



Decision Memo

Scottiago Forest Health Project

USDA Forest Service
Amador Ranger District, Eldorado National Forest
El Dorado County, California

Background

The Scottiago Forest Health Project area is located in El Dorado County, CA on the Amador Ranger District of the Eldorado National Forest (see Appendix A: Project map, “Scottiago Forest Health Project”). Proposed treatment activities, which includes commercial and non-commercial vegetation management, road maintenance and reconstruction, and prescribed fire, are located within the Sopiago Creek, Middle Fork Cosumnes, and Scott Creek watersheds. These landscape-scale areas were designated by the Chief of the Forest Service under 602(b) of the HFRA in 2014 and 2015 as high risk to current or future insect and disease attack.

According to the Forest Service’s 2017 aerial detection survey (USDA, 2017), the Scottiago Forest Health Project area has elevated levels of tree mortality due to insect outbreaks, likely exacerbated by recent drought conditions. High tree stocking levels and dense understory brush contribute to resource competition, leaving trees susceptible to insect attack and other drought related mortality. Scottiago Forest Health Project area watersheds have been identified by the state of California as “Tier 1 and 2 High Hazard Zone,” meaning they have both significant existing tree mortality as well as significant community and natural resource assets.

Tree mortality is an important concern given the location of the project area immediately adjacent to the western private property boundary of the Eldorado National Forest. Private land, both adjacent to and within the project boundary, and including industrial and non-industrial private timber lands, put adjacent landowners at increased risk of a tree mortality incident. Recently killed trees present a safety risk to the public, landowners, forest managers, and infrastructure while also increasing the risk of catastrophic wildfire.

The project area provides important habitat for species requiring old growth forest habitat, notably the California spotted owl. A 2017 agreement between the Forest Service, Cal Fire, Sierra Pacific Industries, and the National Fish and Wildlife Foundation aims to coordinate efforts to protect these species through information sharing and habitat protection activities. This project, though a forest health improvement strategy, is one part of this multi-party effort aimed at reducing habitat loss of the California spotted owl by reducing the risk of large scale, high severity wildfire.

The Scottiago Forest Health Project is a part of a larger landscape restoration proposal. A separate decision, the Scottiago Fuels Reduction Project, proposes to implement fuel break and fuel reduction activities to reduce risk of a catastrophic wildfire. The two projects will complement each other by improving vegetation conditions, protecting life and property, and reducing loss of key wildlife habitat within the Scottiago landscape area.

The proposed action was developed in collaboration with the Amador-Calaveras Consensus Group (ACCG), a local collaborative group that works to create healthy forests and watersheds, fire-safe communities, and sustainable local economies. The ACCG fosters partnerships among private, nonprofit, state, and federal entities with a common interest in the health and well-being of the landscape and communities in the North Fork Mokelumne, Cosumnes and Calaveras River watersheds. The group is advancing an “All-Lands” strategy to create a heightened degree of environmental stewardship, local jobs, greater local economic stability, and healthy forests and communities. ACCG principles reflect the group’s emphasis on its triple bottom line for balancing environmental, social and economic goals.

Purpose and Need

The purpose of the Scottiago Forest Health Project is to reduce the threat of insect infestations and improve forest health in the project area. Due in large part to the multi-year drought (2012-2016), bark beetle attacks on ponderosa pines have been prevalent in the project area with the largest scale tree mortality occurring in 2016. Increased mortality in white fir, sugar pine, incense cedar, and Douglas-fir has also been observed throughout 2017.

The treatment area is comprised of mixed conifer and pine dominated stands that generally fall into two categories. One category includes areas that have had some form of commercial harvest, primarily understory thinning from below, in the last 20 years. The other category are the California spotted owl (CSO) and northern goshawk protected activity centers (PACs), areas that have been generally left unmanaged to provide specific habitat conditions for the CSO and northern goshawk. The greatest risk from both insect and disease related mortality as well as high severity wildfire exists in these PACs. However, due to tree growth in the past 15-20 years, stands that were previously thinned are also currently at risk from insect, disease and drought related mortality.

The proposed actions will address the following needs identified in the project area:

1. There is a need to reduce stand densities to increase drought tolerance and to reduce the risk of tree mortality from insect attack or disease.
2. There is a need to protect, and retain through time, key habitat and old forest characteristics for plant and wildlife species - notably the California spotted owl and northern goshawk.
3. There is a need to conduct vegetation treatments that are economically efficient while providing wood supply and jobs to local economies.
4. There is a need to conduct road maintenance and reconstruction in order to provide safe access for fire suppression and access for vegetation treatments. These treatments will

occur only on roads used for commercial timber sales.

Decision

I have decided to implement a combination of commercial harvest thinning to improve forest stand resilience to insect and disease tree mortality, removal of competing vegetation, prescribed burning, and improvements to the transportation system on approximately 3,000 acres of National Forest System lands within the Sopiago Creek, Middle Fork Cosumnes, and Scott Creek watersheds.

Project activities include:

Forest Health

1. Treat approximately 3,000 acres of natural stands and commercial sized plantations by cutting and removing trees between 10 inches and 30 inches diameter at breast height (dbh), using ground-based commercial logging methods including whole tree yarding (2,950 acres) and skyline logging systems (38 acres). Where feasible, tree tops would be removed to landings as part of skyline logging. Recently killed trees (snags) within commercial harvest units would be cut and removed concurrently with logging operations without restriction on dbh. Feller bunchers or equivalent type of ground based equipment may be used for cutting and pre-bunching of logs that would be removed using a skyline logging system. Use of equipment in skyline units would generally be limited to 45% slope with the exception of using a winch assist system. Winch assisted logging equipment would not be slope limited.
2. Snags would be retained consistent with forest LRMP standards. Generally the 4 largest snags will be retained per acre, averaged over the entire project area. Snag retention would not be evenly spaced across the landscape, but would vary by land allocation and landscape position, such as near roads, ridgetops and streams. Snag positions may be based on desired future conditions. Any snag posing a hazard to life, injury, or property may be removed.
3. Remove small trees (4 inches to 10 inches dbh) to landings, or other designated disposal sites, on the mechanically thinned acres.
4. Pile tree tops and small trees (biomass) at landings to be made available for either biomass power generation or public fire wood cutting. Material remaining at landings (if not removed by previous methods) would be burned.
5. Conduct post-harvest treatments, including grapple or tractor piling of existing and activity fuels, followed by prescribed fire, including both broadcast burning and lighting of piles.

Silvicultural prescriptions will incorporate recommendations from PSW-GTR-220, An Ecosystem Management Strategy for Sierran Mixed-Conifer Forests (North et al., 2009), and meet Eldorado National Forest Land and Resource Management Plan (LRMP, 1988) and Sierra Nevada Forest Plan Amendment (SNFPA, 2004) direction. Prescriptions will be designed to meet the following goals:

- Improve forest resiliency by reducing stand densities by thinning. In general, lowest

residual stand densities would occur on upper slopes, ridges and southern and western aspects. Targeted residual density would range from 100-140 square feet/acre basal area or approximately 25-30 feet tree spacing (50-70 trees per acre). Although canopy cover would average 50% over treatment units, lower canopy cover would exist in these less dense areas. On lower slopes and transitioning into Riparian Conservation Areas (RCA), as well as on north facing aspects, residual stand densities may be higher with a corresponding increase in canopy cover. Targeted residual density would range from 140-180 square feet/acre basal area or 20-25 feet tree spacing (70-110 trees per acre). Canopy Cover in RCAs of perennial and intermittent streams would see the least overall reduction and would likely average closer to 60%.

- Reduce shading and competition around oaks to improve growing conditions.
- Increase the percentage of shade intolerant pine and hardwoods. Maintain a mix of species in pine dominated areas to reduce impacts from western bark beetle.
- Retain clumps of large trees. Clumps may vary in shape and size and range from a group of 4-5 trees up to an acre in size. In general, clumps would be located in the mid to lower slope positions. Preference will be given to clumps comprised of mixed species. Clumps would focus on trees exhibiting characteristics such as multi-top especially in firs and cedars, trees provide nesting structure, large snag inclusions, cavities, and other signs of use by wildlife.
- Retain large trees with defects such as rot, cavities, and multiple tops.
- Within CSO Home Range Core Areas (HRCAs), and in areas identified as high quality habitat and having potential as future nesting sites for CSO, the management focus will be on retaining areas with highest density of tall trees and denser canopy cover. These areas generally will occur in forest patches >2 acres in size dominated by large trees (generally greater than 150 ft tall) and having >55% canopy cover. Within the project area these areas are generally located on north facing slopes and in riparian conservation areas. Commercial harvest in these areas will be limited to removing trees acting as ladder fuels. Retention areas will focus on clumps of large trees and key features used by CSO as stated in above bullet.
- Manage the intermediate size class (20 to 30 inch DBH), thinning this class primarily by species (shade tolerant) and growth form (those acting as ladder fuels).
- Increase stand variability. Target stand structure would consist of a mixture of clumps, gaps and a matrix of variably spaced trees. Small (.25 acre or less) gaps will be created or enlarged in low productivity sites and where natural openings in the canopy exist. These small gaps will not be evaluated for regeneration.

Transportation System

Roads and trails within the project area will be managed consistent with the 2008 Eldorado National Forest Public Wheeled Motorized Travel Management Environmental Impact Statement (Travel Management EIS) and compliant with applicable standards. Roads not identified as open to public use may be blocked by gates, barricades, rocks, other barriers or by signage. In addition to the seasonal closure identified by the Travel Management EIS, roads identified as open for public use may be temporarily closed during inclement weather or during logging operations to protect reconstruction investments and for public safety.

There are approximately 12 miles of road maintenance, 60 miles of road reconstruction, and 1 mile of new temporary road construction within the project boundary area. Road maintenance will be performed according to Eldorado's Standard Road Maintenance Specifications and applicable design criteria.

As a part of road maintenance, hazard trees may be felled and removed up to 200 feet from centerline of road in either direction. It is anticipated that some trees will fall an additional 150 feet beyond the designated clearing width. Ground disturbing project activities must stay within 350 feet from the centerline of road. Felled trees will be transported to nearby landings via skid trails. New skid trails may be created depending on the distance of felled trees to nearby landing. Ground disturbance will be minimized as much as possible. Existing landings and/or deck areas will be used to process the logs to prepare them for loading onto log trucks. New deck areas may be created if location of existing deck area and/or landing is impractical. Slash from hazard trees will be lopped and scattered, side casted, chipped or hand piled and burned.

Temporary roads will be obliterated upon project completion. Road maintenance and reconstruction will provide safe access for project activities as well as for fire suppression purposes. No changes to the Motor Vehicle Use Map are proposed and no roads are proposed to be decommissioned.

General road maintenance activities may include:

- Removal of roadside vegetation,
- Repair of the road running surface and shoulder,
- Drainage structure maintenance,
- Removal of hazard trees,
- Sign repair or replacement,
- Maintenance or replacement traffic gates and barriers, and
- Other similar activities.

General road reconstruction activities may include:

- Replacement of inadequate drainage crossings,
- Installation of water bars and dips on roads with inadequate runoff control,
- Out sloping the road where possible,
- Slope stabilization,
- Widening of traveled way,
- Gate installation to control seasonal use, and
- Other similar activities.

Drainage structures will be designed for 100-year storm events. Water will be used to abate dust during maintenance and reconstruction and from logging traffic with water selected from water drafting sites that have suitable stream flow and access. There are two water holes within the project area which will also be maintained as part of the project. In the event water holes are not suitable for drafting, magnesium chloride will be used for dust abatement.

Design Criteria

Resource specialists as members of the interdisciplinary team provided analysis and recommendations addressing aquatics, botany, fuels, heritage, hydrology and soils, silviculture and wildlife. I considered their recommendations and the following design criteria are included as part of this decision.

The interdisciplinary team identified the following measures to minimize or eliminate potential effects of the proposed action or to comply with the Eldorado National Forest Land and Resource Management Plan, laws, regulations and policy. Many requirements stated below are already required provisions in a timber sale contract but are included here if applicable to non-contract implementation. Standard operating procedures, such as the protection of land survey monuments, are not listed here, as they are routine administrative practices. Resource protection design criteria listed here are required for the Scottiago Forest Health Project and will be adhered to throughout project implementation. Additional information and clarification can be found in each individual specialist report.

Terrestrial Wildlife

All Activities

Standard LOPs would be adhered to, for all activities, for both the California spotted owl and northern goshawk, unless surveys conclusively ascertain that nesting/reproduction would not be affected in that particular breeding season by the treatments. The LOP periods are March 1 through August 15th for the California spotted owl, and February 15th through September 15th for the northern goshawk.

Where surveys and biological assessment determine that impacts would not affect reproduction for these species, the LOP may be lifted, or the area affected by the LOP reduced. Based on nesting status, additional mitigation measures, such as (but not limited to): exclusion of portions of the proposed treatment areas until after the breeding season, additional fire lines, and different treatment techniques (lighting techniques, postponing slash work), may be implemented to reduce potential effects to nesting spotted owls and goshawks.

Snags ($\geq 15''$ dbh) would be retained, except where they pose a threat to human health and safety, or perimeter control risk for containment of the fire, and will not be actively lit during burning operations

Aquatic Wildlife

Table 1. Operating requirements for sky-logging and mechanical equipment in Riparian Conservation Areas (RCAs) for the Scottiagi Forest Health Project.

Habitat Type ¹	RCA Zone	Width (feet)	Equipment Requirements	Operating Requirements
¹ Perennial/ Intermittent Streams and Special Aquatic Features (SAFs)	Exclusion Zone	0 to 100 feet from stream or SAF edge; or 0 to 25 feet beyond riparian vegetation, whichever is greater	Prohibited: Sky-logging Mechanical Harvesting/ Shredding ² and Skidding ³	Equipment reach in may be allowed upon consultation with RCA team ⁴ . Sky-logging is allowed within 50 feet from perennial/ intermittent streams or SAF edge if full suspension is utilized.
Perennial Streams and SAFS	Partial Treatment	100 to 300 feet from stream edge; or 25 feet beyond riparian vegetation to 300 feet	Allowed: Sky-logging Mechanical Harvesting/ Shredding ² and Skidding ³	Ground based equipment operations prohibited on slopes greater than 25%. Use existing skid trails except where unacceptable impact would result. Do not construct new primary skid trails or landings within RCA zones without consultation of RCA team ⁴ . Approval by an aquatic biologist is required.
Intermittent Streams	No Restrictions	100 to 150 feet from stream edge; or 25 feet beyond riparian vegetation to 150 feet	Allowed: Sky-logging Mechanical Harvesting/ Shredding ² and Skidding ³	
Ephemeral Streams	Exclusion Zone	0 – 25 feet	Prohibited: Sky-logging Mechanical Harvesting/ Shredding ² and Skidding ³	Equipment reach in may be allowed upon consultation with RCA team ⁴ .
	Partial Treatment	25 – 150 feet	Allowed: Sky-logging Mechanical Harvesting/ Shredding ² and Skidding ³	Ground based equipment operations prohibited on slopes greater than 25%. Use existing skid trails except where unacceptable impact would result. Do not construct new primary skid trails or landings within RCA zones without consultation with the RCA Team ⁴ . Approval by an aquatic biologist is required.

¹ Perennial streams flow year long. Intermittent streams flow during the wet season but dry by summer or fall.

Ephemeral streams flow only during or shortly after rainfall or snowmelt. Special aquatic features (SAFs) include lakes, ponds, meadows, bogs, fens, wetlands, vernal pools and springs

² Low ground pressure track-laying machines such as feller bunchers and masticators

³ Rubber-tired skidders and track-laying tractors

⁴ RCA team is one or more of the following: Forest Service hydrologist, botanist, or aquatic biologist

Design Criteria Specific to Aquatic Resources

Design Criteria are measures taken as part of the Proposed Action to ensure meeting purpose and need while minimizing the potential for adverse effects. This document lists the Design Criteria which support the effects analysis for aquatic species and their habitat.

For the applicable Design Criteria discussed below:

Potential breeding habitat for the California red-legged frog (CARLF) occurs below 4,000 feet in elevation, and in ponds and lakes, or perennial and intermittent stream reaches with less than 2% gradient. Potential non-breeding habitat for CARLF includes all land and water within one mile of potential breeding habitat. Overland migration occurs during the wet season (defined as starting with the first frontal rain system that deposits a minimum of 0.25 inches of rain after October 15 and ending April 15), which creates a Limited Operating Period (LOP) for certain activities.

General Measures

Protection measures may be altered on the ground for a specific site based on recommendations by relevant specialists (soil scientist, aquatic biologist, botanist, or hydrologist).

- If a sensitive or listed amphibian or turtle is sighted within the Action Area, cease operations in the sighting area, and inform a Forest Service aquatic biologist of the sighting immediately. Before commencing activities, consultation may need to be re-initiated with USFWS for listed species.
- Protect any seeps, springs, bogs and wet areas not located on map found in the field during treatment, with same criteria for Special Aquatic Features (SAFs).
- Do not use tightly woven fiber or monofilament netting (or similar materials) for erosion control or other purposes when netting is left exposed (see Metz 2016 for clarification).
- An emergency response plan shall be created and implemented to prevent the contamination of waters from accidental spills of hazardous materials (per BMP 7.4).

Specific Measures

Commercial Harvest Operations

- During the wet season (defined as starting with the first frontal rain event that deposits a minimum of 0.25 inches of rain after October 15 and ending April 15) a Limited Operation Period (LOP) would apply. Operations utilizing mechanical equipment (timber harvest, mastication, sky logging etc.) and occurring within 1 mile of areas identified as suitable CARLF breeding habitat would cease during and after any precipitation event delivering 0.25 or inches. Operations within one mile of CARLF breeding habitat would

be allowed to resume after a 72-hour drying period.

- Mechanical operations off existing roads within RCA zones, as defined by Table 3, would utilize low ground pressure equipment per S&G 113 (SNFPA 2004).
- If sale administrator identifies situation where it appears that a log or portion of tree should be removed from the RCA exclusion zones (0-100 ft. from perennial/ intermittent streams and SAF), no activity would commence without approval of the RCA team.
- Use existing skid trails and landings to the extent use would avoid impact from new trails and landings. Do not construct new primary skid trails or landings within 300 feet of perennial streams or SAFs, or within 150 feet of intermittent streams or ephemeral streams unless approved by an aquatic biologist. When expanding or constructing landings or skid trails in the RCA outside these zones utilize guidelines outlining special situations that require consultation with RCA team.
- Minimize construction of skid trails or temporary roads for access into RCAs for fuel treatments, harvest, or hazard tree removal per S&G 113 (SNFPA 2004).
 - Where practical, cover primary skid trails within an RCA zone with slash or wood chips as trails are developed, thereby crushing slash, protecting soil mantle and reducing fuel piles to be burned.
 - Rehabilitate skids trails within an RCA zone using de-compaction, back-blading berms, building water bars, and covering with any displaced or available slash.
- Locate new log landings or reuse old landing in such a way as to avoid watershed impacts and associated water-quality degradation (BMP 1.12; USFS 2011). Log landings, new or reused, would be situated outside of RCA zones to the maximum extent possible. If new log landings are needed within RCAs a site-specific review by RCA team would occur prior to construction. Approval by an aquatic biologist is required.
 - Reuse of existing landings within an RCA may occur where creation of a new landing is likely to result in more resource damage than use of the landing within the RCA.
 - Re-used landings within the RCA would be rehabilitated using a combination of de-compaction and slash coverage.
- Where reach-in is used within an RCA zone, grooves and bare soil created would be mitigated with hand-built water bars and/or slash placement.

Burning

- Slash and cull logs accumulated on landings would be piled and/or decked.
- Ignition of fire would not occur within 50 feet of the edge of the channel of perennial streams and special aquatic features or 50 feet from the edge of riparian vegetation, whichever is greater. Ignition would be limited to non-riparian vegetation. Fire creep will be allowed all the way to edge of streams.
- Ignition of fire would not occur within 25 feet of the edge of the channel of intermittent streams and ephemeral streams or within 25 feet of riparian vegetation, whichever is greater. Fire creep will be allowed to the edge of stream channels. Existing down logs

which lie in or across all stream channel types would not be intentionally ignited.

CARLF Specific Criteria

- Piles that lie within the RCA (outside of the CARLF buffer) can be burned, but would, to the extent practicable, be ignited in a manner that allows any organisms to flee from the pile (for example, light on the leeward side so that fire moves as a front through the pile).
- No piling/burning would occur within meadows, fens or springs.
- No fuel storage would take place within any of the RCA zones. Refueling would take place in RCAs only where there is no other alternative.
- Piles would not be located within 300 feet of potential CARLF breeding habitat, and 100 feet of all other aquatic habitat.
- During the wet season (defined as starting with the first frontal rain event that deposits a minimum of 0.25 inches of rain after October 15 and ending April 15) a Limited Operation Period (LOP) would apply. Burning activities (underburning and pile burning) would cease within one mile of areas identified as suitable CARLF breeding habitat during and after any precipitation event that delivers 0.25 inches or more. Burning activities would be allowed to resume within one mile of CARLF breeding habitat after a 72-hour drying period.
- Magnesium chloride will not be used within 100-ft of all stream crossings.

Water Drafting

- The development of water drafting sources shall follow all applicable guidelines under BMP 2.5 (USFS 2012). Locate water drafting sites to avoid adverse effects to in-stream flows and depletion of pool habitat.
- Water drafting sites would be assessed or surveyed for TES species prior to use and periodically during use depending on operation duration and seasonality. If sensitive, threatened, or endangered species are identified at a potential water drafting site, that site would not be used for water drafting.
- In perennial and intermittent streams, pump intake screens shall have openings not exceeding 3/32-inch (0.09375 inch) and be sized according to the pump intake capacity. Place hose intake into bucket in the deepest part of the pool. Use a low-velocity water pump and do not pump natural ponds to low levels beyond which they cannot recover quickly (approximately one hour).
- For water drafting on fish-bearing streams: do not exceed 350 gallons per minute for stream flow greater than or equal to 4.0 cubic feet per second (cfs); do not exceed 20% of surface flows below 4.0 cfs; and, cease drafting when bypass surface flow drops below 1.5 cfs.
- For water drafting on non-fish-bearing streams: do not exceed 350 gallons per minute for stream flow greater than or equal to 2.0 cfs; do not exceed 50% of surface flow; and, cease drafting when bypass surface flow drops below 10 gallons per minute.

In-channel water drafting locations would include rocking of approaches and barriers of rock or sloping of drafting pads away from water source to prevent spillage at vehicle from returning to the watercourse.

Soil and Water Quality

- Single track and skid trails that are at risk of altering and concentrating flow after implementation would be back-bladed or smoothed to obliterate potential hillslope channels and downslope berms.
- Where feasible and within fuel criteria, leave uncut downed wood adjacent to roads and trails, to discourage unauthorized OHV travel.
- Where feasible, place enough excess biomass at the outlet of waterdips and waterbars to dissipate runoff energy and trap sediment.
- Once skid trails are decommissioned, construct earth berms and/or place logs and/or rocks to discourage unauthorized motor vehicle use.
- Use a very high erosion hazard rating when considering application of erosion control on skid trails unless subsoil is feasible.
- Place slash or biomass material on skid trails between landings at a distance of 100 feet from landings. A 25-foot-wide slash mat would also be placed on the downslope portion of landings. All slash mats would be crushed either by equipment treads or equipment heads. Slash mats should be placed far enough away from the pile to allow for dozer lines around piles.
- Although 100% soil cover is considered ideal for soil stabilization, the following minimum values should be retained to the extent practical and allowable by fuel loading limits: 50% on slopes less than 25%; and 70% on slopes greater than 25%.
- Existing skid trails would be used, if appropriate, to limit the extent of new areas of compacted ground within the Action Area.

Riparian Conservation Areas

- Hazard trees within the mechanical exclusion zone (Table above) may be hand felled away from stream channels and SAFs. If logs can't be removed with reach in, they would be left in place. Any portion of a felled tree outside of the RCA exclusion zones may be bucked and removed. Coordination would occur with the RCA Team for specific site exceptions.
- Within the RCAs, 70% post-implementation soil cover would be maintained when possible and dominated by material less than 3 inch in diameter. Application methods could include cutting and lopping, or mastication of pre-commercial material, cutting and scattering of activity material, non-whole tree harvesting methods, or mulch applications. Utilize on site biomass to generate mulch materials wherever possible.
- Trees that are within the RCA zones and felled into the road prism would be removed as necessary to allow safe vehicle use and permit proper maintenance of the road.
- Skidding and loading equipment would remain outside of RCA exclusion zones, except in those instances where the safe falling of hazard trees requires the control that lining by equipment may provide. In the rare instances where equipment would need to enter the RCA exclusion zones, a member of the RCA team, would review the circumstances and work with the sale administrator.

The removal of dead and unstable live trees (hazard trees) of all sizes would occur along timber haul roads and landings to provide for safety of woods worker and public throughout project implementation, except where restrictions for removal apply.

Botany

- User created routes off of Omo Ranch Road and 8N62 will be blocked using rock, bollards, or other native material barriers. These routes are not on the MVUM and currently impact lava cap plant communities and FS Sensitive plants.
- Sensitive and watchlist plant populations within the project area would be flagged for avoidance. All ground disturbing activities, landing, skid trails, burn piles, hazard tree removal, brushing, and mechanical equipment, would be excluded from sensitive plant protection areas. Where it is necessary to remove trees or conduct roadside brushing from within site boundaries, the project botanist would be consulted to mitigate impacts. All thinning of trees adjacent to site boundaries would be directionally felled away from the site. If new sensitive plant occurrences are discovered during project implementation the project botanist would be notified to develop necessary protection measures.
- Burning operations within Sensitive and watchlist plant populations would be designed to produce a low intensity fire. No ignition within occupied habitat would occur unless required to moderate fire intensity.
- All potential habitat for Sensitive Plants would be surveyed prior to project implementation. Any unsurveyed potential habitat would be flagged for avoidance.
- Lava caps, which support unique plant communities in the project area, would be protected from motorized equipment and vehicles where feasible.
- Application of Magnesium Chloride for dust abatement will not occur within 100 feet of roadside occurrences of Sensitive or Watchlist plants.
- Eldorado National Forest Priority 1 and 2 invasive plant infestations within the project area would be flagged for avoidance and treated using integrated pest management techniques as a part of the project for up to 5 years after implementation. Treatments under the project will tier to the Forest invasive plant treatment EA and may include a combination of techniques including tarping, manual removal, string trimming, and targeted herbicide application. If new infestations develop as a result of project activities (i.e. within landings, areas of road reconstruction, within harvest units) treatment strategies would be developed under the Eldorado National Forest Invasive plant EA and would be implemented as part of the project.
- Invasive plant surveys would occur within fuel break for five years following project implementation. If found, newly detected invasive plant species would be treated using methods covered by the Eldorado NF Forest-wide invasive plant management EA.
- All equipment and vehicles (Forest Service) used for project implementation must be free of invasive plant material before moving into the project area. Equipment will be considered clean when visual inspection does not reveal soil, seeds, plant material or other such debris. Cleaning shall occur at a vehicle washing station or cleaning facility before the equipment and vehicles enter the project area.
- Known invasive plant sites along roads in the project area will be flagged prior to implementation and will be avoided as much as possible. If infestation cannot be avoided contact a Forest Service Botanist.

- To the extent possible, work would be completed in infested areas last. Otherwise, equipment would be cleaned prior to moving from a weed- infested unit to a weed-free unit.
- Where proposed work occurs in known invasive plant infestations equipment would be cleaned prior to leaving infested areas.
- All gravel, fill or other materials would to be weed free. On-site sand, gravel, rock, or organic matter from uninfested areas would be used where possible.
- Any straw or mulch used for erosion control would be certified weed-free. A certificate from the county of origin stating the material was inspected is required.
- Any seed used for erosion control or restoration would be from a locally collected source (Eldorado National Forest Seed, Mulch and Fertilizer Prescription, March 21, 2000). Plant taxa proposed for re-vegetation would be approved by the project botanist.

Archeology/Heritage

- The Scottiago Forest Health Project will comply with Section 106 of the National Historic Preservation Act of 1966, as amended in accordance with 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 2018).
- Sites within harvest units or near road maintenance/reconstruction projects will be identified with flagging and avoided during ground disturbing project activities. All thinning of trees adjacent to site boundaries will be directionally felled away from the site. Non-merchantable trees and brush may be removed by hand, within site boundaries, at the direction of the District Archaeologist. Road reconstruction may require the use of Standard Protection Measures or mitigation as per the Regional PA 2018.
- Road maintenance and reconstruction activities occurring outside the Forest Service boundary must be limited to Screened Exemptions defined in the Regional PA 2018. These include regular road maintenance within the existing road prism and hazard trees felled by hand. If road reconstruction or the use of mechanical equipment beyond the existing road prism are needed, the District Archeologist will be contact and further Section 106 review may be required.
- Fuel reduction using hand tools and other activities may be permitted within the boundaries of known Historic Properties, if approved by the District Archeologist. Sites that are at risk from fire will be flagged and avoided during prescribed understory burning. Sites that are not considered at risk or have been previously burned at moderate or high intensity may be included in the prescribed burn at the discretion of the District Archeologist. Construction of fire lines will occur outside of the cultural resource boundaries unless directed by the District Archeologist. All machine and hand piles will be placed away from site boundaries at a distance such that site features will not be

affected by flames and heat. Hazard tree removal on or in the vicinity of cultural resource sites will be coordinated with the District Archeologist.

- Should any previously unrecorded cultural resources be encountered during implementation of this project, all work should immediately cease in that area and the District Archaeologist be notified immediately. Work may resume after approval by the District Archaeologist; provided any recommended Standard Protection Measures are implemented. Should any cultural resources become damaged in unanticipated ways by activities proposed in this project; the steps described in the Regional PA 2018 for inadvertent effects will be followed.
- The District Archaeologist will be kept informed of the status of various stages of the project, so that subsequent field work can proceed in a timely fashion. Monitoring of the area may occur after the project has been completed. This work will be documented in amendments to the Archaeology Specialist Report, as appropriate.

Applicable Categorical Exclusion

This action has been categorically excluded from documentation under the Environmental Policy and Procedures Handbook, FSH 1909.15, Section 32.3, category 3 [Section 603 of HFRA (16 U.S.C. 6591b)]; *an insect and disease project that is designed to reduce the risk or extent of, or increase the resilience to, insect or disease infestation in landscape scale areas designated under Section 602 of HFRA*. These actions are therefore categorically excluded from documentation in an environmental impact statement (EIS) or an environmental assessment (EA). This project is exempt from the administrative review process established under Section 605 of the HFRA.

The Insect and Disease categorical exclusion (CE) category is applicable to projects designed to reduce the risk or extent of, or increase the resilience to, insect or disease infestation in designated areas under Section 602 of HFRA. Section 603 of HFRA (16 U.S.C. 6591b) applies to up to 3,000 acres of commercial and non-commercial thinning and follow-up fuels reduction activities in Scottiago Forest Health Project area. This Insect and Disease Infestation category is applicable for this project because:

- The project is completely within in an area designated in accordance with section 602(b) and (c) of the Healthy Forest Restoration Act and is less than the 3,000 acre maximum identified for the use of this CE,
- the Forest Health Protection Report SS19-001 (State and Private Forestry, Forest Health Protection, South Sierra Shared Service Area, (Buloan, 2019) and the project Silviculture Evaluation and Prescription Report (Young, 2019) support conclusions that the proposed activities will improve resilience of this area to insect and disease,
- the project was developed with and will be implemented through a collaborative process, and
- all other applicable requirements of the Insect and Disease CE were met.

Extraordinary Circumstance Resource Conditions

As part of the Scottiago Forest Health decision I took into account resource conditions

identified in agency procedures that should be considered in determining whether extraordinary circumstances might exist (36 CFR 220.6). I found that there are no extraordinary circumstances that would warrant further analysis and documentation in an environmental analysis (EA) or an environmental impact statement (EIS). Specialist reports are incorporated by reference and additional information can be found in the project record.

The following describes the contributing information that led to this conclusion.

1. Federally listed threatened or endangered species or designated critical habitat, species proposed for Federal listing or proposed critical habitat, or Forest Service sensitive species

Terrestrial Wildlife

The Biological Assessment/Evaluation for Terrestrial Wildlife Species (Loffland, 2019) has determined that the Scottiago Forest Health Project:

- Will not affect/impact the following federally listed or Forest Service sensitive species: American bald eagle, Great gray owl, Willow flycatcher, California wolverine, American Marten. Suitable habitat for these species does not occur within the project area.
- May affect/impact individuals but are not likely to result in a trend toward Federal listing or loss of viability for the following species: California spotted owl, Northern goshawk, Pacific fisher, Townsend's big-eared bat, Pallid bat, Fringed myotis or Western bumble bee.

Aquatic Wildlife

The Biological Assessment/Evaluation for Aquatic species (Chow and Mabe, 2019) has determined that the Scottiago Forest Health Project:

- Will not affect the following federally listed species: Sierra Nevada yellow-legged frog or Delta Smelt. Critical habitat for the Sierra Nevada yellow-legged frog does not occur within the project area. Suitable habitat for the Delta Smelt does not occur within the project area.
- May affect but is not likely to adversely affect the following federally listed species: California red-legged frog.
- May affect individuals, but is not likely to result in the trend toward federal listing or loss of viability for the following species: Foothill yellow-legged frog and the western pond turtle.

Consultation with the United States Fish and Wildlife Services (USFWS) was initiated March 6, 2019 to request concurrence on determination of effects on the California red-legged frog. Concurrence from the USFWS was received March 29, 2019 (USDI FWS 2019).

Botany

The Biological Assessment/Evaluation for Botanical Species (Brown, 2019) has determined that the Scottiago Forest Health Project:

- Will not affect *Packera layneae* or its habitat. Potential habitat for this species is not found within the project area. No formal consultation with United States Fish and Wildlife Service was required for this species.

- Will not affect *Pinus albicaulis*.
- Will not affect *Arctostaphylos nissenana*, *Balsamorhiza macrolepis* var. *macrolepis*, *Botrychium lunaria*, *Cypripedium montanum*, *Dendrocollybia racemose*, *Draba asterophora* var. *asterophora*, *Draba asterophora* var. *macrocarpa*, *Eriogonum tripodum*, *Helodium blandowii*, *Horkelia parryi*, *Lewisia longipetala*, *Lewisia serrata*, *Navarretia prolifera* ssp. *lutea*, *Meesia uliginosa*, *Mielichhoferia elongate*, *Phaeocollybia olivacea*, *Phacelia stebbinsii*, *Poa sierra*. There is no potential habitat for these species within the project area.
- May affect undiscovered individuals of *Allium tribracteatum*, *Botrychium ascendens*, *Botrychium crenulatum*, *Botrychium minganense*, *Botrychium montanum*, *Botrychium paradoxum*, *Botrychium pendunculolum*, *Cypripedium montanum*, *Lewisia kelloggii* ssp. *hutchisonii*, *Lewisia kelloggii* ssp. *kelloggii*, *Ophioglossum pusillum*, and *Peltigera gowardii* but is not likely to result in a trend toward federal listing or loss of viability. Suitable habitat for these species occurs within the project area.
- May affect undiscovered individuals of *Calochortus clavatus* var. *avius* and *Diplacus pulchellus* but is not likely to result in a trend toward Federal listing or loss of viability. These species are known to occur within project area. Known populations will be flagged and avoided during implementation.

2. Flood plains, wetlands, or municipal watersheds

There would be no adverse effects to floodplains, wetlands or municipal watersheds where project activities are proposed. BMP's designed to protect water quality and soils would be implemented during project operations. (Markman, 2019).

3. Congressionally designated areas such as wilderness, wilderness study areas, or national recreation areas

There are no congressionally designated areas within the project area.

4. Inventoried roadless areas or potential wilderness areas

There are no inventoried roadless areas or potential wilderness areas within the project area.

5. Research natural areas

There are no Research Natural Areas within the project area.

6. American Indians and Alaska Native religious or cultural sites

There are no known sites to be present within the project area.

7. Archaeological sites, or historic properties or areas

A Cultural Resource Management Report (CRM) R2018-05-03-51038 was completed for the Scottiigo Forest Health Project (Gavalis, 2019). The report recommends site specific protection measures by activity to ensure there will be no adverse effects to Historic Properties through the implementation of this project. Design features describe how surveys and protection measures

will be implemented if additional ground-disturbance is required.

This project complies with Section 106 of the National Historic Preservation Act of 1966, as amended in accordance with 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 2018).

Public Involvement

This Scottiago Forest Health Project was listed on the Eldorado National Forest Schedule of Proposed Actions in October 2017. In September 2018, a project specific scoping letter and proposal was mailed out to 104 potentially interested parties with a 30 day comment period ending on October 8, 2018. Five scoping comment letters were received. In addition, nine participants attended a public meeting held at the Amador Ranger District office on September 19, 2018 to share information and answer questions related to the project proposal.

A collaborative effort with the Amador Calaveras Consensus Group (ACCG) was utilized to develop the project action and scope of work. The Scottiago Forest Health Project was initially discussed during an ACCG planning workgroup meeting in June 2017. Two collaboration field trips were conducted to review the project area and discuss potential proposed action items (June 28, 2017 and May 23, 2018). Additionally, on July 25, 2018 a planning meeting with the ACCG was held at the Amador Ranger Station to discuss and refine the proposed action. During this time period, two letters were received. One was from a subgroup of the ACCG members with recommendations for project improvements (April 12, 2018), and the second a letter of support for the proposed action from the full ACCG (September 23, 2018).

Official Tribal Consultation was initiated with a project scoping letter sent on October 11, 2018. Tribal contacts included:

- Jackson Rancheria
- Washoe Tribe of Nevada and California
- United Auburn Indian Community
- Ione Bank of Miwok Indians
- Wilton Rancheria
- Shingle Springs Rancheria and
- Buena Vista Rancheria of Me-Wuk Indians

The project has also been informally discussed during ongoing meetings with Tribal representatives over the last two years in conjunction with discussion regarding the Scottiago Hazard Tree project, which overlaps the Scottiago Forest Health project area.



Findings Required by Other Laws and Regulations

This decision is found to be consistent with all applicable laws and the Eldorado National Forest Land and Resource Management Plan (1988), as amended by the Sierra Nevada Forest Plan Amendment (2004). The project was designed in conformance with the Endangered Species Act, National Historic Preservation Act, Clean Water Act, Clean Air Act and National Forest Management Act.

Administrative Review (Objection) Opportunities

This decision is not subject to legal notice and comment procedures of 36 CFR 218.22, and is not subject to the pre-decisional administrative review process pursuant to 36 CFR 218.

Implementation Date

This project can be implemented immediately. Implementation of this project is expected to be being in summer or fall of 2019.

Contact

For additional information concerning this decision, contact: Marc Young, Eldorado National Forest, Amador Ranger District, 26820 Silver Drive, Pioneer, California 95666, or by phone at (209) 295 - 5955.

4/5/2019

LAURENCE CRABTREE

Date

Forest Supervisor



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