State of California
Department of Fish and Wildlife

Memorandum

Date: August 22, 2018

To: Neil Manji
Regional Manager
Region 1: Northern Region

From: Richard Macedo
Branch Chief
Habitat Conservation Planning Branch

Subject: Potential Impacts of Post-wildfire Timber Operations on Northern Spotted Owls: Analysis in the Interior of Northern California

This memorandum is to inform you that the *Potential Impacts of Post-wildfire Timber Operations on Northern Spotted Owls [NSO]: Analysis in the Interior of Northern California* (Post-fire NSO Guidance), has been reviewed and is available for distribution. The Post-fire NSO Guidance provides a brief review of the post-fire habitat use of NSO as well as considerations for minimizing impacts to NSO from post-fire Timber Operations. It was written by the Department’s Northern Region staff in cooperation with the Yreka office of the U.S. Fish and Wildlife Service and is limited in applicability to the range of NSO within the interior of California as defined in the document.

The Post-fire NSO Guidance is available to download from the Department’s document library: [https://nrm.dfg.ca.gov/FileHandler.ashx?documentID=159380](https://nrm.dfg.ca.gov/FileHandler.ashx?documentID=159380)

Use of the Post-fire NSO Guidance

Use of the Post-fire NSO Guidance is not mandated under code or regulation. The Post-fire NSO Guidance should not be interpreted as an order or mandatory standard for environmental review or permitting. Information in the Post-fire NSO Guidance is intended to assist Department staff, Registered Professional Foresters, Licensed Timber Operators, landowners, and consultants in conserving the species during Timber Operation activities. Practical application of the Post-fire NSO Guidance must be based on the best available information and project- and site-specific conditions.

Please provide this memorandum to appropriate staff and stakeholders. For questions relating to the document, staff and stakeholders can contact the Northern Region Timberland Conservation Program at [R1.inland.Timber@wildlife.ca.gov](mailto:R1.inland.Timber@wildlife.ca.gov).
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Potential Impacts of Post-wildfire Timber Operations on Northern Spotted Owls: Analysis in the Interior of Northern California

August 13, 2018

GEOGRAPHIC SCOPE
This document is limited to the range of the Northern Spotted Owl (Strix occidentalis caurina, NSO) within the interior of California. This includes Siskiyou, Shasta, Modoc, Trinity (within the CAL FIRE Cascade area) and Tehama counties.

PURPOSE AND BACKGROUND
This document provides guidance to Registered Professional Foresters (RPFs) and others for analyzing potential impacts to NSO Activity Centers and/or habitat prior to post-wildfire salvage Timber Operations. The California Department of Fish and Wildlife (CDFW), in consultation with the U.S. Fish and Wildlife Service (Service), developed this guidance as a recommended process to determine NSO occupancy and assess potential impacts of salvage Timber Operations on NSO in a post-fire landscape. It is the responsibility of any person engaged in Timber Operations within the known geographic range of the NSO to avoid unauthorized take as defined in the Endangered Species Act (ESA) (16 U.S.C., § 1538) and the California Endangered Species Act (CESA) (Fish & G. Code, § 2080).

Recent studies have documented variable use by spotted owls in forests burned by wildfire, depending on the extent and severity of the fire (Gaines et al. 1995, King et al. 1998, Bond et al. 2002, Jenness et al. 2004, Clark 2007, Bond et al. 2009, Clark et al. 2011, Roberts et al. 2011, Lee et al. 2012, Clark et al. 2013, Eyes 2014, Bond et al. 2016, Jones et al. 2016). Timber Operations to salvage burned timber have the potential to result in take of NSO by removing fire-affected trees used by NSO for nesting, roosting, or foraging, or causing disturbance during the breeding season if the owls are present.

CDFW recognizes that the economic value of burned timber declines rapidly following wildfire. As such, harvesting of burned or damaged trees through salvage logging under the California Forest Practice Rules (FPRs) (Cal. Code Regs., tit. 14, § 1038 or 1052, exemption or emergency notices) often commences immediately following wildfires. Notwithstanding, the requirements of ESA, CESA, and FPRs still apply to salvage Timber Operations.

CDFW considers the NSO survey protocol (USDI FWS 2012) to be the most appropriate method for determining if the proposed Timber Operations may result in take of NSO. If there is no NSO data within an area, the protocol requires surveys over two consecutive NSO breeding seasons (March through August). However, the protocol provides flexibility based on knowledge of NSO locations within an area, previous survey efforts, and other site-specific factors. Prior to conducting salvage Timber Operations, CDFW recommends that landowners and those conducting salvage Timber Operations consider their own previous survey efforts, surveys conducted on nearby federal lands, and information in the CDFW Spotted Owl Observations Database (www.wildlife.ca.gov/Data/CNDDDB/Spotted-Owl-Info), in order to analyze potential impacts to NSO.
DETERMINING NSO PRESENCE AFTER FIRE
To determine whether NSO are present in an area burned by wildfire, the CDFW recommends the following procedure:

1. Check existing databases and request data from adjacent landowners to determine whether NSOs are known to occur within an area proposed for emergency Timber Operations. Since NSOs exhibit high site fidelity, sites that have supported successful reproduction or have a history of occupancy often remain occupied following fire.
2. Conduct Activity Center Searches of known sites to verify if currently occupied. Activity Center Searches should be conducted in accordance with section 8.0 of the NSO survey protocol (USDI FWS 2012).
3. If no NSO are detected during Activity Center Searches of known sites, conduct nighttime surveys of the best available habitat (potentially including newly burned habitat) within 1 mile of harvest units. NSOs may persist in burned areas if suitable habitat is present nearby. Owls have been found to shift out of previously suitable habitat that burned at high severity and into nearby unburned or lightly burned habitat patches within their home range. The number of survey visits required will be determined on a case-by-case basis, and will depend on the history of previous surveys and results, amount of remaining habitat, and other factors.
4. If barred owls (*Strix varia*) occur within the vicinity, it may be appropriate to increase the number of nighttime visits. Studies have shown that NSO are less responsive to surveys when barred owls are present on the landscape (Olson et al. 2005, Crozier et al. 2006).
5. Contact CDFW for pre-consultation.

PRE-CONSULTATION
RPFs should contact CDFW to request a site-specific pre-consultation prior to submission of the Notice of Emergency Timber Operations (EO) to the California Department of Forestry and Fire Protection (CAL FIRE) for salvage Timber Operations.

Requested Information for Pre-Consultation
CDFW requests the following information for pre-consultation:

- Map of burn severity pattern depicting the severity and extent of fire
- Map of proposed salvage units
- Map of pre-fire and post-fire NSO habitat
- Table summarizing acres of:
  - NSO habitat by type pre-fire
  - NSO habitat by type post-fire
  - Proposed harvest within each burn severity area (low, moderate, and high severity)
- Survey forms
- Map of route for Activity Center Searches
- Survey history summary
CDFW will consider site-specific conditions during pre-consultation, including:

- Severity of wildfire
- Distance of operations to unburned or lightly burned NSO habitat
- Historical NSO surveys, detections, and site fidelity
- Amount and quality of remaining habitat
- Scope of salvage Timber Operations

Following pre-consultation and upon receiving a project description for salvage Timber Operations, CDFW may consult with the Service and choose between two options to proceed with the project:

Option A: The project proponent may proceed without Technical Assistance (TA) if CDFW determines that adequate information has been submitted and the project, as described, reduces the risk of adverse impacts to NSO. CDFW may additionally recommend measures to reduce adverse impacts to NSO during salvage Timber Operations and those measures should be included with the informational packet to CAL FIRE for EOs.

Option B: CDFW may request TA from the Service. Once the project proponent receives TA, they may choose to include the TA with the informational packet to CAL FIRE for EOs.

CDFW recommends following this procedure in order to decrease the risk of adverse impacts to NSO, including the potential for take from salvage Timber Operations.

**LITERATURE CITED**


