

# California Northern Spotted Owl Stakeholder Forum Notes

Wednesday, October 23, 2019

Santa Rosa, CA

9:00am - 4:30pm

## Meeting Notes

*These notes provide a summary of the Forum and present a variety of viewpoints and opinions from presenters, stakeholders, and agencies. Where necessary, some items were shortened for brevity. Alternately, in some instances further details and explanation were included to improve clarity and consistency. Information in this summary is current as of the date of the Forum, October 23, 2019.*

## Attendees

In-person and remote participants (names provided upon request)

Facilitator – Amanda Culpepper (CDFW)

Sign In – Stephanie Martin (NCRM)

Notetakers – Virginia O'Rourke (CDFW) and George Gentry (CalForests)

## Agency Updates

California Department of Fish and Wildlife (CDFW), California Department of Forestry and Fire Protection (CAL FIRE), and the U.S. Fish & Wildlife Service (USFWS)

### CDFW Update, Isabel Bear, Timberland Conservation and Native Plant Program Manager

Presentation: <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=174885&inline>

- Status and listing of species in forested habitat
- Spotted Owl Observations Database (SPOWDB) Management Framework Document is available online, will update as often as needed, Kate will discuss further
- Region 1 Coast – 25 Northern Spotted Owl (NSO) Consultations completed last year. CDFW encourages pre-consultation. Please submit requests early to discuss survey station placement, habitat typing, protection measures, and site-specific issues, can discuss more with Jon Hendrix, Senior Environmental Scientist (Supervisor).
- Region 1 Interior
  - Post Fire Guidance is available as a mechanism to pre-consult with CDFW. This will streamline emergency salvage operations and facilitate work on the ground. It was developed in consultation with USFWS. This document is available online (<https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=159380&inline>), applies to the interior only, and is not a regulation.
  - The Programmatic Spotted Owl Resource Plan (SORP) is moving forward; CAL FIRE is the lead and will update the group.
- For landowners with Safe Harbor Agreements (SHA) with the USFWS, CDFW will work on issuing Consistency Determinations (CDs). In order to receive a CD, applicants need to involve CDFW early to ensure State requirements are being met.
- Working with CAL FIRE and USFWS on a Safe Harbor Agreement for small landowners. This will likely receive a consistency determination from CDFW. Authorizes incidental take and results in

a net conservation benefit to NSO. The Service will be presenting on this as well as revisions to Attachments A and B.

- New Cannabis Environmental Compliance Program – the Cannabis Licensing Program. Working on getting cultivators into compliance with Fish and Game Code. Impacts to NSO include rodenticides, pesticides, habitat fragmentation, noise and light pollution. Cannabis cultivators should follow USFWS NSO Survey Protocol, avoid the use of pesticides and poisons, and limit artificial lighting and noise on site.

#### CAL FIRE Agency Update, Dennis Hall, Assistant Deputy Director Forest Practice

- CAL FIRE staff have years of experience doing plan review, including several Spotted Owl (SPOW) experts. CAL FIRE is familiar with SPOW and conditions in the field; the public can call our staff if they have questions.
- Updates are simple – not much has changed. Main strategy is for take avoidance, using standard measures.
- Rely on RPF community to provide data so that CAL FIRE can review plans. Rely heavily on partner agencies to make sure we are covering all bases when reviewing plans.
- Emphasize the importance of pre-consultation, ask CDFW if there is a question, this keeps plans moving as issues are handled before plans are submitted.
- Other options and programmatic approaches – Landowners can apply for incidental take to address owls in THPs and NTMPS (HCPs, SHAs); working on region wide or range wide SHA; USFWS has stepped up and is working on changes to Attachments A and B, addressing inconsistencies and how these are applied, providing flexibility in the documents, more coming soon; opportunity for modified habitat typing for Nesting Roosting and foraging and modified survey protocol in the Attachment B revision.
- SORP – A few landowners have SORPs or Spotted Owl Management Plans (SOMPs), specified in the Board of Forestry and Fire Protection (BOF) Rules. Working on a regional SORP on the east side, collective effort, Stacy Stanish (CAL FIRE) is working on this with the USFWS and CDFW, on-going process, getting close to having a draft completed. Consolidating one SORP for a unique geologic area, will cover real time survey results and current conditions. Introducing to landowners in the area, will use as a model to develop other SORPs in other areas of the State.
- Respond to stakeholder concerns and meeting the objectives of AB 1492 by developing the process for efficient plan review.
- All of these feed into the review system and make plan review smoother so agencies know what to expect when a plan comes in.
- Want various options because there are many different landowners across the State and no one option fits all.
- CalTREES accepts electronic submissions of Timber Harvest Plans (THPs), Working Forest Management Plans (WFMPs), exemptions, and emergencies; everything is going into CalTREES. Plans being put into the system by CAL FIRE staff. Increased data collection and robust data set. Collecting a lot more data from THPs – now available electronically.

USFWS Update, NSO Update for Arcata Fish and Wildlife Office (AFWO), John Hunter

- Green Diamond Resources Company (GDRCo) permit for HCP issued, including SPOW, looking at implementation
- Planning a training in association with NSO Coordination Meetings along with agency partners to go over reoccurring issues with NSO surveys, want to re-iterate flexibility; can use to be more efficient
- A lot of federal work – Six Rivers and Mendocino National Forest
- A lot of interest in Automated Recording Units (ARUs), but their ability to inform project planning still needs to be worked out; this is still in the early phases.
- Programmatic Fuels and Thinning letter of concurrence – does not involve commercial harvest in nesting/roosting habitat.
- Following the Ranch Fire in Mendocino County (mixed severity), many miles of habitat were removed by logging, and since the fire some areas have nothing left; this led USFWS to abandon 6 Activity Centers (ACs) because there was no habitat remaining. In some places this was an appropriate location for a salvage program along roadsides.
- Abandonment is a USFWS term – no more habitat, multiple surveys with nothing there--we can still provide this determination. USFWS will do abandonment along with CDFW and work with the SPOWDB Coordinator on these.
- Can also assist with correcting old AC locations if provided survey data. This is an entirely different subject than having numerous ACs within a territory abandoned. There is a difference between abandonment and status change.
- Collaborating with an individual in Arcata to look at ACs over time; re-occupancy is a complex topic as we have seen owls move back in after being absent for 19 years. However, after some statistically significant length of time, owls may be extremely unlikely to come back. This is an ongoing project.
- Call Bill McIver about the SHA Program in our office if providing good habitat management and a net conservation benefit to NSO.
- This is different than the programmatic SHA which will be offered to more people.

USFWS Update, NSO Update for Yreka Fish and Wildlife Office (YFWO), Bob Carey

- Dennis mentioned the Programmatic SHA and WFMPs, improving habitat and owls showing up, landowners are not going to be punished.
- The Programmatic SORP – covers a lot of programmatic Technical Assistance (TA) and SOMPs; don't need to re-invent the wheel; McLeod Flats relatively low SPOW density, no Barred Owls in the area, flat transition to lava flows and junipers; bringing individual agreements into one agreement; work in progress.
- Attachment A and B revisions – all are doing the same thing; looking at individual circumstances on the landscape; looking at non-circular home ranges; where surveys can be conducted differently; consistently integrated into various approaches.
- Working on an HCP with SPI, close to finishing.
- Small landowner SHA with Pacific Forest Trust, includes a conservation easement.

- ARUs – working with some private landowners and federal partners and deploying ARUs across the landscape. They have a role to play – for example with the abandonment issue because nighttime surveys are not always indicative of presence/absence.
- Trinity and Shasta fuels reduction in process, in response to increasing threats of catastrophic fire, recognize the need to be pro-active so not chasing this issue over time.

**Questions for CDFW, CAL FIRE, and USFWS, Isabel Baer, Dennis Hall, John Hunter, and Bob Carey**

- Abandonment is not part of the current Attachment A and B revisions. AFWO have a draft report on the statistical analysis on use of older ACs, currently doing the analysis. The information is based on data from large landowners. A proposal needs to be worked on, which is the next priority. No permit is associated with this. As far as receiving stakeholder input, we may offer a workshop and roll it out and ask folks what they think. Haven't gotten that far but it is a high priority.
- Question about the timeframe for completing an SHA – it all depends on office priorities. Typically, under 3 years, some take longer; depends on the complexity of the land ownership and size. An SHA is a data driven process, so if the survey work and background are available, the process should go more smoothly. Baseline is needed and have to know where the owls are.
- Question about the validity of questionable ACs - Kate Keiser (SPOWDB Coordinator) will address this during her presentation. If you have a questionable AC, there is a process for correcting it. Please contact Kate and the USFWS. There may be a more formal process in the future for abandoning ACs (based on the statistical analysis currently being conducted by the AFWO).
- Question about redefining what an established AC is – An AC is well defined. If a site meets the definition from protocol, it is an AC. An AC is a daytime pair location, nest, roosting location, or multiple detections over a series of time. It is not established just from a single nighttime detection. Some ACs are out there because that is all you have, and the survey was not completed. Nighttime detections need adequate follow-up. Look at what the best information is in a year. In some cases, can depend on the data and looking at the landscape as a whole. Is there habitat? Takes gathering additional information sometimes. If you go through the USFWS to discuss AC abandonment, will work with CDFW to make the necessary changes in the SPOWDB. Can contact us with these requests.
- Question why Spotted Owl Resource Plans are an option relegated to the interior only and what a landowner needs to do to get one – SORPs are one of the options the Board of Forestry adopted so it applies range wide. SORPs provide take avoidance and have to meet specific criteria. Whereas an SHA improves habitat over the long term. Traditionally, the State did not approve SORPs, but they were not finalized without a letter of TA from the USFWS. This is how CAL FIRE protects themselves. TA is not included in the rules. The interior has developed SORPs without federal involvement.

- Question about protecting multiple ACs and whether the State has the authority to abandon sites and State take avoidance measures – Take avoidance under CESA is very different than under ESA. The State has to look at both. If CDFW had their own CESA take avoidance measures, they would look very different than the current federal guidance. We have had this issue with other bird species.
- Question about the potential for protections of non-breeding birds that could avoid the term ‘abandonment’ – Data driven process. The reason we protect ACs is because it is important to the biology of the owl. If we cut down the habitat, they cannot move back in. This is also why maintaining multiple ACs is important. We recognize that there may be too many designated for some territories, and NSO do not breed every year. However, maintaining ACs is important for conservation. Bad way to go if we cut behind them. Too many ACs may not contribute much to the conservation of the species and may be onerous to landowners, and we are working on that one.
- Question about collecting long-term survey data and protecting core areas that take up 100s of acres, impacting landowners – Depends on the information and habitat.
- Question about dropping surveys if there are known ACs – You can find the owls at the beginning of the year and not survey. The problem is, owls move around. This is hard to answer because each situation is site specific. You might have an AC out there, as there are a lot of permutations. Very site specific, plan specific, depends on the particulars of the owls. Guidance requires reasonable people to sit down and figure it out.

### **Updates to Attachments A and B, NSO No Take Guidance, USFWS**

#### History of Attachments A and B, Dan Cox (USFWS Regional Office)

- My role – I work on HCPs and SHAs for CA and OR, and currently working on updates to Attachment A and B.
- Examine guidance and policy to determine if everything is in the right place. Have received a lot of good feedback and ideas. John and Bob have incorporated your ideas into the revised no take guidance – the revisions are in response to the feedback we have received over the years
- You are already following part of the updates to Attachment A and B and taking advantage of the flexibility. We are just formalizing this and making it clear.
- Will provide an overview of Attachments A and B, a history of changes, and next steps at the end.
- The USFWS created Attachment A and Attachment B to assist landowners in navigating the ESA with respect to NSO. The attachments are guidance and not regulation. They address take avoidance.
- We recognize the standards don’t fit everyone, one size does not fit all, there are other options, other ways to avoid take. This involves more conversation, more back and forth, early coordination, more time.

- We want to be clear and up front and demonstrate how to navigate take avoidance quickly.
- If you do not want to avoid take, we can discuss an HCP or SHA.
- Want to be nimble in making future changes – change as needed, more frequently. Will revise the guidance if something is not working. Not sure how often, but we want to emphasize this moving forward.
- Revisions are being made to the attachments to be responsive to input from stakeholders.
- Attachment A – range of coast redwood
- Attachment B – inland from coast redwood

#### John Hunter (AFWO), Attachment A Revision

- Not a full revision; if it's not broken, then it's not getting fixed
- Basic habitat definitions are the same, new definition for higher quality nest/roost
- Factors to consider when evaluate noise disturbance are similar, noise disturbance buffer of 0.25 mile. If next to a highway, smaller noise buffer, and larger buffer in quieter areas. Review the USFWS noise disturbance guidance document (2006).
- Spot checks – can now utilize through years 5 and 6 for project areas with good survey history.
- Barred Owls make it more difficult to detect NSO as they are all over the place. If you can make the case that there are no Barred Owls in the area (though this is not common), you can make a case for doing fewer surveys.
- General Core Area guidelines are not changing for even-aged landscapes.
- New option for certain uneven-aged landscapes, proposing alternative Core Area protection of 40-acres. A lot of NTMPs might be doing already, will see how this works and if folks appear to be gaming the system and not achieving what we want to see, this will change.
- We hope to be more nimble in the future. If you have comments, problems, good and bad, send them to me. At some point in the future, will revise Attachment A again and we will take this information into account moving forward.
  
- Question about clarification on the alternative core area protections. If we maintain nest/roost throughout the entire plan (not degrading habitat) or within 0.7 mile of the plan, can we have a 40-acre no cut core area? – It is more than just maintaining current nesting /roosting. We are talking about high quality nesting/roosting, higher standards, including contiguous, multi-layered, multi-species stand structure with large woody debris on the forest floor, minimum 18 inch DBH trees, post-harvest basal area  $\geq$  150 square feet per acre, and no group openings larger than  $\frac{1}{4}$  acre for every 10 acres. The current nest/roost definition in Attachment A does not necessarily encompass ideal owl habitat. The revision still provides no take guidance.

#### Bob Carey (YFWO), Attachment B Revision

- We will have additional meetings and roll out once it is in your hands, more detail coming in the future.
- Service recognizes folks have been doing surveys for years. From my perspective, this amount of information can go a long way. We need certainty for folks managing landscapes. On the interior, we are dealing with larger industrial landowners.

- The emphasis is on retaining the best available habitat closest to the ACs, and specifically around ACs that are successful in reproducing owls.
- Focus on high quality data to make no take determinations.
- Want data presented clear and concise, biologically accurate, and complete so that the State agencies can review and make a determination.
- Heard questions, learn as we go, and as new information becomes available, will address.
- We looked at the revised survey protocol that folks have been doing a long time. There is flexibility built into the protocol.
- Some things may not be applicable where survey work has been going on for years. One thing that drove the changes.
- Presenting examples of how to use site specific information and how this can be applied to THPs, such as no circular home ranges. We realize this is not going to work everywhere. Will fall back to the old way of doing things if there is no survey history. But this is not the only way to avoid take of owls.
- When the Service does TA, we follow a process. We are carrying this forward to help answer questions.
- How to do site specific take avoidance and determine core use areas and home range – where find owls and don't find owls – this is a data driven process.
- Abiotic variables are important on the interior. For example, owls are more likely located in drainages instead of circles.
- Incorporated other work done on the interior in the revision.
- Want to avoid certain habitat, need to communicate with neighbors
- There is flexibility. For example, spot check surveys beyond year 4 are based on previous or continuous surveys.
- Fewer surveys are acceptable when Barred Owls are not detected.
- Will be able to do project level footprint surveys when habitat is maintained instead of surveys out to 1.3 miles – too large of an area for projects on the interior.

#### Next Steps for Attachments A and B, Dan Cox

- Intend to send Attachment A and B revisions to CAL FIRE next week
- Will follow up with workshops, probably the second week of December
- Will be in effect immediately, but there will be some transition and discussion on this
- Landowners can continue with the old guidance if a plan is in review

#### Attachments A and B, Questions for Dan Cox, John Hunter, and Bob Carey

- Question about whether Attachment A revision will clarify what is covered in terms of the coast vs interior? Attachment A refers to maritime habitats, not just redwood and Douglas fir. There are areas of pure hardwoods and sheltered canyons dominated by bay laurel and oak, especially in Sonoma and Marin Counties. We need to consider topographical features. How do regulators check for coverage of Attachment A? – Not limiting areas in the coastal zone to the presence of redwood trees. Send John Hunter an email, as this is not the intent. As we get ready to roll out the revisions, this is one of the things will take into consideration. Perhaps we can describe more

clearly the physiographic features or climate features rather than tree species. Will try to address this.

- Question about how AFWO staff came up with the definition of high-quality nest/roost habitat – The definition is based on experience of 30+ years, research, as well as input from agencies and stakeholders. Send your comments directly to John Hunter and point to the literature if you have other ideas.
- Question whether a higher standard of nest/roost habitat will just allow more Barred Owls to reproduce and whether the agencies have tried to come up with alternate indicators for NSO habitat, particularly abiotic indicators – A silviculture prescription that provides for Northern Spotted Owls over Barred Owls would be the holy grail. To some degree, if maintaining a lot of habitat, there will be more Barred Owls. Barred Owls are going to do what they are going to do. They have disrupted the survey methodology for locating Spotted Owls. We cannot base the presence of NSO solely on habitat conditions. The best we can do now is protect more habitat and have the two species share the habitat. In the interim, the Service is conducting a study on the effectiveness of Barred Owl removal. However, it will be a couple more years before we have an agency position on how to move forward. At this point, we do not have the ability to manage Barred Owls the way people think we should. We agree on these points, but we have constraints on how we can proceed.
- Question about what the 40-acre no cut core protection is based on and whether the agencies have any evidence of 18-acre no cut cores failing – 40 acres is between 18 and 100 acres. There is no data that suggests 18-acre no cut cores, or 40-acre no cut cores demonstrate no take but at some point, we have to use our professional judgment.
- Question about why are we having to protect habitat for Barred Owls and Spotted Owls at the same time? – We are protecting Spotted Owl habitat, recognizing Barred Owls will occupy some of that as they are forcing Spotted Owls out and Barred Owls are able to persist. They have to co-occupy the landscape, there is no other reality, and it will continue to get worse. There may be some nuances to Spotted Owl occupancy, which means all habitat is that much more important.
- Question about protecting multiple ACs – In a given year, only establish one good AC. The AC could be the same as the previous year or a prior year. Basically, we protect all good ACs. Attachments A and B are an option, and one size does not fit all. For areas where this does not fit, the plan is not going to move forward. Landowners need to include information that covers the THP. The agencies are trying to provide as many options as possible for landowners. One document cannot cover every eventuality, which is why this requires reasonable people to work things out. There is local knowledge from the agencies and the surveyors. It gets very complicated when we try to cover every possibility. No take is one option, and if that does not work, take coverage (SHA or HCP) another option.



- Northern Spotted Owls are making a living in the stuff Barred Owls cannot fly in and they are hiding, using different patches every day. They are literally running from Barred Owls. How are Spotted Owls going to continue to survive on the periphery, if we are protecting circles? The two species are not going to share habitat – We realize this is complicated, and Northern Spotted Owls are located in marginal habitat and not breeding. We know this is a problem.

### **Introduction to a Programmatic Safe Harbor Agreement Under Development, Dan Cox (USFWS)**

- As explore options, realize need a lot of different tools
- Changes to Attachment A and B are one option
- Also discussing Programmatic SHA as another tool
- Other individual SHAs another option
- Trying to figure out a quicker way to reach more landowners
- We have struggled with what we might include, activities, landowners
- While we have made progress, an SHA is not imminent
- It is challenging because there can be a lot of different scenarios
- If we can prepare something useful and efficient that meets the needs of landowners, we will proceed
- SHA is voluntary
- SHA is not about take avoidance, but it is about minimization and encourages better habitat so that the species will reoccupy the habitat
- Why do we want to enter into an SHA? Need help, limited staff and budgets. Cannot ignore private lands, want to partner with landowners for conservation
- Receive permit for incidental take from implementing the SHA (different from permit receive for an HCP – get a permit for take)
- Landowner wants conservation and very small amount of take, after thought
- Can return the property to baseline at the end of the agreement, which is a controversial conservation idea
- Not doing more than what is spelled out
- Basics of the current proposal
- Issued between CAL FIRE and USFWS
- CAL FIRE would issue certificates of inclusion to interested and qualified landowners
- NSO the covered species
- Participating landowners must take actions to provide a net conservation benefit to be eligible – regulatory and legal standard
- Relatively quick timeline
- Baseline – includes presence and extent of NSO and barred owl (BADO), extent and quality of habitat within landowner's property
- Survey requirements – still working on this, additional ways of providing flexibility, many conversations on this, want to entice landowner to participate
- Want landowners to manage land in a way that benefits NSO
- Examples may include habitat features such as an increase in QMD, trees over 36 inches, etc.

- And reduce impacts from Barred Owls – allow BADO studies on property, not sure what coming, contracts, other responsibilities, data is important, reporting requirements important
- May need to elevate baseline
- Some avoidance and minimization measures will replicate current practices
- Management activities for covered species – build on NTMPs and WFMPs and submission of baseline information in plan as a starting point
- What can be cut during the permit term? Looking at some subset of what is grown that could be harvested. Long term trend of improving habitat. Upper trajectory in terms of habitat quality.
- Baseline defined at beginning
- How show net conservation benefit - desired conditions
  - Increased population
  - Increased habitat acreage
  - Increased habitat condition
  - Reduced Barred Owl impacts
- Landowners within range of NSO in CA 10,000 acres or less
- OR has own Programmatic SHA – different because NSO gone from many areas so encouraging landowners to provide some habitat for NSO to return to
- Solution for every scenario not possible
- This particular tool focused on smaller landowners, where we are starting because it is easier and there is a need
- Planning stakeholder workshops, probably around the same time as the Attachment A and B roll out, and will want input from landowners
- We may delve into more detail during these workshops
- Will continue to work with partners, CAL FIRE and CDFW

#### Programmatic SHA, Questions for Dan Cox, John Hunter, and Bob Carey

- Question about whether can factor in the past 5 to 10 years into baseline, so that landowners are not penalized for doing things for conservation in the past – Baseline is determined at the start of the agreement, what the landowner can return to at the end of the agreement. Trying to figure out if different deals for different types of habitat, don't know the answer yet. Not sure how will fit for most landowners. Maybe tiered. If no habitat, no benefits at the beginning. Still need to determine the specifics. Hope to have many landowners already managing lands for NSO. Can incorporate broadly some of the on-going management practices. Trajectory will always be up. Landowner managing land in a way for NSO as best as possible, but have BADO, so sign up for some component of BADO management. Every landowner has a different situation in what they can manage. Inland – might be about fuel reduction so no major impacts from a major catastrophic fire. Multiple ways a landowner can contribute. Not just about tree size. Way for most to find something to contribute to NSO conservation.
- Question as to whether there is interest from small landowners to do this – USFWS has heard from landowners that are interested. The question is, can we put an agreement together so that landowners can sign up for it and in a timeline that works? We will have stakeholder meetings

to ensure there is interest and that it meets the needs of the target landowners. Partnering with CAL FIRE to ensure this gets done and meets the needs of small landowners.

Craig Blencowe (Consulting RPF) – I have a 120-acre parcel with an approved SHA, took 5 years, but not the agencies' fault, and they were very encouraging. Details were worked out in two weeks. Held up under federal review. And we were not in a hurry. I have a 500-foot no cut, protect one site if owls move. Outside 100 feet, I can cut 30% of volume. What we are doing already. Process not expensive. Other stuff that takes time that is frustrating. Need to look at the other stuff from a higher level. As part of round two, we are looking at doing a Programmatic SHA on 3 larger NTMP properties. The agencies are behind this.

- Question as to who the USFWS going to issue the permit to – The Director of CAL FIRE, so CAL FIRE will hold all of the liability.
- Question about options for large landowners, such as a comprehensive programmatic agreement – Heard a lot from the small landowners. Why doing it this way. There are options for large landowners, including an HCP or SHA. If you tell us there is a need for x amount of acreage, and there is enough interest, will do a similar effort. Attachment A and B, Programmatic SORP, Programmatic SHA, hitting a bunch of landowners, know not inclusive of everyone. If a need for something similar, talk to us. Have talked about a Programmatic HCP before.
- Question about whether the USFWS can enter into SHA discussions without NOAA Fisheries – Cannot take anadromous fish, part of the USFWS internal Section 7 process, ensure no take of other federally listed species. Will be in step with NMFS and either add more restrictions to ensure no take of anadromous fish, or make it a combined SHA with NMFS.

#### **NSO Interagency Working Group (NSOIWG) Update, Carie Battistone (CDFW)**

Presentation: <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=174889&inline>

- NSOIWG meeting since April 2016, started as a result of conversations Bill Condon had in addressing issues with small landowners prior to the CESA listing
- Fish and Game Commission Meetings requested avenue for stakeholders as well as a Barred Owl Science Team. CDFW, USFWS, and CAL FIRE were already meeting, everyone communicating
- Developed a web page, hosted by CDFW
- Links to purpose statement, meeting agendas, how to submit data, other owl information, and products from the group
- Meet every other month
- Over the past 1+ years, have worked on various projects including:
  - Facilitate planning of NSO Stakeholder Forum, mostly b/c of Mandy
  - February 2018, had an informal workshop for agency staff on NSO survey protocol

- Regular topics discussed, including case studies Kate brings to us, different things happening on various landscapes, continually working on clarifying roles and responsibilities within own agencies and among the 3 agencies
- Prioritizing future actions
- NSO Executive Leadership Team – communicate with the NSOIWG, on-going
- Post fire guidance (CDFW Interior staff)
- Internal problem/solution statements – would like to finalize, exploring ways to issue these
- Spatial analysis of post fire document (EMC)
- Ongoing – provide NSO guidance to landowners
- Training Subcommittee – training on NSO survey protocol
- Database topics
- Funding options such as EMC proposals
- Each agency has a Department lead – Michael Baker lead for CAL FIRE and Jen Jones the lead for USFWS, Carie Battistone the lead for CDFW

**Barred Owl Science Team (BOST) Update, Dr. John Keane (U.S. Forest Service and BOST member)**

Presentation: <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=174887&inline>

- Wildlife ecologist with USFS SW Research Station, UC Davis
- As part of CESA listing process, CDFW identified Barred Owls as major threat to Northern Spotted Owls
- BOST provides information and guidance to the Department for the management of BADO, for NSO and CSO
- All documents and literature available on the BOST website
- 3 high priority research needs, and 6 associated needs, other considerations
- Current activities:
  - Patterns of Barred Owl range expansion
  - Support existing and new removal experiments (NSO, CSO)
  - Effects on biodiversity – diet
  - Anticoagulant rodenticides
  - Genetics
  - Prioritizing needs and future actions
  - Coordinating with USFWS and agency efforts to develop a BADO management strategy
  - Permitting issues - Barred Owls are protected under the Migratory Bird Treaty Act and Fish and Game Code
- 4 areas part of the federal experiment, including 1 in WA, 2 in OR (see the Wiens Study, 2016), and 1 in Northern CA, plus widespread removal in the Sierras on federal lands where BADO densities are lower
- Important to consider density of BADO when determining a strategy for Barred Owl removal
- Current Actions – prioritizing research needs, coordinating with agency efforts underway (broader BADO management strategy, various options, have to consider permitting issues)

- Jack Dumbacher is the current Chair and Carie Battistone is the point of contact for the group

Barred Owl Science Team Update, Questions for BOST Members Present, Including John Keane, Jack Dumbacher, Allan Franklin, Robin Brown, and Mark Higley

- Question about addressing the potential need for BADO surveys and what the numbers might be like if only relying on NSO surveys – 50% is probably reasonable, underestimating due to NSO surveys. Protocol development is on list, just not a high priority. A lot more BADO out there than current surveys indicate. Long term demographic study has provided us with estimates, and David Wiens has best handle on these numbers. Not required to do Barred Owl surveys, these are done in study areas where qualified individuals are removing Barred Owls. Other things are happening too. For instance, Barred Owls are moving back in, and we are working with how many Barred Owls we can remove in a year. Not the same as having landscape numbers and knowing where they all are. Research is focused on 4 study areas. Under the impression Washington had a lot of Barred Owls, Oregon had some, and California a few. We then realized how wrong we were. Understand want a set protocol, something we can work on. Thank you for asking.
- Question about whether there will be NSO without the removal of Barred Owls – need BADO management.
- Question as to why there are more hybrid owls than Barred Owls in the Sierras – 40% of records in the northern Sierras are of hybrid owls. Not sure why, may be a pinch point. Invasion (since 1989). More hybridization occurring in the northern Sierras. This may balance out if/ once there are more Barred Owls.

**Spotted Owl Observations Database Updates and Overview, Kate Keiser (CDFW)**

Presentation: <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=174891&inline>

- Purpose of database
- Limitations –
  - The absence of detection data does not necessarily mean owls are not or have not been present
  - The database should not be used to calculate population trends, abundance, density, etc.
  - The database does not track occupancy (though a starting point)
  - The database does not track Barred Owl influence (though a starting point)
- Key Terms Defined, including:
  - Master Owl Number – Site name
  - Site Area – generic term, like a territory w/o a polygon containing concentrated or stand-alone detections
  - Activity Center

- Multiple ACs – realize this needs more discussion. Would like to introduce a couple of new terms so can differentiate between terms, including
  - Database AC – single AC identified in database
  - Protocol AC – meets the protocol definition of an AC
  - Invalid AC – does not meet the AC protocol definition, handle on a site by site basis. Let me know, and I will send to regional staff and to the USFWS, will informally review and approve or not
  - Abandoned AC – site no longer supports territorial owls (example in a fire burned area within the Mendocino National Forest)
- Project proponents need to work with the review team agencies if want to discuss moving or abandoning an AC
- Have invalidated 9 ACs this year
- Two database terms- Attribute table and metadata
- Coordinate source – how accurate point is
- Contributor (map or coordinates for points – check comments field)
- Non-accurate contributor such as 1/4 section centroid. In these instances, not the specific location of the AC, vague, can look for better data so can re-map
- Data contribution – annual data
- If have data would like to send, need to know what, when, and where
- Negative data is also helpful
- Reformat data into data entry template (faster), or will take whatever format you can provide, copies of survey forms, clearly drawn maps, online CNDDDB field survey form (takes 3 months to show up in BIOS viewer), or plan number and will hunt for it in CalTREES.
- No resources to monitor for new data submitted with THPs or NTOs
- SPOW Management Framework document, living document, can be updated, for example, when Attachment A and B are revised
- Symbolology – more detail at first glance, look at attributes table to know what going on
- Look at all information associated with a site to know if it needs to be incorporated into a core area
- Barred Owl Observations Database available in BIOS viewer, including Barred Owls, hybrids, and unknown *Strix* species
- Most Barred Owl detections are incidental to NSO surveys so a biased dataset
- Can submit Barred Owl data the same way as NSO data, except cannot use the online survey form because Barred Owls are not a sensitive species
- SPOW data now available in Quick View Tool (reading both CNDDDB and BIOS) unprocessed designation for CNDDDB
- Contact me to check if data mapped yet or not. If need data beyond the 3-quad level, can subscribe to CNDDDB
- SPOW Trainings second week of December in Fort Bragg
- Live Training Course in Sacramento every other month via webinar
- Tutorials on webpage and other valuable resources
- Check out the CNDDDB news page and subscribe (not too many emails)

Spotted Owl Observations Database, Questions for Kate Keiser

- Question if a site is abandoned, say in the Lake County fires, time goes by, and habitat comes back, is the site reinstated – Not until a site is reoccupied, in this specific instance.
- Question if there is a State-run database that illustrates survey stations – Call point data is included in BIOS if the survey data is sent in (not everyone sends this in). Follow up surveys and stand searches are mapped as well, as best as possible based on the information provided. This may be to ¼ section centroid or a location that best represents the area.

**Barred Owl Habitat Selection in West Coast Forests, Laurie Clark, National Council for Air and Stream Improvement (NCASI)**

Presentation: <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=174886&inline>

- Larry Irwin the lead on the study, everyone else retired
- Northern Spotted Owl Adaptive Management Study started in 1990s
- Did a lot of telemetry work in past
- Goal of study (described on slide)
- Core area = nest area size in this study
- Study 2007-2012 (4 to 5 years per site)
- Barred Owls have smaller home ranges in California and exhibit strong patterns of habitat selection
- 120 m plot grid based on home range sizes
- Location and availability effect use and selection
  - Use concentrated along low flight areas with mixed hardwoods
  - Areas with more prey
  - Proximity to streams
  - Patches w/greater basal area of alder and bigleaf maple also important
- Minimal shifts in seasonal habitat selection, just change prey species winter to summer
- Forests are more than just trees, fine scale habitat details do seem to matter, can potentially assist with silviculture prescriptions and predict where owls might move, management options for thinning young conifers to let tan oaks grow
- Caution - no studies to demonstrate owls' response to reduced tree densities
- Larry completed a recent paper, in press now, *Barred Owl Effects on Spotted Owl Resource Selection, A Meta-Analysis* (Larry Erwin the lead) covers OR and CA, 8 study sites, looking at habitat selection for 175 spotted owls.

**Barred Owl Habitat Selection in West Coast Forests – Questions for Laurie Clark and BOST Members**

- Question about home range size versus nest core area, and what is really essential to BADO. Are you aware of any demographic projections for Barred Owl-NSO hybrids in CA – Hybrids are not typical, except for areas where Barred Owls have recently moved in and/or population at low densities. Based on the removal study in Hoopa, there were no hybrid pairs until 2010, then Barred Owls started increasing. Since the removal project began, 2 different hybrids have set up

and produced young, probably because female Barred Owls were searching for a mate. Most hybridization done, and Barred Owls are finding Barred Owls.

- Question about whether there could be a resurgence in hybrids if there are not enough Spotted Owls to mate and produce young, so that they choose Barred Owls – A possibility, but there is no evidence yet. Something to be thinking about.

### **State of Northern Spotted Owl on U.S. Forest Service (USFS) Lands and Opportunities for Northern Spotted Owl Management**

Presentation: <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=174892&inline>

#### **Dr. Alan Franklin (USDA)**

- Appreciate the opportunity to discuss how the science is applied
- Background on NSO demography study areas and analytical methods, population trends, annual rates of change, factors affecting SPOWs
- 11 NSO Demographic Study Areas, including 3 in California
  - Rockweit Study (2017)
  - Katie Dugger Study (2016)
- January – researchers getting together to re-analyze
- Do things similarly so can compare
- NW CA Study Area – occurs primarily on USFS lands, other study areas on GDRCo and Hoopa
- Subdivided areas, Willow Creek Study Area (WCSA) field data collection simple, tracking banded information over time in 61 territories
- Analytical methods have developed over years
- Estimating annual rates of change. If less than one, suggest a decline and above one, population grew. 95% confidence intervals
- Realized change 1988 – current loss 65% of SPOW population since 1990
- Interesting relationships in terms of habitat configurations and territories. Balance b/t late seral forest or interior older forest and edge habitat where wood rats occur, as edges are potential foraging locations
- Poor habitat and cold, wet springs (extended winter rains) combined are detrimental to the population
- Also concerned about wildfire. Dynamic component, has shaped the forest
- Effects on survival and recruitment habitat quality maintained or improved – survival and recruitment did not change much in study area
- Not increasing in high severity fires in north (example King Fire and Rim Fire)
- Larger fires but maintain or improve habitat, want to avoid high severity fires b/c lose all habitat components
- Number of Barred Owls in WCSA
  - 1991 first Barred Owl hybrid detected
  - Increase coincides with decrease in NSO both spatially and temporally



- How BADO increase has impacted rate of population change – see both climate effects and BADO effect as population increases exponentially
- Past this point already
- BADO detections = additive with bad climate years
- Apparent survival getting hit
- Recruitment is fairly constant, but drops substantially along w/ decrease in survival with chronic BADO increase
- Where is the population headed? Stabilized and will co-exist with BADO together (at lower levels), or will NSO go extinct?
- BADO implicated as primary factor in recent NSO population decline
- Climate and large severity fires important secondary factors in NSO population declines and problem is, cannot predict
- Mixed severity wildfire is a dynamic process and shapes NSO habitat and impo process

**Patti Krueger USFS SW Research Station, Davis, CA**

What is the USFS doing besides funding large study demographic studies:

- Looking at long term BADO Removal Study in OR to conserve NSO. Conversations b/t USFWS, BLM, USFS, and landowners
- In addition, a lot of high severity wildfires getting larger and more frequent, so reducing fuel loads. Changed focus to reduce amount of fuel on the ground. Last year, met regional targets in CA (95%). Part of timber removal salvage logging, met target at 103%
- Also successful in working with USFWS and NMFS to install programmatic agreements
- Reducing amount of fuel levels in Six Rivers National Forest. Can move forward when timing is correct. Wildfires in Southern CA, while doing prescribed burns in N CA
- Looking at programmatic consultation with YFWO and AFWO, and Sacramento office to increase number of activities can do on the landscape
- Goal to reduce fuel levels so aim for a mixed fire severity or low fire severity wildfire
- USFS working with ARUs in detecting SPOWs in terms of dollar value. USFS receiving fewer funds. Doing surveys using ARUs to determine where SPOWs are located and not located, and what does this look like across the range of NSO and CSO and how do we match?
- Appropriate array for analysis, seeing more BADO on the landscape. If no NSO, what does it look like in terms of project implementation? Answers will help all of us
- Provide our data to CDFW and USFWS 2 times per year on all surveys, including other species
- Have been cleaning up some older USFS data
- Started to move forward with fuels MOU with private timber companies and large landowners to steward land in and around USFS lands
- We are the largest land manager in CA, but we need to work in concert together
- If interested in MOU and how working together, SPI has signed on as an example, can get you more info. Lots of projects on individual forests

**State of Northern Spotted Owl on USFS Lands, Questions for Dr. Alan Franklin and Patti Krueger**

- Question repeated - unless there is a dramatic removal of Barred Owls, is there no recovery potential of Spotted Owls on public lands – Yes with a bit of uncertainty. The SPOW population seems to be getting so low, one or more catastrophic events could tip it over the edge. It will be really difficult to recover unless there is some intervention.
- Question about why the WCSA is seeing better recruitment – In a small population, one or two birds will show up. We are seeing ups and downs in the amount of recruitment. Maybe a stable population. They are coming in from somewhere else. We need a few more years to see if this holds. Uncertain about that phase.
- Question as to whether there is a possibility the decrease in Barred Owls in the Hoopa Study creating a greater recruitment in the WCSA – Any effective removal may increase BADO dispersal along river corridor, but not continuing up the river. They have their own reproduction going on, and not impacting the WCSA. Warmer and dryer, higher elevation, more potential sites in the WCSA than in Hoopa because they are surrounded by Barred Owls. Hoopa is removing 70 owls per year. There are no territorial pairs, and the recruitment is lower than on the WCSA.

**State of NSO on Private Lands, Mike Stephens (Strix Consulting)**

Presentation: <http://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=174893&inline>

- Based on Robert Douglas' presentation to the NSO-BADO Conference in 2015, updated graphs, discuss trends and things have seen
- Survey on average over 1200 survey stations annually and continuous for a while
- Surveyors have more stations
- Seeing decline of SPOW on various different ownerships
- Empirical raw data, no modeling
- Graph demonstrates we are detecting more single owls and fewer pairs, not sure if fewer pairs occupying territories or if BADO suppressing female response more than males
- Total number of occupied sites the same
- Average number of young per pair per year does not take into account territories not able to detect during surveys
- BADO in NSO territories per year - exponential increase since 2008 (21 in 2000 to 277 in 2018)
- History of NSO Regs in CA –
  - Started on coast in 2000. Since then, political hot potato. Hand off to another agency. Owl listed in 1990. Fish and Game was providing TA for landowners, straightforward and simplified process
  - 1999 USFWS takes over the process. Ken Hoffman in AFWO. Learned of take avoidance measures
  - Up until 2005, I was largely involved in research. Saw the need for SPOW expertise
  - 2007 USFWS announces phasing out TA for private landowners in CA. Fall 2007 meeting in Sacramento. Fish and Game did not show up or want to touch it

- Intensive training process for CDF review teams with Ken Hoffman, training session discussed intent behind the rules, good understanding b/t the two agencies as to how protection measures should apply. Under contract with CAL FIRE at the time. Easy to participate
- USFWS started offering Habitat Retention Agreements for NTMPs. When learned of these from Ken, encouraged all clients that could meet retention agreements to sign up for these. Successful off the bat. Discovered new owl territories, not sure if reproduction increased. Streamlined process for private landowners to harvest on regular basis. Key to agree to grow bigger trees and increase inventory. A lot of landowners already doing. Smaller private landowners have a lot of pride in managing properties
- 2010 USFWS stopped providing TA for new THPs but continued for open THPs and NTMPs with prior USFWS TA. Transition process took some time. New NSO Survey Protocol in 2010 addressing presence of BADO, increased survey efforts and habitat retention efforts. Final protocol 2012. 2016 NSO listed under CESA. Trustee Agency (not sure if I am using this term correctly?)
- Can all do better to get on the same page with semantics
- Referring to agencies entrusted with the conservation of wildlife
- 2017 USFWS abruptly announces no TA to private landowners. SOMPs abandoned and HRAs abandoned. Not sure of new regulations, new interpretation of old rules. This has an adverse effect on NSO. If no consistent policy driving recovery and requirements for habitat retention, adds another layer of confusion to private landowners
- Last stakeholders meeting in Sacramento not the same amount of turnout and not many agency folks or the private sector so these are issues private landowners wanted discussed, no clear or easy process for abandoning unoccupied or inactive ACs carries a financial burden on landowners
- Change in industrial land ownership in Mendocino County –
  - Conservation Fund purchased industrial timberlands
  - RFFI purchased 50,000+ acres, and STRL more active
  - A lot of landowners not profit-driven. Keep this in mind
  - See land being sold because landowners cannot afford surveys and have an AC on the property
- A lot has been discussed today, but briefly – ACs and territories are used interchangeably
- Did some work with USFWS and CDFW but had to stop
- Financial cost of having an occupied AC can be more than 150,000
- New interpretation of protocol requiring protection of all ACs within each territory even when BADO have taken over the area
- Need a clear definition of AC
- Did not fully understand USFWS concerned with take avoidance
- In 2000, needed a 72-acre protection center for prior three years of AC locations, and this is not a good thing as nest sites can be older
- So now if having to protect historic ACs that are disjunct or disjointed because BADO move into NSO territory, cause SPOW to use lesser quality habitat in areas would not normally expect them

- If do happen to find in a location expect them, now having to protect
- Larger landowners have 30 years or more of survey data, if this is required now, have to set aside more acreage including areas occupied by BADO
- New and novel interpretation of NSO regulations by CDFW. Just learned this past week, now downgrading habitat from nesting / roosting habitat to foraging habitat if adjacent to a state highway or railroad. This is problematic b/c many ACs with history of reproducing near highways. Not in the protocol. A new invention this year and want to shed some light on, no scientific basis for
- Individuals making up own regulations. Problematic for private landowners, more confrontation and bad feelings
- Multiple ACs preserved. USFWS and CDFW moving away from take avoidance and requiring private landowners to be part of the recovery effort. Not the goal of private land. In fact, private land does not contribute much to the recovery of SPOWs. Some landowners willing to go along with. Taking economics into consideration, egregious. Programmatic Agreements discussing are of interest to many landowners
- Warning CDFW and USFWS whole bunch of landowners want to enter into these agreements, anything to make the regulatory process more smooth, reliable, flexible, assurances
- Will be a push back from private landowners if have to continue to protect unoccupied ACs and BADO reserves
- Now learning protecting areas so that there is room for both. Not sure that will work. Cannot protect enough habitat to where BADO will stop reproducing. If multiple ACs require this protection, will see a reduction in survey efforts if egregious random detections require protection measures. More information the better, think how the USFWS used to operate at least before BADO issue took off
- How dealt with frequent survey efforts even when not harvesting to keep track of owls
- Benefited owls because could plan accordingly
- Other private landowners wanted to survey whole ownership on annual basis
- RFFI collecting demographic like survey data across property. Results are dismal, nothing to report at this point, going into 6<sup>th</sup> year
- Some information should start collecting include reduction in SPOW densities, increase in BADO densities
- 25<sup>th</sup> year of SPOW surveys next year. Some of these properties, NSO not responding. Only half of SPOWs had 10 plus years ago. Spotted Owls are not responding and don't know why. BADO numbers do not coincide with drop in NSO numbers
- BADO removal only method of NSO recovery. Some landowners willing to participate, wondering for how long. All know how long takes to get data published and figure out permitting process can take a long time. Do not see anything happening soon
- Several small landowners willing to do BADO research on private lands. Expertise, land base and interest
- Private landowners feel like they are vested in SPOW recovery. None of us want to give up on SPOW because have spent time and money over the years, but a lot want to give up
- What will regulations include when no more NSO response? Some ownerships headed there.

- Research needs need to look into developing BADO survey protocol. Option in protocol to survey for BADO, but how to do this and what to do with the information?
- Pellet scent dogs, drones with infrared cameras, north coast is becoming a high-density area of BADO so effective BADO removal not possible

#### **State of NSO on Private Lands, Questions for Mike Stephens**

- Bob Carey – I would like to add a couple of points of clarification. Retaining more habitat or adding more regulations is not changing. Reference to a forest service project and the legal determination in Section 7. ACs are clearly defined in the USFWS protocol and FPRs, have a definition. The Service continues to provide TA through CAL FIRE. Protections for ACs are included in the FPRs. This was a great presentation, but I need to say this from my perspective. Look at the FPRs and see what is required, specifically 919.9. Standards on the interior and coast are different, protecting 500-acre core areas on the interior. Each AC should get these protections, but we can do better, use the best of the AC criteria, and annual data. Different between each office and realize this is unfortunate. Shooting for consistency. Revising guidance to find flexibility.

Mike – Multiple ACs require protection now. Used to be 72-acre core area, and now 100-acre core, including disjunct and distant ACs so core area sizes have increased. Now requiring multiple ACs for a territory beyond the 100-acre core. New interpretation of the rules. Was not interpreted this way in the past. If take into account core areas growing in size, what do I tell my clients? Getting different messages over the past 20 years, and not consistent. Want to know what to expect. May be different rules in the Arcata office.

#### **NSO and Small Landowners, Dr. Claire McAdams (Timberland Owner)**

- Glad all agencies are here today
- For over 6 years, I and Forest Landowners of CA and the Buckeye Group have been concerned with NSO issues, uncertainty, rising costs
- To summarize, have requested the agencies consider ending the 2-year protocol. Extremely onerous for small landowners
- Understand based on today's discussion that we may need to accommodate NSO and BADO and include coverage for both, need to set aside, hope interpreting this incorrectly
- Other problems over past 6 years from small landowner perspective – the 2-year protocol prevents small landowners from market timing and a narrow window to harvest, makes a huge difference b/c redwood prices 2/3 of price as last, survey protocols are time consuming and may preclude opportunities
- Many harvest once per generation, others harvest continually
- Changing interpretations of SPOW regulations over past few decades
- Result is hold private landowners to a higher recovery standard
- Some of us located next to large industrial landowners with an HCP, we inherit their birds and know where they are coming from. No solution to this problem

- No written standards for abandonment of owl ACs - would like procedures for abandoning ACs
- Now hear there is a proposal to enlarge the size of the circles yet again, will put areas off limits to harvest
- Lack funds to rock roads so that we can use them year-round
- If NSO nests are discovered, eats into the bulk of the harvest season
- Devastating to my family, and not the only ones. Fraught with economic loss
- When have NSO circles uniformly sized and ignore topography, can encompass and reduce an entire timber operation. Struggling for several years
- Last 3 years, big new fear is rampant wildlife
- Gives most reason to adopt very certain NSO regulations that would encourage and incentivize NSO rewards, need incentives not more regulation. Why are there no monetary incentives? Costs are so high. How are small landowners interests different than large industrial landowners?
- Active forest management not affordable for small private forestland owners under 500 acres. Because ¼ of State forests in small landowner hands, everyone in the State stands to suffer. Small landowners not eligible for grant funds that larger entities and NGOs can qualify for. Only CFIP funds and that is currently underfunded
- Approaching the BOF with other requests
- Need regulations streamlined and cost-effective strategies
- Protocol does the opposite
- Urge agencies to find alternatives
- Stop double counting migrant owls from HCP lands and compensate landowners for doing surveys
- I appreciate the proposed good stewardship and reduction of core areas
- Specificities are arbitrary and will leave out certain landowners
- Agencies should consider Arcata Community Forest SHA, just on the verge of being completed
- Apply to small landowners “light touch forestry”, take care of species. Give these folks a break. Need a programmatic SHA
- Appreciate and look forward to USFWS workshops in December
- Whichever agency claims responsibility and takes charge, landowners need certainty and changes in regulation, we care as much as anyone about saving the NSO

### Public Comments

See written comments submitted

- 1) Bill Morrison (RPF, Soper Wheeler) – Thank the federal and State agencies for this platform so can disseminate this information. Work from Humboldt County to Santa Cruz. Soper Wheeler as a company around since 1904. A lot of properties surveyed since 1990, and by protocol since 2006. I have a few concerns (did provide a letter of comment), including an inconsistency in interpretation of regulations seen in last few years. Cost our company a lot of money. Put together best attempts and caught off guard in a lot of cases. Know agencies reluctant to change the definition of an AC. Realize an owl may revisit the area. See some owls revisit nest/roost

stands or old nest. Biggest concern with AC definition on a lot of properties, pairs getting moved around, away from higher quality nest/roost. Defined as AC. Lack of evaluating best of detections not there anymore. Found a nest this year, pay a lot for. Thought what we were looking for. Problem is, have another AC based on a single detection. Why is there no consideration for the best of detections? Circles around all detections. 100-acre core has completely blown up. Now putting an AC in a separate watershed. Change in interpretation, never saw until last 2 or 3 years. What is going on? Want clarity. Also, for decades tracked birds in 1990s and 2000s, best habitat saved. Now areas discredited b/c ¼ mile from a highway or railroad. Pushed up slope on less desirable habitat. Does not make sense to me. Could be counter-productive if not retaining best quality habitat. If landowners provided a check for every fledge located, that would be the best incentive. Need a pathway to remove ACs no longer occupied.

**Next Steps and Feedback for Future Forums, Amanda Culpepper (CDFW)**

- CDFW plans to continue the NSO Stakeholder Forum every other year, so next one in 2021
- Realize this is valuable and want to hear your ideas and concerns
- Can work one-on-one with issues, individually
- Please complete the one-page survey (front and back), also an online version for future Forum planning. Thank you to all presenters for your ideas and thoughts

**Adjourn**