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Environmental Assessment

Laguna Water System Improvement

Descanso Ranger District, Cleveland National Forest
San Diego County, California

Location of Action: National Forest System lands on the Cleveland National Forest in San Diego County, California

Type of Document: Environmental Assessment

Lead Agency: USDA Forest Service

Responsible Official: Descanso District Ranger, Cleveland National Forest

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Chapter 1: Introduction

The Descanso Ranger District has prepared this environmental assessment (EA) in compliance with the National Environmental Policy Act (NEPA). This EA discloses the environmental consequences of two alternatives: the Proposed Action and No Action. This EA also provides sufficient evidence to determine whether an environmental impact statement (EIS) is needed or if instead a finding of no significant impact is appropriate.

Location

The project is located in San Diego County within the Mount Laguna Recreation Area in the vicinity of the Red-Tailed Roost Volunteer Headquarters and the Laguna Meadow. Specifically, proposed water system improvement work would occur in Sections 13-15 and 22-24 of Township 15 S, Range 5 E along the San Bernardino Meridian. See the project map (Figure 1) for more detailed location information.

Purpose and Need

The Mount Laguna water system presently serves over eight recreation sites, a Forest Service fire station, a local private Volunteer fire station, a Volunteer Headquarters, a Forest Service Residence, a Sierra Club Lodge, and a Visitor Center. Altogether, the water system serves approximately 1,700 members of the public.

The existing water source currently utilized includes the Agua Dulce well – a 384-foot vertical water well with current production capacity of less than 9 gallons per minute (gpm) when pumping from 240 feet depth – on the southern end of the Recreation Area at the upper end of the water distribution system. This well has shown signs of deterioration as revealed through a down-hole camera investigation. There are concerns of iron bacteria developing in the zone within the aquifer where cascading water is falling from higher elevations. A stand-by well, located within Laguna Campground at the lower end of the water system, has poor water quality since it is high in iron content and is not utilized very often. This well is 400 feet deep and produced 50 gpm in 1995.

The distribution system is laid out such that gravity is the driving force to deliver water between the storage reservoirs and provide adequate pressure to the system.

The Los Rasalies well was installed in 2012 under a separate NEPA decision, signed on February 26, 2010, but remains isolated from the water system. The purpose of this project is to connect the new well to the water system and thereby supplement the existing Agua Dulce well and system storage capacity to meet the demands on the entire water system. Connecting this new well will also provide backup alternatives when the Agua Dulce well is down. Altogether, this purpose would fulfill the following Land Management Plan strategy: “Improve, remove or replace aging developed recreation infrastructure to meet current needs and future demand.” (LMP 2005, Part 2, p. 103)

Decision Framework

This EA discloses environmental effects of the no-action alternative and the proposed action. The Responsible Official, the Descanso District Ranger, will make a decision based on the review of the EA. The District Ranger’s decision will include: 1) whether to proceed with the proposed action or “no action”

alternative and 2) whether the decision that is selected would have significant impacts. If a determination is made that no impact would be significant, then a “Finding of No Significant Impact” (FONSI) would be prepared. Significant impacts would require the preparation of an Environmental Impact Statement [40 CFR 1501.4 (c) and (e)].

The District Ranger’s decision will be documented in a separate Decision Notice (Forest Service Handbook, 1909.15 - 40).

Public Involvement

The proposal was first listed in the Schedule of Proposed Actions in September 2013, and a scoping letter was sent to 24 potentially interested parties, including Tribal representatives, on September 19, 2013. Altogether, a single comment was received during the 30-day scoping period. The Draft EA was made available for a 30-day comment period through publication of a legal notice in the *San Diego Union-Tribune* on May 9, 2014, along with mailings to potentially interested parties, including five people that were not on the scoping mailing list. Altogether, nineteen comments were received during the 30-day comment period.

Issues

Based on internal scoping, the interdisciplinary team developed the following list of issues that warranted analysis in this EA to determine their significance and contribute to project design:

- Biological Resources
- Cultural Resources
- Soil and Water
- Recreation and Public Safety

Chapter 2: Alternatives

Alternative 1 – No Action

Under the no action alternative, no new improvements would be made to the existing water system on Mount Laguna. Existing wells would be maintained, while the new Los Rasalies well would remain isolated from the system.

Alternative 2 – Proposed Action

The proposed action would involve providing a new electrical utility drop/service to the Los Rasalies well via underground installation of approximately 1,590 linear feet (LF) of electrical conductors, and the installation of a new underground waterline extension from this well to the existing Mt. Laguna water system, as shown in Figure 1. Specifically, the waterline extension includes the installation of a 100,000 gallon water tank, approximately 8,000 LF (~1.5 miles) of control line, and approximately 15,000 LF (~3 miles) of new water main to the existing Cuyapaipa reservoir. Water system control grade boxes, control line pull boxes and water main drain laterals would be included in this installation. If needed, the work may also include the installation of a water treatment system at the Los Rasalies wellhead, installation of

a booster pump station, well development work on the Agua Dulce well, and existing pump control system upgrades at Los Huecos reservoir.

For permanent vehicle access to the proposed water tank site, a light-duty administrative road, 12 feet wide and approximately ¼ mile in length, would be constructed on top of the first portion of an existing National Forest System Trail, the Red-Tailed Roost Loop Spur, that begins at the Red-Tailed Roost Volunteer Headquarters (see Figures 1 and 2). The new tank access road would need to be bladed to allow for delivery of tank materials and equipment, and wet portions may need gravel. After construction, the road would be gated and allowed to revert to a two-track, light-duty, 8-foot-wide road, occupying 0.3 acres of National Forest System land along the existing trail. Oaks would be avoided to the extent possible during the blading. If funding permits, a lateral waterline would be buried in the tank access road to provide water for administrative and emergency use at the Red-Tailed Roost Volunteer Headquarters.

The water tank and fenced pad would occupy 0.1 acres of National Forest System land. The new water and electric lines would be installed using a miniature backhoe or backhoe to dig a trench, 12” to 24” wide and up to 36” deep, resulting in approximately 5,000 LF (~1 mile) of ground disturbance outside of the existing road prism. The equipment tread impact would occur within a 40’ wide corridor along the line shown in Figure 1 for portions of the project beyond existing roads, resulting in a maximum of 5 acres of new, temporary ground disturbance. Soil and vegetation removed to dig the trench would be set aside and put back in place after line installation, and the disturbed portions of Old County Road and Agua Dulce Road would be stormproofed. In addition, applicable best management practices (BMPs, listed below) for erosion control will be used throughout the project area and duration. Unauthorized public use of disturbed areas would be deterred by obscuring them from sight. The project is anticipated for implementation from spring through fall of 2015.

In response to concerns raised by the public during the comment period on the Draft EA, a new singletrack trail would be constructed to avoid the trail segment that would be transformed into a tank access road prior to other project construction. The trail would begin at the Red-Tailed Roost Volunteer Headquarters and connect to the existing Red-Tailed Roost Loop Spur Trail just beyond the site of the proposed water tank (Figure 2).

Design Features

- To limit impacts to a known nesting location for California spotted owls adjacent to the project area, a limited operating period (LOP) shall be instituted unless protocol surveys determine that owls are not nesting. The LOP would restrict project activities from occurring between February 1 and August 15.
- All equipment used on site shall be washed prior to entering the project area to remove seeds and plant material from noxious weeds to prevent the introduction and spread of weeds not already present on Mount Laguna or the Cleveland National Forest.
- Should any previously unrecorded cultural resources be encountered during implementation of this project, all work would immediately cease in that area and the Forest Heritage Program Manager (HPM) would be notified immediately. Work could resume after approval by the HPM, provided any recommended Standard Protection Measures were implemented. Should any cultural resources become damaged in unanticipated ways by activities proposed in this project, the steps described in the Regional Programmatic Agreement for inadvertent effects would be followed.

Figure 1. Map of Alternative 2 (Proposed Action)

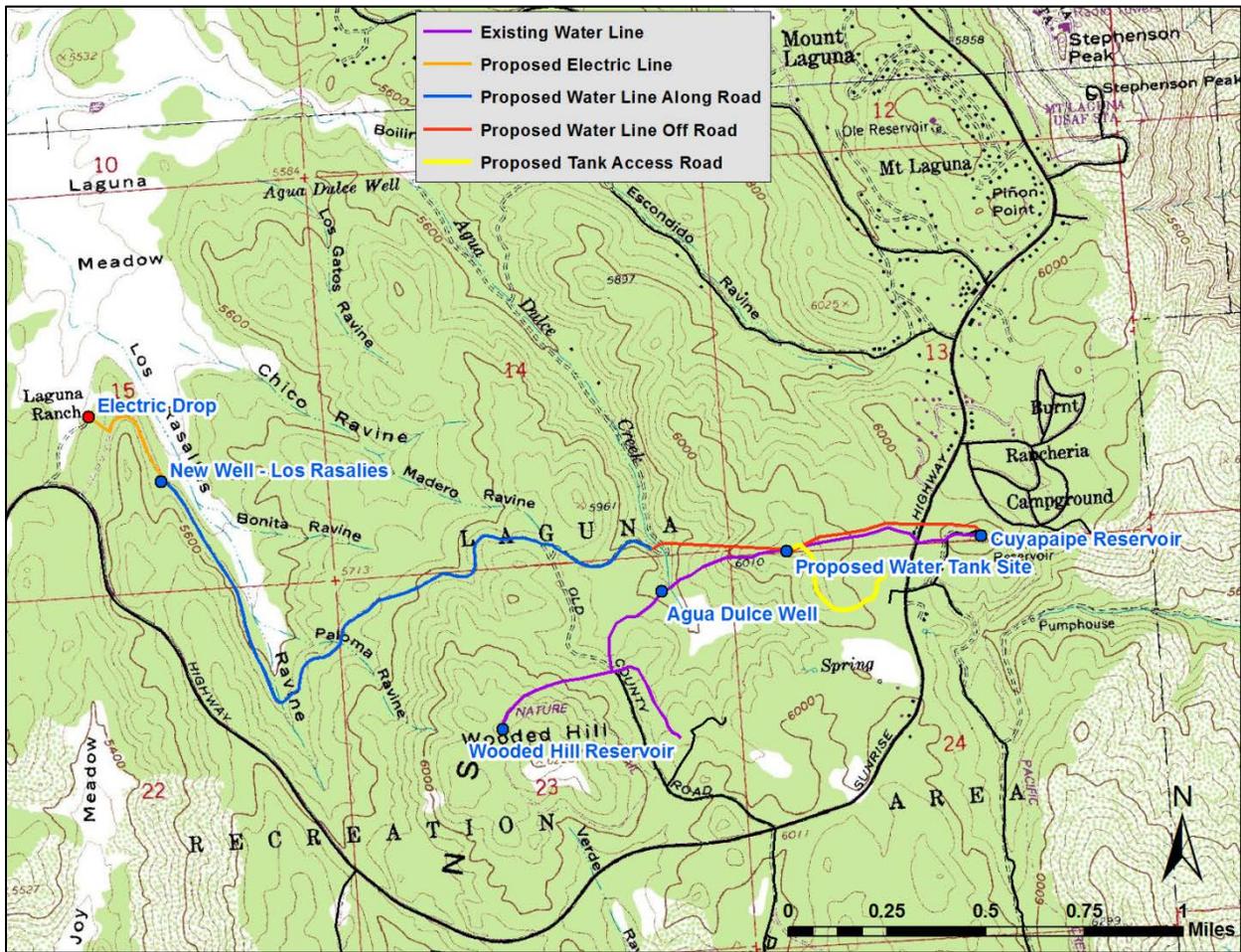
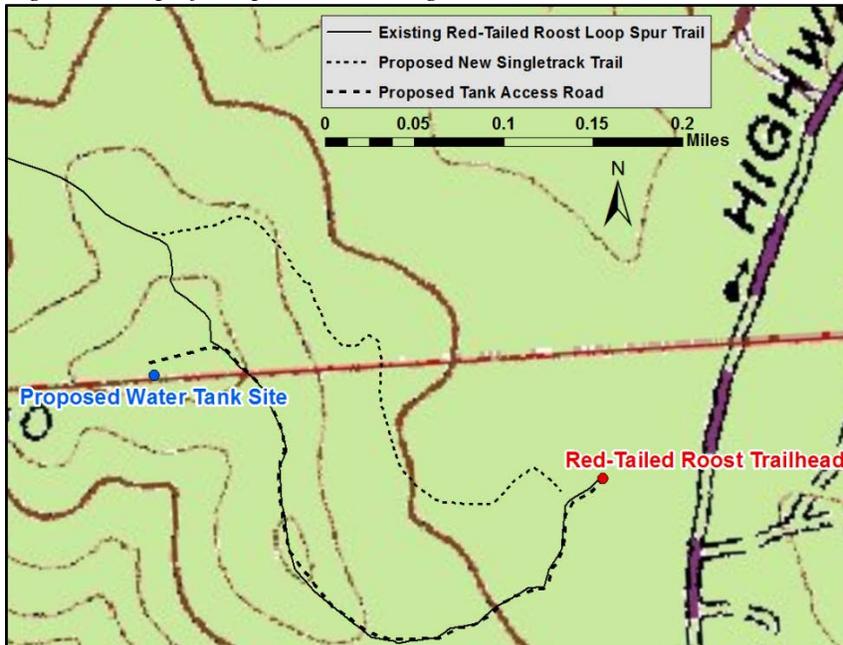


Figure 2. Map of Proposed New Singletrack Trail



- Should the project boundaries or activities be expanded beyond the current area of potential effect, National Historic Preservation Act Section 106 compliance for this project would be incomplete until additional cultural resource review was completed. The HPM would be kept informed of the status of various stages of the project, so that subsequent field work could proceed in a timely fashion.
- Project implementation would require dry soil conditions during all activities.
- After project implementation, ground cover on disturbed sites outside the road prism would be required to be at least 90 percent of existing pre-project levels.

Region 5 BMPs from R5 FSH 2509.22—Soil and Water Conservation Handbook Ch. 10 (2011)

- BMP 2.2 - General Guidelines for the Location and Design of Roads (pp. 81-85) applies to the location and design of access road for new tank.
- BMP 2.3 - Road Construction and Reconstruction (pp. 86-89) applies to the access road and reconstruction of roadbed after project implementation.
- BMP 2.6 - Road Storage (pp. 101-103) applies to the access road.
- BMP 2.8 - Stream Crossings (pp. 107-112) applies to the water main crossing of Agua Dulce Creek.
- BMP 2.11 - Equipment Refueling and Servicing (pp.118-119) applies to equipment used during project implementation.
- BMP 2.13 - Erosion Control Plan (pp. 122-129) applies to all ground disturbing activities.
- BMP 4.2 - Providing Safe Drinking Water Supplies (pp. 142) applies to the new tank.
- BMP 4.3 - Documenting Water Quality Data (pp. 143) applies to the new tank.
- BMP 7.4 - Forest and Hazardous Substance Spill Prevention Control and Countermeasure Plan (pp. 206) applies to all management activities involving mechanical equipment.

National BMPs from National Best Management Practices for Water Quality Management on National Forest System Lands (2012)

- AqEco-2. Operations in Aquatic Ecosystems (pp. 21-23) applies to stream crossing of Agua Dulce Creek by the water main.
- Fac-1. Facilities and Nonrecreation Special Uses Planning (pp. 40-41) applies to planning of new facilities (tank, access road, water main, etc.).
- Fac-2. Facility Construction and Stormwater Control (pp. 41-42) applies to ground disturbing activities during facilities construction.
- Fac-3. Potable Water Supply Systems (pp. 43) applies to the new tank.
- Fac-9. Pipelines, Transmission Facilities, and Rights-of-Way (pp. 48-49) applies to the water main and tank.
- Road-2. Road Location and Design (pp. 107-110) applies to the access road.
- Road-3. Road Construction and Reconstruction (pp. 110-111) applies to the access road and reconstruction of roadbed after installation of water main.
- Road-6. Road Storage and Decommissioning (pp. 115-117) applies to the access road.
- Road-7. Stream Crossings (pp. 117-120) applies to the water main crossing of Agua Dulce Creek.
- Road-10. Equipment Refueling and Servicing (pp. 123-124) applies to all activities involving mechanical equipment.
- WatUses-1. Water Uses Planning (pp. 142-143) applies to the water system (tank, water main, facilities, etc).

- WatUses-2. Water Wells for Production and Monitoring (pg. 143-144) applies to water use at Los Rasalies well.
- WatUses-3. Administrative Water Developments (pp. 144-147) applies to the water system (tank, water main, facilities, etc.).

Alternatives Considered but Eliminated from Detailed Study

An alternative that would not construct a road to the water tank was considered but eliminated due its infeasibility. Specifically, vehicular access to the tank is critical for its long-term maintenance.

Alternative water tank and road locations were also considered, but the locations proposed under Alternative 2 were determined through field surveys to have both the least resource concerns and the least engineering constraints relative to alternative locations, which were therefore eliminated from detailed study.

Table 1. Comparison of Alternatives

	Alternative 1 (No Action)	Alternative 2 (Proposed Action)
Biological Resources	No direct, indirect, or cumulative effects to biological resources.	No effect on threatened or endangered species, small-scale effects on individuals of some sensitive species and management indicator species but not on their populations, and low risk of invasive weed introduction or spread.
Cultural Resources	No direct, indirect, or cumulative effects to cultural resources.	No direct, indirect, or cumulative effects to cultural resources.
Soils and Water	No direct, indirect, or cumulative effects to soil and water.	Minor, short-term effects to soil and water resources would occur.
Recreation and Public Safety	Risk of water system failure would threaten the long-term sustainability of recreation and public safety on Mount Laguna.	Minor, short-term effects to recreational experiences would occur. Long-term provision of water for the Recreation Area would be secured.

Chapter 3: Environmental Consequences

The spatial scope of cumulative effects analyzed herein is the Mount Laguna Recreation Area, and the temporal scope is 20 years, which is the minimum anticipated lifespan of the proposed improvements.

3.1 Biological Resources

Alternative 1 – No Action

As no project activities would occur under the no action alternative, no direct, indirect, or cumulative effects are expected to any of the threatened, endangered, or sensitive species with the potential to occur in the project area. Current conditions for management indicator species would not change, and the no action alternative would therefore have no effect on mountain lion, mule deer, song sparrow, coulter pine, California spotted owl, or California black oak population trends. Invasive weed distributions and abundances would also remain the same under the no action alternative.

Alternative 2 – Proposed Action

Threatened and Endangered Species

Critical habitat for San Bernardino bluegrass (*Poa atropurpurea*) occurs adjacent to the project area; however, no project activities will occur off the road prism in this area or in the grassland/meadow habitat where San Bernardino bluegrass occurs. None of the primary constituent elements of the critical habitat will be affected, directly or indirectly, nor will any occupied habitat, which all occurs in the main part of Laguna Meadow. Therefore, no direct, indirect, or cumulative effects are expected to San Bernardino bluegrass or its critical habitat.

Several sections of the waterline will be located within Laguna Mountains skipper (*Pyrgus ruralis lagunae*) critical habitat; however, no project activities will occur off the road prism within critical habitat. The areas adjacent to the road were surveyed for *Horkelia clevelandii*, the host plant for Laguna Mountains skipper larvae, as well as suitable nectaring sources, and no plants are located where they would be impacted during construction. Suitable habitat and the primary constituent elements of the critical habitat for skipper are absent from all sections of the project that will occur off-road. None of the primary constituent elements of the critical habitat will be affected, directly or indirectly. Annual surveys in various locations across Laguna Mountain since 1999 have all produced negative survey results for Laguna Mountains skipper, which appears to be extirpated from Mount Laguna. As the species is absent and the critical habitat will not be affected during project activities, no direct, indirect, or cumulative effects are expected.

To summarize, based on the location of project activities with respect to designated critical habitat, the lack of primary constituent elements near the project construction activities, and the absence of San Bernardino bluegrass and Laguna Mountains skipper near the project area, Alternative 2 is expected to have no effect on San Bernardino bluegrass, Laguna Mountains skipper, or their critical habitats.

Regional Forester's Sensitive Species

Laguna Mountains aster (*Dieteria asteroides* var. *lagunensis*), southern jewelflower (*Streptanthus campestris*), San Bernardino aster (*Symphyotrichum defoliatum*), and San Jacinto bedstraw (*Galium angustifolium* ssp. *jacinticum*) may all occur throughout the project area in seeps, drainages, openings, and in the understory herbaceous vegetation within the forested areas of the project. These species may be negatively affected during project activities both in the road prism, as well as off-road. Individual plants may be directly affected as they may be crushed while equipment is trenching or tracking along the off-

road route, but these effects are expected to be temporary and short-term as the trench will be closed and vegetation will grow back. Minimal indirect effects of competition may occur in the off-road portion of the waterline as a slight increase in non-native grasses such as cheatgrass (*Bromus tectorum*) may occur after soil disturbance. This species is already present at the site, although project activities are not likely to result in a long-term or widespread increase in cheatgrass distribution within the project area.

Approximately 5 acres would be temporarily disturbed to install the waterline and tank, and another 0.4 acres would be permanently disturbed by the water tank and access road. Longer-term direct and indirect impacts are likely as a result of the widening of this existing trail, but will occur over a small area so are not likely to contribute to cumulative effects to Laguna Mountains aster, southern jewelflower, San Bernardino aster, or San Jacinto bedstraw.

To summarize effects on sensitive plant species, based on the small area that will be disturbed by project construction, the short duration of the temporary disturbance, and mitigation measures for washing equipment to limit the spread of non-native plants, Alternative 2 may affect individuals but is not likely to lead to a trend toward federal listing or a loss of viability for Laguna Mountains aster, southern jewelflower, San Bernardino aster, and San Jacinto bedstraw.

Fringed myotis (*Myotis thysanodes*) and Townsend's big-eared bat (*Corynorhinus townsendii townsendii*) may be affected by the electric drop to the Laguna Ranch House, where there are suitable roosting sites and water available for these species. Any disturbance will only occur during construction activities and will result in a short-term direct impact on these species. No indirect or cumulative effects are expected to these species.

California spotted owl (*Strix occidentalis occidentalis*), San Diego mountain kingsnake (*Lampropeltis zonata pulchra*), large-blotched salamander (*Ensatina eschscholtzii klauberi*), San Diego horned lizard (*Phrynosoma blainvillii*), San Diego ring-necked snake (*Diadophis punctatus similis*), coastal rosy boa (*Lichanura trivirgata*), two-striped garter snake (*Thamnophis hammondi*), and bald eagle (*Haliaeetus leucocephalus*) may occur throughout the project area. Any of these species may be directly disturbed by noise and activity during project construction, but these effects are expected to be short-term and limited to the immediate project area. To protect California spotted owls and their Protected Activity Center (PAC) along Agua Dulce Creek, a limited operating period will be in place limiting activity between February 1 and August 15, unless protocol surveys reveal the PAC is unoccupied, limiting disturbance to breeding owls. San Diego mountain kingsnake, large-blotched salamander, San Diego horned lizard, San Diego ring-necked snake, coastal rosy boa, and two-striped garter snake may also be directly affected during construction activities as some individuals may be crushed and killed by equipment trenching or tracking. This impact is expected to be short-term and primarily in the off-road section of the waterline and is not likely to contribute to cumulative effects to the species. A small degree of direct and indirect effects are likely as a result of the habitat lost from the installation of the water tank and widening the trail from the Red-Tailed Roost into an access road to the water tank, but only 0.4 acres would be affected and the area is already disturbed due to the presence of the trail. Given the limited temporal and spatial impacts of these direct and indirect effects, no cumulative effects are expected to California spotted owl, San Diego mountain kingsnake, large-blotched salamander, San Diego horned lizard, San Diego ring-necked snake, coastal rosy boa, and two-striped garter snake, or bald eagle.

To summarize effects on sensitive animal species, based on the small area that would be disturbed by project construction, the short duration of the temporary disturbance, and a design feature to limit disturbance to the California spotted owl PAC during breeding season, Alternative 2 is expected to have no effect on California spotted owls. Based on the information above, Alternative 2 may affect individuals but is not likely to lead to a trend toward federal listing or a loss of viability for San Diego mountain kingsnake, fringed myotis, Townsend's big-eared bat, large-blotched salamander, San Diego horned lizard, San Diego ring-necked snake, coastal rosy boa, two-striped garter snake, and bald eagle.

Management Indicator Species

Under Alternative 2, there would be a short time period of high activity on the site while equipment and workers are installing the waterline, water tank, and electric drop. As a result, Alternative 2 would have a small effect over a short period of time to mountain lions, mule deer, and song sparrow but would change neither population trends nor habitat conditions for mountain lions (*Puma concolor*), mule deer (*Odocoileus hemionus*), and song sparrow (*Melospiza melodia*).

If California spotted owls are determined to be present or protocol surveys are not conducted, a limited operating period for project activities would protect breeding or potentially breeding spotted owls from disturbance. Given this protection measure, Alternative 2 would have no effect on population trend or habitat conditions for California spotted owl.

Under Alternative 2, some vegetation and trees adjacent to the trench or access road may need to be removed for safety and operability. This may include a number of individual Coulter pines (*Pinus coulteri*) and California black oaks (*Quercus kelloggii*), but their loss would not change Coulter pine or California black oak population trends.

To summarize, based on the small area that would be disturbed by project construction, the short duration of the temporary disturbance, and the low level of effects associated with the project, Alternative 2 is expected to have no effect on population or habitat trends for mountain lion, mule deer, song sparrow, coulter pine, California spotted owl, or California black oak.

Invasive Weeds

Other than common non-native grasses, no invasive weeds were found during field surveys of the project area. During project activities, a maximum of 5 acres would be temporarily disturbed from off-road waterline installation and another 0.4 acres would be permanently disturbed from widening the trail from Red-Tailed Roost into a tank access road. The remaining project activities would occur within the existing road prisms of the Old County Road and Agua Dulce Road. To mitigate for the potential introduction and/or spread of invasive weeds, all equipment would be washed prior to beginning work on the project. Due to the small scale of the project, the minimal areas of soil that will be disturbed, the lack of existing invasive weed populations other than non-native grasses, and the equipment washing design feature, Alternative 2 is low-risk in terms of spreading or introducing weeds.

3.2 Cultural Resources

Alternative 1 – No Action

As no project activities would occur under the no action alternative, no direct, indirect, or cumulative effects are expected for cultural resources.

Alternative 2 – Proposed Action

In accordance with the provisions of the "Programmatic Agreement among the U.S.D.A. Forest Service, Pacific Southwest Region (Region 5), the California State Historic Preservation Officer, the Nevada State Historic Preservation Officer, and the Advisory Council on Historic Preservation Regarding Processes for Compliance with Section 106 of the National Historic Preservation Act for Management of Historic Properties by the National Forest of the Pacific Southwest Region (Regional PA 2013)", a review of the Cleveland National Forest's heritage resource files revealed that the Area of Potential Effect (APE) of the undertaking had been previously adequately inventoried to current professional standards through the report #ARR 05-02-DE-015.

A Field Check of the proposed project APE was conducted by the Heritage Program Manager. No cultural resources were identified within the proposed project APE, and no further inventory is required. There would be No Historic Properties Affected by the implementation of Alternative 2 (Stipulation 7.8[a]) as there are no historic properties located within the proposed undertaking APE. Additional review may be required if the project boundaries or activities are expanded beyond the current APE. Ground disturbing components of Alternative 2 may be monitored by a qualified archaeologist at the discretion of the CNF Heritage Program Manager.

3.3 Soil and Water

Alternative 1 – No Action

As no project activities would occur under the no action alternative, no direct, indirect, or cumulative effects are expected for soil and water resources.

Alternative 2 – Proposed Action

Based on analysis provided in the project Watershed Report (2014), the well would not cause long term water deficits in the Laguna Meadow, nor would the well cause significant changes to meadow hydrology or upstream lakes (such as Big Laguna Lake). Meadow hydrology has been altered by man-made dams, such as the dams at Water of the Woods and Big Laguna Lake. The estimated water use would not be so great as to reduce total runoff beyond the natural variability that is seen in the meadow. On a local scale, the project will utilize some of the available water; however, based on historic use and estimates of future use, the estimated quantities are within a safe yield range. To prevent long term water deficits, monitoring of the system (including use, recharge rates, and drawdown) would be conducted. Should recharge slow, water use would be reassessed and adjusted to maintain a safe yield.

There would be a minor risk of increased sedimentation as a result of Alternative 2; however, any sediment resulting from the project would be short-term and not measurable at the watershed scale. BMPs

included in project implementation would further protect water and soil resources. To prevent increased ground disturbance, the water main and control line would be installed within an existing road prism. Where the road surface would be disturbed, drainage control features such as rolling dips would be built after project implementation to prevent road surface erosion.

To prevent risks to watershed resources, the water main and control line would be located outside of drainage features, such as streams, swales, and meadows. Only perpendicular crossings of stream channels would occur, with the majority of crossings occurring within the existing road prism at existing road crossings. The exception is the installation of the water main and control line at Agua Dulce creek. Installation of the water main and control line at Agua Dulce creek would require one new crossing outside of the existing road prism. The new crossing would be located approximately 50 feet downstream of the existing road crossing. Below the existing road crossing, Agua Dulce creek is intermittent and above the crossing the creek is perennial. The location of the water main and control line crossing would be in the intermittent section. Work would only occur during dry soil conditions to prevent impacts to water resources, following BMP 5-6. After implementation, ground cover would be required to be 90% of pre-project levels. Certified weed-free rice straw and on-site woody debris may be used to provide ground cover and prevent erosion.

Construction of ¼ mile of road would cause negligible risk to watershed resources. Although there would be construction of ¼ mile of road to access the water tank, the road would neither be adjacent to any streams nor cross any drainages. The road would be located on an existing trail that would be widened to accommodate vehicles. In the long term, the road would be blocked from regular motor vehicle use and only used sporadically for maintenance of the water tower. BMPs related to construction of roads and storage of the road as a maintenance level 1 road would prevent road-related sediment production. Similarly, the proposed new singletrack trail to avoid the new road would occur in a suitable area and follow BMPs related to trail construction, thereby preventing trail-related sediment production.

Beneficial uses of water would not be affected by Alternative 2. Floodplains would not be adversely affected by Alternative 2, since the water main and control line would be buried at the stream crossing with Agua Dulce Creek and would not alter the connectivity of stream discharge to the floodplain. Wetlands would not be adversely affected by Alternative 2, since no mapped wetlands occur in or adjacent to the project area. Laguna Meadow and tributary stringer meadows are located downstream of the project area, but these are seasonally wet meadows. There are no proposed activities that would be occurring in or near the meadows; hence, there would be no adverse impacts to these meadows from project activities.

No Clean Water Action Section 303d listed waters are within the project area; however, (Upper) Pine Valley Creek is a 303d listed perennial stream located downstream from the proposed action. (Upper) Pine Valley Creek is listed as impaired for Enterococcus, phosphorous, and turbidity. The perennial section of Upper Pine Valley Creek is located at least 3.5 miles downstream of Agua Dulce Creek (the only location with a stream crossing not within the road prism). The implementation of Alternative 2 does not have the potential to further impair this listed water.

Finally, Alternative 2 would not be expected to change current estimated Cumulative Watershed Effects. Existing erosion and sediment transport from the project area may increase slightly because of Alternative 2; however, any increases would be very minor and short-term (less than 5 years).

3.4 Recreation and Public Safety

Alternative 1 – No Action

No project activities would occur under the no action alternative. While this situation would result in no direct, indirect, or cumulative effects for users of the Big Laguna Trail, the Old County Road, and Agua Dulce Road, there could be significant effects on all users of the Mount Laguna Recreation Area resulting from failure of the existing water system. Drinking water, sanitation facilities, and wildland fire preparedness would be affected by such a failure, which would lead to closure of certain facilities, resultant impacts to displaced recreational users, and additional risks associated with wildland fire.

Alternative 2 – Proposed Action

During the implementation of Alternative 2, recreation experiences would be negatively affected by project activity, including a temporary trail closure of 120 days as well as the sights and sounds of construction in the Mount Laguna Recreation Area.

The parking facility located at the Red-Tailed Roost Volunteer Center is one of the most popular parking locations for recreation users of the Laguna Mountain Recreation Area's trail system, since it is the only paved area off of the Sunrise Highway that has access to the Big Laguna Trail network. It serves as a trailhead for the Red-Tailed Roost Loop Spur Trail, which can be done as either a stand-alone 3 mile loop trip or can be used as an access point for the greater Big Laguna Trail network. Placing a light-duty road on top of this trail and a fenced water tank within view of it would adversely affect the recreation experience for users of this portion of the Mount Laguna Recreation Area by increasing the signs of human development in a mostly natural setting. To mitigate for this impact, the new singletrack trail that would avoid the tank access road and water tank would alter the location of the recreational experience but preserve its quality. While some recreationists could create unauthorized trails in the project area, this potential would be no greater than currently exists, since a singletrack trail would be available for continued use and disturbed areas would be visually obscured.

The primary beneficial effect of Alternative 2 on recreation and public safety would be the long-term security of the water supply for the Recreation Area. A functioning water system would continue to supply drinking water, sanitation, and fire-fighting facilities for the benefit of residents of and visitors to Mount Laguna.

Alternative 2 would have both positive and negative effects on recreation and public safety. Since there have been more removals of infrastructure, including the Mount Laguna Church, the Laguna Air Force Base, and Agua Dulce Campground, than additions in the Mount Laguna Recreation Area in recent years, no cumulative effects are expected for recreation and public safety under Alternative 2.

Chapter 4: Persons, Groups, Organizations, and Agencies Consulted

ID Team Members:

Bleadorn, Spencer	District Recreation Officer
Brennan, Will	District Recreation Technician
Christiansen, Donn	District Ranger
Fudge, Emily	Forest Hydrologist
Graham-Wakoski, Noelle	Forest Civil Engineer
Handley, Bianca	Forest Environmental Engineer
Harvey, Steve	Forest Archaeologist
Heys, Jeff	Forest Planner
Jennings, Megan	District Wildlife Biologist
Walsh, Daniel	District Recreation Technician
Winter, Kirsten	Forest Biologist

Chapter 5: Responses to Comments

Comment #1: Support for the project given the demands for additional water supply on Mount Laguna.

Response: The Forest Service appreciates the support expressed for this project.

Comment #2: Recommends that the USFS map out and coordinate existing water systems on Mount Laguna.

Response: The Cleveland National Forest has mapped its water distribution system, but while our Special Use Permit files hold the layout of water distribution systems owned by permittees on National Forest System lands, we cannot require private land owners to provide this information to the Forest. We agree that this would be an important undertaking, for example by a Fire Protection committee, but it falls outside the scope of this project.

Comment #3: Support improvements to the Laguna Recreation Area but cannot support destruction of the Red Tail Roost Trail without providing a new sustainable contour trail in its place. There are too few trails available as it is. A fire road is not a trail and thus does not provide the same outdoor experience.

Response: The construction of a new singletrack trail segment has been added to the proposed action (p. 3) to replace the segment of the Red-Tailed Roost Loop Spur Trail that would become the tank access road.

Comment #4: Recommends placing the tank and access road somewhere else that is already busier, such as near the campgrounds or on the existing fire roads, in order to preserve the isolation, solitude, and peacefulness of this area.

Response: Alternative water tank and road locations were considered, but the locations proposed under Alternative 2 were determined through field surveys to have both the least resource concerns and the least engineering constraints relative to alternative locations, which were therefore eliminated from detailed study (p. 6).

Comment #5: Opposed to the location of the tank access road atop the existing trail.

Response: The Forest Service understands this concern but must nevertheless address the Purpose and Need for the project. See Responses to Comments #3 and #4 for further information.

Comment #6: Re-route additional sections of trail beyond the water tank.

Response: There are additional sections of the Red-Tailed Roost Loop Spur Trail that could warrant re-routing, but they fall outside the scope of this project.

Comment #7: The EA doesn't address noise and resultant impacts on recreation.

Response: The Recreation and Public Safety section (p. 12) discloses that "recreation experiences would be negatively affected by project activity, including the sights and sounds of construction in the Mount Laguna Recreation Area." After project construction, minimal noise is expected.

Comment #8: The EA doesn't address the water table and resultant impacts on the lake and surrounding trees.

Response: The Soil and Water section (p. 10) has been updated to provide a summary of the expected effects of the proposed action on the water table and Big Laguna Lake. Based on the findings that water deficits and upstream effects would not be expected, the trees surrounding the Laguna Meadow are not likely to be affected by the proposed action.

Comment #9: The EA doesn't mention powerlines that will be needed, and it is unclear if the electric drop would be installed above or below ground.

Response: The proposed action description has been adjusted to clarify that all project powerlines will be buried underground.

Comment #10: Oaks need protection instead of clearing and reduction in water supply.

Response: The Forest Service agrees that oaks need protection, which is why they will be avoided to the extent possible. The water system improvements are not expected to affect the availability of water for oaks in the project area.

Comment #11: Water system improvement should not occur to accommodate more people and infrastructure on Mount Laguna.

Response: The project is not intended to accommodate more people or infrastructure on Mount Laguna. Instead, the Purpose and Need for the project (p. 1) states: "The purpose of this project is to connect the new well to the water system and thereby supplement the existing Agua Dulce well and system storage capacity to meet the demands on the entire water system."

Comment #12: The loss of ¼ mile of singletrack trail will negatively impact recreation and would not be offset by the water system improvements.

Response: See Response to Comment #3 and adjustments to section 3.4: Environmental Consequences for Recreation and Public Safety.

Comment #13: The need section does not mention the particulars of the new well, such as its depth, static water level, gallons per minute, or water quality.

Response: Testing has determined that the Los Rasalies well has sufficient capability for long-term pumping to meet the demands on the water system. Because the particular details are variable and do not directly inform this analysis, the values are not included herein.

Comment #14: Recommends running a 3-inch line from the tank to the Roost, ending in a hydrant for emergency use.

Response: The proposed action has been adjusted to include the provision of a lateral waterline from the new water tank to the Red-Tailed Roost Volunteer Headquarters, if funding permits (p. 3).

Comment #15: Recommends turning the disturbed area into a trail to connect the Laguna Meadow to the Red-Tailed Roost.

Response: To minimize disturbance and cost, the waterline will be installed along straight lines that would not make for sustainable trail alignments on sloped terrain.

References

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