NOTES | 7/5/2011 Conference Call
Altamont Pass Wind Resource Area Scientific Review Committee
Prepared by the Center for Collaborative Policy
Reviewed and approved by the SRC.

All 4 Current SRC Members Present

Discussion Topics

Composition of SRC
Burrowing Owl Distribution & Abundance Study
Monitoring Updates

Action Items

Party	Due Date	Action
CCP		Research previous SRC consideration of AWI CUP
CCP	Done	Send out P162 to SRC & listserv
SRC	7/13	Review P162 and send to Ariel any additional information or questions you'd like on bird behavior digitizing for July 21-11 meeting
Monitoring Team/CCP		Announce when web data available and provide instructions on how to access
Monitoring Team	7/8	QAQC Study release
Monitoring Team	1st week of August	Final bird fatality report incorporating 09-10 data
Sandi Rivera, Doug Leslie & Shawn Smallwood		Preparation call for July 21-22 meeting on BUOW behavior/behavior data digitizing
Monitoring Team	7/15	Produce matrix of options for BUOW behavior/behavior data digitizing SRC decision
Sue Orloff & Jim Estep	7/15	Revisit BUOW behavior work plan to clarify what data might be generated and how pilot & potential following studies would inform repowering

Information Item: AWI Proposed CUP Changes

Related Documents
P209_AWI 6-23-11 CUP Handouts

Sandra Rivera of Alameda County reported that AWI, during the open forum at the East County Board of Zoning Adjustments (EBZA), announced that it would be seeking modifications to its CUP. The company has not yet submitted materials. There is no role for the SRC at this point, but there may be in the future. The EBZA will hear the issue at a future meeting and provide direction to staff.

Review of Draft Burrowing Owl Behavior Study Work Plan

Related Documents

P210_SRC Study Plan for Burrowing Owl Pilot Behavior Study
P211_SRC Burrowing Owl Survey Protocols
P195_SRC BUOW Cost Estimate Sheet
P194_SRC Burrowing Owl Behavior Pilot Study Proposal

SRC Member Sue Orloff summarized key changes and outstanding issues in the new documents, P210 and P211, and revised P195 that she and SRC Member Jim Estep developed. In P210, she cut the number of survey days from 32 to 16. There would be four survey areas with two observation sites each, and two hours of observation at each site. The pilot would require two people, which Monitoring Team Project Manager Doug Leslie said was doable, as there have been some budget savings because of a shortage in staffing.

The SRC considered two issues:

1. Is it necessary to include a control site? The SRC's ensuing discussion focused on whether or not it was necessary, given that the primary purpose of the pilot is to determine whether the equipment and protocol will work.
2. Should the pilot include fatality searches? At this point, the proposal includes them only when a predation attempt has been detected. At one point, some members of the SRC thought fatality searches were warranted for each observation. The SRC's discussion focused on whether or not it was warranted to conduct monitoring-level fatality searches.

SRC Discussion

1. Control Site Issue:

SRC members raised the following issues in discussion:

- A few observations are needed to make sure this study is going to work. The full study should have an appropriate control, as warranted for a publishable study that would undergo peer review.
- It might be difficult to find a ridge top without turbines and with a dense burrowing owl population. Present surveys have found one such slope so far.
- It is unclear how actual research work at a control site would differ from a regular site on those questions, so it might not be the best use of resources.
- Is it valuable to gather data about how burrowing owls use ridge tops without turbines?
- Possibly turbines might change burrowing owl behavior, or predator behavior.
- If a control site is included, it needs to be clear in the protocol what the utility of the control is, and what information is intended to be gained from it.

Agreement

SRC members agreed that one of the four sites (i.e., 4 of the 16 observations) would be at a control site, the one identified by the current surveys.

Public Comment

Jim Hopper of AES suggested two other possible sites: a 70-acre site between Altamont Pass Road and Interstate 580 W. of Venture Winds which had burrowing owls last year; and the old golf course now in Contra Costa Water District jurisdiction, long claimed to be great burrowing owl habitat.

Shawn Smallwood, NextEra consulting scientist, said it would be easy to check those suggestions. The burrowing owl distribution and abundance study that he is conducting with one member of the Monitoring Team will finish surveying at the end of July.

2. Fatality Searches Issue:

SRC members raised the following issues in discussion:

- Conducting fatality searches with every observation would be expensive and take an additional hundred hours. If it costs too much, observation time could be trimmed.
- Because burrowing owls are usually found as feather piles, and because of the degree of searcher error, it would be difficult to assign a feather pile to a particular time period and cause.
- It might be beneficial to do a search only if a predation (or strike) event is observed, and the search should occur that night, within four hours.
- It might be helpful to return to see what is left in the morning.

Agreement

The SRC agreed to leave the existing fatality search language in the protocol, calling for searches only if a predation (or strike) event is observed.

Public Comment

Renee Culver of NextEra said she is still seeking basic understanding of the purposes of the study. What data are being collected? What will the data tell us? How will the information be used? She finds the utility of the study questionable. How could the information be used mathematically without a population study? This is a roughly $43,000 expense that NextEra believes could be used in a different way. There is not yet a plan to digitize bird behavior data from 2009 onward.

Shawn Smallwood, NextEra consulting scientist, said data has been collected and not yet analyzed, so there are existing black boxes.

SRC members provided the following responses:

- It is always valid to look at priorities.
- Digitizing data is important to determine if there is a true reduction in mortality. Behavior goes to why fatalities happen in the first place.
- $43,000 is not much, based on what has been spent to date.
- The digitized data can also provide information on use or relative abundance
- The burrowing owl study could help to inform us if the 50% mortality reduction is a realistic goal for burrowing owls. If burrowing owl mortality appears to be more predator-related, it would be worth revisiting the mortality reduction goal for this species. Certain behaviors could be interpreted as being high-risk to predation or turbine collision.

- The study is not attempting to observe predation events. It is attempting to shed light on what burrowing owls are doing at night that puts them at risk -- where they are flying, and what else is flying at that time. Are they at a height where they could be blown into turbines? If predators are seen using turbines for perches, it might be indicative of potential predation. Behavior relative to turbine height is also useful for repowering.
- It is true that the information could not be used mathematically. Another question to answer is what the utility of this study would be to repowering -- that's still an open question. However, some SRC members noted that information on flight behavior and heights could prove useful to understand their vulnerability, even to repowered turbines.
- The study could help in developing hypotheses to be tested in larger studies.

Sandra Rivera of Alameda County said, because of the timing, the SRC will need to consider whether to pursue one avenue or the other.

One SRC member asked how the SRC could make that decision until they see the data and evaluate it.

Renee Culver clarified that her understanding is that 1.5 years of data have not yet been digitized. Shawn Smallwood said that, while bird use data was collected by the Monitoring Team over the years, only behavior data has been collected in the last year. The digitizing needs to be done immediately in order to inform repowering.

Doug Leslie of the Monitoring Team said one reason to undertake the burrowing owl behavior pilot now is because of logistics and the size of the field crew, and to provide continuity in field personnel. The bird use data the Monitoring Team is collecting now does not require digitizing, but the behavior data does need to be digitized to be useful, and to be used by Shawn Smallwood for his predictive model to help site repowered turbines.

SRC members had the following initial thoughts on this issue:

- One SRC member said the most important goal is to inform repowering, but the SRC needs more information before it can make a decision on this issue. Understanding what burrowing owls are doing is important to repowering; however, NextEra believes it needs the last year of behavior data for site-specific modeling for repowering. The SRC will probably have to go ahead and do that.
- Another SRC member said both objectives are important, but perhaps digitizing is more immediately important to inform repowering. Perhaps the burrowing owl study could be postponed until winter, because the issue of high burrowing owl mortality in winter is more crucial.

Shawn Smallwood gave an update on his digitizing of the first four years of bird use data. It has been digitized and is now going through QAQC. He does not have any more funding to pay for further work on the latest 1.5 years of data.

Monitoring Team members said the Team has data through May, some of which has been hand-entered. It was not digitized because the Team was waiting to see if Shawn Smallwood

had funding to take on that task. The Team has asked for a data structure to organize the data in a format similar to Shawn Smallwood's.

Public Comment
Shawn Smallwood, NextEra consulting scientist, said it would be helpful if the SRC could put out information about which burrowing owl metrics could be useful for repowering, and what data. It seems to be really open ended now. Would it be the number of times a burrowing owl is seen? Or seen hovering? The number of predator events?

In response, one SRC member agreed, saying it might be metrics such as the flight height relative to blade height, or relative to slope.

Doug Leslie of the Monitoring Team said a study could turn up a lot of anecdotal information helpful to repowering, for example, if burrowing owls are seen perched on old turbines, but not on Diablo Winds turbines. This would be valuable information, but would not be able to inform a model.

Shawn Smallwood said it would be important to consider confounding variables, such as hillside topography, to make sure the control site is similar to the treatment sites.

Jesse Schwartz of the Monitoring Team said the pilot could be used to create an ethogram to develop answers to questions to inform the study design.

Next Steps
- The SRC will consider the issue raised by Renee Culver at its in-person meeting July 21-22.
- Alameda County in the Monitoring Team will discuss contracting and have price quotes for the meeting.
- The Monitoring Team will prepare a matrix with a side-by-side comparison of the two options.
- Sandra Rivera, Doug Leslie and Shawn Smallwood will hold a preparation call to develop a matrix of options, including timing and cost. The goal will be to prepare sufficient information so that the SRC can make a decision and a study can start immediately afterward.
- CCP will circulate P162, which describes how the data will be used, to the SRC and the public. SRC members can review and ask for any additional information they will need for the meeting.
- Sue Orloff and Jim Estep will revisit their work plan to clarify how the pilot study would be part of a sequence of studies that would inform repowering.

Wrap Up and Next Steps - Next in-Person Meeting

QAQC Study Report
The report is on schedule to be completed this week, Jesse Schwartz said. There will be a spreadsheet with September through May data as well as a report assessing detection probability.

Monitoring Team Data Availability
The Monitoring Team pulled its servers off-line, and they are now back online. All of the Trimbles will be totally digitized. The Team and CCP will announce when the data is available and provide instructions for retrieving it.

Final Monitoring Report
Doug Leslie, Monitoring Team Project Manager, said the final monitoring report is projected to be released the first week of August.

Next In-Person Meeting:
July 21-22, 2011
Topics:

- Monitoring Team Studies: burrowing owl behavior pilot study or digitization of recent Monitoring Team avian behavior data
- QAQC Study Report
- QAQC Study simulations update
- SRC consideration of QAQC Study for new 11-12 bird year

ATTENDEES
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