



Southern California Forests and Watersheds - Wildfires Restoration

2021 RFP APPENDIX

OVERVIEW

Listed below are several potential projects that have been identified by the Los Padres and Angeles National Forests as ‘High Priority’ for the 2021 RFP funding cycle. The descriptions include a brief summary of the intent and need, along with additional supporting information as available to help detail or define aspects of the project. Project descriptions are organized by Forest, and by the General Programmatic Strategies that they most closely align with. The information presented here is not comprehensive, but rather provides preliminary information for interested applicants to begin to develop their proposal.

The list of projects described here is neither exhaustive nor does it represent the only projects eligible to receive funding through this opportunity. Applicants are strongly encouraged to submit proposals that align with the goals of this program, whether they explicitly address the needs listed here or not. However, this list does provide known needs and priorities for the Forests, and as such, well developed proposals that address these needs will be highly competitive.

Questions about any of the projects below should be directed to NFWF Program Manager, Jim Bond.

LOS PADRES NATIONAL FOREST

Forest and Upland Restoration and Management

Invasive Vegetation Management (Across all fire areas)

The reduction of invasive non-native vegetation is a high priority for the Los Padres National Forest (LPNF). Post-fire conditions, in addition to more frequent occurrences of fires on the landscape, can exacerbate the introduction and spread of invasive exotic plant species (i.e. weeds), which may further degrade the ecological integrity of natural systems, reduce their resilience, and further promote the likelihood of catastrophic wildfires. The weeds that have been introduced and spread in the burn scars of the Jesusita, Piru, and Zaca fires have been surveyed and mapped by multiple individuals and groups both within and outside of the Forest Service, but a comprehensive GIS database of the current state of weed occurrences within the perimeters of these three fires, along ground disturbances caused by fire suppression efforts (e.g. firelines), and along roads used for the fire suppression activities is needed. Proposals addressing the mapping and compiling of a GIS weed database that can be used by the LPNF and incorporated into their GIS database format are encouraged.

Proposals addressing the removal of weeds associated with the Jesusita, Piru, and Zaca fires are also recommended. Previous grant cycles have targeted the removal of tamarisk occurrences within prominent watersheds. The LPNF recently finalized a [Forest-Wide Invasive Plant Treatment Program Environmental Assessment \(EA\)](#) that allows for more comprehensive and diverse invasive exotic plant management opportunities. The LPNF encourages applicants to submit proposals to implement sound and strategic invasive exotic plant management. All activities conducted will ultimately need to be in compliance with the EA. If addressing tamarisk, all activities will need to be in compliance with the [2016 Final Environmental Impact Statement \(EIS\)](#) for tamarisk removal on the LPNF. In addition to tamarisk, other invasive exotic plant species to consider as a focus for proposals involving removal treatments include, but are not limited to:

- Perennial pepperweed (*Lepidium latifolium*)
- Spanish broom (*Spartium junceum*)
- Spotted knapweed (*Centaurea stoebe* ssp. *Micranthos*)
- Russian knapweed (*Rhaponticum repens*)
- Pampas grass (*Cortaderia selloana*)
- Medusahead (*Elymus caput-medusae*)

Areas of concern with known invasive exotic plant management needs in the Zaca Fire area include perennial pepperweed in the Santa Ynez River watershed, Russian knapweed on Sierra Madre Road, and medusahead grass on Little Pine Mountain; perennial pepperweed and Spanish broom in the Piru Creek watershed within the Piru Fire area; and Spanish broom and fennel along East Camino Cielo and the fuelbreak from Hwy 154 to Romero Saddle in proximity to the Jesusita Fire area. In addition, for reference, in a previous grant through this program Santa Barbara Botanic Garden conducted surveys and inventory of invasive exotic plants in parts of the Los Padres NF, [available here](#).

Resource Surveys and Monitoring (Wildlife/Biological Resources, Archeology, and Invasive Plants)

The management of vegetative fuels on National Forest lands a potential strategy to help reduce the risks to communities and people from future wildfire events and promote healthy and resilient landscapes. As directed by the National Environmental Policy Act (NEPA), before such action can be undertaken, an accounting of the various natural and cultural resources must be conducted and considered in context with the potential benefits and impacts that such activity might pose. The Los Padres National Forest is seeking assistance to complete inventory and assessments of wildlife/biological surveys, archeology surveys, and invasive plant assessments to help inform planning efforts for potential land management and fuels reduction strategies in a variety of locations associated with the Zaca and Jesusita Fire areas. Related to the Zaca Fire, approximately 3,248 acres of roadside buffers, representing ~80 miles of road, as well as 1,544 acres of ridgetop fuelbreaks and property line corridors are in need of resource assessments and surveys. Additionally, approximately 447 acres of delineated area, containing a mix of conifer, hardwoods, and shrub, is also in need of assessment ([see map](#)). Related to the Jesusita Fire, approximately 178 acres of roadside buffers, ridgetop fuelbreaks, and property line corridors are in need of resource assessments. Grantee(s) would coordinate and execute necessary monitoring, assessment, and data and report deliverables to the LPNF to inform fuels management decisions.

Archeology resource assessments will include project design, literature and record review (California Historic Record Information System (CHRIS) and Los Padres Heritage Center), field work and site evaluations, proposed conservation and protection measures, and recommendations for subsequent investigations. Work must be conducted by or in consultation with an individual meeting the Secretary of the Interior’s Standard for Archaeology and Historic Preservation, and all work must be in accordance with and meet requirements of the National Historic Preservation Act, Archaeological Resources Protection Act of 1979, and the Archaeological and Historic Preservation Act of 1974.

Wildlife resource assessments will conduct initial desktop analysis of historic wildlife occurrence data to determine what species may require additional surveys within the project areas. Wildlife resource assessment data and reporting requirements will subsequently be developed with LPNF staff. The table below identifies key species of interest and potential survey methodologies.

| Survey Type | Comments | Survey Methodology Comments |
|---------------------|---|---|
| Amphibian/ Reptiles | Both aquatic and terrestrial species including blunt-nosed leopard lizard, foothill yellow-legged frog, California red-legged frog, southwestern pond turtle and two-stripe garter snake. | Surveys vary for aquatic and terrestrial herps and some are species specific. Aquatic surveys are linear, following stream systems, while terrestrial surveys frequently utilize transects within suitable habitat. |

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| California spotted owls | Numerous territories on MRD, SLRD and SBRD which would likely be impacted by project actions | 2011 Northern spotted owl survey protocol |
| Invertebrates | Target species includes vernal pool fairy shrimp, Smith's blue butterfly, monarch butterfly and San Emigdio blue butterfly. | Surveys require specialized expertise with special status species and should be conducted in consultation with species experts. |
| Riparian birds | Target species include least Bell's vireo, western yellow-billed cuckoo, southwestern willow flycatcher/ willow flycatcher. Can only be surveyed in Spring/ early Summer. | Protocol surveys are species dependent and labor intensive. General point count surveys can follow Ralph et. al. 1995 guidelines. |

Road Sediment Reduction and Watershed Infrastructure Improvement

Previous grants through this program have evaluated road conditions and road related sediment sources, and identified potential improvements to benefit watershed health and aquatic species in watersheds within the Zaca Fire area. Currently, there are active projects within the Manzana Creek watershed that are in the process of addressing select stream crossing locations and road surface discharge sites in the Catway Road and McKinley Mountain Road area of the Manzana Creek watershed. However, there remains over 200 locations recommended for improvement. The Los Padres National Forest encourages proposals that will help address additional watershed infrastructure improvements to benefit water quality and habitat conditions in these areas.

Two reports are available for reference: [Manzana Creek Watershed Anthropogenic Sediment Reduction Assessment, Aquatic Protection and Road Restoration Planning Project](#); and [Los Padres National Forest Roads Inventory and Erosion Assessment](#). Proposals will need to include time and budget considerations to conduct tasks necessary to comply with relevant regulatory compliance, including securing permits and completing relevant National Environmental Policy Act (NEPA) processes.

Public Use Engagement and Management

Resource Protection and Educational/Interpretive Signs

After the Jesusita Fire, burned areas and routes and firelines used for fire-fighting activity provided new opportunities to access areas of Forest Service lands that were never designated for trails, OHV use and other forms of public access, which over time and continued use, begin to appear as part of the Forest Service system trails. These “user-created” pathways disrupt the natural recovery of the sites and may introduce new pathways for exotic invasive plants to encroach and affect the ecology of these areas. The Los Padres National Forest is seeking assistance with the protection of these areas by improving or restoring fencing, barriers, and other means to prohibit unwanted and unauthorized access to certain areas, mainly along East Camino Cielo along the northern perimeter of the Jesusita Fire scar. In addition, strategic placement of education/interpretive signs could be developed to help raise awareness and appreciation of forest resources, and convey information related to such topics as fires and fire ecology, watersheds and steelhead, and noxious weeds identification and reporting.

A previous project through this grant program inventoried numerous user-created trails and OHV access and pathway sites throughout the Jesusita area and provided recommendations for priority action. The report can be made available for reference upon request. Proposals should develop a scope to include all facets of the project from planning and site identification to solution development and implementation, and budget time and materials appropriately. Grantee will be the primary responsible party for executing work, but coordination with and approval by LPNF staff will be required before on-the-ground tasks can be undertaken.

ANGELES NATIONAL FOREST

Forest and Upland Restoration and Management

Improving Restoration of Big Cone Douglas Fir and Gray Pine (Powerhouse Fire)

Gray pine and bigcone Douglas-fir are important conifer species that occur within the Angeles National Forest. However, recovery and restoration of these species in post-fire landscapes has proved challenging. The ANF encourages research, development, and testing of treatment methods to improve the survival of planted gray pine and bigcone Douglas-fir seedlings in forested landscapes of the Sierra Pelona Mountain Range, within the vicinity of the Sawmill Liebre Road (FS Road 7N23) and Maxwell Truck Trail (FS Road 7N08).

This project will inform how to successfully re-establish these species in post-fire landscapes by recommending techniques and protocols for cone collection, seed storage, seedling propagation, site preparation, planting, and control of competing vegetation. Activities will likely include literature search and research design, development of silviculture prescriptions, cone collection, seed extraction, germination success, sowing, seedling propagation, site preparation (including invasive plant treatment), trial plantings, survival exams, and final report of findings. Proposals should describe their anticipated methods, timeline, sampling design, and expected outcomes of the project. On-the-ground activities and proposed design will need to be communicated with and approved by ANF, and regular coordination with ANF over the life of the project should be anticipated. There may be opportunity for the ANF to provide seedlings for the project, but proposal should assume responsibility for all seedlings and budget accordingly. Seedling will need to be phytophthora free. All appropriate regulatory compliance (NEPA, archeological clearances, etc) will need to be conducted and coordinated for approval with the ANF. However, a Decision Memo pertaining to some locations within the area of focus currently exists that may cover most or all proposed activity. Additional project information can be [found here](#).

Invasive Vegetation Management (Powerhouse Fire)

The reduction of invasive non-native vegetation is also a high priority for the Angeles National Forest (ANF). Post-fire conditions, in addition to more frequent occurrences of fires on the landscape, can exacerbate the introduction and spread of invasive exotic plant species (i.e. weeds), which may further degrade the ecological integrity of natural systems, reduce their resilience, and further promote the likelihood of catastrophic wildfires.

The ANF is seeking assistance with invasive plant surveys and treatment in areas of the Powerhouse Fire restoration area. Specific project locations have not been identified, but the ANF would consider anywhere where invasive plant cover is greater than 50% of surrounding native species plant cover as eligible project sites, as well as existing dozer lines. Grantee activities would include identifying and inventorying invasive weed treatment areas, and implementing appropriate treatments. Treatment actions must be consistent with the [Invasive Plant Treatment Project Environmental Assessment and Decision Notice – Santa Clara/Mojave Rivers Ranger District \(USDA 2013\)](#); and the [Plan for Invasive Plants Environmental Assessment and Decision Notice – Angeles National Forest and San Gabriel Mountains National Monument \(USDA 2015\)](#).

Priority invasive species targeted for treatment include but are not limited to bull thistle, blessed thistle, yellow star thistle, tumble mustard, shortpod mustard, tocalote, and annual grass species. To maximize effectiveness, ANF recommends treatment activities occur approximately 5 times throughout the February-June timeframe, and should occur across multiple years. Proposals may request funding to support a multi-year effort (no later than March 2024). Spatial data and activity reporting will need to comply with ANF data requirements, including the submission of Pesticide Use Proposal forms for approval by ANF. Use of ArcGIS Collector for recording spatial data is preferred. For treatment activity, an up-to-date herbicide applicator license will also

need to be held by at least one on-site project participant during herbicide applications. Demonstrated botanical knowledge of rare, native and invasive plant species will be necessary. Additional information for this project can be [found here](#).

Maintenance of Existing Chaparral Restoration Sites (Copper Fire)

Over the last few years, there have been a number of locations within the Copper Fire area that have undergone recovery efforts to restore chaparral and native vegetation. However, in some cases, capacity and funding constraints have hindered the continued maintenance of the sites to ensure long-term sustainability of the restoration that occurred. The ANF existing restoration sites within the Copper Fire area and is requesting assistance with additional maintenance and support for these locations.

Activity would include watering of previously installed plants, and routine invasive weed management within the defined project areas. Grantee would develop and be responsible for all logistics, staffing, permits, supplies, and coordinating and executing successful implementation. Weed treatments will comply with the [Invasive Plant Treatment Project Environmental Assessment and Decision Notice – Santa Clara/Mojave Rivers Ranger District \(USDA 2013\)](#) and the [Plan for Invasive Plants Environmental Assessment and Decision Notice – Angeles National Forest and San Gabriel Mountains National Monument \(USDA 2015\)](#), and can include the use of herbicides in accordance with the Decision Notices. Spatial data and activity reporting will need to comply with ANF data requirements, including the submission of Pesticide Use Proposal forms for approval by ANF. Use of ArcGIS Collector for recording spatial data is preferred. For treatment activity, an up-to-date herbicide applicator license will also need to be held by at least one on-site project participant during herbicide applications. Demonstrated botanical knowledge of rare, native and invasive plant species will be necessary. Grantee will need to secure an appropriate and reliable source of water, free of risk from contamination by phytophthora. Watering schedule should be adaptive to site conditions and natural rain/drought cycles. Expectation is to meet a plant survival target of >75%, and that sites will be maintained for approximately 18-24 months upon project initiation. Additional information for this project can be [found here](#).

Maintenance of Conifer Plantations within Sierra Pelona Mountains (Powerhouse Fire)

Impacts from past fire events and increased fire frequency on the Angeles National Forest has increased the risks to native and plantation stands of conifers across the Forest. In order to facilitate recovery and protect these stands, as well as increase resilience to future fires, the ANF requests assistance to maintain three existing conifer plantations on 287 acres within the Sierra Pelona Mountains: New Liebre (161 acres), Reservoir (5 acres) and Tumble Inn (121 acres). Recommended activity consists of treating conifer plantations to reduce hazardous fuels and fuel loadings through brush canopy reduction, pruning, construction of a 30-foot fuel break around the plantations and other associated fuels treatment, thinning and dead tree removal.

The ANF will provide the treatment prescription for the project areas, which was developed as a part of the NEPA analysis for the Decision Memo, SCMRRD Sawmill-Liebre Integrated Forest Health Project (6/4/1014). If invasive weeds are found within project boundary, project activity will include invasive weed treatment prior to beginning work. In addition, project will ensure sensitive plant, invasive plant, and wildlife surveys are conducted and will flag avoidance and treatment areas in accordance with the Avoidance and Minimization Measures found in the Decision Memo. Coordination and approval from ANF staff will need to be incorporated in the development of a safety plan, work schedule, quality control plan, and fire plan. ANF will collaborate with the grantee and conduct periodic site visits to review progress. Grantee must ensure equipment and vehicles are weed free prior to work occurring on the site, in accordance with ANF policy. Grantee's personnel must have all appropriate skills and qualifications necessary to conduct work, including certified herbicide applicators license (QAL), chainsaw operator certifications, etc. Additional project information can be [found here](#).

Restoration of Conifer Plantations within Sierra Pelona Mountains (Powerhouse Fire)

Impacts from past fire events and increased fire frequency on the Angeles National Forest has increased the risks to both native stands and plantations of conifers across the Forest. In 2020, the Lake Fire further impacted conifer plantations previously affected by Copper and Powerhouse fires and increased the vulnerability of these stands on the ANF. Approximately 10,225 acres were estimated as deforested in the Lake Fire. As defined by the USFS, deforestation occurs when a tree stand loses over 50% of its trees per acre. In the wake of deforestation, the USFS may seek intervention to re-establish stands and recovery density and species composition.

In order to facilitate recovery and maintain the existence of these stands, the ANF requests assistance to restore approximately 400 acres of conifer plantations of bigcone Douglas-fir, gray pine, ponderosa pine, and Coulter pine. Restoration will re-establish forest conifers, to be accomplished through planting, and re-planting if necessary. Silvicultural prescriptions and maps of project areas will be provided by the ANF. Project activities will include seed collection, seedling production and delivery, site preparation, planting and release of desired native conifer seedlings, survival and certification exams, and reducing hazardous fuels and invasive weeds within and around existing or newly established stands. Invasive weeds found in treatment units will be treated prior to beginning work in the units. Grantee will conduct project-level monitoring focused on survival and recruitment. Targeted future condition is 75-100 trees per acre after 5 years of the initial establishment activity. Project timeframe for available funding cannot exceed March 2024. Additional project information can be [found here](#).

In addition to the 404 acres ready for implementation described above ready for implementation, the ANF is in need of assistance for NEPA planning, analysis and preparation to address an additional 9,821 acres of native conifer stands. This is a planning project that anticipates a level of effort commensurate with a Categorical Exclusion and associated Decision Memo. The Forest Service will provide project location information (spatial data/maps) and a silvicultural prescription to the grantee to inform complete NEPA development. Pending NEPA approval by the ANF, implementation of native conifer stands may be proposed in subsequent RFP cycles.

Fuelbreak Vegetation Management (Copper Fire)

Strategic fuels reduction along designated fuelbreaks can improve the ability for fire fighters to actively respond to fire events, and provides indirect protection to natural resources and restoration and conservation investments in areas negatively impacted from frequent recurrence of wildfire. The ANF is requesting assistance in addressing invasive weed management, vegetative structure maintenance, and fuels management of 1,616 acres across six fuelbreaks within the Copper Fire area.

Applicants are encouraged to propose projects that incorporate strategic fuelbreak management activities that balance maintaining fuelbreak condition and effectiveness while preserving the natural function, biodiversity, and ecological resilience of these corridors. All or portions of the following fuelbreaks may be addressed: Tule Ridge, Powerhouse 1, Jupiter Mountain, Lower Jupiter Mountain, Leona Divide, and Del Sur Ridge. Activity may include invasive weed management, fuels treatment, and planting. NEPA has been completed for all project area fuelbreaks, except Del Sur Ridge. All work conducted would need to comply with applicable NEPA, as well as any other ANF standards, policies, and data reporting requirements as required. Additional project information can be [found here](#), and as described in the invasive vegetation management project description above.

Gold Spotted Oak Borer Response and ANF Oak Recovery (Copper Fire)

The goldspotted oak borer (GSOB) is an invasive beetle that has caused extensive injury and mortality to oak stands in woodlands and mixed-conifer forests in southern California. GSOB has been identified on Angeles National Forest lands and is present in and around the Copper and Powerhouse fire areas. This destructive beetle further exacerbates the challenges around recovery and restoration of a vital component of ANF forest ecosystems.

In an effort to stem the impacts from GSOB and help recovery and protection of existing oak stands, the ANF requests assistance with identifying, treating, and removing trees infested with the goldspotted oak borer (GSOB), with a primary focus on the Green Valley area. Infested trees in need of removal or treatment will be marked by ANF staff. Treatment activities to be conducted by grantee would include cutting infested trees, bucking and limbing downed trees, debarking and bucking or chipping/grinding whole trees and slash, and insecticide spraying or injection where appropriate to do so. ANF anticipates treating 200 to 300 trees per year during project lifetime. NEPA has been completed for a portion of the targeted project area; additional and complementary NEPA analysis is currently underway to expand the eligible treatment area. That NEPA is scheduled to be completed by spring 2021. In addition to performing the work, the grantee will need to develop a fire plan, safety plan and work schedule in coordination with ANF staff. Work may also include the treatment of invasive weeds, if necessary, prior to implementation of infested tree treatments. Additional project information can be [found here](#).

In addition to GSOB-infected tree treatment and removal, the ANF is interested in project proposals that either separately, or in conjunction with treatment activities, include the development and execution of outreach, education, and public information campaigns to increase awareness of GSOB impacts and issues, and aid in proactively countering the spread and impact of the insect.

Cistern (Water Source) Inventory and Improvements (Copper Fire)

The Angeles National Forest has a system of cisterns located across the Forest that serve as water sources to support prescribed fire operations and fire suppression. Over the course of multiple fires and fire related activities over the last few years, including the Copper and Powerhouse fires, the current condition and functionality of these features is not entirely clear. Through this grant opportunity, the ANF is requesting assistance with locating and inventory approximately 20 cisterns within the HUC 12 watersheds of San Francisquito Canyon, Upper Bouquet Canyon, and Lower Bouquet Canyon. Project would culminate in report detailing locations, conditions, and recommendations for repair, as needed. Report recommendations will provide information that may be used for future grant proposals. Additional information can be [found here](#).

Public Use Engagement and Management

St. Francis Dam Overlook Interpretive Site (Copper Fire)

The Angeles National Forest is seeking the development and construction of interpretive opportunities within the vicinity of the St. Francis Dam Disaster Site to restore sustainable public access and offer education and information exchange within the San Francisquito Creek watershed. Project will provide interpretation of the historic St. Francis Dam site and history, fire ecology and fire history of the watershed, and the important natural resources that occupy the area. This project envisions an overlook location for the newly designated St. Francis Dam Monument and Memorial, an estimated quarter-mile of new trail, and the design and install of numerous interpretive signs. The project will also need to incorporate and utilize a recently produced interpretive sign to be installed at the trailhead, once a site and trail path are identified. Coordination with USFS staff will need to occur to successfully complete NEPA, archeological surveys and clearance, and biological monitoring and protection at the time of construction. Additional project information can be [found here](#).

OHV Barrier Installation and Resource Damage Reduction (Copper Fire)

Vegetation loss after fire has resulted in accessibility to areas of the landscape that were previously inaccessible to OHV traffic. However, off-trail, unauthorized user-created routes hinder recovery efforts through continued disturbance to the landscape, as well as providing conduits and conditions favorable to invasive plant encroachment. The ANF is requesting the construction and installation of “no-dig” barriers, or other appropriate approaches to protect natural resources and prohibit unauthorized access at designated sites within the Drinkwater Flat OHV area. If “no-dig” barriers are utilized, they will be constructed according to ANF specifications. Implementation will be aided by a Forest Service employee on-site. Grantee will be responsible for all supplies, equipment, and necessary trainings/certifications. Specific project locations to be determined, however approximately 100 barrier locations are estimated, with roughly 50 occurring within the Powerhouse Fire area and 50 occurring in the Copper Fire area. Approximately 8-10 weeks of on-the-ground work is anticipated to address these needs. In addition to the barrier installation, some trail brushing and fence repair may be required. Additional information can be [found here](#).