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**SEP 07 2018**

In Reply, Refer To:  
AFWO-18B0109-18I0341 (Arcata)  
08EYRE00-2018-I-0197 (Yreka)

Mr. Alessandro Amaglio  
Federal Emergency Management Agency  
Department of Homeland Security  
1111 Broadway, Suite 1200  
Oakland, California 94607

Subject: Informal Consultation on the Federal Emergency Management Agency's (FEMA) Programmatic Biological Assessment for Disaster, Mitigation, and Preparedness Programs in California for Four Species within the Jurisdictions of the Arcata and Yreka Fish and Wildlife Offices, California

Dear Mr. Amaglio:

We concur with your determinations regarding the Programmatic Biological Assessment (PBA) for Disaster, Mitigation, and Preparedness Programs in California. The Federal Emergency Management Agency (FEMA) requested our concurrence with their determinations under section 7 of the Endangered Species Act (Act) of 1973 (16 U.S.C. 1531 *et seq.*).

We received your request for concurrence and the PBA on June 21, 2018. In part, the PBA addresses four federally listed species under the jurisdictions of the Arcata Fish and Wildlife Office (AFWO) and Yreka Fish and Wildlife Office (YFWO) (Table 1). FEMA determined that adoption of the structured section 7 review processes outlined in the PBA (i.e., the proposed action) "... *may affect, but is not likely to adversely affect* ..." each of the four species and their designated critical habitats (i.e., NLAA determination).

<i>Species Name</i>		<i>Federal Listing Status</i>	<i>Field Office Jurisdiction</i>	<i>FEMA Determinations for ...</i>		<i>Location of Conservation Measures in the PBA, and in Attachment 1 of this Correspondence</i>
<i>Common Name</i>	<i>Binomial or Trinomial</i>			<i>Individuals or Populations</i>	<i>Critical Habitat</i>	
northern spotted owl	<i>Strix occidentalis caurina</i>	Threatened	YFWO	NLAA	NLAA	Appendix K, pages K-1 thru K-3
marbled murrelet	<i>Brachyramphus marmoratus</i>	Threatened	AFWO	NLAA	NLAA	Appendix J, pages J-1 and J-2
western snowy plover	<i>Charadrius nivosus nivosus</i>	Threatened	AFWO	NLAA	NLAA	Appendix J, page J-3
Point Arena mountain beaver	<i>Aplodontia rufa nigra</i>	Endangered	AFWO	NLAA	Not applicable	Appendix J, page J-4

### Background and Geographic Scope

Under the Disaster Relief and Emergency Assistance Act of 1988 (Public Law 93-288 §§5121 *et seq.*) (Stafford Act), FEMA is authorized to grant funds to individuals and communities (both are referred to as “subapplicants” in FEMA terminology) who are adversely affected, or potentially affected, by human-caused and natural disasters. Grant programs authorized under the Stafford Act address preparedness, hazard mitigation, and disaster recovery. FEMA’s fund-granting decisions are reviewable under section 7 of the Act. The purpose and need of the 2018 PBA is to enable FEMA to establish a structured section 7 review procedure that is specific to affected species, to affected sites, and to individual applications for disaster assistance.

FEMA developed its current PBA in anticipation of a continued increasing trend in the frequency and severity of disaster incidents in California including, but not limited to, severe winter storm events and wildfires. In previous years, FEMA has submitted PBAs in northern California that were linked to specific Disaster Declarations; for example, in the AFWO-YFWO jurisdictional areas, we saw a FEMA PBA following a Disaster Declaration for severe winter storms, 2005-2006. This earlier PBA also established a structured section 7 review process. However, the escalating frequency and severity of disaster incidents over the last decade has made this “single-declaration” approach infeasible. FEMA’s 2018 PBA covers all disaster incidents and declarations, throughout California, and will remain in effect for a period of 5 years, with provision for review and extension, as warranted.

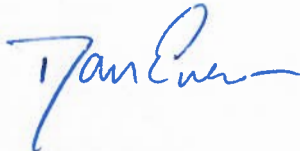
### Rationale for the Service’s Determinations

In the summer of 2017, FEMA solicited early involvement from the Service in the development of their PBA. The process continued through early winter of 2017 with weekly conference calls, frequent electronic communications, and periodic reviews of draft products. These activities tapered-off through spring of 2018 as FEMA approached completion of the PBA. During this time, the Service provided FEMA with our recommended conservation measures for the four species listed in Table 1. These measures (enclosed with this letter) have been incorporated into the PBA and will be implemented by FEMA or their subapplicants; therefore, we concur with FEMA’s determinations for the four species within AFWO’s and YFWO’s jurisdiction.

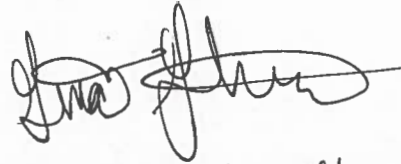
Conclusion

The Service appreciates FEMA's collaborative approach to developing programmatic guidelines, and its efforts to minimize impacts to protected species. If you have questions about this correspondence, or need more information, please contact Christine Jordan at the Yreka Fish and Wildlife Office, (530) 842-5763; or John Peters at the Arcata Fish and Wildlife Office, (707) 822-7201.

Sincerely,



Dan Everson  
Field Supervisor  
Arcata Fish and Wildlife Office



Jenny Ericson Gina Glennie  
Acting Field Supervisor  
Yreka Fish and Wildlife Office

Enclosures

- (1) Conservation Measures for Northern Spotted Owl
- (2) Conservation Measures for Marbled Murrelet
- (3) Conservation Measures for Western Snowy Plover
- (4) Conservation Measures for Point Arena Mountain Beaver

cc:

U.S. Fish and Wildlife Service, Region 8, Sacramento CA (Attn: Ms. Ellen McBride)  
U.S. Fish and Wildlife Service, Yreka, CA (Attn: Ms. Jenny Ericson and Ms. Christine Jordan)  
U.S. Fish and Wildlife Service, Carlsbad, CA (Attn: Mr. G. Mendel Steward)  
U.S. Fish and Wildlife Service, Ventura, CA (Attn: Mr. Steve Henry)  
U.S. Fish and Wildlife Service, Klamath Falls, OR (Attn: Mr. Todd Luke)  
U.S. Fish and Wildlife Service, Bay-Delta FWO, Sacramento, CA (Attn: Ms. Kaylee Allen)  
U.S. Fish and Wildlife Service, Sacramento FWO, Sacramento, CA (Attn: Ms. Jennifer Norris)  
AECOM, Oakland, CA (Attn: Ms. Lorena Solorzano-Vincent)  
NOAA's National Marine Fisheries Service, Sacramento, CA (Attn: Maria Rea, Assistant Regional Administrator)

## **Enclosures**

Conservation Measures for Northern Spotted Owl

Conservation Measures for Marbled Murrelet

Conservation Measures for Western Snowy Plover

Conservation Measures for Point Arena Mountain Beaver

## **USFWS Conservation Measures for Northern Spotted Owl (For NLAA Coverage Only)**

The following Conservation Measures are required for Subapplicant's proposed projects and their interrelated and interdependent activities that may affect the northern spotted owl (NSO). These measures are designed to reduce direct and indirect disturbance to individual NSOs, and habitat effects, to an insignificant and discountable level.

**NSO-1:** If the Subapplicant's proposed project is located within suitable nesting, roosting or foraging habitat (NRF) for the NSO, and may directly or indirectly affect the NSO or its habitat, contact the USFWS to obtain contact information for local Forest Service, County, or other biologists who can provide NSO survey, Activity Center<sup>1</sup> and habitat suitability data for the Action Area. This step will provide baseline information for the Action Area, and will help determine if and where surveys should be done, or if recent surveys have been completed.

**NSO-2:** If NSO surveys have not been done, or are not current per the 2012 NSO Survey Protocol guidance (depending on activity), and surveys are planned, conduct them according to the 2012 NSO Survey Protocol and follow the seasonal restrictions described below for 'Surveyed Landscape'. If surveys are not planned or feasible, assume occupancy based on the presence of suitable NRF habitat; adhere to the guidance and seasonal restrictions described below for operating in an 'Un-surveyed Landscape'.

- (a) As an option to the full 6-visit protocol surveys described in the 2012 NSO Survey Protocol, three surveys can be conducted in the year of action implementation. If no NSOs are detected within 0.25 mile of the proposed activities, activities may proceed that year without seasonal restrictions.

**NSO-3:** Surveyed Landscape – If surveys are completed or are current for the Action Area (based on surveys conducted by the applicant/project proponent, or other data provided from other agencies):

- (a) Do not conduct activities that result in loud and continuous noise above ambient levels within 0.25 mile (or 1,320 feet) of a nest site between February 1 and July 9.
  - (i) This includes activities that generate sound levels 20 or more decibels above ambient sound levels or activities that generate maximum sound levels above 90 decibels, excluding vehicle back-up alarms. Maximum sound levels are the combined ambient and activity-generated sound levels.
- (b) Do not conduct any suitable habitat modification or smoke-generating activities within 0.25 mile (or 1,320 feet) of a nest site between February 1 and September 15.
  - (i) Suitable habitat includes NSO NRF habitat. Modification includes cutting and removal of large trees, down logs or snags. Tree or limb trimming or pruning, brush trimming or removal, and hazard tree felling may occur as long as the noise levels described above are not exceeded during the critical breeding period of February 1-July 9.

**NSO-4:** Un-surveyed Landscape – If surveys have not been completed and cannot be done, assume occupancy in the Action Area/portion of it based on the presence of suitable NRF habitat:

- (a) Do not conduct activities that result in loud and continuous noise above ambient levels within 0.25 mile (or 1,320 feet) of un-surveyed suitable NRF habitat between February 1 and July 9.

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<sup>1</sup> An Activity Center represents the 'best of detections' such as a nest tree, an area used by roosting pairs or territorial singles, or an area of concentrated nighttime detections

- (i) This includes activities that generate sound levels 20 or more decibels above ambient sound levels or activities that generate maximum sound levels above 90 decibels, excluding vehicle back-up alarms. Maximum sound levels are the combined ambient and activity-generated sound levels.
- (b) Do not conduct any suitable habitat modification or smoke-generating activities within 0.25 mile (or 1,320 feet) of un-surveyed suitable NRF habitat between February 1 and September 15.
  - (i) Suitable habitat includes NSO NRF habitat. Modification includes cutting and removal of large trees, down logs or snags. Tree or limb trimming or pruning, brush trimming or removal, and hazard tree felling may occur as long as the noise levels described above are not exceeded during the critical breeding period of February 1-July 9.

**NSO-5:** Equipment must be in good working order with standard noise abatement devices attached.

**NSO-6:** Within all suitable NRF habitat:

- (a) Avoid removing or damaging known nest trees and associated screen trees, unless they are a confirmed safety hazard per the guidance documents from the implementing agency or another agency with jurisdiction in the Action Area.
- (b) Avoid removing or damaging trees or snags with potential nesting platforms and associated screen trees. These include trees with large flattened tops, large broken topped trees, trees with decadence such as large cavities, mistletoe broom structures, cat faces, or large limbs; or large snags with these similar characteristics).
- (c) Avoid removing large (20" diameter at breast height or larger) snags, unless they are a confirmed safety hazard per the implementing agency's guidance documents.

**NSO-7:** Project activities will not downgrade<sup>2</sup> or remove the function of suitable nesting/roosting habitat:

- (a) While habitat elements may be removed, such as individual large trees or snags if they are a confirmed safety hazard, from nesting/roosting habitat, the treatment must not be so extensive as to downgrade or remove the overall function of the habitat.
- (b) If the Subapplicant's proposed project would remove or downgrade nesting/roosting habitat function, this PBA is not applicable and a separate ESA consultation is warranted.

**NSO-8:** Within suitable foraging habitat in NSO cores (0.5 mile radius, or 500-acre area, around an Activity Center) and within suitable foraging habitat in NSO home ranges (1.3 mile radius, including core, or 3,398-acre area around an Activity Center):

- (a) Avoid downgrading or removing suitable foraging habitat function.
- (b) While habitat elements may be removed, such as individual trees, shrubs, down logs and snags, from foraging habitat, the treatment must not be so extensive as to downgrade or remove the overall function of the habitat in an NSO core or home range below the recommended habitat levels for supporting survival, reproduction and occupancy (USDI-FWS 2009). This level is a combination of 400 acres of suitable NRF habitat in the core. For the home range, the level is 40 percent suitable NRF (approximately 1,336 acres).
- (c) If the Subapplicant's proposed project removes or downgrades suitable foraging habitat function in a core and home range to below the recommended levels, this PBA is not applicable and a separate ESA consultation is warranted.

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<sup>2</sup> Treatments/activities that reduce suitable habitat elements to the degree that the habitat does not function in the capacity that existed pre-treatment are considered a 'downgrade' effect (e.g., downgrade from nesting/roosting to foraging); but the treatment/activity does not remove suitable habitat function entirely. Removal of habitat function occurs when treatments//activities reduce habitat elements to the degree that the habitat no longer functions as suitable habitat.

## **Northern Spotted Owl Critical Habitat**

**NSO-9:** When working in designated critical habitat, adhere to all measures described in NSO-6, NSO-7, and NSO-8 for reducing impacts in suitable nesting/roosting and foraging habitat. This will assure that effects to Physical and Biological Features (PBFs) of PBF-2 (nesting/roosting) and PBF-3 (foraging) are insignificant and discountable.

**NSO-10:** Adhering to these Conservation Measures (NSO-6, NSO-7, and NSO-8 above) will also assure that effects to PBF-1 and PBF-4 are insignificant and discountable, given the larger scale at which effects to these critical habitat PBFs are to be considered under the 2012 Revised Critical Habitat final rule (77 FR 71876). PBF-1 refers to forest types that may be in early, mid, or late seral stages and that support the NSO across its geographical range. PBF-4 refers to habitat that supports the transience and colonization phases of dispersal.

## USFWS Conservation Measures for Marbled Murrelet (For NLAA Coverage Only)

The following Conservation Measures are required for Subapplicant's proposed projects that may affect the marbled murrelet (MAMU) and/or their habitat. These measures are designed to reduce direct and indirect disturbance to individual MAMUs, and habitat effects, to an insignificant and discountable level.

### MAMU-1: Occupied Habitat

If marbled murrelet surveys (using the USFWS 2003 survey protocol; Evans Mack *et al.* 2003) determine (\*) that the Action Area is occupied or if FEMA or the USFWS presumes marbled murrelet occupancy without conducting surveys, the project Subapplicant will adhere to the following Conservation Measures:

- (i) Vegetation Removal or Alteration of Known or Potential Nest Trees:
  - a. No potential marbled murrelet nest trees (\*\*\*) will be removed during the nesting season (24 March to 15 September).
  - b. Avoid removing or damaging known or potential nest trees, unless they are a confirmed safety hazard. For sites that have not been surveyed according to 2003 survey protocol, potential habitat is defined as (1) mature (with or without an old-growth component) and old growth coniferous forests; **and** (2) younger coniferous forest that have platforms.
  - c. Avoid removing or damaging trees with potential nesting platforms. A platform is a relatively flat surface at least 10 cm (4 in) in diameter and 10 m (33 ft) in high in the live crown of a coniferous tree. Platforms can be created by a wide bare branch, moss or lichen covering a branch, mistletoe, witches brooms, or other deformities, or structures such as squirrel nests.
  - d. Project activities will not remove the function of suitable nesting habitat.
    - While habitat elements may be removed, such as individual large trees if they are a confirmed safety hazard, from nesting habitat, the treatment must not be so extensive as to remove the overall function of the nesting habitat, and will be conducted outside of the nesting season.
  - e. Non-suitable nest trees or limb trimming or pruning, brush trimming or removal, and hazard tree felling within suitable habitat may occur outside of the nesting season, 16 September to 23 March.
- (ii) Auditory, Visual, or Other Disturbance:
  - a. Construction equipment must be in good working order, with emphasis on hydraulic and noise abatement systems. Hydraulic leakage and damaged mufflers (or spark arresters) must be promptly addressed and remedied to the degree practicable.
  - b. No proposed activity generating sound levels 20 or more decibels above ambient sound levels or with maximum sound levels (ambient sound levels plus activity-generated sound levels) above 90 decibels (excluding vehicle back-up alarms) may occur within suitable marbled murrelet nesting habitat during the majority of the murrelet nesting season (*i.e.*, 24 March to 05 August)(USFWS 2006).
  - c. Between August 06 (date when most marbled murrelets have fledged in coastal northern California) and September 15 (end of marbled murrelet nesting season) of any year, project activities, with adjacent suitable nesting habitat, that will generate sound levels  $\geq 10$  dB above ambient sound levels will observe a daily work window beginning 2 hours post-sunrise and ending 2 hours pre-sunset. However, prep work that does not generate sound levels above



ambient sound levels, including street sweeping and manual removal of pavement markers, can occur during all hours. The need for this daily work window depends on the distance between suitable nesting habitat and the above-ambient sound generating activity following the USFWS guidelines (USFWS 2006). For example, if above-ambient sound levels generated by proposed activities will become attenuated back down to ambient sound levels prior to reaching suitable nesting habitat, the daily work window would not be necessary. No human activities will occur within visual line-of-sight of 40 m (131 feet) or less from a known nest or suitable nest tree during the nesting season (24 March to 15 September) (USFWS 2006).

#### MAMU-2: Unoccupied Habitat

- (i) If recent protocol surveys determine that all suitable marbled murrelet nesting habitat within the Action Area is considered unoccupied, the auditory, visual, and other disturbance measures listed above under ii) do not apply for habitat determined to be unoccupied.

#### MAMU-3: Marbled Murrelet Critical Habitat

- (i) Ensure that there are no “adverse effects” to designated critical habitat for marbled murrelet within the Action Area. However, the USFWS has no specific quantitative thresholds, above which there would likely be an adverse effect to critical habitat. If a Subapplicant’s proposed project encounters this situation, contact the USFWS to determine whether proposed habitat removal within designated critical habitat would constitute an adverse effect. Generally, the removal of a few small trees in unoccupied habitat would not result in “adverse effect” on designated critical habitat.
- (ii) When working in designated critical habitat for marbled murrelet, all measures described in MAMU-1 Occupied Habitat, or MAMU-2 Unoccupied Habitat for reducing impacts in suitable habitat will also be implemented. This will help reduce effects, and may result in some instances in effects that are insignificant and discountable.

#### Footnotes

(\*) Surveyors are required to meet or exceed all training recommendations in Evans Mack et al. (2003), and be registered as qualified surveyors on a current USFWS 10(a)1(A) Recovery Permit.

(\*\*) Potential habitat defined by Nelson et al. (2003) as: (1) mature (with or without an old-growth component) and old-growth coniferous forests; and (2) younger coniferous forests that have platforms (relatively flat, at least 4-inch diameter and at least 33 feet above the base of the live crown of a coniferous tree). Platform presence is more important than tree size.

#### Literature Cited

Evans Mack, D., W. P. Ritchie, S. K. Nelson, E. Kuo-Harrison, P. Harrison, and T. E. Hamer. 2003. Methods for surveying Marbled Murrelets in forests: a revised protocol for land management and research. Pacific Seabird Group unpublished document available at: <http://www.pacificseabirdgroup.org>.

U.S. Fish and Wildlife Service (USFWS). 2006. Estimating the effects of auditory and visual disturbance to northern spotted owls and marbled murrelets in northwestern California. Available at: [http://www.fws.gov/arcata/es/birds/NSO/ns\\_owl.html](http://www.fws.gov/arcata/es/birds/NSO/ns_owl.html).

## **USFWS Conservation Measures for Western Snowy Plover (For NLAA Coverage Only)**

The following Conservation Measures apply to Action Areas within suitable western snowy plover (WSP) nesting habitat and designated critical habitat regardless of whether snowy plovers have been detected during USFWS approved protocol surveys.

WSP-1: Project construction activities in suitable nesting habitat will occur during the species non-breeding season: the period beginning October 1 and continuing through February 28 of the following year; or through February 29 in a leap year.

WSP-2: Project construction activities in suitable nesting habitat will be limited to the use of handheld tools, including handheld motorized implements such as chain saws and power augers. No heavy equipment will be allowed within suitable nesting habitat.

WSP-3: If handheld motorized implements are used, operators will employ best management practices to avoid and minimize soil and water contamination from fuel and lubricants. Measures include: (1) Use spill-resistant fuel and lubricant containers; (2) Consider the use of a portable containment pad for refueling in the field; (3) Immediately report petroleum spills to the landowner, or land management agency, and notify appropriate local authorities for advice and action on containment and cleanup of spills; and (4) Clearly mark the location and/or boundaries of the spill site to enable rapid remedial action.

WSP-4: If project construction activities occur in adjacent to, but not within suitable nesting habitat, then project activities should be conducted during the species non-breeding season, if possible. If non-breeding season construction is not possible, then the Subapplicant will employ a Service-approved biologist to conduct weekly western snowy plover surveys. If western snowy plovers are observed, the Service-approved biologist will notify the Service within 1 day of the observation and will monitor all construction activities conducted adjacent to western snowy plovers suitable nesting habitat. The qualified biologist will have the right and responsibility to stop work if adverse effects of nesting western snowy plovers are observed.

WSP-5: When necessary to minimize the area affected by the project, the Subapplicant or their contractors will mark the work site boundaries with flagging or other visible materials, and remove those markers at the conclusion of the project.

WSP-6: Workers will avoid temporary or permanent placement of structures (e.g., posts, railings, tall equipment, or fence lines) that could provide elevated perches for predatory birds.

WSP-7: Access to work sites will be by foot travel only. Motorized vehicles, including all-terrain vehicles, are not permitted on work sites located within suitable nesting habitat.

WSP-8: Vehicles used for transport of personnel will be restricted to existing parking lots or roadside parking areas.

WSP-9: At the conclusion of the project, areas temporarily impacted by project activity will be restored to their pre-project condition (for example, footpaths are to be raked to their original ground contour and cut vegetation is to be removed or piled for future disposal).

WSP-10: Trash, food, food containers, and food waste will be secured at all times by individual workers, or placed in animal-proof trash containers placed at the work site. The contents of trash containers will be transferred from the work site at the end of each day.

WSP-11: Pets will be prohibited from all work sites.

**USFWS Conservation Measures for Point Arena Mountain Beaver  
(For NLAA Coverage Only)**

The following Conservation Measures are required for Subapplicant's proposed projects that may affect the Point Arena mountain beaver (PAMB) and/or their habitat. These measures are designed to reduce direct and indirect disturbance to individual PAMBs, and habitat effects, to an insignificant and discountable level.

PAMB-1: Prior to implementing proposed vegetation-altering or ground-disturbing activities, habitat assessments and surveys for Point Arena mountain beaver must be conducted using Service-approved protocol (USFWS 2005b). Survey and habitat assessment results are valid for 2 years; if conducted within 500 feet of the Action Area. Therefore, if proposed activities do not begin within 2 years of surveys, additional surveys will need to be conducted prior to conducting the work.

PAMB-2: No vegetation removal or ground disturbance in occupied habitat or within unoccupied suitable habitat. However, roadside mowing along road rights-of-way, in occupied habitat or unoccupied suitable habitat using motorized equipment is allowed between July 1 and November 30 (i.e., the non-breeding season), provided a maximum 4-foot horizontal strip of vegetation will be mowed, to a minimum height of 2 feet.

PAMB-3: No motorized equipment with vibrating, or heavy-impact, operating capabilities (for example, vibratory steel-wheeled rollers, hand-operated vibratory compactors, concrete mixer trucks with vibrating chutes, pile-drivers), will be used within 500 feet of occupied suitable habitat during the breeding season (December 1 to June 30), and within 250 feet of occupied suitable habitat during the non-breeding season (July 1 to November 30).

PAMB-4: Night lights should be at least 250 feet from occupied suitable habitat.

PAMB-5: Heavy equipment must remain on the road prism in areas with evidence of Point Arena mountain beaver burrowing or within unoccupied suitable habitat.

PAMB-6: Staging areas will be placed in unsuitable habitat areas only or on the road prism to avoid habitat disturbance. No staging areas are allowed within occupied or unoccupied suitable habitat.

**Literature Cited**

U.S. Fish and Wildlife Service (USFWS). 2005. Draft guidelines for project related habitat assessments and surveys for Point Arena Mountain Beaver (*Aplodontia rufa nigra*). U.S. Fish and Wildlife Service unpublished document available at:  
[http://www.fws.gov/arcata/es/mammals/mtnBeaver/documents/PAMB\\_protocol\\_v2.pdf](http://www.fws.gov/arcata/es/mammals/mtnBeaver/documents/PAMB_protocol_v2.pdf)