborative group were reviewed. The report also incorporates decisions made during the LMP Revision, Travel Management and subsequent project-level NEPA decisions. The national direction on completing Subpart A has evolved since the forest completed the Roads Analysis Process and Subpart A. Each forest is now required to produce a map displaying roads that are likely needed and roads likely not needed for future use. To meet this current requirement, the forest has reviewed the previous work and considered changes that have occurred in the available road maintenance funding. The determination of the current list of roads as likely not needed is not a decision and only a recommendation at this time. Further site specific NEPA would be needed to change a road from its current maintenance level to a decommissioned status or to an alternate use such as a trail. The forest has developed the current list of opportunities for change with input from multiple disciplines and will pursue opportunities to implement the recommendations as they arise.

Specifically, this Cleveland National Forest (CNF) Travel Analysis Report (TAR) focuses on what has changed with the importance of the Maintenance Level (ML) 1-ML5 roads since the Road Analysis Process (RAP) of 2005, part of the Land Management Plan (LMP) Revision final 2006 Record of Decision (ROD). Over 10,000 road -related comments were received from the public during the RAP and LMP revision process. The natural resource concerns and risks are similar by specific location today to those identified in the RAP and studies since 2005.

- Two major forest-wide Travel Analyses occurred in the decade: 2005 RAP and 2011 Southern California Collaborative Study (2011 Collaborative) of roads and trails in and near Inventoried Roadless Areas (IRA's). Both were Geographic Information System (GIS) based analyses weighing the risk to natural resources with the benefits for access to the National Forest. The results of these analyses are not decisions, rather are used to inform decisions during the NEPA process. The public involvement during the 2011 Collaborative included representatives from a spectrum of diverse groups meeting for three months and working towards consensus.
- Of those identified in the evaluation, one HRLI road had an importance in 2016 not known in 2005 (12S04 Lower Santa Ysabel). The Lower San Juan Campground 6S09 was also identified and had already been decommissioned. The Cleveland had no Low Importance, High Resource Impact, (LH) and Low Importance, Low Resource Impact (LL) roads, and the HH 9S07A High Point Lookout road, and HL 14S07 Tule Springs road, are still important. In addition to the two TAPs, the field review found other roads as LNN (Likely Not Needed) and candidates for further study leading to NEPA decisions.
- Motorized Travel Management, Subpart B process: A NEPA Environmental Analysis was conducted (October 2008) and resulted in a Decision Notice and Finding of No Significant Impacts (DNFONSI) (Metz, Nov 12, 2008). The DN-FONSI decided that 203 miles (59 percent) of 342 are open to highway legal vehicles. The Motor Vehicle Use Map (MVUM) Map was issued.

The Forest has an approved Mixed Use Analysis for 32 miles of roads that allow highway licensed motor vehicles and authorized off-highway vehicles.

- From 2011 through 2013, the CNF prepared NEPA and contracted removal of 19.6 miles of unauthorized roads in sensitive areas.
- The 2014 Record of Decision (ROD) (Metz, Oct 23, 2104) amended the Cleveland National Forest Land Management Plan (LMP) to change the zoning for approximately 43,000 acres from Back Country Non-Motorized (BCNM), to Recommended Wilderness (RW) with no changes to the status of any existing road or trail and no change in public motorized access as a result of the amendment. During public involvement thousands of emails, letters, and post cards were received during the comment period. As in the 2005 RAP, LMP Revision 2006, and 2011 Collaborative, the public issues mentioned economic and natural resource sustainability of the existing road system, the effects of roads in watersheds and on species of animals and plants. Also, other public issues raised included too much, or too little public motorized access, and the need for more public rights-of-way.
- NEPA decisions and supporting studies related to CNF roads in the past decade were reviewed. From April through August 2015 the CNF conducted a field level evaluation of all 2005 RAP HRLI (High Importance, Low Resource Impact) roads, to confirm the importance level assigned in each analysis. High Priority for Mitigation (HPM) and Low Priority for Mitigation (LPM) 2005 RAP roads and HH (High Importance, High Resource Impact) and HL (High Importance Low Resource Impact) 2011 Collaborative Study roads and all ML-1 roads were also reviewed.
- As part of the 2016 Travel Analysis Update, the CNF Team reviewed the importance of 237 roads (406 miles) of National Forest System Roads (NFSR). Of that total, 221 roads (369 miles) were considered Likely Needed for Future Use (LN), 16 roads were considered Likely Not Needed for Future Use (LNN) for 36.88 miles.

### **Key issues related to the CNF Transportation system**

- The 2005 RAP Process revealed concern over the deleterious effects that the road system causes on the watersheds due to the shallow, erosive soils, steep terrain and proximity of the roads to the stream courses, numerous road crossings and endangered and sensitive species and habitat. Adequate road access for private landowners, OHV, recreation, administrative and fire protection issues were also identified. Finally, concerns over the negative effects to wildlife, sensitive plants and cultural resources were raised.
- Following the 2005 RAP, the 2008 Route Designation, the 2011 Decision Memo allowing stream-lined analysis within the road prism, the 2011 Collaborative Analysis and the LMP 2014 Amendment, environmental risk factors were analyzed and administrative and public use needs were assessed. Current review given those analyses looked at a set of roads reviewed as LN or LNN forest wide bases using that framework.

- The October 2014 LMP amendment concluded that road and motorized trail opportunities are limited in that construction of new roads in Inventoried Roadless areas is prohibited unless roads meet specific exception provided by the Roadless Area Conservation Rule. Road construction is further guided by the Travel management decisions and Back Country Non-Motorized or expanded Recommended Wilderness zones.
- The May 2016 Forest-wide Unauthorized Route Decommissioning Environmental Assessment was a Forest NEPA undertaking that not only included the decommissioning of the highest priority (due to sensitive natural resources) unauthorized routes, but evaluated portions of the existing NFSR to prevent resource impacts and reduce potential safety issues. The evaluation served to recommend the subtraction of approximately 0.67 miles net to the road system with changes to eighteen separate route segments. Work under this project includes emphasis on decommissioning routes immediately adjacent to the NFSR thus reducing alluvial effects of erosion onto the Forest road system.
- Enforcement of Motor Vehicle Use Map for legal access to NFSR roads and protection of sensitive resources continues to be a challenge on the Forest resulting in increasing unauthorized routes while the public strays off of legal NFSR.
- Diminishing appropriated funds restrict Forest capability to perform adequate maintenance of a highly used road system as well as provide for needed Right of Ways, road maintenance agreements, provide for public access to private lands and the protection of natural resources.
- The Southern California findings from the 2005 RAP revealed other issues that will continue to have an impact on the CNF.
- Fire suppression access to private communities, recreation sites, permittees via NFSR roads is impaired as road conditions deteriorate creating a public safety hazard. 25% of ML-2 roads have pinch points restricting fire engine access. The CNF road system that is open to public use is only 203 miles of 406 total miles, but receive high ADT compared to road standards, creating larger impact to the road system, higher incidence of collision, increased vandalism and increased risk on public safety.
- User created (unauthorized) routes damage and destroy sensitive resource areas and cause further confusion to public as to legal travel allowances on the Forest.
- Mapping contradictions and overlaps between the IRA's, NFSRs, communication sites and MVUM can present an unclear picture of authorized travel on Forest land.

## Opportunities

- High Priority for Mitigation (HPM) and Low Priority for Mitigation (LPM) 2005 RAP roads and High Resource Impact and High Importance (HH) 2011 Collaborative roads need financing to remedy resource issues and are needed on the system. (These higher resource risks are found in the GIS-based risk-benefit analyses tables in Appendix C). **Table 1** contains the list of roads that

are LNN, and these are candidates for further site -specific evaluation under NEPA. The existing Operating Maintenance Level is shown.

- Obtaining adequate funding for a single resource mitigation road project each year is competitive with all other National Forests. Only a few grants are awarded each year to few National Forests. The CNF has three concrete fords in Trabuco Canyon, 6S13, and one in Los Alamos Canyon, 7S04, eligible for Aquatic Organism Passage (AOP) funds where all coordination and NEPA is complete and current.
- Federal Highway Administration's (FHWA) Moving Ahead for Progress in the 21st Century (MAP-21) Program from 2013 includes the Federal Lands Transportation Program (FLTP) and Federal Lands Access Program (FLAP formerly Forest Highway Program). The Cleveland National Forest currently has five FLTP roads consisting of the highest ranking eligible roads for eligible for future surfacing improvements from competitive gas tax funds. These roads include: Long Canyon (6S05), North Main Divide (3S04), Indian Flats (9S05), Pine Creek (15S05) and Kitchen Creek (15S17) roads. In 2015, pavement condition surveys were performed on each of these roads. Results of these surveys revealed that while the pavement condition per total area of pavement was mostly 'Satisfactory' (there are approximately 1.5 million square feet of hardened surfaces amongst these five roads) in rating, the overall average Pavement Condition Index (PCI)/weighted average condition for the forest was Poor. The conditions ranged from 12% of the pavement areas as having a condition of 'Failing' to 4% of the pavement areas to having a condition of 'Good'. Those areas noted with the worst PCI should be prioritized for repair and resurfacing to protect the investment in the surfacing.
- The CNF should continue to evaluate roads and review those that should be open or removed, in NEPA studies associated with site specific Hazardous Fuels projects, Range Allotments, Special Use proposals or re-newels and Watershed analyses.
- Continue to evaluate NFSR system for opportunities for decommissioning when they are rarely used or provide redundant access, transfer of ownership or maintenance responsibilities when they provide access to another jurisdictional land or relocation when resource risk is high for highly used roads.
- Continue to work with Permit holders, leasees, and adjacent landowners to cooperate in road maintenance with written agreements.
- Update the Road Management Objectives (RMO's) to reflect the category of LNN, and to document Line Officer's decisions for any deletions or additions to the system based upon NEPA decisions. Update the system information to reflect rights-of-way acquired, or changes from private to NFS land ownership through land adjustments.

**Table 1 Roads Identified as Likely Not Needed For Future Use, 2016 Review**

| Road Number | NAME                  | Begin MP | End MP             | Segment Length | Existing Operating ML | 2005 RAP |
|-------------|-----------------------|----------|--------------------|----------------|-----------------------|----------|
| 5S03        | SILVERADO MOTORWAY    | 0.0      | 0.90               | 0.90           | NM                    |          |
| 6S09        | LOWER SAN JUAN PG     | 0.0      | 0.11               | 0.11           | DE                    | HRLI     |
| 12S07A      | BLACK CANYON CG       | 0.0      | 0.26               | 0.26           | DE                    | HPM      |
| 13S10       | WEST SIDE TRUCK TRAIL | 0.0      | 5.00               | 5.00           | 1                     |          |
| 13S10       | WEST SIDE TRUCK TRAIL | 8.9      | 11.42              | 2.42           | 2                     |          |
| 15S08       | OASIS SPRINGS         | 0.0      | 0.49               | 0.49           | 1                     |          |
| 15S12       | SAGE                  | 0.0      | 0.10               | 0.10           | 1                     |          |
| 15S16       | MORRIS RANCH          | 0.7      | 1.8                | 1.10           | 1                     |          |
| 15S18       | SHEEPHEAD             | 3.07     | 6.77               | 3.70           | 1                     |          |
| 15S24       | GOUDIE                | 1.6      | 3.74               | 2.14           | 1                     |          |
| 15S27A      | MEADOW                | 0.0      | 0.50               | 0.50           | 1                     |          |
| 16S03       | CARVEACRE             | 5.32     | 7.40               | 2.08           | 2                     |          |
| 16S16       | KERNAN                | 0.0      | 2.53               | 2.53           | 1                     |          |
| 17S07       | HAUSER                | 4.67     | 8.78               | 4.11           | 1                     |          |
| 7S09        | SITTON PEAK           | 1.30     | 8.70               | 7.4            | 1                     |          |
| 5S10        | JOPLIN                | 0.0      | 1.10               | 1.10           | 1                     |          |
| 5S09        | SANTIAGO RIDGE        | 2.26     | 5.20               | 2.94           | 1                     |          |
|             |                       |          | <b>Total Miles</b> | 36.88          |                       |          |

**HRLI** High Resource Risk Low Importance; **HPM** High Priority for Mitigation;

**ML** Maintenance Level, 1 Closed, 2 High Clearance Vehicles, 3, 4, 5 Passenger Cars (4 and 5 paved)

**DE** Decommissioned; **NM** Not Maintained-Planned for conversion to non-motorized hiking trail

### Risks/Benefits of Opportunities

The primary risk for applying for resource protection funds is managing the NEPA planning and/or administration of any acquisition projects in accelerated timeframes with available Resource Specialist or limited, qualified Contracting Officer Representatives while balancing other needs on the forest. Missing deadlines, required permitting through outside agencies, critical inspections or adequate public notifications can create a ripple effect on phased projects or other Program of Work matters.

Other risks or difficulties that may prevent the Forest from thorough and timely evaluation of the roads, generating updated agreements for road maintenance to outside agencies or updating the RMO's

include competing interests of other projects/issues on the time of Transportation managers, especially when diminishing funds that do not contribute to their salary.

The benefits of taking advantage of funding opportunities to perform deferred maintenance, prioritize resource sensitive areas, update agreements with permittees and updating the RMOs include providing for a NSR system that will provide for emergency response access, resource protection and be sustainable into the future of questionable funding.

### **Existing NFSR**

The existing National Forest System Road (NFSR) inventory has not changed drastically in the last few decades, other than data corrections on the INFRA database linking segmented roadways together appropriately from when they were initially entered.

- The CNF ML 1 – 5 maintained system totaled 418 miles in 2004; in 2016 it totaled 406 miles, a drop of 12 miles and associated reduction in road density from 0.65mi/sqmi to 0.63mi/sqmi.
- The CNF now has 226 roads (totaling 406 miles) of ML 2 through ML 5, (ML 1 roads are closed to all motorized use). Of these road 60 percent totaling 245 miles, are open to public motorized use.

### **Annual Maintenance Funds**

- In 2005, the Cleveland National Forest received a total of \$514,000 (equivalent to \$822,000 in 2016 dollars) of appropriated (CMRD) funds to operate and maintain 418 miles of NFSR. Table 3 shows that the Forest would need \$2,097,400 annually to maintain the entire ML1-ML5 system to standard and based on the declining appropriated budget shown this cannot be realistically achieved. Declining budgets show that in 2016, if considering budgets dedicated to only maintenance, the average funds available for the maintenance is \$832 per mile. Realistically, other impacts to the Forest roads budget include personnel salary, vehicles and the administration of contracts to maintain and repair the road system equating to approximately \$175,000 per year. Incorporating these other expenses on the road budget fund reduces what is available to an average of only \$254 per mile for maintenance and repairs.
- The Construction and Maintenance funds appropriated for annual road operations and maintenance budget has declined each year to a current annual budget of \$319,000 providing some maintenance to only five percent of CNF's miles.

### **Deferred Maintenance Needs and Funded Projects**

- In addition to the funding needed on an annual basis to operate and maintain the road system, there is a backlog of Deferred Maintenance on the forest. Deferred Maintenance increases when the annual maintenance funding is insufficient to keep up with the maintenance needs. The most recent estimate of deferred maintenance needs in the CNF is \$35,019,372 for roads as shown in the NRM Infrastructure database. Projections from the \$30,000,000 recorded in 2002 put the maintenance needs at \$45,080,000.

- In 2007, the forest received \$504,000 in Supplemental CMRD funding for the Holy Jim Bridge project. The new bridge replaced a failing large metal pipe arch, restored the stream zone, protected the endangered species habitat, and re-established aquatic organism passage (AOP) while ensuring public safety.
- ARRA: The American Recovery and Reinvestment Act (ARRA) of 2009 provided the CNF with \$500,000 for deferred maintenance. The day the funds became available, ARRA paved Dripping Springs Campground in March 2009. There were another ten ARRA projects on the Forest and the only one that addressed roads was the Laguna Air Force Base Decommissioning project where approximately 0.4 mile of roadway was decommissioned.
- It is estimated that in 2009 when the ARRA funds were received, the forest had a Deferred Maintenance backlog of almost \$35 million based upon an inflation rate of 4% since 2002. This DM backlog grew by \$1.1 million in 2009 alone. With the \$500,000 funds received that year, the ARRA project only addressed a portion of the amount of deferred maintenance needs for the sustainability of the CNF road system. As programs within and outside of the Forest Service become available for competitive grants, the CNF needs to balance endangered species protection, watershed restoration, and road conditions for public and administrative users to determine the highest priority projects when preparing grants.
- Under the FLTP, the Long Canyon Road 6S05 and North Main Divide 3S04 received \$1,180,000 for pavement rehabilitation and overlay in 2016. A 1.74 mile segment of Long Canyon road received asphalt pulverization and new asphalt pavement, striping, signing, minor drainage improvements and safety features. There was not enough funding to complete Long Canyon road or North Main Divide road during FY 2015. At the completion of the project, 1.76 miles of maintenance level 5 roadway had new surface and drainage improvements extending the life of this portion of roadway for a minimum of 20 years. In 2016, another \$538,226 was funded by FHWA to pulverize and overlay another 0.81 miles and overlay another 0.85 miles (1.66 miles total) of Long Canyon Road providing a continuous improved travelled way from State Route 74 to the North Main Divide on the forest.
- Each year the CNF collects deferred maintenance data for the road system and any Public Safety concerns are addressed immediately, while smaller common yet critical maintenance needs are inventoried for Condition Survey reports. It is estimated that of the ML 2 through ML 5 roads, there is an outstanding \$35,019,372 of work to restore and conform to standards. This is largely due to the fact that the original road prism standards (narrower widths, no turnouts, etc.) were based on the 1930's era CCC low construction standards for vehicles of that time as opposed to traditional Northern California forests built to higher FS road standards to accommodate logging vehicles. The original road prisms were never updated to accommodate current vehicle sizes.
- The FY 2002 Cleveland National Forest Business Plan revealed that the Forest would need approximately \$11 million/year for 10 years to rehabilitate the current roads infrastructure to meet applicable safety requirements and to reduce impacts on the Forest ecosystems. The \$35 million road deferred maintenance backlog could be eliminated by upgrading existing infrastructure and constructing new roads to meet increasing volume of Forest traffic.

## Storm Damage Repairs and Burned Area Road Restoration

- Large fires, floods, landslides, earthquakes, windstorms, tree mortality, and drought have occurred in the 2005 – 2016 decade. Emergency Relief for Federally Owned Roads (ERFO) Funds may be granted to repair only a portion of roads damaged by the event, although not to perform deferred maintenance.
- The forest received \$1,910,000 from FHWA in 2014 for ERFO events within Trabuco Canyon. The forest used the funding to replace a concrete low water crossing destroyed by the 2011 Storm with the construction of a new bridge as a betterment on a continually failed road crossing in order to remove a barrier to aquatic organism passage in a highly sensitive watershed with endangered species concerns.
- Approximately \$3,000,000 was provided for Emergency Supplemental and Burned Area Emergency Rehabilitation (BAER) for road repair since 2003 for seven major wildland fires (including the Cedar, Paradise, Sierra, Santiago, Witch, Poomacha and Harris fires). Examples of work accomplished includes: restoration of drainage elements and in some cases replacing culverts with larger diameter ones to accommodate the increased flow from the burned areas, restoring road surfaces where damaged, replacing pressure treated timber retaining walls with mechanically stabilized earth walls, grading roadway surfaces to eliminate ruts to reduce erosion, surfacing some highly erodible portions of some roads with aggregate, or chip seal.

## Strategy

- The Forest has decommissioned and restored 2 miles of system roads, and 20 miles of unauthorized roads, built two AOP bridges and removed a large concrete low water crossing from a Wilderness area to restore the stream and to re-establish fish passage, through a strategic approach to environmental analysis, NEPA decisions, obtaining outside funding and accomplishing the work on the ground. The process continues as watersheds are analyzed, resulting in timely NEPA decisions for implementation. The Forest will continue to apply for grants to replace these barriers to help re-establish the Southern Steelhead on the CNF.
- Update Road Management Objectives to reflect use, emergency access, resource issues and establishment of Likely Needed or Likely Not Needed.
- Appropriated funds are only able to fund 5 percent of the current NFSR miles. Priority and timing decisions should focus on the most pressing public and administrative access while protecting the natural resources in watersheds.
- This TAR update provided the opportunity to closely evaluate the public and administrative importance of high resource risk roads identified in the 2005 RAP and 2011 Collaborative Study, and to look at any other roads now believed to be more or less important, again requiring further NEPA analysis to change public motorized access, or to decommission a road mapped and listed in the MVUM.

- Funding decisions can focus the available road maintenance funds on the ML 3,4 and 5 category roadways, the 90 miles of higher-level primary access roads generally surfaced, and not attending to the ML 2 high clearance roads except to ensure compliance with watershed protection. Major incident fires would be able to re-establish access needed on ML 2 roads.
- Apply for FHWA FLTP (from Gas Tax) funds for deferred maintenance for the Subset 1 (Highest Use Rec Roads): North Main Divide, Indian Flats, Pine Creek and Kitchen Creek roads.
- The ERFO funding process has changed in 2013 (under Map-21) regarding roads that qualify for this funding and is now limited to roads on the FLTP network or have an engineered surface such as aggregate, pavement or chipseal. Non-FLTP network roads with an engineered surface may be eligible for a percentage of repair costs with an agency match. Storm damage repairs to the ML 2 system are not likely to be eligible for reimbursement by FHWA, even if a road has compelling use. It would be prudent to review the forest road inventory for those roads most susceptible to storm damage by ML to help prepare for the next major storm to ensure on-going maintenance and storm-proofing are taken as well as roads being maintained to standard.



## **Purpose of this 2016 CNF Travel Analysis Plan (TAP) Update**

This Cleveland National Forest (CNF) Travel Analysis Report (TAR) focuses on what is different today with importance of the Maintenance Level (ML) 1-ML5 roads since the Road Analysis Process (RAP) of 2005, part of the Land Management Plan (LMP) Revision final 2006 Record of Decision (ROD). Over 10,000 road-related comments were received from the public during this process. The natural resource concerns and risks are similar by specific location today to those identified in the RAP and studies since 2005.

Two major forest wide Travel Analyses occurred in the decade: 2005 RAP and 2011 Southern California Collaborative Study (2011 Collaborative) of roads and trails in and near Inventoried Roadless Areas (IRA's). Both were Geographic Information System (GIS) based analyses weighing the risk to natural resources with the benefits for access to the National Forest. The results of these analyses are not decisions, rather are used to inform decisions during the NEPA process. The public involvement included representatives from a spectrum of diverse groups meeting and working towards consensus.

In May 2016, the Forest Supervisor signed a Decision Notice for the Unauthorized Route Decommissioning Environmental Assessment (EA), which made changes to the Cleveland National Forest Road System. See <http://www.fs.usda.gov/project/?project=43836>. This EA and its associated public process met the requirements of the Travel Management Rule (36 CFR 212) for revision of designations of National Forest System Roads and Trails, including the criteria for designations as analyzed in the EA. It also included assessment of an estimated 100 miles of user-created, unauthorized routes which, while unmaintained, create a variety of impacts to the landscape and associated sensitive resources. The primary purpose of the unauthorized route decommissioning project that is currently underway is to decommission the highest priority unauthorized routes on the Cleveland National Forest, returning the landscape to its desired condition and educating and directing motor vehicle users to legal travel opportunities. A secondary purpose is to make minor adjustments to the National Forest Road and Trail Systems that are needed to provide for public or administrative access or to prevent resource impacts and safety issues. Small segments of fourteen new roads were added to the NFSR system for either public or administrative use.

Since watershed protection was a primary objective of the project, two severely eroding System Roads were authorized for decommissioning in addition to numerous unauthorized routes: "An impassable, administrative, 2-mile-long segment of 17S08, South Boundary Road, is severely eroding. A passable road through private lands connects to both of its ends, and so it is not needed. A steep, 1.6-mile-long segment of 16S03, Carveacre Road, is currently passable only by high-clearance, 4-wheel-drive vehicles. It is severely eroding and impacting sensitive biological resource areas, and its use presents unacceptable fire hazards and safety risks. Its decommissioning would also render an additional 2.6 miles of 16S03 inaccessible to motorized use by the public. Administrative use of this additional length would continue, given its gated connections to other roads at both ends." Several undetermined System Road segments were also authorized for decommissioning.

In addition, a combined total of 2.0 miles of roads were added to the Cleveland National Forest Road System. Most of these additions (1.7 miles) were needed for administrative access to infrastructure, while 0.3 miles were added for public use, as was a 0.7 mile-long motorized trail. These additions and subtractions updated the Road System to reflect changed conditions since the Motorized Travel Management decision of 2008, and the project as a whole will improve watershed conditions across the Cleveland National Forest.

The 2005 LMP and the 2008 Motorized Travel Management decision resulted in approximately 245 miles of Forest roads open to highway-legal vehicles and an additional 80 miles of roads and trails open to off-highway vehicles. Public motorized use of the National Forest is restricted to these routes in order to prevent resource damage. When the road designations are not clear or legally conformed, the user created unauthorized routes pass through the habitats of federally-listed threatened and endangered species, not to mention other sensitive species. Over half of the routes cross or follow riparian areas, thereby contributing to soil erosion, habitat degradation, and water quality impacts. One-quarter of the routes lie within areas managed as Wilderness, where vehicles are prohibited altogether, or Inventoried Roadless Areas, where road-building is particularly restricted. Fifteen percent of the routes pass through known archaeological sites, presenting risks to priceless resources. Finally, unauthorized routes contribute to other illegal activities on the Forest, such as dumping, target shooting, and dispersed campfires, that can lead to costly and damaging wildfires.

## Existing Transportation System on the Cleveland National Forest

### Background

Most of the roads were constructed by the Civilian Conservation Corps (CCC) in the 1930's for fire and watershed protection. These roads are narrow, steep, native-surfaced travel ways with few, if any, turnouts and few minimal drainage features. These roads are designated as Level 2 maintenance and make up the bulk of the road system. The amount of use these roads currently receive was not anticipated in the 1930's, nor was the size of today's fire engines. As a result of road maintenance budgets are not keeping up with inflation and road deterioration. The condition of many roads on the Forest has fallen below the levels necessary for resource protection and to efficiently support the traffic volumes being carried. About 20 percent of the total ML 2 miles have points of difficulty for the latest generation of wildland fire engines.

In 2005, the Cleveland National Forest received a total of \$514,000 (equivalent to \$822,000 in 2016 dollars) to maintain 418 miles of NFSR. On the average, 35 percent of the Forest's miles received some maintenance in 2005, and only 20 percent of miles were maintained to standard. The CMRD road maintenance budget has declined each year to \$319,000 (\$267,000 in buying power) in 2016 providing some maintenance to only five percent of CNF's miles.

The deferred maintenance backlog of \$35,019,372 for roads based up the Forest Service NRM Infrastructure database system (INFRA) represents the funds needed to bring Level 2 through 5 roads back up to their designated standards in regards to health and safety, protection of resources, and to support the mission of the Forest Service. Only five percent of CNF's miles receive some maintenance each year. Very few miles can be maintained with such a severely reduced budget.

The deferred maintenance backlog continues to grow each year (See Table 2) resulting in maintenance needs are unable to be fulfilled. Erosion of the drivable surface on some of the 1930's era Level 2 roads has left portions of uneven exposed bedrock. These portions are impassable by today's fire equipment. Erosion of the Southern California highly degradable soils contribute to the loss of available drivable width. Other continual issues include: small slides; heavy brush encroachment; eroded out-sloped sections; lack of improved water crossings; and tight horizontal radius curves through vertical solid rock cuts.

NFSR are not public roads in the same sense as roads that are under the jurisdiction of state and county road agencies. NFSR are not intended to meet the transportation needs of the public at large. Instead, they are authorized for the use and administration of NFS lands. Although roads are generally open and available for public use, that use is at the discretion of the Secretary of Agriculture. Through authorities delegated by the Secretary, the Forest Service may restrict or control traffic to meet specific management direction. The majority of travel on the National Forest Transportation System (NFTS) is linked to resource management and outdoor recreation. These roads provide access for multiple uses. An appropriate level of maintenance is designated for every road depending on the traffic permitted or required by on-going resource programs (See definitions of maintenance levels in Appendix A: Glossary).

### **Current Transportation System**

The Cleveland National Forest currently manages and maintains a NFSR of approximately 406 miles of roadway. The NFSR is managed and maintained to various road standards depending on Road Management Objectives (RMOs). The roads range from paved roads to roughly graded high clearance roads, depending on the type of access necessary. In some cases, where no access is currently needed, roads are "stored" for future management use by closing them to all motor vehicle traffic (See definitions of maintenance levels (ML) in Appendix A).

A road is defined as a motor vehicle travel-way more than 50 inches wide that is not designated and managed as a trail. The quality of roads varies by number of lanes, surfacing, by low/medium/high standard, and by functional classification (local, collector, arterial) in a general relation to ML. Each of these road types requires a different level of maintenance for upkeep. The mileage of each type of road is shown in Table 2. Each road also has a functional designation as a local, collector, or arterial road.

**Table 2 – Miles of CNF Roads by Operational ML and Objective ML<sup>a</sup>**

| <b>ML</b>          | <b>Objective Level</b> | <b>Operating Level</b> |
|--------------------|------------------------|------------------------|
| ML 1               | 14                     | 36                     |
| ML 2               | 269                    | 279                    |
| ML 3               | 48                     | 16                     |
| ML 4               | 55                     | 55                     |
| ML 5               | 20                     | 20                     |
| <b>Total Miles</b> | <b>406</b>             | <b>406</b>             |

<sup>a</sup> These data were taken from the USDA Forest Service Infrastructure resource information database system (INFRA) in January 2017.

Maintenance levels are defined by the USDA Forest Service Handbook (FSH) as the level of service provided by and maintenance required for a specific road. Maintenance levels must be consistent with road management objectives (RMOs) and maintenance criteria. Roads may be currently maintained at one level (Operational ML) and planned to be maintained at a different level (Objective ML) at some future date.

The operational maintenance level is the maintenance level currently assigned to a road, considering today's needs, road condition, budget constraints, and environmental concerns. The objective maintenance level is the maintenance level to be assigned at a future date, considering future road management objectives, traffic needs, budget constraints, and environmental concerns. The objective maintenance level may be the same as, or higher or lower than, the operational maintenance level. The transition from operational maintenance level to objective maintenance level may depend on reconstruction or improvement to a higher standard, or disinvestment (i.e., conversion to trail or decommissioning).

### **Sustainability Including Fiscal Capacity**

NFSR require administration and maintenance to safely accommodate their intended use, and to avoid problems that can arise when routes fall into disrepair. Included are costs of maintenance that should be performed routinely to maintain the system to its current standard (annual maintenance), and costs of needed maintenance that has not been completed for various reasons (deferred maintenance). Additional costs may be operations, management, enforcement, mitigation of safety or resource issues, decommissioning, and improvements associated with proposed changes to the NFTS. Implementation costs may be for constructing new routes that could be added to the NFTS, for safety improvements, or for increasing maintenance levels. Maintenance costs may differ based on the designated road maintenance level.

Estimates of the annual maintenance costs for the existing road system are included in the following table. Average costs per-mile to maintain each maintenance level were developed and applied to the road system to calculate the estimated total cost. The average unit costs per mile were developed on a

regional level (Pacific Southwest Region) but adjusted for the high costs in urban southern California. Some maintenance activities need to be performed annually; others are performed on a less frequent cycle. The costs shown reflect the annualized costs of performing all needed maintenance activities on their required cycle.

**Table 3 – 2016 Average Annual Maintenance Needs –CNF**

| Maintenance Level | Cost/Mile | Forest Miles | Annual Maintenance Needed |
|-------------------|-----------|--------------|---------------------------|
| ML 1              | \$400     | 36           | \$14,400                  |
| ML 2              | \$1,000   | 279          | \$279,000                 |
| ML 3              | \$6,500   | 16           | \$104,000                 |
| ML 4              | \$20,000  | 55           | \$1,100,000               |
| ML 5              | \$30,000  | 20           | \$600,000                 |
|                   |           | Total Needed | \$2,097,400               |

*Note: This table assumes all appropriated funding is used only for repair and maintenance only.*

| FY Funding Forecast | Funding    | Maintenance Funding Available (less management) | Miles ML-2 able to be maintained |
|---------------------|------------|---|----------------------------------|
| 2015 Available      | \$ 336,000 | \$160,760                                       | 161                              |
| 2016 Available      | \$ 319,000 | \$143,760                                       | 144                              |
| 2017 Available      | \$ 319,000 | \$143,760                                       | 144                              |
| 2018 Expected       | \$ 319,000 | \$ 143,760                                      | 144                              |

*Management to cover salary of two employees to coordinate maintenance and repairs.*

The bottom portion of the table shows available funding for the last few Fiscal Years along with the net funding available to perform maintenance work on the ground deducting management costs and the associated miles of road that would then be available to be maintained. Note that just looking at ML-2 roads within this estimation (which is most or 66% of the roads on the Forest), the current funding regime has not adequately provided for maintenance of those roads (279 miles) since before 2015.

Each year, the Cleveland National Forest prepares a road maintenance plan, which identifies the road operation and maintenance priorities for the year, as well as maintenance that needs to be done prior to opening for traffic after seasonal closures. CNF Resource protection and public safety are maintenance priorities. Regional budget direction prioritizes spending funds for road maintenance to correct safety issues on passenger car system roads and secondly to protect existing investments in drainage structures including bridges and culverts. Finally, regional priorities are to inspect current conditions by reducing impacts to water quality and other resources. It is estimated nearly \$190,000 in

salary and vehicles alone is needed to administer the Forest Transportation system, which greatly reduces what is available for funds to perform work at the ground level. Needed maintenance that is not completed increases the deferred maintenance backlog. Maintenance is completed by Forest Service, contractors, volunteers, user groups, cooperators, and other forest resources, as appropriate.

Road funding includes both routine maintenance and other related maintenance activities. Additional maintenance may be accomplished using other funding sources, agreements, partnerships, and other methods. Accomplishments may vary from year to year depending on how the work is accomplished and what gets accomplished. For example, if a mile of road needs blading and vegetation removal, but only vegetation removal is completed, the mile of road is still claimed for maintenance credit. The majority of the maintenance done is vegetation clearing and minor surface repair (pothole patching, slough removal), whereas surface blading and asphalt repair get left out due to the high cost. In the following table, miles maintained means at least one maintenance activity was performed, not that every mile reported was fully maintained to standard.

**Table 4 - Road System Appropriated Funding and Maintenance**

| Road Activity           | 2006  | 2007  | 2008  | 2009  | 2010  | 2011  | 2012  | 2013  | 2014  | 2015  | 2016  | 2017  | 2018  |
|-------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Funds (CMRD)<br>X 1,000 | \$514 | \$509 | \$624 | \$510 | \$485 | \$326 | \$347 | \$338 | \$338 | \$336 | \$319 | \$319 | \$319 |
| Miles Maintained        | 88    | 55    | 31    | 31    | 29    | 25    | 20    | 92    | 118   | 65    | 74    |       |       |

These data were taken from a variety of Forest Service budget and accomplishment reporting systems.

The increase in road maintenance over the 2013 and 2014 period is accounted by the fact that the Forest Road Manager position was vacant in 2013 thru 2015, and the CNF used salary savings to import force account road crews specifically to perform road maintenance. This level of maintenance is not typical nor is it expected to last since the position was filled in August 2015.

Road maintenance budgets have declined over the past decade and are expected to continue in downward rate with current projections. Annual road maintenance budgets have not been sufficient to accomplish all needed maintenance activities on the Cleveland National Forest. Additional funds are reserved at the regional or national level for competitive projects throughout the region, and are awarded on a competitive basis. Funded projects typically focus on new construction or reconstruction, which may reduce deferred maintenance, but contributes little to annual maintenance. Although this competitive funding may help accomplish limited additional road maintenance on the Cleveland National Forest, funding still falls far short of the amount needed to adequately maintain the roads system. In FY 2016, a new Region 5 funding distribution formula was implemented using a formula base with land area and visitor use. Some of the figures for the CNF may be outdated since the population growth (visitor use) does not seem to be reflected given the greatly declining budget. With this new formula, it can be seen that there are not sufficient funding levels to maintain only the ML-2 roads on the forest.

While maintenance budgets decrease and the maintenance backlog grows larger, safety standards have become more stringent. Existing warning and regulatory signs placed on ML 3-5 are now required to meet new standards for retro-reflectivity set by the Manual on Uniform Traffic Control Devices (MUTCD). In addition to the higher cost of the signs themselves, a monitoring strategy must be in place to ensure signs are still meeting retro-reflectivity requirements, which increases costs. Increased concern over liability requires engineering studies to be performed on roads to be able to enforce posted warning and regulatory signs.

The resources needed to maintain the entire National Forest Transportation System are significant. The Forest Service has estimated that, at best, the agency has received approximately seven percent of the actual funding needed for annual maintenance. The management response has been to defer certain maintenance-related items to a later time and not accomplish some much-needed capital improvements.

The most recent estimate of deferred maintenance needs in the Cleveland National Forest is \$35,019,372 for roads according to INFRA and as discussed in the Cleveland National Forest Business Plan of 2002 developed for the Land Management Plan Revision of 2006. During the decade the Cleveland National Forest received \$1,910,000 from FHWA to repair storm -damaged roads. Other recovery and emergency supplemental programs: WFW3, CMES, and RIRI totaled \$4,300,000 to restore roads in burned areas. This work restored the damaged roads to their previous existing condition with an emphasis on grading and drainage repairs. Storm damage and fire area damage to roads that are repaired focuses on restoring equivalent access, not accomplishing deferred maintenance.

Supplemental CMRD funded a bridge replacement and repair of another in 2007 for \$504,000. The ARRA program in 2009 provided \$500,000 for road deferred pavement repairs, overlays and seal coats on campground roads and at administrative sites. These projects addressed a pressing need for the sustainability of the CNF road system. As programs within and outside of the Forest Service become available for competitive grants, the CNF needs to balance endangered species protection, watershed restoration, road conditions for public and administrative users to determine the most pressing needs when preparing grants.

Road Management Objectives should be updated to discuss the appropriate ML. Possibly, some of the 16 miles of ML 3 can be maintained at a lower level and some of the 280 miles of ML 2 may be candidates for ML1 or potential decommissioning. This TAP update has provided the opportunity for the Forest to closely evaluate the public and administrative importance of high resource risk roads identified in the 2005 RAP and 2011 Collaborative Study, and to look at any other roads now believed to be more or less important, again requiring further NEPA analysis to change public motorized access, or to decommission a road mapped and listed in the MVUM.

Deferred maintenance consists of the following categories:

- Health and Safety (clearing along roadsides, repairing potholes, replacing signs, etc.)
- Resource Protection (installing water bars, rolling dips, and over-side drains to prevent or reduce sediment from entering streams; installing larger culverts or bridges for aquatic

organism passage; closing roads to protect sensitive plant and animal species and to encourage animal migration)

- Forest Service Mission (providing safe access on roads for fire protection, and vegetation management)

In recent years, the Forest Service has actively assessed the condition of its road network. The network is in a deteriorating condition due to increased use and the continued deferral of maintenance and capital improvement needs. Roads are becoming unusable through lack of maintenance, are causing resource damage, such as in Silverado and Modjeska Canyons, or are no longer needed, or desired, for administrative or public access. These increasingly unusable roads are candidates for decommissioning after conducting the appropriate site-specific environmental analysis.

### External Transportation System Relevant to the Area

Portions of Interstate Highways 5, 8 and 15 and State Highways 74, 76, 78, 79, 91, and Toll Road 241 pass through or near the Forest. Some current coordination issues include: maintaining scenic integrity, adding scenic and interpretive enhancements, improvements for public safety, erosion, landslides, disposal of landslide debris, protection of plants and wildlife, and introduction of non-native species of plants and wildlife.

The Cleveland National Forest is located in three counties: Orange, Riverside and San Diego. Normal annual county maintenance on roads through the Forest is coordinated. The Forest coordinates on Forest Highways for enhancement projects and erosion protection. Fires require rapid coordination with the Counties, tribes, landowners, and other agencies during suppression activities, and for the post fire rehabilitation and erosion protection.

**Table 5 - Miles of Roads with other Jurisdiction**

| Jurisdiction       | Approximate Miles |
|--------------------|-------------------|
| Interstate Freeway | 24                |
| State              | 92                |
| County             | 156               |
| Forest Highways*   | 72                |
| Total              | 272               |

The Forest Highway designation miles shown are in the County and State totals.

Based on current trends, future demand for recreation access is expected to continue to grow while access needs for commodity production is expected to be lower than in the past, especially in the higher use recreation areas. Funds to maintain the current road system using current sources are expected to decrease (see Table 3, Table 4).

The National Survey on Recreation and the Environment 2000 shows surveyed user priorities for Forest Management in descending order:

Manage for Protection (Avg. 74.0 percent)

- Protect streams and other sources of clean water
- Provide habitat and protection for abundant wildlife and fish
- Protect rare, unique or endangered plant and animal species

Manage for Amenities (Avg. 61.6 percent)

- Maintain national forests for future generations to use and enjoy
- Provide quiet, natural spaces for personal renewal
- Use and manage forest areas in ways that leave them natural in appearance
- Provide information and educational services about forests, their management, and the natural life in them

Manage for Outputs (Avg. 38.1 percent)

- Provide access, facilities and services for outdoor recreation
- Emphasize planting and management of trees for an abundant timber supply
- Provide access to raw materials and products for local industries and communities
- Provide roads, accommodations and services to help local tourism businesses

## Background of Travel Analysis Process

The current Forest Service direction for travel analysis is the result of a series of agency decisions over the last decade concerning the management of motorized vehicle use on National Forest System lands. The initial policy included only roads, but evolved over time through additional policy decisions to address all motorized travel: on roads, trails, and in areas designated as open for cross-country motorized travel.

Agency policy requiring a science-based analysis for travel management decisions began in August 1999, when the Washington Office of the United States Department of Agriculture (USDA) Forest Service published Miscellaneous Report FS-643 titled “Roads Analysis: Informing Decisions about Managing the National Forest Transportation System.” The objective of the roads analysis was to provide decision-makers with critical information to develop road systems that were safe and responsive to public needs and desires, were affordable and efficiently managed, had minimal negative ecological effects on the land, and were in balance with available funding for needed management actions.

In October 1999, the agency published Interim Directive 7710 authorizing units to use, as appropriate, the road analysis procedure embedded in FS-643 to assist land managers making major road management decisions. In January 2001, the Forest Service issued the final National Forest System Road Management Rule. This Roads Rule revised regulations concerning the management, use, and maintenance of the National Forest Transportation System (NFTS) to make them consistent with changes in public demands and use of National Forest System resources and in response to the need to

better manage funds available for road construction, reconstruction, maintenance, and decommissioning. The final Roads Rule removed the emphasis on transportation development and added a requirement for sound science-based transportation analysis. The final Roads Rule was intended to help ensure that additions to the National Forest System road network were those deemed essential for resource management and use; that construction, reconstruction, and maintenance of roads minimized adverse environmental effects; and that unneeded roads were decommissioned and restoration of ecological processes was initiated.

In November 2005, the USDA promulgated the final rule for “Travel Management: Designated Routes and Areas for Motor Vehicle Use,” otherwise known as the Travel Management Rule (TMR), to provide more effective management of public motor vehicle use. Subpart B of the TMR requires designation of those NFS roads, NFS trails, and areas on NFS lands where public motor vehicle use is allowed (36 CFR 212.51(a)). Unless exempted from the designations, public motor vehicle use is prohibited off designated routes and outside designated areas (36 CFR 261.13). Under subpart B, the responsible official must establish a system of routes and areas where motor vehicle use is allowed. Subpart C of the current TMR authorizes but does not require the responsible official to allow, restrict, or prohibit Over Snow Vehicle use on NFS roads, NFS trails, and areas on NFS lands. The Cleveland National Forest does not have any designated National Forest System (NFS) roads, NFS trails or areas on NFS lands where over snow vehicle use is allowed and therefore will not provide any input to this Part within the TAR. The Federal Register renamed “Road Analysis” as “Travel Analysis,” and streamlined some of its procedural requirements for the purpose of designating roads, trails, and areas for motor vehicle use, and to expand the scope of roads analysis to encompass trails and areas.

The Forest Service revised regulations regarding travel management on National Forest System lands in 2005 to clarify policy related to motor vehicle use, including the use of off-highway vehicles. The travel management rule requires designation of those roads, trails, and areas that are open to motor vehicle use. Designation is made by class of vehicle and, if appropriate, by time of year. The final rule prohibits the use of motor vehicles off the designated system; as well as use of motor vehicles on routes, and in areas that are not consistent with the designations. The clear identification of roads, trails, and areas for motor vehicle use in each national forest:

- Enhances management of National Forest System (NFS) lands;
- Sustains natural resource values through more effective management of motor vehicle use;
- Enhances opportunities for motorized recreation experiences on NFS lands;
- Addresses needs for access to NFS lands; and
- Preserves areas of opportunity in each National Forest for non-motorized travel.

The current designated transportation system open for public motor vehicle use is shown on the Motor Vehicle Use Maps (MVUMs). These maps identifies National Forest System roads, National Forest System trails and areas on National Forest System lands designated for motor vehicle use under 36 CFR 212.51 for the purpose of enforcing the prohibition at 36 CFR 261.13. Also, other public roads are

shown for information and navigation purposes only and are not subject to designation under the Forest Service travel management regulation.

Travel Analysis is required to inform decisions related to identification of the minimum road system needed for safe and efficient travel and for administration, utilization, and protection of National Forest System lands (36 CFR 212.5); and to inform decisions related to the designation of roads, trails, and areas for motor vehicle use.

Travel Analysis Process (TAP) is a science-based analysis; it neither produces decisions nor allocates NFS lands for specific purposes. Rather, responsible officials, with public involvement, make future travel management decisions regarding the National Forest Transportation System (NFTS), which is informed by travel analysis to move administrative units towards the minimum road system. The ultimate goal of the TAP is management and sustainability of a road system that minimizes adverse environmental effects by assuring roads are in locations only where they are necessary to meet access needs, and can be maintained within budget constraints.

The TAP is based on the consideration of ecological, social, and economic impacts. The TAP must be documented in a Travel Analysis Report (TAR), which includes:

- Information about the analysis as it relates to the criteria found in 36 CFR 212.5(b)(1).
- Maps displaying opportunities for all system roads that differentiates between those roads that are likely needed for future use (LN) and which will potentially remain, and those that may be likely not needed for future use (LNN) and removed or changed. The maps will be used to inform future proposed actions subject to National Environmental Policy Act (NEPA) compliance.

This TAR documents the changes to the CNF NFSR from 2005 to 2016 and validates the measures of public and administrative importance to the HRLI list from the 2005 RAP and the LH and LL lists from the 2011 SoCal Collaborative Study, and other roads identified during the review process. Some HRLI and LH, LL roads may now be more important than in 2005 and 2011, some additional roads may now be LNN.

## **Roads Analysis RAP 2005 SoCal National Forests**

The risk-benefit GIS based Roads Analysis process (RAP) was conducted from 2002 to 2004 using an interdisciplinary, science based process described in FS-643 Roads Analysis for the four southern California (SoCal) National Forests.<sup>1</sup> The public was involved during the Land Management Plan (LMP) revision process, which incorporated the RAP. Tens of thousands of comments were received from the

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<sup>1</sup> The electronic links to the 2005 Southern California Plans EIS, including the Roads Analysis and its maps are posted on the Cleveland National Forest Web site: <http://www.fs.usda.gov/lpnf/>. The link to the Southern California National Forests Land Management Plan includes all related documents for both the 2014 Amendment and the 2006 Records of Decision, Plans, EIS and supporting documents. The 2005 Roads Analysis completed for the LMP Revision was multi-Forest scale and covered the Angeles (ANF), Cleveland (CNF), Los Padres (LPNF), and San Bernardino National Forests (SBNF).

public related to travel through five rounds of public involvement.<sup>2</sup> The need for the National Forest System Roads (NFSR) to provide access to protect resources, permitted activities, fire suppression, and hazardous fuels reduction and to provide recreation opportunities for the public was evaluated and measured and compared to the economic costs of the system and the effects to the natural and heritage resources affected by the system. Ranked lists and maps showing natural resource risks and road importance (benefits) were prepared to help Line Officers make informed decisions. All NFSR Maintenance Levels (ML) 1 through 5 were evaluated and ranked in order to support the concurrent LMP revision Process. The analysis yielded lists for each Forest of High Priority for Mitigation (HPM), Low Priority for Mitigation (LPM) and High Risk Low Importance (HRLI). It was further mapped to show ML 3, 4, 5 passenger car roads and ML 2 high clearance vehicle roads, and ML 1 closed roads. Each Forest verified the RAP lists and maps, and the documents were subject to several rounds of public involvement during the Plan Revision process. This report contains information concerning the transportation system, and *does not make road management decisions*. Additional Travel Analysis Process (TAP) and subsequent environmental analyses at a more site-specific level would need to be conducted to make road management decisions.

The Regional Forester signed the Records of Decision (ROD) and Final Environmental Impact Statement (FEIS) on September 20, 2005. "Most of the development (such as roads, developed recreation sites, and administrative structures) that might be expected to occur on the national forest has occurred. The Forest transportation systems (roads) have been built and much expansion should not occur. The decision is based on the concept of gradual change over time, expanding or improving the capacity of existing facilities before building new ones."<sup>3</sup>

Under 36 CFR 212.5 (b) (1): the National Forests will "...identify the minimum road system needed for safe and efficient travel and for the administration, utilization, and protection of National Forest System lands." The FEIS confirmed the need for the existing system, and the RODs specifically mentioned that the NFSR is the minimum system needed, minus any roads listed or determined in the future to be HRLI, or High Risk, Low Benefit, and likely not needed for future use. This list will help to inform Line Officers of opportunities for road system reduction as future projects are analyzed with site-specific watershed level analysis. The system can be further evaluated to remedy essential road, endangered species, watershed, density, and archaeology impacts (which are studied annually during LMP compliance reviews and Best Management Practice (BMP) reviews). The general plan direction, the Road

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<sup>2</sup> USDA Forest Service Final Environmental Impact Statement, Volume 1 Land Management Plans Angeles, Cleveland, Cleveland and San Bernardino National Forests R5-MB-074-A September 2005. Pages seven-nine. See link above. Also FEIS Volume 2, Appendix M pages 548-553 Response to Public Comments.

<sup>3</sup> USDA Forest Service Final Environmental Impact Statement Land Management Plan Revision CNF Record of Decision, September 2005, page 1 (wording similar in ANF, SBNF, LPNF, and RODs). See also FEIS Alternative 4a selected pages 46-48, 275-281, pages 311, 536-537, and 542-543.

Maintenance Objectives (RMO)s, compliance reviews and needs for public and administrative access is evaluated in the development of each Forest's Road Maintenance Plan.

### **Summary of Important 2005 ANF, CNF, LPNF, and SBNF RAP Findings**

1. NFSR roads provide access for fire suppression, community protection, recreation, landowners, and permittees. Demand is increasing as road conditions deteriorate, while public access is diminishing.
2. Of 1,419 NFSR roads (3,780 miles), 279 very important roads (214 miles) and 177 low importance roads (140 miles) have portions in locations of high environmental risk.
3. 1,128 miles of State and County roads occupy 23,400 acres of NF land, while 3,780 miles of NFSR occupy 21,000 acres.
4. Southern California NFSR road density is 0.69 miles / square mile; the density throughout the rest of Region 5 is 1.61 miles / square mile.
5. 25% of Level 2 roads (670 miles) have pinch points that restrict fire engines.

The importance measure of all HRLI roads has been verified in 2016 by interdisciplinary review at the field level, and updated in this TAR.

### **Identifying Issues RAP 2005**

To adequately identify issues the 2005 RAP interdisciplinary team (IDT) needed to conduct public involvement. Under the 2005 RAP the RAP IDT identified a need to gather information from the public in terms of their lifestyles, attitudes, beliefs and values regarding the forest road system. As noted earlier all NEPA studies after the 2005 LMP ROD that involved roads conducted public involvement for the LMP Amendment, hazardous fuels reduction projects, rangelands projects, and the watershed protection and restoration projects.

### **RAP 2005 Public Involvement Subpart A**

#### **Public Involvement (See Appendix M pp. 520-568 Final EIS Vol. 2 Land Management Plans Sept 2005)**

Since the RAP Process was conducted simultaneously with the revision effort, no separate public involvement process was initiated for the roads analysis. Comments received during formal and informal scoping periods and public meetings for the revision, were categorized and entered into a database. Over 10,000 comments were received pertaining specifically to "access", which were then

analyzed and reviewed for issue identification prior to the RAP. Internal comments from specialists on each Forest were also documented and considered during the analysis process.

Formal public scoping for the Plan Revision was initiated with the publishing of “the Notice of Intent (NOI) to prepare Environmental Impact Statement for the Forest Plan Revisions” in the Federal Register on September 24, 2001. The NOI asked for public comment on the proposal from September 24 through December 31, 2001. Comments have also been accepted throughout the process and requested at the public meetings and workshops.

Four rounds of public meetings and open houses were held in various locations across southern California. The first series were held from January through March of 2001, and the public was asked to develop a list of values and visions for the Forests. A second round of public meetings ran from March through May of 2001. At these meetings the public was presented with our preliminary significant issues and a range of background data and information. The third round of public meetings was held from October through December 2001. At that time, the public was asked for comments on the proposed action. A fourth round of public workshops held in February and March 2003, showed the public the range of alternatives being considered to address the issues and asked if their concerns were addressed by at least one of the alternatives. In addition, newsletters and information posted on the forest planning website kept the public informed and involved in the planning process.

Other than members of the general public, specific stakeholder groups were invited to participate in the process, including: other federal, state, county, and city agencies; nearby private landowners; Native American tribes; numerous local and national interest groups and community associations.

The main issues associated with roads on the Cleveland National Forest:

- Concern that roads will negatively affect the water flow within the watersheds for various reasons including the shallow, erosive soils, areas of steep terrain and proximity of roads to stream courses, numerous crossings, and endangered and sensitive species habitat.
- Concern that adequate road access is maintained for private landowners, recreation and business users, administrative and vegetation management activities, and for fire protection.
- Concern that motorized use roads for 4WD/OHV associated recreation will have to change because many roads are listed for consideration for closure or conversion to trail.
- Concern that roads have negative effects by allowing people to access and damage cultural resource sites, create visually offensive scars on the land, or negatively affect wilderness resources.
- Concern that roads have negative effects to wildlife or sensitive plants by fragmenting habitat leading to species and suitable habitat declines.

The primary concern for land managers is to provide adequate access for public use; and resource management; including recreation, authorized special uses, private land access, and vegetation treatment for fuels reduction, fire protection, and wildlife and aquatic habitat improvement.

The primary legal constraints on road management, are the requirements to protect cultural resources, requirements to allow reasonable access to private in-holdings, the aquatic management strategy, maintaining wilderness characteristics in designated wilderness and IRAs that have not been released for other uses, and the standards and guidelines in the 2005 Cleveland Forest Plan Amendment (USDA 2005). The other constraint is the budgeted road maintenance CMRD allocation.

### **Problems, Risks, and Benefits Assessment RAP 2005**

All topics required by the FS-643 report were incorporated in the 2005 RAP prepared in conjunction with the Land Management Plan Revision. These topics include ecosystem functions and processes; aquatic, riparian zones and water quality; terrestrial wildlife; economics; commodity production in terms of timber, minerals and range management, water production, and special forest products; special use permits; general public transportation; administrative uses (e.g., resource management); protection (e.g., fire or cultural resources); road-related and unroaded recreation; social issues; and civil rights and environmental justice. The Social Multi - National Forest RAP was conducted at a broad, multi - forest scale to identify overall trends and to identify priorities for potential future projects. RAP 2005 Chapter 4 documents the assessment of problems, risks and benefits.

Some topic areas are best evaluated at the more site-specific scale than at the multi - forest scale. This is because some of the data becomes so diluted at the broad scale that detail is lost that relates to the effects. Where at the more site-specific scale, effects can be seen and evaluated as has been accomplished successfully at the watershed, sub watershed, and hazardous fuels project levels on studies from 11,000 acres to 1,000 acres.

### **Civil Rights and Environmental Justice**

The National Survey on Recreation and the Environment (NSRE) surveyed individuals to determine if different segments of society differ in their values toward the National Forests. For five National Forest values, the researchers broke down responses by individuals' ages, gender, race, income groups and education. One of these values is "Provide access, facilities and services for outdoor recreation." The importance ratings changed across each category evaluated. This forest value became increasingly important for segments of the population in the following categories:

- As people age (especially from age 45+),
- Females,
- Native Americans (much more important),
- Blacks (slightly higher importance),
- Income of \$15,000 to \$24,000,
- Individuals attaining up to and including an eighth grade education. (Cordell et. al. 2001)

Information of this type was not requested during the Road Analysis public involvement. However, the change in terms of age does coincide with the RAP responses received (See Appendix E). Further study would be necessary to determine if different segments of society differ in their values toward providing road access within the forest.

### **Economics by Road Maintenance Level**

As a rating factor, economics represents the relative value invested to construct the road, the relative cost to maintain the road in its current condition, and the overall importance of the access provided by the road. Higher standard roads cost more to build and maintain, but also typically provide access to larger land areas for a wider variety of uses. In this analysis, higher standard roads (ML 4 – 5) were rated as most important, with medium standard roads (ML 3) rated as moderately important, and high clearance or closed roads (ML 2 -1) rated as least important.

### **Opportunities and Setting Priorities (See 2005 RAP Chapter 5)**

This portion of the report identifies the management opportunities in terms of risks and benefits, establishes priorities and formulates technical recommendations for the existing and future road system. These opportunities and priorities were developed in response to the issues, benefits, problems and risks identified throughout this report. Economics is a significant influence on opportunities and priorities.

### **Overall Economics**

As mentioned earlier, the current annual road maintenance budget is only sufficient to cover a very small percentage of the road system forest-wide.

### **Future Transportation Trends**

To support the existing road system with current, and projected appropriated maintenance funding (CMRD) and non-appropriated maintenance funding; routine maintenance is being reduced, maintenance cycles are extended, and selective repairs are made to ensure public safety and prevent significant resource damage. Major repairs are funded by special appropriations outside of the annual forest budget. Current and projected funding levels do not cover deferred maintenance, which means that the deferred maintenance backlog grows annually (e.g., roads that are to be maintained once every 5 years may be maintained only once every 10 years). Over time, roads may develop severe safety or resource damage issues, and may need to be evaluated for closure to public motorized vehicular use.

The lack of maintenance due to limited available funding, particularly on the lower priority roads (ML 1 and 2), is causing deterioration of the roadways. Some roads and trails have become overgrown with brush and trees, and are impassible to vehicular traffic. Other roads are causing resource damage in the form of sedimentation, as culverts and other drainage structures no longer function properly. The highest priority for road maintenance is expected to be on maintenance levels 3 to 5 roads for public and administrative access, and reasonable access to private property. Other roads that provide access to private lands, important fire protection features, administrative sites, special use permitted areas, and recreation areas are also expected to be priorities to maintain. This means that the ML 1 and 2 roads may receive **no** annual maintenance.

Road maintenance in the Cleveland National Forest is essential for providing and managing recreation opportunities. The Cleveland MVUM has 222 roads totaling 202.7 miles of ML 2-5 NFSR available for public motorized use. While recreation demand in the future is expected to increase, appropriated dollars have been decreasing over the past several years. Appropriated dollars alone (CMRD) will not be enough to fully fund the operation and maintenance of roads. Partnerships, including volunteers, are expected to be essential for providing high quality recreation opportunities. Consequently, the forest relies more and more heavily on outside funding, partners, and volunteers to maintain the NFS. As the population grows and urban development expands, the continuous use of NFS roads is expected to increase, as is the demand for a variety of recreation uses in both motorized and non-motorized settings. Maintenance Level 3 to 5 roads that connect to recreation areas will experience the most increases in day use traffic, particularly on weekends. This traffic adds to the maintenance work required, but no additional funding is available to accomplish the work.

As a result of increasing use and decreasing maintenance funding, fewer roads are being fully maintained to standard. Reduced maintenance could lead to erosion and deterioration of roads; closure due to safety concerns and deferred maintenance needs; and subsequent loss of recreation opportunity and quality of experience. Not performing routine annual maintenance on time has increased the amount of deferred maintenance across the forest. Also, not performing routine annual maintenance may increase the amount of resource damage and safety issues caused by the use of the roads. Roads not properly receiving maintenance would inevitably be affected, and access for both public and administrative use is expected to continue to be degraded, and encourage road decommissioning.

Funding sources to maintain roads are limited. There are no recreation fees available to supplement the annual maintenance funds, and there is no prospect of recreation fees becoming available in the near future. Gas Tax funds may become available from the Federal Highway Administration to improve and maintain a subset of the passenger vehicles roads (ML 3 – ML 5) in the forest under the Federal Lands Transportation Program (FLTP) established in 2013. This FLTP designated network consists of roads that provide access to high use recreation sites, special places, and economic generators. The designated network must also be reasonable and manageable to optimize the use of limited funding. Since the program was recently established, designation of the network is ongoing. Since FLTP designated roads are ML 3 – 5 roads, they are subject to the Highway Safety Act.

### **Risk to Ecosystem Sustainability**

The questions under this and the following headings are from the FS-643 report and guide the discussion of these topics.

#### Does the existing system of roads create an unacceptable risk to ecosystem sustainability?

Portions of the existing road system create risks to ecosystem sustainability. The roads that follow perennial and intermittent creeks generally have a higher impact on water flow and quality. There are also densely roaded areas within the Forest that are affecting the quality of wildlife habitat. Aquatic species and their habitat are being affected by the road stream crossings and the proximity of roads to creeks. However, the extent of negative effects is not certain at this scale. If the road system is not

adequately maintained, the potential risks to the ecosystem are likely to increase in different areas mainly in terms of sediment yield to creeks.

### **Budget Constraints-Current and Projected**

#### **Can the maintenance requirements of the existing system be met with current and projected budgets?**

As in this report, the current and predicted road maintenance budgets do not adequately fund maintenance of the existing road system (See Table 3). The limiting factor in road management for the past decade, and into the foreseeable future is funding. If the CNF used the current allocated road maintenance budget to bring roads within the forest up to standard, only some (ML 4-5) would be maintained; none of the native surfaced roads (ML 1-3) would receive maintenance. This has the potential to increase risks to the ecosystems and access needs if the road system continues to deteriorate at the current rate. With current funding minimal road maintenance is accomplished. This Travel Analysis update of the 2005 RAP and 2011 Collaborative has identified some roads that are less important than previously measured, or some that are more important. These are listed and shown on the maps.

The limited CMRD appropriated funding will require decisions on which roads are to receive the funds. Further analysis of the open miles may need to be done to identify the most important for continued public motorized use. The Forest will have to balance resource considerations with continued public and administrative use, to match available funds to provide necessary access.

## **Road System Objectives from the Land Management Plan**

### **Part 2 Cleveland National Forest Strategy, September 2005**

#### **TRANS 1 - Transportation Management, Appendix B, page 108**

Plan, design, construct and maintain the National Forest System roads and trails to meet plan objectives, to promote sustainable resource conditions and to safely accommodate anticipated levels and types of use. Reduce the number of unnecessary unclassified roads and restore landscapes:

- Enhance user safety and provide adequate parking at popular destinations on high traffic passenger car roads, while also minimizing adverse resource effects.
- Using priorities identified in the RAP, reduce the road maintenance backlog to provide safe, efficient routes for recreationists and through-traveling public and to safely accommodate fire protection equipment and other high-clearance vehicles.
- Implement landscape and watershed scale transportation system analysis on a priority basis. Coordinate with state, county, local and regional government entities, municipalities, tribal governments, other agencies and the public.
- Add unclassified roads to the National Forest System roads (NFSR) or National Forest System Trails (NFST) when site-specific road analysis determines there is a public need.

- Decommission roads and trails that have been determined to be unnecessary and establish level of restoration during project planning NEPA.

### **TRANS 2 - Unnecessary Roads, Appendix B, page 108**

Reduce the number of unnecessary or redundant unclassified roads and restore landscapes:

- Decommission roads determined to be unnecessary for conversion to either the road or trail system through site-specific road analysis.
- Establish level of restoration through project planning.

## **Changes Since 2005 Affecting Cleveland National Forest Road System**

### **Population and Demand for Recreation**

Since 2005, the populations of San Diego, Orange, and Riverside Counties have grown by 7 percent (from 10.8million to 11.5 million). In addition, all of the counties adjacent and nearby have grown as well. The Cleveland National Forest is surrounded by the Los Angeles, Orange County and Riverside County's growing populations around the Trabuco Ranger District, and Riverside and San Diego Counties around the Palomar and Descanso Ranger Districts. The supply of developed and dispersed recreation opportunities will likely remain level unless a national program encourages and funds major new and expanded recreation sites, trails, campgrounds, and roads to access them. As population grows both outside the Forest and in the communities surrounded by the Forest, use and competition for the limited supply of popular Forest recreation sites will lead to capacity management. Public use of the open system roads will increase and 1930's CCC era roads may need widening, crossings that allow aquatic organism passage, storm-proofing and erosion protection, turnouts, enhanced signing, and possibly surfacing.

### **Special Uses and Zoning**

Requests for special uses on the Cleveland National Forest will continue to grow with more demand for infrastructure to support communications, wind and solar electricity generation, energy transmission, and improved access to private inholdings and private development. Nearby developing communities will apply to install water and waste water systems. Current permit holders will want to expand operations. Most will want to use some Forest system roads, which may have to be upgraded to support the commercial activities. The LMP Amendment ROD of October 2014, however, changed the land use zone (LUZ) allocation by re-zoning 43,000 acres from Back Country Non Motorized (BCNM) to Recommended Wilderness (RW). The RW acres are more restrictive and are to be managed as Wilderness. Currently authorized activities will continue but future proposals will likely be located on suitable acres already supporting non-recreation special uses outside of Existing Wilderness (EW), Recommended Wilderness (RW), BCNM, Back Country Motorized Use Restricted (BCMUR), and Critical Biological (CBZ) zones, using existing NFSR for access.

### **Emphasis on Watershed Restoration**

The annual road maintenance budget has declined in the past twelve years from \$514,000 to \$338,000 with a 2015 buying power of \$254,000 compared to 2003, which at that time was only enough to maintain 25% of the miles. With an emphasis on watershed protection and restoration, allowing the roads to deteriorate with drastically reduced maintenance may actually increase watershed degradation

### **Fires, Floods, and Recovery**

Large fires, floods, landslides, earthquakes, windstorms, tree mortality, and drought have occurred in the 2005 – 2016 decade. The CNF road system has been critical in providing access to accomplish fire suppression, and to complete post-event restoration, such as: Burned Area Emergency Rehabilitation (BAER) restoration, watershed restoration, Emergency Relief for Federally Owned Roads (ERFO) road system repairs, hazardous fuels reduction and community protection. Subsequent repair and restoration programs like Wildland Fire Preparedness funds (WFPR), Construction and Maintenance Legacy (CMLG), Emergency Supplemental (CMES), Roads (CMRD) Supplemental, American Recovery and Reinvestment Act (ARRA) and ERFO have funded the major restoration and repairs of roads. As will be described later, the CNF ML 1 – 5 maintained system totaled 418 miles in 2004; in 2016 it totals 406 miles, 12 fewer miles. The Forest embarked on a strategic program to analyze roads, informed by the 2005 RAP, and reduced the Forest maintained road system by decommissioning 2.1 miles one HRLI from the 2005 RAP.

### **Unauthorized Route Investigation and Mitigation**

On May 20 2016, the Forest Supervisor signed a Decision Notice for the Unauthorized Route Decommissioning EA, which made changes to the Cleveland National Forest Road System. This EA and its associated public process met the requirements of the Travel Management Rule (36 CFR 212) for revision of designations of National Forest System Roads and Trails, including the criteria for designations as analyzed in the EA.

Since watershed protection was a primary objective of the project, two severely eroding System Roads were authorized for decommissioning in addition to numerous unauthorized routes: “An impassable, administrative, 2-mile-long segment of 17S08, South Boundary Road, is severely eroding. A passable road through private lands connects to both of its ends, and so it is not needed. A steep, 1.6-mile-long segment of 16S03, Carveacre Road, is currently passable only by high-clearance, 4-wheel-drive vehicles. It is severely eroding and impacting sensitive biological resource areas, and its use presents unacceptable fire hazards and safety risks. Its decommissioning would also render an additional 2.6 miles of 16S03 inaccessible to motorized use by the public. Administrative use of this additional length would continue, given its gated connections to other roads at both ends.” Several undetermined System Road segments were also authorized for decommissioning.

In addition, a combined total of 2.0 miles of roads were added to the Cleveland National Forest Road System. Most of these additions (1.7 miles) were needed for administrative access to infrastructure, while 0.3 miles were added for public use, as was a 0.7 mile-long motorized trail. These additions and subtractions updated the Road System to reflect changed conditions since the Motorized Travel

Management decision of 2008, and the project as a whole will improve watershed conditions across the Cleveland National Forest.

## Accomplishment in the decade of 2004 - 2016

**Table 6 Road Miles by Operating Maintenance Level**

| Category                                     | CNF Infra 2004 | CNF Infra 2016 | Net Change |
|--|----------------|----------------|------------|
| <b>Maintenance Level</b>                     |                |                |            |
| 5  | 25             | 20             | -5         |
| 4  | 54             | 55             | +1         |
| 3  | 18             | 16             | -2         |
| 2  | 311            | 279            | -32        |
| 1  | 10             | 36             | 26         |
| <b>Total road miles</b>                      | <b>418</b>     | <b>406</b>     | <b>-12</b> |
| Level 3-5                                    | 97             | 91             | -6         |
| Level 1-2                                    | 321            | 315            | -6         |
| Rd Density ML 1-5<br>(Mile/mi <sup>2</sup> ) | 0.65           | 0.63           | -0.02      |
| Rd Density ML 3-5<br>(Mile/mi <sup>2</sup> ) | 0.15           | 0.14           | -0.01      |
| Rd Density ML 1-2<br>(Mile/mi <sup>2</sup> ) | 0.50           | 0.49           | -0.01      |

Source: INFRA Travel Routes Database 2004 and 2016

**Table 7 Road INFRA Data 2016 Decommissioned Roads**

| ID    | NAME              | LENGTH | SYSTEM           | Status         | Operating Maintenance Level | District | RAP2005 HRLI |
|-------|-------------------|--------|------------------|----------------|-----------------------------|----------|--------------|
| 6S09  | Lower San Juan PG | 0.5    | NOT NEEDED       | DECOMMISSIONED | NOT MAINTAINED              | 52       | HRLI         |
| 12S07 | Black Canyon CG   | 0.3    | NOT - NOT NEEDED | DECOMMISSIONED | NOT MAINTAINED              | 53       | HPM          |

## **Motorized Travel Management 2008 EA, DN, and FONSI 11/12/2008**

The Subpart A analysis of all ML 1 – 5 roads on the four southern California National Forests (RAP, Sep 2005) was used to inform the next phase in the travel management program, and the Subpart B process was performed in order to prepare the MVUM.

In accordance with the requirements of Subpart B, and based on analysis contained in the environmental assessment and supporting documentation found in the project record that addresses the anticipated environmental effects of travel management changes on the Cleveland National Forest, Alternative 3 was selected for implementation, as described in detail in section 2.2.1.3 of the Environmental Assessment, July 2008. This alternative has been modified from the Alternative 3 that appeared in the review copy of the environmental assessment released for public comment in July 2008.

These modifications were made in response to public comments as described in section 4.0. The Forest Supervisor selected this alternative for implementation because it best meets the purpose and need as described in section 3.0 below and in section 1.2 of the environmental assessment.

Public involvement occurred from 2006-2008 with meetings, outreach, and formal notification. The interdisciplinary team relied on public involvement to ensure that an adequate range of alternatives would be considered. Public involvement included meetings during the summer of 2007, meetings during early 2008, a scoping letter mailed to interested persons in January 2008, and a copy of the environmental assessment made available for public review on July 15 2008.

Alternative 3 results in the CNF having a transportation system that consists of 202.7 miles of roads (adds 1.27 miles, (six roads each about 0.03 miles – 0.8 miles long) for dispersed camping) for highway-legal-only vehicles, 37.8 miles of routes for highway legal and non-highway legal vehicles, 13.1 miles of trail for all vehicles (that is, four-wheel drive, vehicles 50 inches or less in width, and motorcycles), 23.8 miles of trail for vehicles 50 inches or less in width, 5.4 miles of trail for motorcycles, and 15.0 total acres of open areas. Implementation of this alternative led to publication of a motor vehicle use map reflecting these changes in the transportation system.

The CNF MVUM was published in 2009. With the addition of 1.27 miles, 51 percent of the CNF's 360 miles of NFSR are open to highway legal public motorized use.

## **SoCal Collaborative for Roads in and adjacent to IRAs June 2011 Risk – Benefit GIS Based Process with Collaborative Group**

This process developed and applied a Risk – Benefit GIS based process to existing NFS roads, temporary roads, undetermined roads and trails within and adjacent to the Inventoried Roadless Areas on the four Southern California (SoCal) National Forests as a collaborative process with public and private interest groups. <http://www.fs.usda.gov/detail/cleveland/landmanagement/?cid=stelprdb5304738>

The Cleveland, Angeles, Cleveland, and San Bernardino National Forests (collectively the Southern California National Forests) convened an Inventoried Roadless Area (IRA) Road and Trail Analysis Collaborative Group to develop criteria for decommissioning roads and trails in IRAs. The group

identified project priorities based on those criteria. The group was formed in compliance with the Settlement Agreement approved for California Resources Agency, et al vs. United States Department of Agriculture, and Center for Biological Diversity, et al vs. United States Department of Agriculture. The primary purpose of the collaborative group was to develop a mutually acceptable set of criteria and a list of priority road and trail projects for the Forest Service to implement as funding allows. The proposal was developed through collaboration, recognizing the diverse interests of the settlement parties while trying to address all interests within the constraints of the Forest Service's regulatory and administrative responsibilities. The results of the route -scoring model for the Cleveland National Forest categorized 2 roads totaling 2.12 miles in as High Importance High Risk (HH), and as High Importance Low Resource Risk (HL).

## **Land Management Plan Amendment ROD October 30, 2014**

**The Southern California National Forests Land Management Plan link contains all related documents and maps. <https://www.fs.usda.gov/project/?project=35130>**

The Southern California National Forests (the Angeles, Cleveland, Los Padres, and San Bernardino National Forests) completed an amendment for the Land Management Plans (LMPs) adopted in 2006. The amendment revised land use zone allocations for select Inventoried Roadless Areas (IRAs) within the four forests and adjusted LMP monitoring protocols. The LMP amendment is a result of the Settlement Agreement approved January 3, 2011 for California Resources Agency, et al vs. United States Department of Agriculture, and Center for Biological Diversity, et al vs. United States Department of Agriculture. Public scoping began on April 27, 2012 and closed on June 11, 2012. One FSEIS was prepared for the four national forests with a ROD for each, including one for the Cleveland Land Management Plan.

The plan level decision did not change the status of any existing road or trail, did not change public motorized access, did not authorize any specific project activities such as vegetation management, did not amend any permits or contracts or authorize any activity allowed by permit or contract, and did not modify any prohibitions, known as "Forest Orders", issued under 36 CFR § 261 Subpart B. The amendment maintained the current zoning within 200 feet wide corridors (100 feet on either side of the road remains unchanged) for the Forest Service roads and motorized trails shown as open on the MVUM. The decision is consistent with the requirements of 36 CFR § 294 Subpart B, Protection of Inventoried Roadless Areas, also referred to as the Roadless Area Conservation Rule (RACR), which prohibits the construction of new roads in IRAs unless the proposed road meets one of the exceptions provided by the rule.

### **From Key Issues (ROD October, 2014):**

#### **[Roads and Motorized Trails \(page 4 ROD October, 2014\)](#)**

This amendment maintains the current zoning within 200 feet wide corridors (100 feet on either side of the road remains unchanged) for the Forest Service roads shown as open on the Motor Vehicle Use

Maps. As described in Chapter 4 of the Final SEIS, there will be no change in public motorized access as a result of the amendment. This approach is particularly important to maintaining access within the Eagle Peak complex, where several of the roadless areas are separated by narrow road corridors. The decision maintains the current zoning along Boulder Creek Road (13S08), Cedar Creek Road (13S11), and Eagle Peak Road (13S06). The Forest Supervisor's decision also maintains motorized administrative access to the Cedar Creek Falls area.

#### **Road and Motorized Trail Opportunities (page 4 ROD October, 2014)**

The RACR prohibits the construction of new roads in IRAs unless the proposed road meets one of the exceptions provided by the rule. Implementation of the RACR is described in more detail in Chapter 2 of the Final SEIS and the effects of the RACR on road and trail opportunities are described in Chapter 4. Road and motorized trail opportunities are also guided by travel management decisions. In addition to the requirements of the RACR and travel management, road construction is not suitable in areas zoned as BCNM or RW. The additional RW zones included in the amendment are located in areas that were primarily zoned as BCNM in the current LMP, so the change in zoning will have no effect on public road and motorized trail opportunities.

Motorized trails are an important component of the recreation opportunities provided on the Cleveland National Forest, and new motorized trails are not prohibited by the RACR. Adjustments to the alternatives were made after scoping and in response to comment on the Draft SEIS to maintain motorized trail opportunities.

#### **Public Involvement (page 7, ROD October 2014)**

A notice of intent to prepare an EIS was published in the Federal Register on Friday, April 27, 2012 (77 FR 25128). A legal notice was published in the San Diego Union-Tribune on the same day, and direct notice was sent to over 2,500 stakeholders. In addition, the proposed action was listed in the Cleveland National Forest Schedule of Proposed Actions and updated periodically during the environmental analysis. In addition to these notices, people were invited to review and comment on the proposed action through news releases and public meetings. The SEIS describes scoping efforts in Chapter 1, and agencies, organizations, and people who received copies of the documents in Chapter 5.

The planning team used the comments on the proposed action to identify the relevant issues used to determine the scope of the analysis. Issues were identified for natural resources, the social and economic environment, facilities and operations, commodity and commercial uses, lands (real estate) and wildfire and community protection. The analysis also considered the relationship to other agency plans, including endangered species recovery plans, state plans for water, wildlife, and forests, and county general plans. A full description of issues considered in the analysis appears in the Final SEIS in Table 2.

The Notice of Availability for the Draft SEIS was published in the Federal Register starting a 90 day review and comment period on Friday, February 15, 2013. Direct notice of the Draft SEIS was mailed to over 2,500 contacts and emailed to over 8,000 contacts. A legal notice was also published in the San

Diego Union-Tribune (and the newspapers of record for the Regional Forester and the three other forests) on February 20, 2013. The Forest Service held seven public meetings throughout the planning area between March 26 and April 10, 2013, including two meetings hosted by the Cleveland National Forest.

Over 10,000 emails, letters, and post cards were received during the comment period. Many of the emails and letters were “form letters”, and over 450 unique letters or emails were received. Because of the exceptionally voluminous response to the Draft SEIS, the Final SEIS Appendix 4, presents a summary of the substantive comments and the Forest Service response. Appendix 4 also includes copies of all letters received from elected officials or government agencies.

<https://www.fs.usda.gov/project/?project=35130>

As described in the Final SEIS, the Forest Service response to comments included zoning corrections to account for approved uses, adding areas outside of the IRAs to provide for logical management boundaries, and development of Alternative 2a to reflect new information. Several areas of the analysis were clarified.

The Reviewing Officer noted that roads shown on the Motor Vehicle Use Map (MVUM) were retained with 200’ corridors (CNF ROD, pg. 3). The 200’ corridor was selected to allow for flexibility of road management and maintenance and in some areas wider corridors were retained to address route problems. The roads and trails that are shown in Appendix 1G of the FSEIS are currently part of the NFTS and buffers are established along the existing managed route system. While reroutes may be needed, it is not prudent to assume that a reroute would occur or the location of the reroute known until NEPA analysis has been completed and a decision made. Project specific analysis would include any required plan amendments to adjust zone boundaries, MVUM updates, Travel Analysis, and resource analysis as required by NEPA. As noted in the response to comment #77, (FSEIS, Appendix 4, comment #77, pg. 84-88) “The best approach in our view is to work through any site specific issues, relocation proposals, or other new opportunities through the normal project level planning and analysis process. Any project would need to be consistent with the Roadless Area Conservation Rule (RACR), which does allow relocation of roads for resource protection under conditions outlined in the RACR (see 36 CFR 294.12).” Final Supplemental Environmental Impact Statement (FSEIS) Southern California National Forests Land Management Plan Amendment November, 2013

### **Roads and Trails (from Page 301 FSEIS 2013)**

The overall public transportation system will remain fairly static within the four national forests due to limited funding for new road and trail construction. The public demand for access to National Forest System lands will increase in the future with increasing local and regional population. Conflicts between user groups would also increase as users overlap within a relatively fixed system. Future motorized road opportunities in IRAs areas are restricted throughout the forests by the RACR.

### **Cleveland National Forest (from Page 118 FSEIS 2013)**

Authorizations include a communication site, roads, electrical lines, and a military training area. All

authorized facilities occur just within the edge of IRA boundaries with several exceptions. The Valley-Serrano transmission line crosses the Coldwater IRA (31 acres) and the Ladd IRA (37 acres). The Barker Valley IRA contains approximately 3,000 acres of a permitted military training area. San Diego Gas & Electric transmission and distribution lines and associated access roads cross the Cedar Creek, Upper San Diego, Sill Hill and No Name IRAs. The Caliente and Eagle Peak IRAs do not contain any non-recreation special use authorizations.

The Valley Serrano Utility Corridor, containing the Valley-Serrano transmission line, is a quarter mile wide and crosses the Coldwater (256 acres) and Ladd (304 acres) IRAs. This corridor is designated as the preferred location for future utility projects in the LMP. It is also designated as a corridor in the *2008 Programmatic Environmental Impact Statement for Designation of Energy Corridors on Federal Land in the 11 Western States*, known as the Westwide Energy Corridor Study. This study and the associated designations were required by the 2005 Energy Policy Act.

As with the other southern California national forests, a majority of the authorizations within the Cleveland National Forest IRAs are along the edges and are probably a result of mapping inaccuracies.

**Excerpt from Table 3 of FSEIS: Summary of Issues not Considered in the Analysis (page 10 FSEIS)**

| ISSUE  | REASON ISSUE IS OUT OF SCOPE  |
|--|---|
| <p><b>Travel Management</b> – Many comments noted that the Forest Service has closed and gated many roads, restricting access to the public. Other routes are closed on the motor vehicle use map. Many user created routes were also closed and the decommissioning status is unknown. Numerous commenters requested that those routes be opened as part of this amendment.</p>   | <p>These route level decisions are made through the travel management process governed by 36 CFR 212 Subpart B or in subsequent project specific decisions implementing travel management closures. The decisions made as part of the LMP amendment will not include route level decisions, but access to the IRAs is evaluated in the LMP amendment analysis.</p>  |
| <p><b>IRA Boundary Issues</b> – The IRAs were mapped over several generations of Roadless Area Review and Evaluations starting in the mid 1970s. The current IRA boundaries were established by regulation with the publication of the Roadless Area Conservation Rule in 2001. The 2001 IRAs occasionally overlap Forest Service system roads, communication sites, and other permitted facilities. Some commenters see this amendment as an opportunity to</p> | <p>The Roadless Area Conservation Rule (RACR) defines the scope of the IRAs (36 CFR § 294.11). Although the rule suggests that updates and revisions to the IRAs are possible, no process is specified. The rule specifically prohibits changes in the scope of the rule through the Land Management Plan amendment process (36 CFR § 294.14(e)). Until the Forest Service develops additional direction, changing the IRA boundaries</p> |

|                                  |   |
|----------------------------------|---|
| “clean up” those mapping issues. | is outside the scope of this amendment. |
|----------------------------------|---|

## **Cleveland National Forest Road Related NEPA EA, FONSI, DN Aquatic Organism Passage October 14, 2011**

NEPA study and decision to replace four concrete low water crossings with bridges in Trabuco Canyon to restore passage for Southern Steelhead, and for Arroyo Toad habitat restoration in Los Alamos canyon by replacing a concrete low water crossing with a bridge. One bridge in Trabuco Canyon was constructed and completed in 2015. See <http://www.fs.usda.gov/project/?project=37415>

## **Repair and Maintenance of Levels 1 through 5 Roads DM February 8, 2011**

Describes the open and administrative system of 398 miles and the resource protection requirements for maintenance of the roads. The appropriated budget funds only some maintenance on about five percent of the miles each year.

## **Projects currently under NEPA evaluation**

May be reviewed at:

<http://www.fs.usda.gov/projects/cleveland/landmanagement/projects>

## **Previous NEPA Projects Since 2005 Road Related:**

### **Road-related NEPA projects with completed decisions**

For some of these projects since signing of the LMP ROD on September 20, 2005, the road component is ancillary to the primary project objective:

ARRA Road Paving, Chipseal and Surface Repairs.

### **Various SUP NEPA authorizing access use and road maintenance:**

Sunrise Powerlink included the construction of a 500 KV transmission line, whereby San Diego Gas & Electric (SDG&E) evaluated critical road systems on the Forest that provided access to their infrastructure. These evaluations produced upgrades to some of the exiting NFSR.

<http://www.fs.usda.gov/project/?project=27924>

Since 2010, SDGE has been working with the Cleveland National Forest in a Master Permit Renewal process whereby all outstanding Special Use Permits and needed permits between the FS and SDG&E were to be combined under one Master Special Use Permit. The Record of Decision for this undertaking was signed on March 11, 2016. This process generally proposed that a road system would be identified for exclusive access to SDG&E infrastructure, require that a Road Maintenance and Management Plan be developed by SDG&E for this road system, that decommissioning would occur on previous routes no longer needed and establish easements across private lands to access NFS lands. Road maintenance for the NFSR that access the exclusive use permitted roads is to be shared proportionate to the permittees and Forest Service traffic. The Environmental Impact Statement was signed in 2016.

<http://www.cpuc.ca.gov/environment/info/dudek/CNF/CNF.htm>

## Projected Access Needs 2016 Review

### **Are some existing roads not needed to meet projected access needs?**

Some existing roads have been rated low in importance/likely not needed for access both by the public and for administrative purposes. Some of these same roads have moderate to high resource risk factors, which make them likely candidates to consider for decommissioning. Several of the roads have been rated high in importance for vegetation management. This may result in some of the roads becoming available to consider for decommissioning in the next decades.

Conversely, the 2005 RAP noted that the CNF had 94 roads, 165 miles, and needing 500 cases to complete NFS rights-of-way, which could raise such roads high in the potential list for need evaluation during NEPA review. Most county roads have no recorded rights-of-way.

### **2016 Process: What opportunities exist to change the road system to reduce the problems and risks or to be more consistent with forest plan direction and strategic intent of the roads system?**

A variety of opportunities exist to change the road system to reduce problems and risks. 2005 RAP categorized roads as High environmental Risk High Priority for Mitigation (HPM) equivalent to the HH rating used in the Roads in IRA's analysis. The HRLI roads would be called LH in the 2011 SoCal Collaborative study. The third category is Low Priority for Mitigation (LPM) a list of roads with moderate importance and moderate to high resource risk. These roads need financing to remedy resource issues and are needed on the system. Obtaining adequate funding for a single HPM project each year is competitive with all other National Forests. Few grants are awarded each year to only a few National Forests. The fourth category is all the other roads on the Forest that are Low to Moderate Resource Risk and Low to Moderate Importance. HRLI /are LNN and any others identified through the studies and NEPA after 2005 RAP that are no longer needed in order to reduce density or watershed impacts.

From 2013 through August 2015 the CNF conducted a field level evaluation of all 2005 HRLI roads, and the 2011 Collaborative roads and all the ML-1 roads to confirm the importance level assigned in each analysis. The District Rangers, District Staff Officers, Recreation, Natural Resource Specialists, Law

Enforcement, and Fire Management, all those with the most current field level knowledge of the District’s road and trail systems, reviewed all District roads using maps and tables.

A few HRLI roads have a need in 2016 not known in 2005. A few have been decommissioned or converted to motorized trails. Some LH and LL roads are higher importance, and for others low importance is confirmed. In addition to the two TAPs, the field review found a few other roads as LNN and candidates for further study leading to NEPA decisions.

The Road Matrix showing resource risk and access benefit is a tool to identify the equivalent risk and benefit of each road as illustrated in Table 7 This results in a Risk/Benefit rating pair for each road using the results of the 2005 RAP and 2011 SoCal Collaborative. There are four potential rating pairs, displayed in Table 7. The table also displays opportunities for change associated with each rating pair. The roads with Low need or benefit scores are those most likely to be determined as “likely to be Not Needed for future use” after a more thorough project level NEPA analysis is conducted. In contrast, all of the other roads, are likely to have all or a portion of the road determined as “likely to be Needed for future use” after a more thorough project level NEPA analysis is conducted.

**Table 8: CNF RAP Opportunity Categories Matrix (Listed by Risk/Benefit)**

| Resource Risk | Access Need or Importance  |   |
|---------------|--|---|
|               | High/Low: HRLI<br>Consider for closure or decommissioning (high priority).   | High/High: HPM<br>Consider for road maintenance priority, storm proofing, reconstruction, or reroute (high priority). |
|               | Low -Moderate/Low:- Moderate All other CNF Roads<br>Consider for road maintenance priority, storm proofing, or reconstruction (medium priority). | Moderate/High: LPM<br>Consider for road maintenance priority, storm proofing, or reconstruction (medium priority).    |

Once roads are sorted into these four rating pair categories, further screening of individual ratings could be done to further refine opportunities and priorities. As shown in Table 8, one factor is the mileage in each category, and the associated costs depending on maintenance levels.

**Table 9: Opportunity Category Mileage per Current Rating (Listed by Risk/Benefit)**

| Resource Risk | Access Need or Importance  |                              |
|---------------|----------------------------|------------------------------|
|               | High/Low: HRLI<br>0.7miles | High/High: HPM<br>24.4 miles |

|  |  |  |
|--|--|--|
|  | (2 roads)  | (39 roads)                                   |
|  | Low -Moderate/Lo-Moderate<br>All other CNF Roads<br>333.9 miles<br>(179 roads) | Moderate/High: LPM<br>1.3 miles<br>(2 roads) |
|  |  |  |

Roads on which to consider changes include:

- Roads rarely used by the public or Forest Service, and are high risk could be considered for decommissioning.
- Roads rarely used by the public or Forest Service, and are low resource risk equivalent could be considered for decommissioning or reduced maintenance level.
- Roads which primarily provide access to another jurisdiction (such as county administered lands or a property owners association) with limited benefit to the Forest Service could be considered for transfer to the benefiting jurisdiction.
- Roads which provide access to a private property inholding or special use permit holder (such as an organization camp) where general public access is not needed or desirable could be considered for transfer of maintenance responsibility to the permit holder.
- Roads accessing vegetation that has reached desired condition may be evaluated for decommissioning or reduced maintenance level, unless there is a fire/fuels access need.
- Roads frequently used by the public or Forest Service (i.e., moderate to high need) with moderate to high resource risk equivalent could be evaluated to for storm-proofing, to relocate portions of the roads away from resource risks, or create alternate access routes with fewer resource risks.
- Two or more roads accessing the same area, where traffic could be directed onto the more stable road and decommission the less stable road(s).
- Create a loop road to eliminate several spurs accessing the same area.

## Results of Ranger District and Forest Reviews

The table below summarizes what the Forest desired condition is for the Cleveland NFSR.

**Table 10 CNF NFSR, FS Maintained, Likely Not Needed**

| Road Number | NAME                  | Begin MP | End MP             | Segment Length | Planned Operating ML | Planned Status | 2005 RAP |
|-------------|-----------------------|----------|--------------------|----------------|----------------------|----------------|----------|
| 5S03        | SILVERADO MOTORWAY    | 0.0      | 0.90               | 0.90           | CV                   | Hiker Trail    |          |
| 6S09        | LOWER SAN JUAN PG     | 0.0      | 0.11               | 0.11           | DE                   | DE             | HRLI     |
| 12S07A      | BLACK CANYON CG       | 0.0      | 0.26               | 0.26           | DE                   | DE             | HPM      |
| 13S10       | WEST SIDE TRUCK TRAIL | 0.0      | 5.00               | 5.00           | 1                    | EX             |          |
| 13S10       | WEST SIDE TRUCK TRAIL | 8.90     | 11.42              | 2.42           | 2                    | EX             |          |
| 15S08       | OASIS SPRINGS         | 0.0      | 0.49               | 0.49           | 1                    | EX             |          |
| 15S12       | SAGE                  | 0.0      | 0.10               | 0.10           | 1                    | EX             |          |
| 15S16       | MORRIS RANCH          | 0.70     | 1.8                | 1.10           | 1                    | EX             |          |
| 15S18       | SHEEPHEAD             | 3.07     | 6.77               | 3.70           | 1                    | EX             |          |
| 15S24       | GOUDIE                | 1.60     | 3.74               | 2.14           | 1                    | EX             |          |
| 15S27A      | MEADOW                | 0.00     | 0.50               | 0.50           | 1                    | EX             |          |
| 16S03       | CARVEACRE             | 5.32     | 7.40               | 2.08           | 2                    | EX             |          |
| 16S16       | KERNAN                | 0.0      | 2.53               | 2.53           | 1                    | EX             |          |
| 17S07       | HAUSER                | 4.67     | 8.78               | 4.11           | 1                    | EX             |          |
| 7S09        | SITTON PEAK           | 1.30     | 8.7                | 7.4            | 1                    | EX             |          |
| 5S10        | JOPLIN                | 0.0      | 1.10               | 1.10           | 1                    | EX             |          |
| 5S09        | SANTIAGO RIDGE        | 2.26     | 5.20               | 2.94           | 1                    | EX             |          |
|             |                       |          | <b>Total Miles</b> | 36.88          |                      |                |          |

**HRLI** High Resource Risk Low Importance; **HPM** High Priority for Mitigation;

**ML** Maintenance Level, 1 Closed, 2 High Clearance Vehicles, 3, 4, 5 Passenger Cars (4 and 5 paved)

**DE** Decommission; **EX** Leave as is - Existing; **CV** Converted to non-motorized hiking trail

### Recommendations from the 2016 TAP Review and Update

Funding beyond the CNF appropriations is needed to relocate, decommission, or convert roads to trails. The long-term effect would be reduced risk to ecosystems from deteriorating roads, and a smaller and more efficient road system to fund. A reduction in the road system mileage should allow the limited maintenance funds to be used on a larger proportion of the transportation system.

Several action items were identified that need to occur for decision-makers to achieve better-informed road management decisions on the road system:

- Update the current Forest Transportation Atlas (FTA) with the information gathered in the TAP, and maintain the FTA.

- The current operational road maintenance levels need to be verified on the ground and the database needs to be corrected prior to implementation of projects that affect, or are affected by the road system.
- Additional evaluation criteria may need to be developed to fully determine effects at a more site-specific level.
- During landscape- and project-level analyses identify private use, and public transportation needs information during the public involvement effort, as applicable to update INFRA and the FTA.
- Update the Forest Transportation Atlas (FTA) based on watershed, landscape and project level analyses. The site-specific projects need to be based on the most current transportation system information available. FSM 7712 offers additional guidance for when a forest-scale TAP is updated with changes in conditions, such as available funding, inventory and monitoring results, severe emergency events (ERFO and fires), or new regulatory requirements.

**Table 11 – Questions to Guide Development of More Site-Specific Evaluation Criteria**

| Question to be Answered  |
|--|
| <p><b>Ecosystem Functions and Processes:</b></p> <ul style="list-style-type: none"> <li>• To what degree do the presence, type, and location of roads contribute to the control of insects, diseases, and parasites?</li> <li>• What are the adverse effects of noise caused by developing, using, and maintaining roads?</li> <li>•</li> </ul>  |
| <p><b>Aquatic, Riparian Zone, and Water Quality:</b></p> <ul style="list-style-type: none"> <li>• What downstream beneficial uses of water exist in the area? What changes in uses and demand are expected over time? How are they affected or put at risk by road-derived pollutants?</li> <li>• How does the road system alter physical channel dynamics, including isolation of floodplains; constraints on channel migration; and the movement of large wood, fine organic matter, and sediment?</li> <li>• How does the road system affect shading, litter-fall, and riparian plant communities?</li> <li>• How and where does the road system facilitate the introduction of non-native aquatic species?</li> <li>• To what extent does the road system overlap with areas of exceptionally high aquatic diversity or productivity, or areas containing rare or unique aquatic species or species of interest? (CARs, RCAs, etc.)</li> </ul> |
| <p><b>Terrestrial Wildlife:</b></p> <ul style="list-style-type: none"> <li>• How does the road system directly affect unique communities or special features in the area?</li> </ul>   |
| <p><b>Water Production:</b></p> <ul style="list-style-type: none"> <li>• How does road development and use affect water quality in municipal watersheds?</li> </ul>  |
| <p><b>Administrative Use:</b></p> <ul style="list-style-type: none"> <li>• How does the road system affect investigative or enforcement activities?</li> </ul>   |
| <p><b>Protection:</b></p> <ul style="list-style-type: none"> <li>• How does the road system contribute to airborne dust emissions resulting in reduced visibility and human health concerns?</li> </ul>  |

**Unroaded Recreation:**

- What are the adverse effects of noise and other disturbances caused by developing, using, and maintaining roads, on the quantity, quality, and type of unroaded recreation opportunities? (e.g., wilderness, inventoried roadless areas, and the Pacific Crest Trail)

**Road-Related Recreation:**

- What are the adverse effects of noise and other disturbances caused by constructing, using, and maintaining roads on the quantity, quality, or type of roaded recreation opportunities?

\* These questions and background information came from the FS-643 report and the public involvement efforts for RAP and Motorized Travel Management and the Roads in IRAs Collaborative.

As stated throughout this document, there are several roads in use, and being maintained at a maintenance level different than the recorded operational or objective maintenance level in the Forest Transportation Atlas (FTA). Correcting maintenance levels in the FTA to reflect existing conditions on the ground would improve the information available to resource specialists, and decision-makers in terms of roads, and their effects on other resources. It should also help make administrative decisions regarding road maintenance level more consistent throughout the forest.

The costs and mileages described in this report reflect conditions as of November 2016. The forest engineering staff has been updating the Forest Transportation Atlas. The total miles of 406 reflect the collaboration of the Road Manager and GIS Specialist in reflecting the actual lengths using a GPS data collector, on the ground, for campgrounds and spurs, accomplished in 2016.

## **The 2016 CNF Travel Analysis Process Update, Subpart A, Team:**

Forest Program Lead: Noelle Graham Wakoski, P.E., Assistant Forest Engineer

Core Team:

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Andrew Dziobek- Recreation, Lands, Engineering Staff Officer

Jeff Heys- Forest NEPA Coordinator

Kirsten Winter – Forest Biologist

Steve Eastwood - Consulting Travel Analyst

John Sherman – Region 5 RO Advisor

The 2005 completed RAP is hereby incorporated by reference in this Travel Analysis Report.

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<https://www.fs.usda.gov/project/?project=35130>

The next two links are very large files better accessed by the link on the line above.

[Southern California National Forests Land Management Plan Amendment - Final SEIS Appendix 1g - Cleveland National Forest - South Map \(PDF 36064kb\)](#)

[Southern California National Forests Land Management Plan Amendment - Final SEIS Appendix 4 - Response to Comments \(PDF 11029kb\)](#)

USDA Forest Service. 2012b. Pacific Southwest Region Travel Analysis Process Subpart A Guidebook. November 2012.

## Appendix A - Glossary

### Road Definitions:

- **Forest Road:** Any road wholly or partly within, adjacent to, and serving the National Forest System and which is necessary for the protection, administration, and utilization of the National Forest System and the use and development of its resources (23 USC 101).
- **Public Roads:** Roads that are under the jurisdiction of and maintained by, a public authority that are open to public travel (23 USC 101(a)).
- **National Forest System Roads:** Forest roads under the jurisdiction of the Forest Service (23 USC 101).
- **Forest Transportation Atlas:** An inventory, description, display and other associated information for those roads, trails and airfields that are important to the management and use of National Forest System lands or to the development and use of resources upon which communities within or adjacent to the National Forests depend.
- **Deferred Maintenance:** Maintenance activities that can be delayed without critical loss of facility serviceability until the work can be economically or efficiently performed. (Duck Creek-Swains RAP, version 1, April 2001).
- **Low Standard Roads:** Forest roads constructed and maintained for use by prudent drivers in high clearance vehicles (such as pickup trucks, 4WD vehicles and sport utility vehicles) as opposed to ordinary passenger cars. These roads are low-standard, unsurfaced, single-lane roads with turnouts. They were designed to be driven at five to ten miles per hour.
- **Temporary Roads:** Roads authorized by contract, permit, lease, other written authorization, or emergency operation not intended to be a part of the forest transportation system, not necessary for long-term resource management, and not included in a forest transportation atlas (36 CFR 212.1) FSM 7705.
- **Maintained for Public Use:** A Memorandum of Understanding with the Federal Highway Administration defines national forest system roads open to the public as those roads open to unrestricted use by the general public in standard passenger cars, including those roads on a seasonal basis or for emergencies. (SNFPA, FEIS).
- **Decommissioning:** is defined as activities that result in the stabilization and restoration of unneeded roads to a more natural state (FSM 7703.2(1)). Decommissioning includes applying various treatments, which may include one or more of the following:
  - (1) Reestablishing former drainage patterns, stabilizing slopes, and restoring vegetation;
  - (2) Blocking the entrance to a road; installing water bars;

- (3) Removing culverts, reestablishing drainage-ways, removing unstable fills, pulling back road shoulders, and scattering slash on the roadbed;
- (4) Completely eliminating the roadbed by restoring natural contours and slopes; or other methods designed to meet the specific conditions associated with the unneeded roads.

#### **Maintenance Levels:**

- **Maintenance Level 5** - Assigned to roads that provide a high degree of user comfort and convenience in a standard passenger car. These roads are normally double lane and paved. Some may be aggregate surface and dust abated. MUTCD standards applied.
- **Maintenance Level 4** - Assigned to roads that provide a moderate degree of user comfort and convenience in a standard passenger car with moderate travel speeds. Most roads are double lane and aggregate surfaced. Some roads may be paved/ or dust abated. MUTCD standards applied.
- **Maintenance Level 3** - Assigned to roads open and maintained for travel for standard passenger car, user comfort and convenience are not considered priorities. MUTCD standards applied.
- **Maintenance Level 2** - Assigned to roads open for use by high clearance vehicles and not suitable for passenger cars. Passenger car traffic, user comfort, and user convenience are not considerations. Warning signs and traffic control devices are not provided with the exception that some signing may be posted at intersections. Motorists should have no expectations of being alerted to potential hazards while driving these roads. Highway vehicles and OHVs are allowed.
- **Maintenance Level 1** - Assigned to roads that have been placed in storage between intermittent uses. The period of storage must exceed 1 year. Basic custodial maintenance is performed to prevent damage to adjacent resources and perpetuate the road for future resource management needs. Emphasis is normally given to maintaining drainage features and runoff patterns. Closed to all motorized traffic but may be available for non-motorized uses.

#### **Forest Service Road Budget Codes-**

- **CMES:** Construction and Maintenance Emergency Supplemental road funds
- **CMII:** Construction and Maintenance funds for improvement of roads
- **CMLG:** Legacy Funds for repair and restoration of roads and trails
- **CMRD:** Construction and Maintenance funds appropriated for annual road maintenance
- **CRRD:** ARRA funds for Forest Service Road maintenance and improvements
- **RIRI:** Restoration of Forest Lands and Improvements funds
- **WFW3:** Wildland Fire Restoration funds for roads

## Appendix B - Commonly Used Acronyms

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### A

ABAG: Association of Bay Area Governments

ADT: Average Daily Traffic

AIM: Abandoned and Inactive Mines

ANF: Angeles National Forest

ANILCA: Alaska National Interest Lands Conservation Act

APCD: Air Pollution Control District

ARRA: The American Recovery and Reinvestment Act of 2009

ATV: All-Terrain Vehicle AUM :An in a lU n itM on th

Avg: Average

### B

BA: Biological Assessment

BAER: Burned Area Emergency Rehabilitation

BC: Back Country

BCMUR: Back Country Motorized Use Restricted

BCNM: Back Country Non-Motorized

BLM: Bureau of Land Management

BMP: Best Management Practices

BO: Biological Opinion

### C

CAA- Clean Air Act

Cal EPPC: California Exotic Pest-Plant Council

Caltrans: California Department of Transportation

CAT EX: Categorical Exclusion

CBDT: California Backcountry Discovery Trail

CBZ: Critical Biological Zones

CCC: Civilian Conservation Corps

CDF&G: California Department of Fish and Game

CDFA: California Department of Food and Agriculture

CDMG: California Department of Mines and Geology

CE: Categorical Exclusion

CEQ: Council on Environmental Quality CEQA: California Environmental Quality Act

CERCLA: Federal Comprehensive Environmental Response, Compensation and Liability Act

CFR: Code of Federal Regulations

CHMS: Carbonate Habitat Management Strategy CIP: Capital Improvement Program

CIWMB: California Integrated Waste Management Board

CMES: Construction and Maintenance Emergency Supplemental road funds

CMII: Construction and Maintenance funds for improvement of roads

CMLG: Legacy Funds for repair and restoration of roads and trails

CMRD: Construction and Maintenance funds appropriated for annual road maintenance

CNF: Cleveland National Forest

CO: Carbon Monoxide

COE: U.S. Army Corps of Engineers

CRRD: ARRA funds for Forest Service Road maintenance and improvements

CRRPT: California Roundtable on Recreation, Parks and Tourism

CS: Consumer Surplus

CUA: Concentrated use areas

CWA- Clean Water Act (federal)

CY: Current Year

**D**

DAI: Developed Area Interface

DEIS: Draft Environmental Impact Statement

DEM: Digital Elevation Mode

DFG: Department of Fish and Game

DLC: Desired Landscape Character

DM: Decision Memo

DN: Decision Notice

DOD: U.S. Department of Defense

DOI: U.S. Department of the Interior

DOT: U.S. Department of Transportation

**E**

EF: Experimental Forest

EIS: Environmental Impact Statement

EPA: U.S. Environmental Protection Agency

ERFO: Emergency Relief for Federally Owned Roads (FHWA)

ESA: Endangered Species Act

EUI: Ecological Unit Inventory

EW: Existing Wilderness

**F**

FAA: Federal Aviation Administration

FEIS: Final Environmental Impact Statement

FSEIS: Final Supplemental EIS

FERC: Federal Energy Regulatory Commission

FHWA: Federal Highway Administration

FIY: Forest Inventory Analysis

FLTP: Federal Lands Transportation Program

FONSI: Finding of No Significant Impact

FR: Federal Register

FSH: Forest Service Handbook

FSM: Forest Service Manual

FTA: Forest Transportation Atlas

FWS: Fish and Wildlife Service (see USFWS) FY: Fiscal Year

## **G**

GIS: Geographic Information System

GPRA: Government Performance and Results Act

GPS: Global Positioning System

## **H**

HH: High Importance High Resource Risk (2011 Collaborative Study)

HL: High Importance Low Resource Risk (2011 Collaborative Study)

HAP: Hazardous Air Pollutants

HRLI: High Risk Low Importance (2005 RAP)

HPM: High Priority for Mitigation (2005 RAP)

HUC- Hydrologic Unit Code

HWY: Highway

## **I**

IDT: Interdisciplinary Team

IMPLAN: IMpact analysis for PLANning

INFRA: Infrastructure database includes Travel Routes NFSR database

IRA: InventoryRoadlessArea

ISCST: Industrial Source Complex (Short Term)

IUCN: International Union for Conservation of Natural Resources

**L**

LH: Low Importance High Resource Risk (2011 Collaborative Study)

LL: Low Importance Low Resource Risk (2011 Collaborative Study)

LEIMARS: Law Enforcement and Investigation Management Reporting System

LMP: Land Management Plan (forest plan)

LN: Likely Needed for Future Use

LNN: Likely Not Needed for Future Use

LPM: Low Priority for Mitigation (2005 RAP)

LPNF: Cleveland National Forest

LRMP: Land and Resources Management Plan

LTA: Land Type Association

LUZ: Land Use Zone

**M**

M&E: Monitoring and Evaluation

MCP: Market Clearing Price

MIS: Management Indicator Species

MIST: Minimum Impact (Wildland fire) Suppression Techniques

ML: Road Maintenance Level (1 through 5)

MMBF: Millions of Board Feet

MOU: Memorandum of Understanding

MP: Milepost

MUTCD: Manual on Uniform Traffic Control Devices

MUVM- Motor Vehicle Use Map

MW: Megawatts

**N**

NCCP: Natural Community Conservation Planning

NEPA: National Environmental Policy Act

NF: National Forest

NFMA: National Forest Management Act

NFP: National Fire Plan

NFS: National Forest System

NFSR: National Forest System Roads

NFST: National Forest System Trails

NFTS: National Forest Transportation System

NHPA: National Historic Preservation Act

NOAA: National Oceanographic and Atmospheric Administration

NOI: Notice of Intent

NOx: Nitrogen Oxide Gases

NSRE: National Survey of Recreation and the Environment

NVUM: National Visitor Use Monitoring

**O**

OHMVR: Off-Highway Motor Vehicle Route

OHV: Off-Highway Vehicle

OSHA: Occupational Safety and Health Administration

**P**

PAC: Protected Activity Centers

PAOT: Persons At One Time (Recreation capacity measurement)

PALS: Planning, Appeals, and Litigation System- web based FS NEPA project documentation

PCH: Pacific Coast Highway (also known as California State Highway 1)

PCT: Pacific Crest Trail (also known as Pacific Crest National Scenic Trail)

PFSR: Public Forest Service Roads

PMx: Particulate Matter less than x Microns

PSW: Pacific Southwest Forest and Range Experiment Station

PURPA: Public Utility Regulatory Policies Act

## **R**

R5- Region 5 of the Forest Service

RACR – Roadless Area Conservation Rule RCA - Riparian Conservation Areas

RAP: Roads Analysis Process (See also TAP)

RCA: Riparian Conservation Areas

RDM: Residual Dry Matter

RFDS: Reasonable Future Development Scenario

RMO: Road Management Objective

RNA: Research Natural Area

ROD: Record of Decision

ROG: Reactive Organic Gases

ROS: Recreation Opportunity Spectrum

RPA: Resource Planning Act

RPS: Renewable Portfolio Standards RVD: Recreation Visitor Day

RW: Recommended Wilderness

## **S**

SAC: Scenic Attractiveness Class

SANDAG: San Diego Association of Governments

SBNF: San Bernardino National Forest

SCAG: Southern California Association of Governments

SCMFA: Southern California Mountains and Foothills Assessment

SEA: Socioeconomic Assessment

SeDab: Southeast Desert Basin

SERE: Survival Evasion Resistance Escape

SFP: Special Forest Products

SIA: Special Interest Area

SoCal: Southern California (typically refers to ANF, CNF, LPNF, and SBNF)

SOx: Sulphur Oxide

spp.: Species

SRSJMNM: Santa Rosa and San Jacinto Mountains National Monument

SUDS: Special Uses Data System

SUP: Special Use Permit

SUV: Sport Utility Vehicle

## **T**

TAP: Travel Analysis Process

TAR: Travel Analysis Report

T&E: Threatened and Endangered

TEPCS: Threatened, Endangered, Proposed, Candidate and Sensitive Species

TEPS: Threatened, Endangered, Proposed or Sensitive

TES: Threatened, Endangered or Sensitive (see TEPS)

TMP: Temporary Road authorized by permit, not a forest road

## **U**

URI: Urban and Rural Interface, this zone has been combined with Developed Area Intermix to form the current zone Developed Area Interface).

USDA: United States Department of Agriculture

USDI: United States Department of Interior

USFS: United States Forest Service

USFWS: United States Fish and Wildlife Service

USGS: United States Geological Survey

**V**

VPD: Vehicles per day

**W**

W: Wilderness

WCC: Watershed Condition Class

WD: Wheel Drive (4WD four wheel drive, 2WD two wheel drive)

WFPR: Wildland Fire Preparedness funds

WFW3: Wildland Fire Restoration funds for roads

WSR: Wild and Scenic Rivers

WRCPP: Western Regional Corridor Planning Partnership

WUI: Wildland/Urban Interface

## Appendix C - 2005 CNF RAP HRLI, HPM, LPM Tables

**Table E5 CNF: Roads with High Risk and Low Importance**

| ID    | NAME                            | Operational Maintenance Level | Environmental Risk Indicators |           |          |       |                           |           |            |                   | Benefit Indicators |         | Weighted Average RAP SCORE | MILES      |             |
|-------|---------------------------------|-------------------------------|-------------------------------|-----------|----------|-------|---------------------------|-----------|------------|-------------------|--------------------|---------|----------------------------|------------|-------------|
|       |                                 |                               | Species Risk Indicators       |           |          |       | Watershed Risk Indicators |           |            |                   | PU_NEED            | AD_NEED |                            |            |             |
|       |                                 |                               | RCA                           | RIP_SCORE | UP_SCORE | XINGS | SPP_SCORE                 | CONDITION | SLOPE_STAB | Earthquake Hazard |                    |         |                            |            | WAT_SCORE   |
| 12S04 | LOWER SANTA YSABEL              | 2                             | 1                             | 103       | 1        | 0     | 4                         | III       | 5          |                   | 3                  | 3       | 2                          | 7          | 0.15        |
| 12S04 | LOWER SANTA YSABEL              | 2                             | 1                             | 102       | 1        | 0     | 4                         | III       | 5          |                   | 3                  | 3       | 2                          | 7          | 0.10        |
| 12S04 | LOWER SANTA YSABEL              | 2                             | 1                             | 100       | 1        | 0     | 4                         | III       | 5          |                   | 3                  | 3       | 2                          | 7          | 0.09        |
| 12S04 | LOWER SANTA YSABEL              | 2                             | 1                             | 103       | 2        | 0     | 4                         | III       | 5          |                   | 3                  | 3       | 2                          | 7          | 0.09        |
| 12S04 | LOWER SANTA YSABEL              | 2                             | 1                             | 101       | 1        | 0     | 4                         | III       | 5          |                   | 3                  | 3       | 2                          | 7          | 0.08        |
| 12S04 | LOWER SANTA YSABEL              | 2                             | 1                             | 103       | 3        | 0     | 4                         | III       | 5          |                   | 3                  | 3       | 2                          | 7          | 0.02        |
| 12S04 | LOWER SANTA YSABEL              | 2                             | 1                             | 100       | 2        | 0     | 4                         | III       | 5          |                   | 3                  | 3       | 2                          | 7          | 0.01        |
|       | <b>LOWER SANTA YSABEL Total</b> |                               |                               |           |          |       |                           |           |            |                   |                    |         |                            | <b>7.0</b> | <b>0.54</b> |
| 6S09  | LOWER SAN JUAN PG               | 5                             | 1                             | 103       | 2        | 0     | 4                         | III       | 5          |                   | 3                  | 5       | 5                          | 7          | 0.07        |
| 6S09  | LOWER SAN JUAN PG               | 5                             | 1                             | 103       | 1        | 0     | 4                         | III       | 5          |                   | 3                  | 5       | 5                          | 7          | 0.05        |
|       | <b>LOWER SAN JUAN PG Total</b>  |                               |                               |           |          |       |                           |           |            |                   |                    |         |                            | <b>7.0</b> | <b>0.12</b> |

**Table 4.5c CNF Roads: High Priority for Mitigation**

| NAME                                  | RAP SCORE | MILES | NAME                                  | RAP SCORE | MILES |
|---------------------------------------|-----------|-------|---------------------------------------|-----------|-------|
| <b>SAN JUAN SOUTH TRACT Total</b>     | 8.2       | 0.39  | <b>OAK GROVE STATION Total</b>        | 6.0       | 0.34  |
| <b>HAUSER CREEK Total</b>             | 7.5       | 3.37  | <b>DRIPPING SPRINGS STATION Total</b> | 6.0       | 0.04  |
| <b>MAPLE SPRINGS Total</b>            | 7.5       | 2.28  | <b>OAK GROVE CG Total</b>             | 6.0       | 1.20  |
| <b>BODEN CANYON Total</b>             | 7.4       | 0.11  | <b>DRIPPING SPRINGS CG Total</b>      | 6.0       | 0.95  |
| <b>PINE CREEK Total</b>               | 7.1       | 0.45  | <b>CEDAR CREEK Total</b>              | 5.1       | 0.48  |
| <b>UPPER SANTA YSABEL Total</b>       | 7.1       | 1.11  | <b>INDIAN FLATS Total</b>             | 5.1       | 0.84  |
| <b>BLACK CANYON CG Total</b>          | 7.1       | 0.14  | <b>HOLY JIM CANYON Total</b>          | 5.1       | 0.31  |
| <b>MINER'S Total</b>                  | 7.1       | 0.86  | <b>INDIAN FLAT CG Total</b>           | 5.0       | 0.40  |
| <b>NOBLE CANYON TH Total</b>          | 7.1       | 0.40  | <b>INDIAN TRUCK TRAIL Total</b>       | 5.0       | 0.40  |
| <b>CORRAL CANYON Total</b>            | 7.1       | 1.60  | <b>CROSLEY Total</b>                  | 5.0       | 0.21  |
| <b>HORSETHIEF Total</b>               | 7.1       | 0.60  | <b>HOT SPRINGS TH Total</b>           | 5.0       | 0.02  |
| <b>PINE CREEK TRACT Total</b>         | 7.1       | 0.70  | <b>Grand Total</b>                    |           | 24.17 |
| <b>LOWER SANTA YSABEL Total</b>       | 7.0       | 0.54  |                                       |           |       |
| <b>LAS BANCAS-PINE CREEK TH Total</b> | 7.0       | 1.22  |                                       |           |       |
| <b>BEAR VALLEY Total</b>              | 7.0       | 0.31  |                                       |           |       |
| <b>BOULDER OAKS CG Total</b>          | 7.0       | 0.30  |                                       |           |       |
| <b>SOUTH BOUNDRY Total</b>            | 7.0       | 0.19  |                                       |           |       |
| <b>COTTONWOOD RESERVOIR Total</b>     | 7.0       | 0.16  |                                       |           |       |
| <b>CAMERON STATION Total</b>          | 7.0       | 0.13  |                                       |           |       |
| <b>LOWER SAN JUAN PG Total</b>        | 7.0       | 0.12  |                                       |           |       |
| <b>COTTONWOOD STATION Total</b>       | 7.0       | 0.12  |                                       |           |       |
| <b>GLENCLIFF STATION Total</b>        | 7.0       | 0.11  |                                       |           |       |
| <b>SAN LUIS REY PG Total</b>          | 7.0       | 0.02  |                                       |           |       |
| <b>SUTHERLAND DAM Total</b>           | 7.0       | 0.59  |                                       |           |       |
| <b>LAGUNA CG Total</b>                | 6.9       | 1.03  |                                       |           |       |
| <b>TRABUCO CANYON Total</b>           | 6.6       | 1.02  |                                       |           |       |
| <b>WILDOMAR Total</b>                 | 6.1       | 1.09  |                                       |           |       |

**Table E6 CNF: Roads with Low Priority for Mitigation**

| ID                        | NAME         | Operational Maintenance Level | Environmental Risk Indicators |           |          |       |                           |           |            |                   | Benefit Indicators |         | Weighted Average RAP SCORE | MILES |           |      |
|---------------------------|--------------|-------------------------------|-------------------------------|-----------|----------|-------|---------------------------|-----------|------------|-------------------|--------------------|---------|----------------------------|-------|-----------|------|
|                           |              |                               | Species Risk Indicators       |           |          |       | Watershed Risk Indicators |           |            |                   | PU_NEED            | AD_NEED |                            |       |           |      |
|                           |              |                               | RCA                           | RIP_SCORE | UP_SCORE | XINGS | SPP_SCORE                 | CONDITION | SLOPE_STAB | Earthquake Hazard |                    |         |                            |       | WAT_SCORE |      |
| 14S05                     | PINE CREEK   | 5                             | 1                             | 103       | 2        | 0     | 4                         | III       | 3          |                   | 3                  | 3       | 4                          | 7     | 0.19      |      |
| 14S05                     | PINE CREEK   | 4                             | 1                             | 100       | 1        | 0     | 4                         | III       | 3          |                   | 3                  | 3       | 4                          | 7     | 0.12      |      |
| 14S05                     | PINE CREEK   | 5                             | 1                             | 103       | 2        | 100   | 5                         | III       | 3          |                   | 3                  | 3       | 4                          | 8     | 0.06      |      |
| 14S05                     | PINE CREEK   | 5                             | 1                             | 103       | 1        | 0     | 4                         | III       | 3          |                   | 3                  | 3       | 4                          | 7     | 0.05      |      |
| 14S05                     | PINE CREEK   | 5                             | 1                             | 100       | 2        | 0     | 4                         | III       | 3          |                   | 3                  | 3       | 4                          | 7     | 0.03      |      |
| <b>PINE CREEK Total</b>   |              |                               |                               |           |          |       |                           |           |            |                   |                    |         |                            |       | 7.1       | 0.45 |
| 9S05                      | INDIAN FLATS | 3                             | 1                             | 100       | 1        | 0     | 4                         | I         | 3          |                   | 1                  | 4       | 4                          | 5     | 0.50      |      |
| 9S05                      | INDIAN FLATS | 2                             | 1                             | 100       | 1        | 0     | 4                         | I         | 3          |                   | 1                  | 4       | 4                          | 5     | 0.10      |      |
| 9S05                      | INDIAN FLATS | 3                             | 1                             | 102       | 1        | 0     | 4                         | I         | 3          |                   | 1                  | 4       | 4                          | 5     | 0.08      |      |
| 9S05                      | INDIAN FLATS | 3                             | 1                             | 102       | 1        | 100   | 5                         | I         | 3          |                   | 1                  | 4       | 4                          | 6     | 0.05      |      |
| 9S05                      | INDIAN FLATS | 2                             | 1                             | 103       | 1        | 100   | 5                         | I         | 3          |                   | 1                  | 4       | 4                          | 6     | 0.05      |      |
| 9S05                      | INDIAN FLATS | 2                             | 1                             | 103       | 1        | 0     | 4                         | I         | 3          |                   | 1                  | 4       | 4                          | 5     | 0.04      |      |
| 9S05                      | INDIAN FLATS | 2                             | 1                             | 101       | 1        | 0     | 4                         | I         | 3          |                   | 1                  | 4       | 4                          | 5     | 0.01      |      |
| 9S05                      | INDIAN FLATS | 3                             | 1                             | 101       | 1        | 0     | 4                         | I         | 3          |                   | 1                  | 4       | 4                          | 5     | 0.01      |      |
| <b>INDIAN FLATS Total</b> |              |                               |                               |           |          |       |                           |           |            |                   |                    |         |                            |       | 5.1       | 0.84 |

## Appendix D - 2011 Collaborative CNF HH and HL Table

| IRA           | Route Number | Route Status | Status Group | Access Score | Resource Score | Access Quad | Resource Quad | Quad | Miles |
|---------------|--------------|--------------|--------------|--------------|----------------|-------------|---------------|------|-------|
| Barker Valley | 9S07A        | NFSR         | System       | 4.00         | 3.79           | H           | H             | HH   | 0.22  |
| No Name       | 14S07        | NFSR         | System       | 2.00         | 3.19           | H           | L             | HL   | 1.90  |

**LH** Low Importance High Resource Risk; **LL** Low Importance Low Risk

**HH** High Importance High Resource Risk; **HL** High Importance Low Resource Risk



Figure E2 Palomar Ranger District

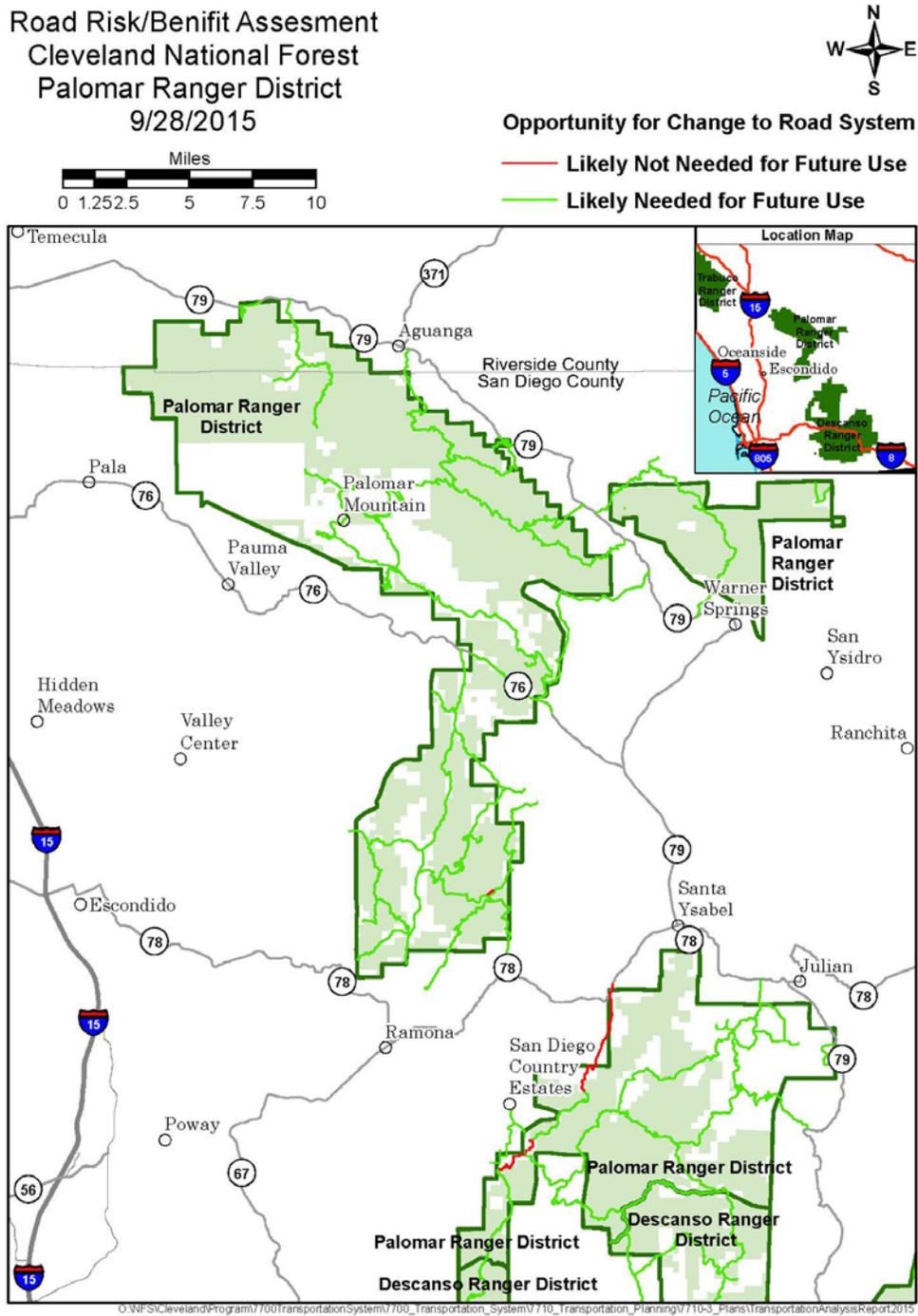


Figure E3 Descanso Ranger District

