
Project **EMC-2017-005 - September 30, 2017**
Number: **Northern Spotted Owls and Notices of Emergency**
Project Name: **Timber Operations for Post-fire Timberland**

Background and Justification:

Spotted owls (*Strix occidentalis*) have strong site-fidelity and may return to their nesting and roosting sites even after wildfires (Bond et al. 2002, Jenness et al. 2004, Clark 2007). While moderate to high-severity burn areas do not meet standard definitions of foraging habitat and are therefore often characterized as non-habitat, spotted owl use of these burned areas for foraging is well documented (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, Rockweit et al. 2017, Eyes et al. 2017). These facts have raised concerns about salvage operations that occur under a Notice of Emergency Timber Operations (Emergency Notice) within the range of the northern spotted owl (*S. o. caurina*, NSO), and especially within or near NSO Activity Centers (ACs) (EPIC et al. 2017). As NSO is both federally and state listed as threatened, take is prohibited pursuant to both the California Endangered Species Act (CESA) and the federal Endangered Species Act (ESA). Under typical plan preparation, the Forest Practice Rules (FPRs) require the CAL FIRE Director to make a take determination under § 919.10 [939.10]. This rule section may or may not be considered an “operational provision” of the FPRs and a requirement of Emergency Notices. It is unknown how many Emergency Notices were filed within the range of NSO, and of those, how many salvage operations incorporated NSO take avoidance measures. This project proposes to 1) spatially analyze overlap of the range of NSO, NSO AC home ranges, wildfires, and filed Emergency Notices between 2006 and 2016 and 2) review the measures incorporated to avoid take of NSO for Emergency Notices. Completing this review will lay the groundwork for future effectiveness monitoring of the NSO take avoidance measures that are being implemented on the ground during salvage operations.

Objective(s) and Scope:

The proposed project seeks to answer two questions:

1) How much of the NSO California range, NSO suitable habitat within that range, and NSO ACs were affected by post-fire salvage operations under Emergency Notice from 2006 - 2016? In other words, what is the scope of this issue? Answering this question will be a GIS exercise that uses the range of NSO, fire severity information, NSO survey data, and Emergency Notice spatial data. Related sub-questions include:

- a) What proportion of burned private timberland within the range of NSO was harvested under Emergency Notice? Within NSO suitable habitat? Within NSO AC home ranges?
- b) What proportion of low/medium/high severity burned private timberland within the range of NSO was harvested under Emergency Notice? Within NSO suitable habitat? Within NSO AC home ranges?
- c) What proportion of all post-fire Emergency Notices occur within the range of NSO? Within NSO suitable habitat? Within NSO AC home ranges?
- d) How successfully do burn severity models (i.e. RAVG) predict change to NSO habitat? Can RAVG be accurately used to predict post-fire NSO habitat?

2) What NSO avoidance measures were used during Emergency Notice salvage operations for 2015 and 2016?

Answering this second question will require data mining of CDFW files on Emergency Notices and outreach to Emergency Notice submitters. Specific questions will include:

- a) Was the Emergency Notice area surveyed for NSO prior to timber operations? Did survey results alter emergency notice plans, and if so, how?
- b) Did operations take place outside of the breeding season?
- c) Did coordination with CDFW or USFWS occur?

This proposal will also address key outstanding questions about the effectiveness of the 14 CCR § 1052 (b) to meet the intent of the FPRs to have minimal impacts to listed species, the ability to spatially quantify and predict

changes to NSO habitat and impacts to NSO ACs, and the effectiveness of current practices being used to reduce impacts to NSO during emergency operations. Answering the two main proposed questions will provide important background information and guide future questions and effectiveness monitoring. Future projects may need to ground truth the amount of salvage harvesting that occurs relative to the listed acreage on an Emergency Notice. Additionally, framing the scope of this issue supports studies on NSO movement in post-fire landscapes, particularly comparing movement in managed and unmanaged timberland.

Rule or Regulation: 14 CCR § 1052 (b) & § 919.10 [939.10]; PRC § 2080 (CESA); 16 USC § 1538 (a) (1) (ESA); FGCom Endangered and Threatened Species Policy

EMC Critical Question or Priority: Theme 7: Wildlife Habitat: Species and Nest Sites; Theme 9: Wildlife Habitat: Cumulative Impacts

Collaborators: CDFW, USFWS, CAL FIRE (NSOIWG)

Existing or Needed Funding: In kind staff contribution

Timeline and Fiscal year (s): Completion estimated summer 2018 (Fiscal Year 18/19)

References:

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