

TECHNICAL NOTE

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CONSERVATION MEASURES TO REDUCE IMPACTS TO NESTING MIGRATORY BIRDS

The intent of this technical note is to provide NRCS planners with a required process of reducing potential impacts to nesting migratory birds and their nests, during practice implementation, when such implementation may have adverse effects to nesting migratory birds or their nests. Potential negative effects are mitigated by following required Conservation Measures defined in this technical note and, depending on the site specific conditions, detailed in each client's Practice Specifications and Requirements sheets. Factors affecting a negative outcome for a breeding bird results from either nest abandonment, increased risk of predation, or nest destructions due to activities creating physical disturbance, noise, or visual disturbance, beyond the threshold of each species of bird.

The following process aims to conduct all practice implementation to occur outside the nesting season for most migratory birds, especially those species designated by the US Fish and Wildlife Service (2008) as Birds of Conservation Concern (BCC). When practices are implemented during the nesting season, planners will require clients to implement additional conservation measures listed below as needed. Where clients are unwilling to agree to and subsequently implement the required conservation measures, NRCS will terminate all further technical and financial assistance to that client, until the client has secured a permit or demonstrated coordination with the Service.

Employing these conservation measures for practices with potential to adversely affect nesting migratory birds, implemented mostly on forestlands, rangelands and riparian areas, will avoid having a *measurable negative effect* on any migratory bird population. Adhering to these conservation measures may still result in short term negative effects, but NRCS is confident that by implementing these measures no migratory bird species will be negatively impacted at the population level.

As required under the Migratory Bird Treaty Act (MBTA) and Executive Order (E.O.) 13186 NRCS has conferred with the Migratory Bird Division of the US Fish and Wildlife Service (Service). Many of the Conservation Measures included in this technical note were developed from those trainings, discussions and materials provided by the Service biologists.

Assessing the overall outcome of all NRCS funded Farm Bill conservation actions in California will avoid, minimize and/or compensate for any short term negative effects and therefore satisfy the objectives the MBTA and the E.O 13186.

When planners schedule practices during the Limited Operating Period, which is outside the primary nesting season, as noted in the Figure 1, NRCS planners will need to note the Limited Operating Period (LOP) in the CPA-52 MBTA Guide Sheet notes. Second, planners will explicitly describe the timing restriction in the practice or implementation requirements.

Background

The Migratory Bird Treaty Act (MBTA) of 1918, as amended, is the domestic law that affirms, or implements, the United States' commitment to four international conventions (with Canada, Japan, Mexico, and Russia) for the protection of a shared migratory bird resource. Executive Order (E.O.) 13186, Responsibilities of Federal Agencies to Protect Migratory Birds, requires NRCS to consider the impacts of planned actions on migratory bird populations and habitats for all planning activities.

Migratory birds are essentially all wild birds found in the United States, except the house sparrow, starling, feral pigeon, and resident game birds, such as pheasant, grouse, quail, and wild turkeys. Resident game birds are managed separately by each State. A list of migratory birds is found in 50 CFR Part 10. There are also other requirements protecting certain migratory birds.

The MBTA fully protects all migratory birds and their parts (including eggs, nests, etc). Thus, the act makes it unlawful, unless permitted by regulation, for anyone to kill, capture, collect, possess, buy, sell, trade, ship, import, or export any migratory bird, including feathers, parts, nests, or eggs. This applies to Federal agencies and private individuals.

MBTA and E.O. 13186 require NRCS to consider impacts of planned actions on migratory bird populations and habitats for all planning activities. This may require cooperation with the US Fish and Wildlife Service if the action will result in a measurable negative effect on migratory bird populations. If, for example, a proposed action can potentially kill or injure a migratory bird resulting in an intentional or unintentional "take" to the birds, nests, or eggs, Conservation Measures must be considered to mitigate adverse impacts.

Initial Conservation Measures

Planning aims to avoid scheduling practice implementation when such implementation could potentially harm or harass nesting birds or their nests. Following these Initial Conservation Measures minimizes that probability.

- Avoid any take of migratory birds and/or minimize the loss, destruction, or degradation of migratory bird habitat while completing the proposed project or action.
- If the proposed project includes a reasonable likelihood that "take" of migratory birds will occur, then complete actions that could take migratory birds outside of their nesting season. This includes clearing or cutting of vegetation, grubbing, etc. The primary nesting season for migratory birds varies greatly between species and geographic location, but generally extends from early April- mid-July. However, the maximum time period for the migratory bird nesting season can extend from January through September. Also, eagles may initiate nesting as early as late December or January depending on the geographic area.
- Strive to complete all disruptive activities outside the peak bird nesting season to the greatest extent possible.

Conservation Measures - Practices Planned to Implement Outside the LOP

As part of our planning process NRCS CA intends to avoid any disturbance to all active migratory bird to the maximum extent practicable. Where practicable, practices that could potentially disturb a nest will be implemented outside of the nesting season. For California, that could extend from

late February through September 1. As part of NRCS coordination with the Service, the Service requests that we focus on the Birds of Conservation Concern (BCC) (2008). There are five Bird Conservation Regions (BCR) within California (Figure 1).

- As described in the Migratory Bird Evaluation Procedures Guidesheet of the NRCS Environmental Evaluation (CPA-52), the planner must first assess “if the action(s) result in a take (intentionally or unintentionally) to any migratory bird, nest or egg?
 - The term "take" means to pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to pursue, hunt, shoot, wound, kill, trap, capture, or collect (50 CFR Section 10.12).”
 - As noted in the guidance “the MBTA does not prohibit the destruction of a migratory bird nest alone (without birds or eggs) provided that no possession occurs during the destruction” (USFWS, Migratory Bird Memorandum, MBPM-2, April, 2003). Therefore, the planner needs to assess if the nest is to be occupied when any implementation phase of the practice occurs. If not, then continue planning the project without adding any additional conservation measures.
- **This does not pertain to federal or state threatened, endangered or fully protected species. These nests are always protected and may require a consultation with the Service if threats to the bird, nest or habitat during practice implementation cannot be eliminated. Prior to contracting the planners should contact their NRCS biologist for next steps.**

Region	Name	Primary Nesting Season
5	North Pacific Forest	April – July 15
9	Great Basin	April - August
15	Sierra Nevada	May - September
32	Coastal California	March 15 - August 1
32	Southern portion of Coastal California	March 15 - August 31
33	Sonoran / Mojave Deserts	March - August 31

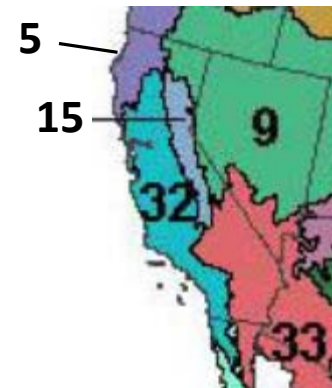


Figure 1. Bird Conservation Regions and Primary Nesting Seasons in California

- Planners will refer to Table 2 for BCC species in the BCRs and Preferred Nesting Plant Communities that these BCC species are known to nest in, to determine potential nesting species in the project area.
 - Planners can identify BCR in the planning process through the Customer Service Toolkit GIS mapping by engaging the BCC shapefiles under Geodata_endangered species habitat.
 - Once the planner has determined which forest, woodland, shrubland, grassland, or riparian area in which the project is being planned for, then planners search Table 1 for potential BCC species breed in that site plant community. Some species are more selective than others, where others nest in a variety of plant community.

- Prior to going to the site planners will activate Veg gap shapefiles in Customer Service Toolkit to help assess the plant communities present at the project site.
 - Planners will use the identify tool and click it over the project site and look for Plant communities are identified by a three letter acronym. The three dominant plant communities will be identified by three letter acronyms. For example, RDW represents Redwood Forests.
 - The complete acronym key is in Table 1 below. The key describes either the primary species in those Plant Communities, or when a plant community is clumped like Mixed Conifer (MC) it may represent Klamath Mixed Conifer or Sierran Mixed Conifer.
 - Some forests, shrublands and riparian Plant Communities types were been lumped into a single Plant Community to keep the table to a manageable size.

Table 1. Plant Community Guide

Habitat	Habitat Symbol	Include Habitats or Primary Species (PS)
Mixed Conifer	MC	Klamath Mixed Conifer (KMC), Sierran Mixed Conifer (SMC)
Douglas Fir	DFR	PS: Douglas Fir (DFR), Tanoak, Ponderosa Pine (PPN)
Jeffrey Pine	JPN	PS: Jeff Pine, Ponderosa Pine, Sugar Pine
Ponderosa Pine	PPN	PS: Ponderosa Pine, Jeff Pine, Sugar Pine
Redwood	RDW	PS: Redwood, Grand Fir, Sitka Spruce
Pinyon Juniper	PJN	Pinyon Juniper, Juniper
Juniper	JUN	Juniper
Montane Harwood Conifer	MHC	Ponderosa Pine, Incense Cedar, CA Black Oak
Montane Harwood	MHW	Canyon Live Oak, CA Black Oak, Oregon White Oak
Montane Chaparral	MCP	Ceanothus species, Manzanita species
Interior Oak Woodland	OAK	Blue Oak (BOW), Valley Oak (VOW), Live Oak, Blue Oak/Foothill Pine
Coastal Oak Woodland	COW	Coast Live Oak, Engelmann, Island Oak
Riparian	RIP	Foothill Riparian (FRI) and Desert Riparian (DRI)
Montane Riparian	MRI	Mountain Riparian
Meadow	MED	Sedge Species, Rush Species, Tufted Hairgrass
Sagebrush	SGB	Sagebrush species, Rabbitbrush species
Mixed Chaparral	MCH	Scrub Oak, Ceanothus species, Manzanita species
Coastal Scrub	CSC	Coyotebush, CA Buckwheat, Sage species
Desert Scrub	DSC	Desert Scrub (DSC) and Desert Succulent Scrub (DSS)
Annual Grassland	AGS	Non-native annual grasses
Perennial Grassland	PGS	Native bunch and rhyzomitas species

Table 2. BCC Bird Species in CA and Breeding Plant Communities

Bird Species	Region					MC	DFR	JPN	PPN	RDW	PJN	JUN	MHC	MHW	MCP	OAK	COW	RIP	MRI	WTM	BUR	SGB	MCH	CSC	DSC	AGS	PGS
	5	9	15	32	33																						
Allen's Hummingbird	x			x												x	x	x					x	x			
Bald Eagle (b)	x	x	x	x	x	x	x	x	x				x	x	x												
Bell's Vireo (c)				x												x	x	x					x	x	x		
Bell's Sparrow				x	x																	x		x	x		
Bendire's Thrasher					x							x													x		
Black Swift*																											
Black-chinned Sparrow		x		x	x										x								x	x			
Brewers Sparrow		x																					x				
Burrowing Owl				x	x																					x	x
Cactus Wren				x											x									x	x		
Calliope Hummingbird		x	x			x		x	x				x	x	x			x	x	x							
Cassin's Finch			x			x		x																			
Common Yellowthroat				x		x	x	x	x				x	x		x	x	x	x								
Costa's Hummingbird				x	x																			x			
Elf Owl					x	x							x	x		x									x		
Flammulated Owl		x	x	x		x		x	x				x	x													
Gila Woodpecker																											
Gilded Flicker																											
Golden Eagle		x	x	x		x	x	x	x				x	x	x	x											
Grasshopper Sparrow	x	x		x																						x	x
Gray Vireo					x							x	x												x		
Greater Sage-grouse		x																					x				
Green-tailed towhee		x													x								x				
Horned Lark		x																								x	x
Lawrence's Goldfinch				x	x											x			x					x			
LeConte's Thrasher				x	x																				x		

b = ESA delisted species **c = non-listed species of subspecies of ESA listed species**

Table 2. BCC Bird Species in CA and Breeding Plant Communities (continued)

Bird Species	Region					MC	DFR	JPN	PPN	RDW	PJN	JUN	MHC	MHW	MCP	OAK	COW	RIP	MRI	WTM	BUR	SGB	MCH	CSC	DSC	AGS	PGS
	5	9	15	32	33																						
Lewis's Woodpecker		x	x	x					x							x						x					
Loggerhead Shrike		x		x												x		x						x	x	x	
Lucy's Warbler					x													x									
Northern Goshawk	x		x	x		x	x	x	x	x			x	x													
Nuttall's Woodpecker				x												x		x									
Oak Titmouse				x												x		x									
Olive-sided Flycatcher	x		x			x	x	x	x	x					x				x			x					
Oregon Vesper Sparrow	x																					x				x	
Peregrine Falcon	x	x	x	x	x																						
Pinyon Jay		x								x	x																
Prairie Falcon					x																				x	x	
Purple Finch	x					x	x		x	x			x	x					x								
Rufous Hummingbird	x					x		x					x	x													
Sage sparrow		x			x																						
Sage thrasher		x																									
Song Sparrow				x			x	x			x								x	x	x				x		
Spotted Owl (c)			x	x		x	x	x	x	x																	
Spotted Towhee				x											x				x	x				x	x		
Tricolored Blackbird		x		x															x								
Virginia Warbler		x									x	x				x								x			
Whiteheaded Woodpecker		x		x			x																		x		
Williamson's Sapsucker		x	x			x	x	x	x	x				x						x							
Willow Flycatcher (c)	x	x	x																x			x					
Yellow Warbler				x	x										x				x	x	x						
Yellow-billed Cuckoo				x	x														x								
Yellow-billed Magpie				x												x	x		x								

b = ESA delisted species **c = non-listed species of subspecies of ESA listed species**

Table 3. California Bird Species Total and Primary Nesting

Month	J	F	M	A	M	J	J	A	S	O	N	D		
Bird Species													Nesting Season	Peak Nesting
Allen's Hummingbird				■	■	■	■	■					Mid April - Mid July	March-June
Bald Eagle (b)		■	■	■	■								Mid March-May	
Bell's Vireo (c)				■	■	■	■	■					April - July	Mid April - June
Bendire's Thrasher			■	■	■	■	■	■					Mid March - July	April - Mid June
Black Swift*					■	■	■	■	■				May - Sept	
Black-chinned Sparrow				■	■	■	■						Mid April - July	Mid May - Mid July
Brewers Sparrow					■	■	■	■	■				Mid May - early August	June - July
Burrowing Owl			■	■	■	■	■	■	■	■			Mid March - September	Mid March - August
Cactus Wren			■	■	■	■	■	■	■	■			March - Sept	March - June
Calliope Hummingbird					■	■	■	■	■				May - Mid August	
Cassin's Finch					■	■	■	■					Mid May - Mid July	Late May - early July
Common Yellowthroat					■	■	■	■					Late May - July	Late May - Mid July
Costa's Hummingbird	■	■	■	■	■	■	■						January - Mid June	Mid Feb - Mid May
Elf Owl*					■	■	■	■					May - Mid July	
Flammulated Owl			■	■	■	■	■	■	■				March - Mid August	Mid March - July
Grasshopper Sparrow			■	■	■	■	■	■	■				April - August	Mid April - July
Golden Eagle		■	■	■	■	■	■	■	■				Feb-Aug	
Gray Vireo			■	■	■	■	■	■	■				mid march - August	
Greater Sage-grouse			■	■	■	■	■	■	■	■			March - Aug	
Green-tailed towhee					■	■	■	■	■	■			May-mid August	late May - mid July

Table 3. California Bird Species Total and Primary Nesting (continued)

Month	J	F	M	A	M	J	J	A	S	O	N	D		
Bird Species													Nesting Season	Peak Nesting
Horned Lark (a)		█	█	█	█	█	█	█					Mid Feb - Mid August	Mid March - Mid July
Lawrence's Goldfinch			█	█	█	█	█	█	█				Late March - Mid September	Late April - Late August
Burrowing Owl			█	█	█	█	█	█					mid March - August	
LeConte's Thrasher		█	█	█	█	█	█						Mid Feb - June	March - May
Lewis's Woodpecker				█	█	█	█	█	█	█			Late April - October	
Loggerhead Shrike		█	█	█	█	█	█	█					Feb - July	Mid March - June
Lucy's Warbler			█	█	█	█	█						Mid March - June	
Northern Goshawk (laingi spp)	█	█	█	█	█	█	█						Jan - June	Jan - May
Nuttall's Woodpecker				█	█	█	█	█					April - Mid July	Late April - Mid July
Oak Titmouse			█	█	█	█	█	█	█				mid March - Mid August	April - July
Olive-sided Flycatcher					█	█	█	█	█				late May - August	Early June - July
Oregon Vesper Sparrow					█	█	█	█					May - July	May - June
Peregrine Falcon (b)			█	█	█	█	█	█					March - Mid August	
Pinyon Jay		█	█	█	█	█	█	█	█				February - August	
Prairie Falcon		█	█	█	█	█	█	█					Mid February - July	
Purple Finch				█	█	█	█	█	█	█			April through September	Mid April - Mid August
Rufous Hummingbird		█	█	█	█	█	█	█	█				Feb-Aug	
Sage sparrow			█	█	█	█	█	█					Mid March - July	April - early June
Sage thrasher			█	█	█	█	█	█	█				March - Aug	
Song Sparrow			█	█	█	█	█	█	█				Mid March - Early August	Mid March - August
Spotted Owl (c)			█	█	█	█	█	█					early March - Mid June	April - May

Table 3. California Bird Species Total and Primary Nesting (continued)

Month	J	F	M	A	M	J	J	A	S	O	N	D		
Bird Species													Nesting Season	Peak Nesting
Spotted Towhee				■	■	■							Mid April - late June	Late April - Early June
Virginia Warbler					■	■	■	■	■				May - August	May - July
White-headed Woodpecker					■	■	■	■	■				May - Mid August	Mid May - July
Williamson's Sapsucker					■	■	■	■					May - Mid August	
Willow Flycatcher (c)					■	■	■	■					Late May - August	Early June - July
Yellow Warbler					■	■	■						Late May - July	Late May - July
Yellow-billed Cuckoo (a)					■	■	■	■	■	■	■		Mid May - Mid October	Mid June - August
Yellow-billed Magpie		■	■	■	■	■	■						February - July	
Gray cells = Primary Nesting season			Hatched cells + gray cells = complete nesting season											

Conservation Measures - Practice Planned to Implement During the Nesting Season

If a BCC species or its active nest could be potentially disturbed or destroyed, the planner would then would follow these Conservation Measures to a reduce the potential for adverse effects to nesting migratory birds as identified in Table 3. Table 3 illustrates the estimated total nesting and peak nesting periods for each species.

- If vegetation management activities can only be done during the nesting season complete practice at the end of the breeding season and always avoid any habitat alteration, removal, or destruction during the *primary* nesting season for migratory birds.
- Additionally, clearing of vegetation in the year prior to implementation (but not within the nesting season) may discourage birds from attempting to nest in the project area, thereby decreasing the chance of take during construction activities.
- If a proposed project or action includes the potential for take of migratory birds and/or the loss or degradation of migratory bird habitat and work cannot occur outside the migratory bird nesting season (either the primary or maximum nesting season), the planner will provide the NRCS biologist with an explanation for why work has to occur during the migratory bird nesting season. This documentation will be made in the notes section of the Migratory Birds Guide Sheet (Environmental Evaluation, CPA-52). This does not mean that the planner can plan for practices without adhering to all required measures below.
- Planners will coordinate with a NRCS biologist to develop required Conservation Measures for each project potentially implemented during the nesting season.
- Written justification along with planning materials will be provided to the NRCS biologist for them to review.
- In addition to conducting surveys during the nesting season/construction phase, biologists or Service- approved individuals may also benefit from conducting surveys during the prior nesting season. Such surveys will assist planners and clients in any decisions about the likely presence of nesting migratory birds or sensitive species in the proposed project or work area. While individual migratory birds will not necessarily return to nest at the exact site as in previous years, a survey in the nesting season in the year before construction allows the planner to become familiar with species and numbers present in the project area well before the nesting season in the year of practice implementation.
- Bird surveys should be completed during the nesting season in the best biological timeframe for detecting the presence of nesting migratory birds, using accepted bird survey protocols in the Appendix
 - Grassland bird species will follow (DiGaudio and Geupel 2013) protocol.
 - Forestland, woodlands, shrublands & riparian areas - (Martin and Geupel 1993)
 - Burrowing owl survey protocol (CA Burrowing Owl Consortium 1993)
- Conduct surveys prior to scheduled activity to determine if active nests are present within the area of impact and buffer any nesting locations found during surveys.
 - Generally, the surveys should be conducted no more than five days prior to scheduled activity.
 - Timing and dimensions of the area to be surveyed vary and will depend on the nature of the project, location, and expected level of vegetation disturbance.

- If active nests or breeding behavior (e.g., courtship, nest building, territorial defense, etc.) are detected during these surveys, no vegetation removal activities should be conducted until nestlings have fledged or the nest fails or breeding behaviors are no longer observed. If the activity must occur, establish a buffer zone around the nest and no activities will occur within that zone until nestlings have fledged and left the nest area. The dimension of the buffer zone will depend on the proposed activity, habitat type, and species present. Depending on site specific conditions and practices NRCS Area biologists can provide variances to buffer distance.
 - Buffer zones for hand treatments is 50 feet
 - Buffer zone for chain saw treatments is 150 feet
 - Buffer zone for larger mechanical equipment like chippers, skidders, rakes, dozers is 500 feet
 - Buffer zone for passerines is 250 feet
 - Buffer zone for listed riparian species is 500 feet.
 - Buffer Zones for burrowing owl is 650 feet
 - Buffer zone from raptors is 500 feet
 - Buffer zone for eagles, Swainson's Hawk and white-tailed kite is 650 feet
- When establishing a buffer zone, construct a barrier (e.g., plastic fencing) to protect the area. If the fence is knocked down or destroyed, work will suspend wholly, or in part, until the fence is satisfactorily repaired.
- When establishing a buffer zone, a qualified biologist or NRCS State Office approved individual will be present onsite to serve as a biological monitor during vegetation clearing and grading activities to ensure no take of migratory birds occurs. Prior to vegetation clearing, the monitor will ensure that the limits of project activities have been properly staked and are readily identifiable. Any associated project activities that are inconsistent with the applicable conservation measures, and activities that may result in the take of migratory birds will be immediately halted and reported to the CA NRCS State Wildlife Biologist within 24 hours.
- Planners should also be aware that results of migratory bird surveys are subject to spatial and temporal variability.
- Finally, clients may need to conduct migratory bird surveys during the actual year of practice implementation, if they cannot avoid work during the primary nesting season (see above) and if planned activities will impact habitats suitable for supporting nesting birds.
- If no migratory birds are found nesting in proposed project or action areas immediately prior to the time when construction and associated activities are to occur, then the project activity may proceed as planned.