Los Padres National Forest

Programmatic Migratory Birds Report for Fuels Treatment Projects

Including Brazil Ranch, Monterey Strategic Fuelbreak, Abbott Lakes, Lake of the Woods CDZ, Frazier Park CDZ, Frazier Mountain, Figueroa Mountain, Santa Barbara Front Country and Ojai CDZ.

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1.0 Background

The Los Padres National Forest (LPNF) has historically conducted fuels treatment projects at a number of locations across the 5 ranger districts (RD) that compose the administrative boundary of the forest across 6 different counties in central and southern California. The intent of this programmatic report is to consolidate and standardize the analysis of these fuels treatment projects and their impacts on the 67 "High Priority Species" which occur on LPNF.

These fuel treatments are variable in design and intent, but can be broken into 3 general types, 1) Community Defense Zones (CDZ), 2) landscape scale fuels treatments, and 3) prescribed burns.

Community Defense Zones, such as those implemented around Lake of the Woods, Frazier Park, Santa Barbara Front Country and Ojai, are linear fuel brakes designed to modify the existing fuel structure in order to impede or disrupt the progress of a wildfire should one occur. These features are typically located along large topographic features, such as ridgelines or along the contour if a slope. In some cases (Ojai CDZ, Santa Barbara Front Country) they are buffered extensions of fire control features (i.e. dozer lines) that have been used for decades during fire suppression activities. In other cases (Lake of the Woods and Frazier Park CDZs) they are designed to shield communities by breaking up the fuel characteristics just outside the community boundaries.

Landscape-scale fuels projects (such as Figueroa Mountain and Frazier Mountain) apply variable and complex fuels management techniques across broad areas. They include forestry practices such as thinning, mastication, hand-piling, hazard tree removal and prescribed burning that are intended to promote healthy forest structure, enhance wildlife habitat, and promote stand resilience to wildfire. Fuels treatments (understory thinning, hand piling, hazard tree removal etc.) are generally conducted by fire suppression staff or contractors. Contractors are generally hired to target specific activities that require expertise or equipment which may be unavailable or already obligated elsewhere at the district level. Tree thinning focuses on reducing stand density to promote growth of larger diameter trees at widely-spaced intervals common to Sierran mixed-conifer, Jeffrey and Ponderosa pine forests that occur in areas regularly affected by wildfire.

Prescribed burns (Sheep burn, Brazil Ranch) are intended to replicate small, frequent wildfires which were historically common in southern California prior to fire-suppression activities of the past 100 years (citations). They reduce stem density in chaparral covertypes and reduce understory vegetation in forested covertypes. These treatments reduce or remove ground fuels, impairing the development of ground fires which could otherwise spread rapidly. Prescribed burns have the additional side-effect of being beneficial to wildlife diversity when applied appropriately (citations), as they generate a matrix of vegetative cover across the landscape and stimulate vegetative growth post-treatment.

2.0 Management Direction

Following an executive order (# 13186) issued on January 10, 2001 by President Clinton, a Memorandum of Understanding (MOU) was developed between USDI U.S. Fish and Wildlife Service and the USDA Forest Service concerning the conservation of Migratory Bird populations within Bird Conservation Regions (BCR) across the country (USDA- USDI 2001). A second MOU was created in 2008 (USDA-USDI 2008) further developing the conservation areas and providing additional support for analysis of migratory bird communities as integrated conservation units.

US Fish and Wildlife Service developed further supplemental documents supporting analysis of migratory bird communities by providing a revised species list (USFWS 2010) and a list of birds of management concern and focal species (USFWS 2011).

Bird species that were reviewed with regards to the potential for impacts from this project (75 species total) include all birds currently on the Los Padres National Forest list of priority bird species in regards to the Migratory Birds Treaty Act (MBTA) (67 species), bird species that could occur within the project area that are on US Fish and Wildlife Service (USFWS) Birds of Conservation Concern (BCC) list (USFWS 2008) and focal species that are on the Birds of Management Concern list (USFWS 2011). The USFWS identified focal species from the BMC list that need investment because they: 1) have high conservation need, 2) are representative of a broader group of species sharing the same or similar conservation needs, 3) act as a potential unifier for partnerships, and/or 4) have a high likelihood that factors affecting status can be realistically addressed.

3.0 Project-related Habitat Types

Montane mixed-conifer habitats

Project Areas: Frazier Mountain, Figueroa Mountain, Alamo Mountain, Frazier Park CDZ and Lake of the Woods CDZ

These habitat types typically occur above 4000’ above sea level (asl) on higher elevation peaks. They also are found in northern aspect canyons along some lower elevation ridgelines. Montane conifer habitat types include; Sierran mixed-conifer, White fir, Jeffrey pine, Coulter pine and Ponderosa pine stands. Treatments for conifer stands typically include a mixture of treatment techniques, including thinning, brush mastication, hand cutting, pile burning and broadcast burning. Riparian corridors

Coastal chaparral

Project Areas: Sheep Burn, Brazil Burn, Monterey Strategic Fuelbreak, Santa Barbara Front Country, Ojai CDZ

Coastal chaparral covers extensive portions of Los Padres National Forest (LPNF). This covertype is frequently found at lower elevation portions of the forest below 4000' asl. Species composition and sub-classification varies somewhat depending on local precipitation trends and soil type. Treatment techniques are generally consistent across subclasses; utilizing brush mastication, hand or grapple piling, and pile or jackpot burning.

Live oak woodlands

Project Areas: Santa Barbara Front Country, Ojai CDZ, Monterey Strategic Fuelbreak
Oak woodlands are generally restricted to lower elevation sites from 1500'- 2500' asl. In the Mediterranean climate of central/ southern California they are frequently associated with riparian corridors along creeks and rivers. Oak woodlands are also present on northern aspect drainages where higher soil moisture is present due to decreased evaporative loss to solar radiation. Species composition varies somewhat, with several *Quercus* spp. being present across various parts of Los Padres NF.

Coastal Sage Scrub

Project Areas: Brazil Ranch, Ojai CDZ, Santa Barbara Front Country
Coastal sage scrub occurs in conjunction with other chaparral cover types on LPNF. It is most prevalent on LPNF lands on Monterey RD along the Big Sur Coast that are closer to the ocean and subject to maritime effects. Sage elements of the covertype, such as black sage (*Salvia mellifera*), white sage (*Salvia apiana*) and California sagebrush (*Artemisia californica)* are found more widely distributed across areas of LPNF. Treatment techniques proposed for managing projects within this covertype include; mastication, mowing, grazing, herbicide application and broadcast burning.

Riparian habitats

Project Areas: Ojai CDZ, Santa Barbara Front Country

Riparian habitats are linear features, generally associated with 1st and 2nd order streams. On the LPNF they include 3 primary vegetation alliances (1) Fremont cottonwood (*Populus fremontii*)/willow (*Salix* spp.), (2) California sycamore (*Platanus racemosa*)/coast live oak, and (3) white alder (*Alnus rhombifolia*) which occur at various successional stages across the forest. These alliances include other riparian species such as black cottonwood (*Populus balsamifera*), California bay laurel (*Umbellularia californica*), big-leaf maple (*Acer macrophyllum*), Oregon ash (*Fraxinus latifolia*), and coast redwood (*Sequoia sempervirens*) (USDA Forest Service 2005). Some of the most important riparian shrub habitats for riparian obligate species occur as early successional communities of the cottonwood/ willow alliance, which provides habitats for several federally-listed species (least Bell's vireo (*Vireo bellii pusillus*), southwestern willow flycatcher (*Empidonax traillii extimus*), and yellow-billed cuckoo (*Coccyzus americanus*)).

On LPNF lands, fuels treatments do not generally occur in riparian habitats due to concerns with erosion, which are mitigated through the use of riparian conservation areas (USDA Forest Service 2005). However, these habitats may occur on areas of private land adjacent to LPNF lands where fuels treatments are applied by private landowners.

Sage brush

Project Areas: Lake of the Woods CDZ, Frazier Park CDZ

Sagebrush is a plant community adapted to arid soil types composed of various species of the Genus *Artemisia*. On LPNF, this covertype occurs sporadically in drier transitional areas mixed with coastal chaparral or below pinyon/juniper forest on higher elevation sites above 4000' asl. It is composed primarily of coyote brush (*Baccharis pilularis*) mixed with California sagebrush (*Artemisia californica*) and other plant species (Barbour et. al 2007).

On parts of the Lake of the Woods and Frazier Park CDZs where this plant community occurs it is treated through mastication to reduce percent coverage and stem density.

4.0 Project-specific Proposed Actions

(Proposed actions for specific projects are covered in greater detail in the related biological assessments/ evaluations within the project records.)

Frazier Park CDZ

The project is comprised of four categories of actions: 1) conversion of vegetation to a less flammable condition to increase defensible space and firefighter safety (Land Management Plan Part 3, Plan Standards S7) on National Forest system lands within 300 feet of dwellings and occupied structures; 2) widening of an existing two mile long fuelbreak, located upslope of the northern boundary of town; 3) disposal of accumulations of cut plant materials; and 4) vegetation treatments to maintain the effectiveness of the CDZ over time. This project has been implemented annually since the summer of 2006.

Lake of the Woods CDZ

The project is comprised of four categories of actions: 1) conversion of vegetation to a less flammable condition to increase defensible space and firefighter safety (Land Management Plan Part 3, Plan Standards S7) on National Forest system lands within 300 feet of dwellings and occupied structures; 2) construct a 300-500 foot wide fuelbreak about 1.5 miles long (90 acres) located upslope of the southern boundary of town; 3) disposal of accumulations of cut plant materials; and 4) vegetation treatments to maintain the effectiveness of the CDZ over time. This project has been implemented annually since summer of 2006.

Ojai CDZ

The Ojai CDZ consolidates several existing fuelbreaks around the Ojai front country into a unified program of restoration and maintenance. In addition, it creates and enhances defensible space around structures on or in close proximity to National Forest system lands.

The Ojai CDZ was designed to achieve the following goals:

- Reduce the threat of wildfire to the urban interface of Ojai, Meiners Oaks, and Upper Ojai Valley.
- Create safer conditions for the public and firefighters in a wildfire situation.

- Protect watershed values and water quality of Lake Casitas, and Ventura and Santa Clara Rivers.
- Reduce potential impacts of high intensity wildfire on wildlife habitats and other valuable resources.
- Increase the efficiency and cost effectiveness of fire suppression activities.

Santa Barbara Front Country

The Santa Barbara Front Country project is an extensive combination of multiple fuels treatments applied across the Santa Ynez Mountains. It includes linear fuelbreaks, which were first constructed in the 1960's (using dozers and ball/chain), and are applied across the ridgeline of the Santa Ynez Mountains buffering ridgetop FS system roads (5N12 and 5N19). The buffer along these road features is 300 feet wide and maintained regularly through a combination of mastication, hand piling, and burning. Fuels treatments also include specific Defensible Fuels Perimeter Zones (DFPZ) which protect isolated communities at Cold Springs, Painted Cave, Rosario Park, and San Marcos Trout Club by reducing fuels density and structure in and around the communities. The treatment area at Painted Cave has been maintained since 2002 through mechanical removal of fuels and hand piling/burning. Status of other DFPZs is currently uncertain, but treatment methods used would be similar to Painted Cave DFPZ.

Figueroa Mountain

The Figueroa Mountain project is located across 665 acres at the summit of Figueroa Mt, encompassing stands of mixed Coulter Pine/coast live oak, and Jeffery pine. The proposed alternative is to reduce stand densities and stocking levels to improve vegetation conditions for sustenance and resilience to disease, and to reduce the chance of a catastrophic, stand replacing fire near the Figueroa Campground and the recreational residences. This will be accomplished by thinning conifers in order to reduce competition in plantations and thinning small conifers that would threaten large, older trees in a wildfire. Activities during the project may include the use of chain saws, a masticator, hand crews, and prescribed fire. Maps of the project area in Appendix B of the 2006 Figueroa Mountain BA/BE.

Frazier Mountain

The Frazier Mountain Vegetation Management project is approximately 2,850 acres and is located on Frazier Mountain in T8N, R19W, Sections 7 and 18; and T8N, R20W, Sections 4, 8, 9 through 16, 22, 23, 27, and 28. Thinning and fuels treatments would occur on approximately 2,386 acres of the 2,850 acre project area. The project is currently in implementation and applied across a landscape composed of different coniferous forest covertypes. It is targeted at addressing integrated forest management issues related to wildfire risk reduction, improvement of forest health, stand resilience and wildlife habitat improvement. The project is accomplished through a variety of methods including:

- Timber stand treatments
- Plantation treatments
- Frazier Mountain fuelbreak maintenance (mechanical)

- Prescribed fire
- Special area fuels reduction treatments

Further details related to specific treatment activities under the proposed action can be found in the EA (2012 Frazier Mountain EA, pp. 31-35).

Alamo Mountain

Large portions of Alamo Mountain on the Mt. Pinos Ranger District (MPRD) were severely burned during the 2006 Day Fire, resulting in the loss of mature canopy trees across the landscape. As part of a reforestation project, LPNF is conducting replanting of portions of Alamo Mountain where sufficient seedling regeneration is not expected due to the lack of local seed sources.

As part of the project, hazard trees are removed as a safety precaution, and to keep access roads open.

Sheep Burn

A prescribed fire was conducted in the vicinity of Sheep Camp Creek on the Santa Lucia RD during the spring of 2013. A follow-up application was planned for spring of 2014, however treatment did not occur due to fire restrictions that went into effect earlier than anticipated. The 2015 burn was planned to be approximately 500 acres in size and was intended to treat an area adjacent to where the 2013 burn was conducted. Prescribed fires such as the Sheep Burn are intended to reduce fuel loading and enhance chaparral habitat by creating a mosaic of age classes which more closely mimics "natural" conditions given historic wildfire frequency and intensity.

Brazil Ranch

The Brazil Ranch project on the Monterey RD is an integrated vegetation management approach, utilizing a combination of land management tools including; grazing, herbicide, mechanical removal and prescribed fire. The project is intended to eliminate/suppress nonnative invasive weeds, promote science-based grazing, promote desirable native vegetation types, and provide protection against wildfire.

Specific objectives include:

1. Develop an integrated pest management strategy using herbicide, prescribe fire, manual methods, and grazing by goats to suppress and control the spread of nonnative invasive weeds Cape ivy within the coast scrub vegetation type and kikuyu grass within the horse pastures (Coastal & Homestead Management Units only)*;

2. Determine potential for livestock grazing to maintain and improve grassland health within the coastal prairie grasslands*. Integrate research into any grazing program.

3. Develop an integrated management prescription incorporating prescribe fire, use of herbicide, mechanical mowing, and planting/seeding to suppress undesirable plants and establish a 'coastal prairie' grasslands within the Introduced Perennial Grass vegetation type (Coastal Management Unit only)*;

4. Develop an integrated management strategy incorporating prescribe fire, manual, and mechanical treatments to reduce fuel hazards around values at risk both on the Ranch and within the adjacent wildland urban intermix (human life, structures, roads), and to provide for firefighter safety during fire suppression (Homestead Management Unit only)*.

Monterey Strategic Fuelbreak
The Monterey Strategic Fuelbreak project is a landscape scale fuels treatment project designed to protect communities on the Big Sur coast of the Monterey Ranger District. The project would implement and regularly re-treat (every 3-5 years) sections of historic fuelbreak and fireline along the urban-wildland interface surrounding the communities along the Big Sur coastline. Proposed treatments would be accomplished using a combination of hand and machine piling, pile burning, prescribed fire and/or hand thinning with chainsaws, mastication, and herbicide (alternative 4 only). NEPA is still being completed for this project, so treatment applications have not been currently finalized, and may be subject to change.

5.0 Analysis

Expected impacts to specific bird species are determined based on commonly used treatment actions associated with projects conducted within particular vegetation covertypes. Treatment types are broken out into 3 sub-classifications based on the treatment methods applied and the bird species which generally occur within those vegetation covertypes. Further analysis of the expected impacts to avian resource-use guilds will be conducted later in the document based on the treatment types and how they are projected to impact those resource-use guilds.

Treatment Type I- DFPZs:
This treatment type is typically applied to conifer stands (Frazier Mountain, Alamo Mountain, Lake of the Woods CDZ, Frazier Park CDZ and Figueroa Mountain) and involves reduction of stem density (thinning) to remove smaller trees which may function as ladder fuels, reduction of understory vegetation using either mechanical means (mastication) or hand-cutting, and disposal of accumulated fuels using a combination of pile burning, jackpot burning and broadcast burning.

Treatment Type II- Landscape Vegetation treatments:
This treatment type is commonly associated with chaparral covertypes, but in the case of the Monterey Strategic Fuelbreak also applies to oak woodlands. Vegetation treatments on slopes < 35% (USDA Forest Service 2005) is frequently done using mechanical mastication. Vegetation treated with masticators is left on-site to decompose. On slopes > 35 % (USDA Forest Service 2005) vegetation treatment is accomplished using crews that hand-cut vegetation with chainsaws. Cut vegetation is collected into dispersed hand piles or jackpot piles and later burned when environmental conditions are favorable. In certain cases, herbicide treatments may also be used to prevent regrowth of vegetation in

treated areas. Treatment frequency varies from project to project, but after implementation re-treatment occurs every 3-5 years.

Treatment Type III- Broadcast burning only: This treatment type utilizes some hand-cutting of vegetation to establish control lines around the perimeter of the prescribed burn area. Cut vegetation is placed within the treatment area to be disposed of during the burn. Establishment of control line generally pre-dates the prescribed burn by several weeks so that the broadcast burn can be conducted at short notice once environmental conditions (Temperature, relative humidity, fuel moisture, wind speed and direction) are favorable to conduct a safe and controllable prescribed burn that will accomplish the treatment objectives.

Table 1. High Priority species (75) of the Los Padres National Forest which may be impacted by fuels treatment projects.

Species	Habitat	Food	Analysis-Vegetation Types[1]	Analysis-Treatment Types[2]	Nest	Potential for Project-generated Negative Effects to Species Population: N= No, P= Possible, L= Likely
Acorn woodpecker	Oak woodlands, riparian areas	Insects & acorns	OW	I	Cavities in oak branches, colonial	N- Species nests and forages in canopy trees, which would be minimally affected by the proposed action activities.
Allen's hummingbird	**Coastal shrub, valley foothill hardwood, valley foothill riparian habitat, closed-cone pine-cypress, urban and redwood habitats**	**Nectar and insects**	**CC, OW, RS**	**I, II, or III**	**0.5- 15m above ground in trees, shrubs or vines**	**P- Species may occur in the project area. Low-level shrub nesting bird species could have nests disturbed by project activities, which could result in damage/injury to eggs or nestlings.**
American dipper	Rushing streams	Aquatic insects	OW, RS	NA	Builds a domed nest of grasses, mosses, and leaves in proximity to a fast-flowing stream, in a crevice in rocks, behind waterfalls, in a stump or log, under a bank, bridge or other human-made structure.	N- Nesting locations and behavior are unlikely to be influenced by project activities. Treatments are not conducted within riparian corridors where this species occurs.
Bald eagle	Near lakes, large rivers or the coast	Fish and small mammals	NA	None	Isolated trees	N- Species would not be affected by project activities.
Band-tailed pigeon	**Oak, pine-oak woodlands**	**Acorns, madrone berries**	**OW**	**I**	**Platform in tree**	**P- The species would be primarily affected through displacement either due to noise or smoke from project actions.**
Bank swallow	Near permanent water	Insects	NA	NA	Riparian cut-banks	N- Project activities will not conflict with habitat use by this species.
Bell's sparrow (Formerly sage sparrow)	**Chaparral, sagebrush, dry foothills**		**CC, SB**	**I, II**	**Cup in scrub or on ground**	**P- Project activities may affect the species if it occurs in the treatment area. Low-level shrub nesting bird species could have nests disturbed by project activities, which could result in damage/injury to eggs or nestlings.**

Bell's vireo	Riparian thickets	Insects	OW	NA	Cup nest in a shrub or low in a tree	N- Although this species occasionally occurs on LPNF lands project activities do not occur in riparian areas which provide suitable habitat for the species, so no impacts would be expected.
Belted kingfisher	Riparian areas, ponds	Small fish	OW	I	Tall steep river banks	N- Species would not be affected by project activities.
Black swift	Moist locations on sea cliffs above surf, or on cliffs behind or adjacent to waterfalls. In deep canyons.	Insects	NA	NA	Wet cliffs, waterfall	N- Species would not be affected by project activities.
Black-backed woodpecker	Northern coniferous forests	Insects	NA	NA	Cavities, close to ground, typically on live trees	N- Species does not occur on LPNF.
Black-chinned sparrow	**Low dense chaparral on dry sites**	**Same**	CSS, SB		**Cup low in bush**	**P- Birds nesting in shrub vegetation are susceptible to disturbance by project activities. Eggs or nestlings could be jostled from the nest and/or trampled resulting in death or injury.**
Blue-gray gnatcatcher	**Woody riparian, pinyon-juniper woodland and mesic/tall chaparral**	**Insects**	CC, CSS		**Cup on branch**	**P- Birds nesting in shrub vegetation are susceptible to disturbance by project activities. Eggs or nestlings could be jostled from the nest and/or trampled resulting in death or injury.**
Brewer's sparrow	Big sagebrush steppe and alpine fell fields (tundra)	Same	SB	NA	Grass nest on or near ground	N- Species does not occur within the project area.
Burrowing owl	Open grasslands and deserts where grass in short	Insects and small mammals	NA	NA	Old burrows of ground squirrels or other small mammals	N- The species is not known to occur on LPNF lands in areas where project activities will occur.
Cactus wren	Desert thickets, cacti	Insects	CSS	NA	Shrub/cactus	N- Species does overlap in occurrence on LPNF with any of the project areas.

California thrasher	**Chaparral**	**Insects in leaf litter**	CC, CSS	I	**In thickets near the ground**	**P- Birds nesting in shrub vegetation are susceptible to disturbance by project activities. Eggs or nestlings could be jostled from the nest and/or trampled resulting in death or injury.**
Chipping sparrow	**Oak savannas, open woodlands**	**Seeds insects**	**MC, CC**	**I, II**	**Cup in shrubs or trees**	**P- Birds nesting on or near the ground are susceptible to disturbance by project activities. Eggs or nestlings could be jostled from the nest and/or trampled resulting in death or injury.**
Common nighthawk	Open mixed conifer and pinyon-juniper woodland	Flying insects	MC, CC, CSS	NA	Open bare ground	N- The species would not be affected by project activities. If they occur in the project area they would be foraging aerially.
Common poorwill	Arid, rocky hillsides, chaparral esp. chamise and sage	Insects	CC, SB		Ground, under bushes	N- Species does overlap in occurrence on LPNF with any of the project areas.
Common yellowthroat	Marshes, riparian thickets	Insects	RS		On or near ground	N- Project activities are unlikely to overlap with this species, as treatments do not occur in riparian areas, and should have no impact on their behavior.
Cooper's hawk	**Dense riparian and deciduous woodlands**	**Birds/small mammals**	MC, OW		**Forest canopies**	**P- The species may occur in habitats that would be affected by project activities. They may be indirectly affected through actions that impact their prey base. Species is known to occur in the project area. It has been detected on Frazier Mtn. and likely occurs in other treatment areas.**
Costa's hummingbird	**Chaparral, coastal shrub, open coniferous forest and semi-desert scrub**	**Nectar and insects**	CC		**1-10 m above ground, usually on yucca stalk or tree limb.**	**P- Birds nesting on or near the ground are susceptible to disturbance by project activities.**

Evening grosbeak	Coniferous forests	Conifer buds and seeds	NA	NA	Twig nest in conifer	N- Project activities would be unlikely to affect this species.
Flammulated owl	**High elev. ponderosa pine, oaks**	**Moths**	**MC**	**II**	**Woodpecker holes**	**P- The species is known to occur in mountaintop coniferous forest habitats and may potentially be affected by project activities.**
Golden eagle	Widespread	Rabbits, small mammals	CSS	NA	Cliffs, tops of trees	N- Project activities would not affect this species.
Grasshopper sparrow	**Large areas of tall grass**	**Insects, seeds**	CC	II	**Depression at base of grass clump**	**P- Birds nesting on or near the ground are susceptible to disturbance by project activities. Eggs or nestlings could be jostled from the nest and/or trampled resulting in death or injury.**
Gray vireo	Pinyon/juniper – Mountain chaparral in Mohave Desert highlands.	Insects	NA	NA	Cup nest in a tall shrub or tree	N- Does not regularly occur on LPNF
Great gray owl	Large meadow complexes surrounded by sub-alpine forest	Small mammals	NA	NA	Large tree holes or tops of broken off snags	N- Species does not occur on LPNF.
Hutton's vireo	**Live oak woodlands, mixed forests**	**Foliage insects**	**OW**	**I**	**Cup nest in a tall shrub or tree**	**P- The species may overlap with project activities on the Ojai CDZ and Santa Barbara Front Country projects and could be impacted by project actions.**
Lawrence's goldfinch	**Grassy slopes, chaparral, dry woodlands**	**Seeds, insects**	OW	**I**	**Cup hidden in a tall shrub or tree**	**P- Species is known to occur in the project area. Only birds foraging on or near the ground would be likely to be disturbed.**

Lazuli bunting	**Riparian woodland/upland habitat interface**	**Seeds insects**	**CC, SS, OW**	**I, II**	**Nests in shrubs and sometimes on the ground.**	**P- Birds nesting on or near the ground are susceptible to disturbance by project activities. Eggs or nestlings could be jostled from the nest and/or trampled resulting in death or injury.**
Lesser nighthawk	Lowland valleys and deserts	Flying insects	NA	NA	Open bare ground	N- Suitable habitats for this species do not occur in the project area.
Lewis' woodpecker	**Ponderosa pines, Oak savannas**	**Flying insects, acorns**	MC	I	**Tree cavities**	**P- The species is known to occur in mountaintop mixed conifer forests and potentially may be affected by project activities at certain locations.**
Loggerhead shrike	Open grasslands with scattered trees	Insects	NA	NA	Cup nest in tree	N- Project activities would be unlikely to affect this species.
Long-eared owl	Dense woody riparian/willows	Rodents	MC	NA	Old hawk nests	N- The species is very unlikely to overlap with project activities and would not be affected.
Northern goshawk	Dense forests	Birds, mammals	MC	II	Dense canopies	N- The species only breeds sporadically and rarely on LPNF lands. It is not known to overlap with any of the project areas.
Northern saw-whet owl	**Multi-layered dense forest, redwoods**	**Mice**	**MC**	**II**	**Woodpecker holes & tree cavities**	**P- Project activities on Figueroa Mountain and Santa Barbara Front Country may overlap with this species and could affect its behavior.**
Nuttall's woodpecker	**Groves of live oak, riparian, and oak-conifer forests**	**Insects, fruit, berries, nuts and sap**	**OW**	**I, II**	**Cavities in oak trees or trees associated with riparian habitat**	**P- The species may be affected by project actions associated with the Ojai CDZ and Santa Barbara Front Country projects.**
Oak titmouse	**Riparian, oak and pine woodlands**	**Insects**	**OW**	**I, II**	**In woodpecker hole or natural cavity**	**P- The species may be affected by project actions associated with the Ojai CDZ and Santa Barbara Front Country projects.**
Olive-sided flycatcher	**Mature mixed conifer and sub-alpine forests. Tall riparian woodlands in lowlands**	**Bees, wasps**	**MC**	**II**	**Open nest on end of branch in a tall tree**	**P- Project activities may overlap with this species and it may be impacted through thinning activities on the Frazier Mountain and Figueroa Mountain projects.**
Osprey	Coast, reservoirs, rivers	Fish	NA	NA	Nest on snag or treetop	N- Project activities would not affect this species.

Phainopepla	**Desert scrub, semiarid oak savanna, trees with mistletoe**	**Mistletoe, insects**	**OW**	**I**	**Cup nest in tall shrubs or trees**	**P- The species is known to occur in multiple different habitat types, and potentially may be affected by project activities.**
Pileated woodpecker	Late seral to old growth coniferous forests	Carpenter ants, wood-boring insects	MC	NA	Excavator	N- Project activities will not overlap with this species as it only occurs on Monterey RD.
Pine grosbeak	Coniferous forests	Seeds buds	MC	NA	Cup low in conifer	N- Species doesn't breed in this area.
Prairie falcon	Open, dry interior country	Small birds/mammals	CC, CSS	NA	Cliffs, tops of trees	N- Project activities are unlikely to overlap with this species and should have no impact on their behavior.
Purple martin	Tall sycamores and oaks with large natural cavities.	Aerial insects	NA	NA	Natural tree cavities – colonial	N- Project activities are unlikely to overlap with this species and should have no impact on their behavior.
Pygmy nuthatch	Mixed conifer forest and pinyon-juniper woodland	Insects and seeds	MC	II	Natural tree cavities and old woodpecker holes.	**P- Project activities may overlap with this species and it may be impacted through thinning or hazard tree removal on the Frazier Mountain and Alamo Mountain projects.**
Red crossbill	Pine forests	Pine nuts	MC	II	Cup in top of tree	N- The species on occurs on LPNF as a very rare winter visitor and is very unlikely to be affected by project actions.
Red-breasted sapsucker	**Deciduous woodlands/prefers riparian woodlands.**	**Bark/ insects**	OW	I, II	**Excavator**	**P- Project activities may overlap with this species and it may be impacted through hazard tree removal.**
Rufous-crowned sparrow	**Dry, open sunny slopes with grass, shrubs and rocks**	**Seeds insects**	CC	II	**Cup on ground under rock & grass**	**P- Birds nesting on or near the ground are susceptible to disturbance by project activities. Eggs or nestlings could be jostled from the nest and/or trampled resulting in death or injury.**
Sage grouse	Eastern CA, interior prairies	Sage brush, insects, forbs	NA	NA	Ground	N- Species does not occur on LPNF lands.
Sandhill crane	Prairies, large interior marshes	Omnivore	NA	NA	Ground	N- Species does not occur on LPNF and would not be affected by project activities.
Sharp-shinned hawk	**Dense coniferous woodlands**	**Small birds**	MC	II	**Forest canopies**	**P- The species may occur in habitats that would be affected by project activities. They may be indirectly affected through actions that impact their prey base. Treatment type I.**

Short-eared owl	Marshlands/mesic grasslands	Mice, insects	NA	NA	Depression on ground	N- Species does not breed locally and is a rare transient and winter visitor to most of LPNF lands.
Sooty grouse	Mixed conifer and sub-alpine forests	Insect/seed/ berry/needle	MC	NA	Ground	N- The Mt. Pinos subspecies has not been detected for nearly 30 years and is believed to be extirpated. Project activities would not impact the subspecies as its known historic distribution does not overlap with project activities.
Spotted sandpiper	Larger streams, sandy or gravel shores	Insects	NA	NA	Ground	N- Project activities are unlikely to overlap with this species and should have no impact on their behavior.
Spotted towhee	**Chaparral, coastal shrub, or sagebrush and bitterbrush or spaced coniferous woodlands with a shrubby understory**	**Insects and fruits**	**OW, CC, CSS**	**I, II**	**Stout cup on ground concealed by surrounding vegetation**	**P- Birds nesting on or near the ground are susceptible to disturbance by project activities. Eggs or nestlings could be jostled from the nest and/or trampled resulting in death or injury.**
Swainson's hawk	Open grasslands, prairies	Rodents & large insects	SB	NA	Isolated trees	N- Project activities are unlikely to overlap with this species and should have no impact on their behavior.
Swainson's thrush	Dense riparian thickets and mesic mountain shrub	Insects, snails, fruits	RS	NA	Low to ground in thicket	N- Project activities are unlikely to overlap with this species as it occurs primarily in riparian habitats on LPNF. Riparian corridors are not treated as part of fuels reduction projects.
Tri-colored blackbird	Riparian habitat with open accessible water and dense emergent vegetation such as cattail or other riparian	Insects	NA	NA	Cup in riparian vegetation or emergent vegetation	N- This species is not known to occur on LPNF lands, so overlap with project activities will not occur.
Vaux's swift	Forests, especially burned or cutover areas providing snags	Insects	NA	NA	Large hollow snags	N- The species occurs as a transient species across most of LPNF (except Monterey RD) and breeding habitats would not overlap with project areas.
Warbling vireo	Riparian and mixed deciduous woodlands	Insects	OW	I, II	Hanging cup near tree top	N- Project activities are unlikely to overlap with this species, as treatments do not occur in riparian areas, and should have no impact on their behavior.
Western bluebird	**Open pine and oak woodlands**	**Insects**	**MC, OW**	**I, II**	**Natural tree cavities**	**P- Project activities may overlap with this species and it may be impacted by actions which reduce snags or damaged trees.**
Western wood-pewee	Juxtaposed riparian and upland woodlands.	Insects	OW	I, II	Open cup placed in a the top of a tree or tall shrub	N- Project activities may overlap with this species but should have minimal impact on their behavior.

Mexican whip-poor-will	Dry open woodlands, canyons	Insects	OW	NA	Ground	N- Project activities are very unlikely to overlap with the species. The species is an exceptionally rare vagrant on the Los Padres and is not known to breed or occur regularly.
White-crowned sparrow	**Coastal bush lupine shrubs, brushy edges of mountain meadows and streams.**	**Seeds**	**CC, CSS**	**I, II**	**Cup low to ground**	**P- Birds nesting on or near the ground are susceptible to disturbance by project activities. Eggs or nestlings could be jostled from the nest and/or trampled resulting in death or injury.**
White-headed woodpecker	Mature Jeffrey, Ponderosa or Sugar Pine Forests	Wood-boring insects	MC	I, II	Cavities, close to ground	N- Project activities may overlap with this species and should have no impact on their behavior.
White-throated swift	Aerial, except when nesting	Insects	OW, RS	I	Cliffs, under bridges	N- Project activities may overlap with this species, but should have no impact on their behavior. The species nests outside of treated areas, and forages aerially.
Williamson's sapsucker	**Mountainous ponderosa pine & open conifer forests**	**Tree sap/insects**	**MC**	**II**	**Excavator**	**P- Project activities on Figueroa Mountain may overlap with this species and it may be impacted through hazard tree removal.**
Willow flycatcher	Dense patches of willow riparian	Insects	RS	I	Nest in dense branches, low	N- Project activities are unlikely to overlap with this species, as treatments do not occur in riparian areas, and should have no impact on their behavior.
Yellow warbler	Riparian forests	Insects	RS	I	Low in thickets	N- Project activities are unlikely to overlap with this species, as treatments on LPNF lands do not occur in riparian areas, and should have no impact on their behavior.
Yellow-billed cuckoo	Large patches of dense mature riparian woodlands	Caterpillars and insects.	RS	NA	Riparian thickets	N- Project activities are unlikely to overlap with this species, as treatments do not occur in riparian areas, and should have no impact on their behavior. The species is not known to occur on LPNF lands.
Yellow-billed magpie	Oak woodlands, groves of tall trees along rivers and near open areas	Insects and small mammals	OW	NA	Nests high in trees, predominantly in valley oaks and coast live oaks	N- Project activities are unlikely to overlap with this species as its local distribution is outside of LPNF lands.
Yellow-breasted chat	Lowland riparian thickets	Insects	RS	NA	Large covered cup nest in dense thicket	N- Project activities are unlikely to overlap with this species, as treatments do not occur in riparian areas, and should have no impact on their behavior.

(1) Species occurs in the following vegetation types: Montane conifer (MC), Coastal chaparral (CC), Oak woodland (OW), Coastal sage scrub (CSS), Riparian shrub (RS), Sage brush (SB) or Not Applicable (NA).

(2) Species are potentially affected by activities associated with the following treatment types: Community Defense Zone (I), Landscape Vegetation Management Project (II), Prescribed fire (III), and Not Applicable (NA).

6.0 Discussion

Treatment Type I

Bark gleaning species- Bark gleaning birds such as nuthatches and several woodpecker spp. utilize snags and defective and damaged trees for purposes of foraging. Thinning and hazard tree removal actions can limit the availability of suitable trees and snags and negatively alter suitable habitat for this group of species.

Cavity nesting species- Both primary (woodpeckers and sapsuckers) and secondary cavity (nuthatches, bluebirds) nesting birds use snags and defective or damaged live trees for suitable nesting locations. Actions such as thinning and hazard tree removal can limit the availability of suitable nesting locations and negatively affect habitat.

Foliage gleaning species- Foliage gleaning species could be affected indirectly through smoke and noise disturbance which may alter their foraging behavior. These impacts to their behavior are expected to represent an inconvenience but not alter reproductive success or survival rates.

Ground gleaning species- Removal of understory vegetation either through hand-cutting or mastication removes vegetative cover that ground gleaning birds utilize for shelter and escape cover while foraging. Altering the vegetation will have some impact on foraging behavior and may result in higher depredation rates for species foraging within treated areas. Broadcast burning can have a similar effect on this species, in addition to added risks from smoke and flames, which foraging birds would likely avoid by utilizing other habitats.

Ground nesting species- Removal of understory vegetation either through hand-cutting, mastication or broadcast burning removes vegetative cover that ground nesting birds utilize for cover and concealment of the nest site. Altering the vegetation will likely have negative impacts on birds which may decide to nest in affected locations. If treatment occurs prior to the egg-laying phase of reproduction, birds would most likely avoid the treated areas in preference to more suitable locations. If treatment (mastication or broadcast burning) occurs within the breeding period, it is likely that some ground nesting birds may be affected, resulting in increased depredation of eggs, nestlings or brooding adults; or in direct mortality of eggs, nestlings or brooding adults from project actions.

Shrub nesting species- Removal of understory vegetation either through hand-cutting, mastication or broadcast burning removes vegetative cover that shrub nesting birds utilize for cover and concealment of the nest site. Altering the vegetation will likely have negative impacts on birds which may decide to nest in affected locations. If treatment occurs prior to the egg-laying phase of reproduction, birds would most likely avoid the treated areas in preference to more suitable locations. If treatment (mastication or broadcast burning) occurs within the breeding period, it is likely that some shrub nesting birds may be affected, resulting in increased depredation of eggs, nestlings or brooding adults; or in direct mortality of eggs, nestlings or brooding adults from project actions.

Treatment Type II

Foliage gleaning species- Shrub vegetation foliage gleaning species may be impacted by actions which reduce the density and/or percent cover of shrub vegetation within suitable habitats. Birds would most likely avoid active treatment areas, but could have their foraging behavior disrupted which could result in higher energetic demands and reduced fitness.

Ground gleaning species- Removal of chaparral, coastal sage scrub or sagebrush vegetation either through hand-cutting or mastication removes vegetative cover that ground gleaning birds utilize for shelter and escape cover while foraging. Altering the vegetation will have some impact on foraging behavior and may result in higher depredation rates for species foraging within treated areas. Broadcast burning can have a similar effect on this species, in addition to added risks from smoke and flames, which foraging birds would likely avoid by utilizing other habitats.

Ground nesting species- Removal of chaparral, coastal sage scrub or sagebrush vegetation either through hand-cutting, mastication or broadcast burning removes vegetative cover that ground nesting birds utilize for cover and concealment of the nest site. Altering the vegetation will likely have negative impacts on birds which may decide to nest in affected locations. If treatment occurs prior to the egg-laying phase of reproduction, birds would most likely avoid the treated areas in preference to more suitable locations. If treatment (mastication or broadcast burning) occurs within the breeding period, it is likely that some ground nesting birds may be affected, resulting in increased depredation of eggs, nestlings or brooding adults; or in direct mortality of eggs, nestlings or brooding adults from project actions.

Shrub nesting species- Removal of chaparral, coastal sage scrub or sagebrush vegetation either through hand-cutting, mastication or broadcast burning removes vegetative cover that shrub nesting birds utilize for cover and concealment of the nest site. Altering the vegetation will likely have negative impacts on birds which may decide to nest in affected locations. If treatment occurs prior to the egg-laying phase of reproduction, birds would most likely avoid the treated areas in preference to more suitable locations. If treatment (mastication or broadcast burning) occurs within the breeding period, it is likely that some shrub nesting birds may be affected, resulting in increased depredation of eggs, nestlings or brooding adults; or in direct mortality of eggs, nestlings or brooding adults from project actions.

Treatment Type III

Foliage gleaning species- Shrub vegetation foliage gleaning species may be impacted by actions which reduce the density and/or percent cover of shrub vegetation within suitable habitats. Birds would most likely avoid active treatment areas, but could have their foraging behavior disrupted which could result in higher energetic demands and reduced fitness. If the species occurred within the treatment area during a prescribed burn they could be negatively affected by flames or smoke.

Ground gleaning species- Removal of understory vegetation through hand-cutting (fireline construction) or broadcast burning removes vegetative cover that ground gleaning birds utilize for shelter and escape cover while foraging. Altering the vegetation will have some impact on foraging behavior and may result in higher depredation rates for species foraging within treated areas.

Ground nesting species- Removal of understory vegetation through hand-cutting (fireline construction) or broadcast burning removes vegetative cover that ground nesting birds utilize for cover and concealment of the nest site. Altering the vegetation will likely have negative impacts on birds which may decide to nest in affected locations. If treatment occurs prior to the egg-laying phase of reproduction, birds would most likely avoid the treated areas in preference to more suitable locations. If treatment occurs within the breeding period, it is likely that some ground nesting birds may be affected, resulting in increased depredation of eggs, nestlings or brooding adults; or in direct mortality of eggs, nestlings or brooding adults from project actions.

Shrub nesting species- Removal of understory vegetation through hand-cutting (fireline construction) or broadcast burning removes vegetative cover that shrub nesting birds utilize for cover and concealment of the nest site. Altering the vegetation will likely have negative impacts on birds which may decide to nest in affected locations. If treatment occurs prior to the egg-laying phase of reproduction, birds would most likely avoid the treated areas in preference to more suitable locations. If treatment (mastication or broadcast burning) occurs within the breeding period, it is likely that some shrub nesting birds may be affected, resulting in increased depredation of eggs, nestlings or brooding adults; or in direct mortality of eggs, nestlings or brooding adults from project actions.

For prescribed burn only projects, impacts to species are minimized if project actions can be restricted to a temporal window from August 1 through March 14 of the following year. In the short term (first year following treatment), prescribed burns remove vegetative cover from patches of habitat that provides cover and concealment for species which nest and forage in those vegetation types. In later years (2-3 years following treatment) there is typically a beneficial effect from prescribed burning due to revitalized growth and an increase in grasses and forbs which provide cover and forage for many foliage gleaning and ground gleaning/ground-nesting species which forage on seeds and berries.

8.0 Impact Avoidance Measures

- <u>Recommended Limited Operating Period (August 1 through March 14)</u>
  If possible, project implementation should avoid conducting project activities during the breeding season for migratory birds (March 15-July 31). Based on periods of arrival and departure for migrating birds, and breeding initiation and completion dates for both resident and migratory species, this is a suitable window for Los Padres National Forest.

(This limited operating period (LOP) encompasses the majority (> 85%) of the breeding activity for avian species which occur within the latitudinal and elevation variability present on LPNF. This LOP is recommended because birds are most vulnerable to disturbance during the incubation and nestling stages of reproduction. Delaying project activities until young have fledged and are fully mobile dramatically decreases the likeliness of detrimental effects).

- Pre-treatment Training
  Work crews should receive training on avoiding unnecessary impacts to breeding birds and other wildlife species prior to conducting project activities.

- Pre-treatment surveys
  Bird surveys should be conducted strategically at the discretion of a qualified biologist to inform the decision making process and provide recommendations regarding timing of the treatment activities and impact avoidance measures.

- Hazard Tree Removal
  When possible, hazard tree removal should be conducted between September 1 and February 15. "Hazard trees" are typically either snags or damaged living trees. These two classifications of trees have a higher probability of supporting cavity nesting species such as owls, and being used as roosting sites for many raptor species, as well as California condors. Larger diameter snags and damaged trees in particular should be retained as they offer greater benefit to a variety of avian species because of the structural characteristics that they provide in forested habitats.

9.0 Summary

The primary risks to migratory birds resulting from fuel treatment activities occurs to incubating/brooding adults, eggs, and nestlings during the reproductive process. Adult birds may be flushed off the nest during the incubation or brooding stages of reproduction, which could result in decreased reproductive success and an indirect loss of eggs or nestling. Disturbed or damaged nests may result in direct mortality to either eggs or nestlings. Additionally, project activities may indirectly affect reproductive success through increased depredation resulting from loss of cover and concealment due to vegetation removal. Foraging birds may also be subject to risk of injury or mortality from project actions, but are considered a lower risk factor as they are able to avoid potential threats represented by project actions.

Mortality to ground nesting or shrub nesting birds/eggs or young may occur as a result of heavy equipment such as masticators, bulldozers or excavators physically disturbing active nests. Mortality to cavity-nesting birds may result from removal of snags or live defected trees which serve as nesting substrates, either during stand thinning or hazard tree removal. All

resource-use guilds may be impacted detrimentally by alterations to habitat which occur from altering vegetation characteristics that form their preferred nesting and foraging habitats. Actions such as broadcast burning, if conducted within the breeding window for bird species may result in some direct mortality of adults/eggs/ or nestlings from exposure to flames or smoke.

While it is acknowledged that there are some risks to avian species from vegetation management projects, the use of impact avoidance measures can alleviate and minimize these risks. In other cases, usage of practices such as broadcast burning can have limited duration beneficial effects on avian habitats in the treated area, due to revitalized growth and added structure resulting from prescribed fire.

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