



Decision Memo

Scottiago Fuels Reduction Project

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

Background

The Scottiago Fuels Reduction Project is located El Dorado County, CA on the Amador Ranger District of the Eldorado National Forest (ENF) in California (see Appendix A: Project Map, “Scottiago Fuels Reduction Project”). This project includes vegetative treatments designed to reduce wildfire hazard and promote healthy forest stands that are fire resilient 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. Watersheds within the project area 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.

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, through a fuel break and fuels reduction 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 Fuels Reduction Project is a part of a larger landscape restoration proposal. A separate decision, the Scottiago Forest Health Project, proposes to reduce stand densities by selectively thinning forest to reduce the risk of insect and disease mortality. The two projects will complement each other by improving vegetation conditions, protecting life and property, and reducing the risk of catastrophic wildfire with resulting wildlife habitat loss 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 Fuels Reduction Project is to reduce the threat of wildfire damage, improve forest resiliency following wildfire and reduce risks to emergency responders and public in the project area.

Historically, fires burned on this landscape on a frequent basis (Fire Regime I; 0-35 year frequency and low (surface fires most common) to mixed severity (less than 75% of the dominant overstory vegetation replaced). Frequent burning in these forests regularly consumed fuels, killed small trees, pruned the boles of residual trees, and maintained a relatively fire-resistant landscape (Agee 1993, 2002). Over time, as fires were suppressed, vegetation became more dense and surface and ladder fuels increased; the fire regime changed to one characterized by infrequent, mixed to high severity fires, with large areas of high mortality, as demonstrated by the recent Power, Rim, King, and Ferguson wildfires.

To move the project area toward a frequent fire regime requires the survival and growth of individual trees and forested stands for many years without the occurrence of stand replacing fires. Currently, trees are at high risk of fire-related mortality due to current fuel loading and ladder fuels. Reducing fuels, increasing tree vigor and retaining existing large trees would accelerate the development of key habitat and old forest characteristics and reduce the risk of loss to wildland fire.

Wildfire related tree mortality is also affected by both the intensity and size of wildfires that occur in the project area. Treatments that reduce fire intensity, torching and crown fire potential would reduce tree mortality from wildland fires. The ability to utilize more aggressive suppression techniques such as direct attack by improving access, and creating a fuel break network as proposed in this project would limit the size of wildland fires in the area, further reducing tree mortality and allow trees and stands to accelerate their development of old forest conditions.

Decision

I have decided to implement a combination of tree thinning, fuels reduction or alteration, and prescribed burning on approximately 3,000 acres of National Forest System lands within the Sopiago Creek, Middle Fork Cosumnes, and Scott Creek watersheds.

Project activities include:

- Creating and maintaining a fuel treatment network to reduce extent and severity of wildfires based on the below listed locations:
 - Barney Ridge/Omo Ranch Road and Roads 8N61 and 8N62
 - Goldnote Ridge/ Roads 8N55 and 8N48
 - Big Mountain Ridge/ Road 8N49
 - North-South Road
- Using these locations, create evacuation routes for public egress and emergency responder safety by thinning trees less than 30" dbh within 35' of the centerline of roads. (107 acres)
- Beyond the 35' and extending out to 200' from above listed strategic locations, trees up to 18" will be thinned and surface and ladder fuels will be removed. (749 acres) Post-treatment, these stands will retain their larger trees with minimal modification to overstory canopy. Plantations contained within and adjacent to the above-described fuel break would be treated as part of the fuel break design.
- Conduct fuels treatments within 200' roadside areas, including grapple or tractor piling of existing and activity fuels, prescribed fire, including both broadcast burning and lighting of piles.
- Reduce fuels and fire hazard 300 feet from key OHV staging areas (Barney, Five Corners, Goldnote, Goldnote East, 36 Tie). Trees up to 18" will be thinned and surface and ladder fuels will be removed to increase utility of these areas for fire suppression and staging of equipment.
- Conduct prescribed burning on approximately 2,132 acres. Low intensity prescribed fire will be implemented at any time of year when conditions allow for consumption of surface fuels and low (<15% averaged across the unit; 5-10% averaged in Protected Activity Centers (PACs)) overstory tree mortality. Reduction or rearrangement of fuel concentrations using hand cutting, piling, chipping and/or other mechanical treatment may also occur on these acres to supplement or complement prescribed burning. Snags that pose a threat to human health and safety, or may compromise perimeter control or containment of the burn may be felled.
- Install hand or dozer line to limit the extent of prescribed burns.
- Use hand and aerial ignition techniques for pile and understory burning.

- Reoccurring maintenance of treatments listed above using fire, hand or mechanical methods.
- Following harvest or fuel reduction activities, the desired surface fuel loading would be less than 20 tons per acre.
- Thinning of stands near Armstrong Hill lookout tower to enable detection and management of wildfires and prescribed fires in the Cosumnes and North Fork Mokelumne River watersheds. Thinning will be focused on providing a clear view and will include removal of tall trees. Some trees may exceed 30" dbh. Reoccurring maintenance of trees and vegetation (promoting oaks for example) to allow continued effective fire detection.
- Install a fire detection camera on the existing fire detection lookout tower.

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 Scottiagio Fuels Reduction Project and will be adhered to throughout project implementation. Additional information and clarification can be found in each individual specialist report.

Commercial Harvest

- 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.

- 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. Snags will 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.
- Remove small trees (4 inches to 10 inches dbh) to landings, or other designated disposal sites, on the mechanically thinned acres.
- 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.

Silvicultural prescriptions will be designed to meet the following goals:

- Within 35 ft. of identified primary roads, trees up to 30" dbh would be thinned to an average of 30 ft. spacing. Beyond the 35 ft. and extending to 200 ft. from the primary roads, trees up to 18" would be thinned that are acting as ladder fuels. Trees to be removed will be primarily in the suppressed or intermediate canopy class. Generally the residual spacing would be less than 30 ft. in these areas due to the limit on diameter of trees that can be removed. Where these roads intersect CSO PACs canopy cover will generally not be reduced by more than 10% from thinning activity average over the treatment area. In PACs, the thinning beyond 35 ft. would be limited to trees that have little to no effect on overall canopy cover.
- Reduce shading and competition around oaks to improve growing conditions.
- Increase the percentage of shade intolerant pine and hardwoods.
- Clear trees along roads and turnouts to improve vantage points.

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.

Fuel Reduction Treatments

Where possible, mechanical treatments (including commercial and non-commercial as described in the "Fuels Reduction and Management Strategy" section, above) would occur in lower quality habitat inclusions in the PAC (ridge tops, small diameter dominated treed stands, plantations).

The district wildlife biologist would be involved in the burn planning, and notified prior to implementation of the prescribed burning and fuel reduction treatments in PACs. When possible, the biologist and/or staff would be onsite to take part in, and/or monitor burning and associated effects.

Prescribed burning would be undertaken in relatively small proportion of the PACs within the project area. No more than two PACs within the Scottiago project area would be burned in a 12 month period. Burning would avoid direct impacts to known nest stands by either not burning through them, or clearing material from around known nest and roost trees and other trees/snags $> 30''$ dbh in the nest stands.

Fuel reduction treatments would be designed to ensure retention of highly suitable habitat (less than 5-10% change in canopy closure within treated area inclusive of all treatments) by reducing ladder fuels $12''$ dbh and smaller.

Mechanical rearranging of existing fuels in the PACs (mastication, chipping, piling) would only occur within relatively short distances from roads and property lines (200 feet or less).

Additional hand treatments, including handline construction, tree pruning, and cutting of small trees (less than 6 inches dbh), may be conducted within a 1 to 2 acre area surrounding known nest trees, to the extent necessary, to protect nest trees and trees in their immediate vicinity.

In Summary, CSO and northern goshawk PAC Treatments would:

- Maintain canopy closure at or above 90% of starting canopy closure (pre-treatment of any kind),
- Outside of 35' treatment on roads listed above in the "Fuel Reductions and Management Strategy", retain large trees ($\geq 24''$ dbh) near current levels (less than 5% reduction numerically across treatment area),
- Retain snags ($\geq 15''$ dbh) during burn preparation, 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,
- Retain downed logs greater than 30" diameter (large end) by not be actively lighting during implementation of the burn, and
 - Result in small openings (generally $\leq 1/4$ - $1/2$ acre in size), with the total area of openings created less than 5% of treated area. There may be instances where larger openings are created, but these should be limited in both number and size (openings over an acre in size are not desirable in PACs).

Where these design criteria standards cannot be met, no prescribed burning would occur within these PACs, or these portions of PACs.

Aquatic Wildlife

Table 1. Operating requirements for sky-logging and mechanical equipment in Riparian Conservation Areas (RCAs) for the Scottiago Fuels Reduction 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.
- Prior to new fire line construction and mechanical thinning of non-commercial burn units, fireline and thinning locations would be evaluated by the FS botanist and surveyed as needed. Sensitive and Watchlist plant occurrences in burn units would be re-flagged for avoidance during fireline construction, thinning, and ignition.

- Lava caps, which support unique plant communities in the project area, would be protected from motorized equipment and vehicles. Skid trail and Line construction through lava cap communities would be avoided when 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 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 (ENF 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 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.
- Fuel reduction using hand tools and other activities may be permitted within the boundaries of known Historic Properties, if approved by the District Archaeologist. 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 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 site boundaries unless directed by the District Archaeologist. 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 Archaeologist.
- 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

These actions are categorically excluded from documentation in an environmental impact statement (EIS) or an environmental assessment (EA). The applicable categories of actions are identified in agency Environmental Policy and Procedures Handbook, FSH 1909.15, Section 32.2.

The Wildfire Resilience categorical exclusion (CE) category (Section 605 of HFRA (16 U.S.C.6591d) applies to the fuel treatment network, prescribed burning, and associated activities described in the “Decision” section, above. A hazardous fuels reduction project that may be categorically excluded under this authority is a project that is designed to maximize the retention of old-growth and large trees, to the extent that the trees promote stands that are resilient to insects and disease, and reduce the risk or extent of, or increase the resilience to, wildfires (HFRA, Sections 605(b)(1)(A)).

Per Section 605(c), as amended by the 2018 Omnibus Bill, the Wildfire Resilience CE may only be used on NFS lands that occur within a landscape-scale area designated by the Chief under section 602(b) of HFRA on or before March 23, 2018. Projects shall be prioritized within the wildland-urban interface (WUI); if the project area is outside a WUI, projects are limited to areas within condition classes 2 or 3 in fire regime groups I, II, or III that contain very high wildfire hazard potential. This Wildfire Resilience category is applicable for this project because:

- The project is completely within an area designated in accordance with section 602(b) of the Healthy Forest Restoration Act prior to March 23, 2018 and is less than 3,000 acres in size,
- The project was developed with and will be implemented through a collaborative process, and
- All other applicable requirements of the CE were met.

Extraordinary Circumstance Resource Conditions

I find that there are no extraordinary circumstances that would warrant further analysis and documentation in an EA or EIS. I am basing this finding on the analyses described in the resource specialist reports available in the project record (see References). I took into account resource conditions identified in agency procedures that should be considered in determining whether extraordinary circumstances might exist:

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 Fuels Reduction Project:

- Will not affect/impact the following federally listed or Forest Service sensitive: 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 Fuels Reduction Project:

- Will not affect 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 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 Fuels Reduction Project:

- Will not affect *Packera layneae* or its habitat.
- 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 timber harvest 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 or in the vicinity of the project area.

4. Inventoried roadless areas or potential wilderness areas

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

5. Research natural areas

There are no Research Natural Areas within or in the vicinity of the project area.

6. American Indians and Alaska Native religious or cultural sites

None are known to be present in the project area.

7. Archaeological sites, or historic properties or areas

A Cultural Resource Management Report (CRMR) R2018-05-03-51038 was completed for the Scottiago 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 Fuels Reduction 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 Fuels Reduction 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 letter sent out 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 Tribes over the last two years in conjunction with discussion regarding the Scottiago Hazard Tree project, which overlaps the Scottiago Fuels Reduction 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 (1989), 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

Implementation may begin immediately and prescribed burning is expected to begin in 2019.

Contact

For additional information concerning this decision, contact: Jesse Plummer, Fuels Specialist, Amador Ranger District, 209-295-5973, or via email at jesseplummer@fs.fed.us.

4/5/2019

LAURENCE CRABTREE

Date

Forest Supervisor

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