

Meeting Summary | June 9, 2014

Altamont Scientific Review Committee

Developed by the Center for Collaborative Policy
Reviewed and approved by the SRC

All SRC Members Present:

Joanna Burger
Jim Estep
Mike Morrison
Sue Orloff
Julie Yee

Key Outcomes

The Altamont Pass Scientific Review Committee (SRC) met in Oakland on June 9, 2014. The following summarizes SRC agreements and key meeting outcomes.

1. Draft Repowering Programmatic Environmental Impact Report

The SRC viewed a presentation on the Draft Programmatic Environmental Impact Report (PEIR) for repowering. The document considers environmental impacts and proposes mitigations for expected repowering of the Altamont Pass Wind Resource Area, from a programmatic standpoint, as well as impacts and mitigations of two specific repowering projects, the Golden Hills Wind Energy Facility Repowering Project by NextEra and the Patterson Pass Wind Farm Repowering Project by EDF (formally enXco), which are proposed to replace fields of old-generation turbines.

The SRC will hold a conference call meeting **Wednesday, July 9, from 9 a.m.-12:30 p.m. Pacific Time** to develop its consensus input on the draft document.

2. Final 2005-2012 Bird Fatality Report

The SRC received the Monitoring Team's final bird fatality report incorporating data from the 2012 bird year (Oct. 1, 2012-Sept. 30, 2013), and incorporating SRC recommendations.

3. 2014-15 Special Study

Because Alameda County will reduce funding for the 2014-15 bird year Monitoring Program by about 50%, to \$250,000, the SRC at its February meeting considered possible options for special studies and favored studies on background mortality or burrowing owls, as well as studies that would inform repowering.

At this meeting, the SRC reviewed recommendations from the Monitoring Team and an SRC subcommittee, who have been considering the background mortality study idea in further detail.

The SRC also took a fresh look at its special study recommendations, considering new information that the study would have to end by mid-March 2015, when there will be widespread turbine removal activity in the Altamont.

The SRC evaluated the benefits of conducting an additional special study versus the benefits of cost saving. The SRC supported moving forward with a background mortality study. The SRC and MT developed a draft study goal: To investigate whether non-turbine fatalities are a significant contributor to fatality rates at APWRA turbines.

The SRC developed the following draft special study rationale:

In order to better evaluate fatality rates at both old-generation and new repowered turbines, it is essential to understand background mortality in the Altamont Pass , particularly for smaller birds such as burrowing owls and American kestrels. This study also will allow us to evaluate the effectiveness or lack of effectiveness of seasonal shutdown.

The SRC also discussed an alternate study on golden eagle genetics that would be considered if the background mortality study doesn't look to be feasible.

Upcoming SRC meetings:

- **Conference Call:** Wednesday, July 9, from 9 a.m.-12:30 p.m. Pacific Time.
- **Topics:** SRC consensus input on Draft Repowering Programmatic Environmental Impact Report; review of draft special study cost and numbers; and NextEra report on burrowing owl studies.
- Possible conference call meeting in late summer or fall on special study
- Next in-person meeting timeframe: **January-April 2015**

Action Items & Meeting Follow-Up

Party	Due Date	Action
SRC		Meetings: <ul style="list-style-type: none"> ▪ Conference call July 9, 9 AM-12:30 PM (with potential for a 15-minute break during call). Agenda items: 1. Develop SRC consensus input on draft Repowering PEIR; 2. Renee Culver report out on burrowing owl study; 3. Monitoring Team report & SRC discussion on special study numbers/cost ▪ In-person meeting: January-April 2015
SRC	July 4 COB	Deadline to submit any comments on PEIR to Ariel for circulating among SRC
Monitoring Team	July 7 COB	Develop background mortality study numbers and costs for SRC conference call meeting
Monitoring	August	Choose sites for background mortality study

Party	Due Date	Action
Team		
Monitoring Team, Julie Yee, Mike Morrison	Prior to 2015	Meet as necessary to consider fatality report sampling issues

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Meeting Account

Announcements

Sandra Rivera of Alameda County shared the following updates:

1. The East County Board of Zoning Adjustments (EBZA) approved the Ogin/FloDesign/Sandhill Project.
2. The County expects NextEra will submit its Golden Hills Phase 2 repowering project application soon.
3. AWI submitted a request to Alameda County to extend its Conditional Use Permits (CUPs) to 2018.
4. EDF and NextEra will remove many old-generation turbines in APWRA through 2015.
5. Approximately 60-70% of APWRA will be repowered by 2016.
6. The Makani/Google project for a new kite-style wind turbine design withdrew its application.

Presentation on Draft Repowering Programmatic Environmental Impact Report

Related Documents

[P285 Alameda County Memo on Questions for Repowering DPEIR Review](#)

[P287 Draft Repowering Program Environmental Impact Report](#)

[P288 ICF DPEIR Presentation Slides](#)

Background

Alameda County has asked the SRC for its consensus input on the draft Programmatic Environmental Impact Report for Repowering (PEIR), specifically in regard to its evaluation of avian impacts, including assumptions, methodologies and mitigations. The Draft PEIR became available late on June 6. The purpose of this item was for the SRC to receive information on the document and have an opportunity to ask questions before formulating input. The SRC will develop consensus input at a future conference call meeting.

Presentation

Sally Zeff and Brad Schafer of ICF provided background and oriented the SRC to the Draft Programmatic Environmental Impact Report (PEIR) and the California Environmental Quality Act (CEQA) process for repowering in the APWRA (See [P288 ICF DPEIR Presentation Slides](#) for presentation). Repowering would replace old-generation turbines with fewer and larger new-generation turbines that are farther apart. The PEIR will help inform Alameda County as it considers current and future conditional use permits (CUPs) for repowering projects. Among other topics, the draft PEIR identifies and analyzes anticipated environmental impacts from repowered turbines from a programmatic standpoint. It also describes impacts and mitigation measures for repowering as a whole and for two specific repowering projects – the Patterson Pass Wind Farm Repowering Project by EDF Renewable Energy (EDF RE, formerly enXco) and the Golden Hills Project by NextEra Energy Resources. The PEIR includes consideration of alternatives.

Impacts and Mitigations

The analysis includes describing the regulatory and environmental setting and baseline, identifying construction and operation-related impacts, and proposing mitigation measures. ICF set the baseline as the existing conditions when the Notice of Preparation (NOP) was filed in 2010 and considered several factors for determining impact “significance” (See Slide 13). ICF then calculated the range of estimated annual avian fatalities under the two program alternatives and two project conditions (See Tables 3.4-11 through 3.4-14).

The PEIR estimates that American kestrel, golden eagle, and red-tailed hawk annual fatalities would be lower than the baseline, while burrowing owl fatalities could be above or below the baseline. The PEIR outlines nine mitigation measures for avian impacts, including developing an Avian Protection Plan (APP), implementing post-construction monitoring, providing compensation using a Resource Equivalency Analysis (REA), and implementing adaptive management. The PEIR concludes that, even with mitigation, certain avian impacts such as turbine-related mortality are “significant and unavoidable” at the program level, cumulatively, and for the two specific projects.

SRC Discussion of the Draft PEIR

SRC members asked a number of clarifying questions on the document.

Responses to SRC Questions

ICF, County Staff, and wind company representatives provided the following responses to SRC questions:

PEIR Background

- Sandra Rivera explained that the PEIR evolved from the Natural Community Conservation Plan (NCCP) and Habitat Conservation Plan (HCP) (see Slide 3). William Fleishhacker of the Alameda County Counsel's Office said the PEIR is an acceptable alternative document to the NCCP/HCP and believes the measures and approaches of the PEIR are consistent with the goals of the 2007 Settlement Agreement.
- The PEIR and Program Alternatives cover the entire Program Area beyond the two proposed projects (See Slide 10).
- The PEIR considers two program alternatives, which are identical except for maximum megawatts (see Slide 12). Alternative 1 is 417 MW, reflecting the existing APWRA operational capacity, and Alternative 2 is 450 MW, which allows for companies' projects to potentially expand.
- EDF's Patterson Pass project has only one phase so far.

Impacts and Mitigations

- ICF used its professional judgment to identify significant impacts by considering several factors, including comparing impacts to the baseline (as defined below), considering the 2007 Settlement Agreement's commitments, and considering alignment with other laws and regulations (See Slide 13).
- Compensation for loss of habitat for certain avian species (See Slide 19; Impact BIO-9) involves preserving land within APWRA or immediately outside of APWRA boundaries.
- ICF calculated compensation for burrowing owl impacts using preconstruction surveys and/or 2012 U.S. Fish and Wildlife Service (USFWS) guidelines.
- ICF used specific site information for analyzing avian fatalities for the two specific projects but not for the entire program.
- ICF considered several time periods for the baseline for estimating avian fatalities, and decided to use all available data (2005-2011) to account for inter-annual variation. Consultants acknowledged this approach would not reflect any reductions in avian mortality that might have been caused by management actions implemented over that time period.
- The PEIR shows such a wide range of estimated annual fatalities for burrowing owls because their fatalities varied widely among the monitored repowered sites (see Slide 25). The projects used were Buena Vista, Vasco Winds and Diablo Winds (see Slide 22).

Mitigation Measures (Slides 28-41)

- MM Bio-11a – The Avian Protection Plan (APP) describes specific actions and protocols for implementing mitigation consistent with the PEIR. Companies would need to complete an APP prior to construction.
- MM Bio-11d – In response to a question regarding current turbine lighting, Sandra Rivera and Renee Culver of NextEra said the Federal Aviation Administration requires Vasco Winds and Buena Vista to have lights on top of certain turbines.

- MM Bio-11g – The companies must conduct an additional two years of monitoring after the tenth year. The County can adjust monitoring duration and frequency.
- MM Bio-11g – The TAC scientist will likely be from a regulatory agency.
- MM Bio-11h – The PEIR extrapolated raptor fatality estimates from Vasco Winds estimates because ICF predicted Vasco Winds would be most similar to future repowered projects.
- MM Bio-11h – Mitigation options include all raptors, not just golden eagles.
- MM Bio-11h – The APWRA PEIR is the first known example of using the Resource Equivalency Analysis (REA) for raptors. The REA is similar to achieving a no-net-loss of habitat program. In response to a question on analyzing burrowing owl impacts, Brad Schafer said the REA is the appropriate method for analyzing operational impacts, while construction-related impacts require the 2012 USFWS guidelines.
- MM Bio-11h – The wind companies have not yet selected mitigation options among those listed in MM Bio-11h.
- MM Bio-11i – The wind companies already mitigate (e.g., anti-perching measures), but the County can require additional or enhanced mitigation. The companies need to comply with all state and federal laws, but the PEIR cannot require USFWS take permits.
- Ms. Rivera said the mitigation measures are program-level and broad to support more comprehensive and effective mitigation.

Other

- In response to a question regarding APWRA management and heightened federal enforcement of certain laws (e.g., the Migratory Bird Treaty Act), Brad Schafer said the County must comply with CEQA but cannot require individual companies to comply with laws outside of its jurisdiction. Heather Beeler, USFWS, added that federal agencies can recommend how to minimize take, especially if a company has an APP and/or Eagle Conservation Plan (ECP).
- SRC members can submit comments (including non-avian related) as individual comments.

The SRC raised the following issues:

- An SRC member suggested ICF clarify that companies can implement mitigation measures within or immediately outside of the APWRA, as well as farther away.
- Some SRC members expressed concern regarding whether the 2005-2011 average fatality rates were appropriate for the baseline calculation. If the PEIR used more recent estimates, the lower baseline may trigger mitigation earlier.
- A few SRC members expressed concern over the large range of estimated annual fatalities. One SRC member questioned how ICF and the County planned on using those ranges for analyzing repowering impacts on avian species.
- An SRC member suggested that the County consider how to structure the Technical Advisory Committees (MM Bio-11g) to ensure sufficient and balanced representation, especially for groups that cannot afford to attend committee meetings without compensation. This often includes conservationists who have no allotted time to attend these meetings.
- An SRC member said the process should ensure that monitoring reports are timely so that corrections can be made if necessary.

- An SRC member suggested that ICF work on PEIR language to clearly distinguish between potential PEIR mitigation and required mitigation, regardless of the PEIR process for determining significant impacts.
- Several SRC members recommended that someone with a scientific background be a member of the TAC.

Public Comment

Brian Sarantos of EDF asked for additional detail on the public meeting. Sandra Rivera said the County will orient the public to the draft PEIR at the June 26 public meeting and receive the public's oral comments.

Heather Beeler of the US Fish and Wildlife Service (USFWS) had several questions and comments. Her questions:

- She asked for the PEIR timeline. Sally Zeff said there is a standard 45-day public comment period. The public can submit written comments until July 21 at 5 p.m.
- She asked whether the County requires an ECP and/or a Bird and Bat Conservation Strategy (BBCS). She also asked how the PEIR aligns with federal and state regulations. Sandra Rivera and Brad Schafer said the County does not require an ECP or BBCS, because those plans are beyond the County's enforcement jurisdiction. A wind company can develop an ECP/BBCS as mitigation subject to County review and approval. Brad Schafer said the County focuses on satisfying CEQA requirements.

Heather Beeler, USFWS, made several comments:

- She acknowledged the challenge for wildlife agencies to heavily engage in technical advisory committees due to budget constraints, and suggested wildlife agencies could serve an advisory role.
- She suggested that the County contact Craig Weightman, California Department of Fish and Wildlife, for its input on the draft PEIR.
- She said an upcoming Vasco Winds report may affect PEIR calculations because surveys found 5 golden eagle fatalities.
- She suggested incorporating eagle nesting data into the PEIR as an avoidance mitigation measure. Brad Schafer said ICF did not incorporate eagle nesting data into project siting, but the PEIR Environmental Setting section has related information.

Next Steps

The SRC will hold a conference call meeting on Wednesday, July 9, 2014 from 9:00 a.m. – 12:30 p.m. PST to develop consensus input on the draft PEIR.

Final 2005-12 Bird Fatality Study

Related Documents

[M101 APWRA 2005-2012 Bird Fatality Report](#)

[M104 June 2014 Presentation Slides](#)

Presentation on the Final Bird Fatality Study

Doug Leslie of the Monitoring Team gave an overview of changes made to finalize the

Fatality Report. The SRC had reviewed the draft report in February. The Monitoring Team incorporated SRC recommendations, including using mean unadjusted fatality rates (rather than fatality counts) to compare seasonal trends across multiple years, incorporating all years of the study into the analysis, correcting minor graph and table errors, and adjusting report language. These adjustments changed some of the fatality estimates, but all conclusions remain the same. Doug Leslie then outlined possible (but not definitive) topics the Monitoring Team may explore for the next report, including an under-sampling and bias issue and different analytical approaches producing different results.

Doug Leslie reviewed an under-monitoring issue with a small number of BLOBs with lower than 20% of their turbines monitored, producing skewed results (golden eagles in particular). He listed four options for developing a proxy rate for under-sampled BLOBs: 1) using the average rate from that turbine type (Kenetech) for a given year, 2) using the average rate for a BLOB from other years where sufficient data are available, 3) using data from similar BLOBs (topography, turbine type, etc.) for a given year, or 4) leaving the data as-is. The Monitoring Team only explored using data from the same turbine-type thus far; this method produces a smaller decrease in golden eagle fatalities, a larger decrease in red-tailed hawk fatalities, and a larger 2006 fatality estimate for American kestrels and burrowing owls.

He said the inherent variability in APWRA data poses major challenges – different analytical approaches produce different estimates, and no “right” approach exists. The APWRA dataset is uniquely complex, and the data would still have large variance even with high sampling. He provided several procedures for estimating fatality rates, including bundling all the fatalities together or calculating fatality rates by turbine string or turbine type.

SRC Discussion on the Final 2005-12 Fatality Report

The SRC evaluated several approaches for calculating fatality point estimates and addressing the under-monitored BLOB anomaly. SRC comments included:

- Develop a graph presenting the three different approaches for addressing the BLOB issue.
- Several SRC members supported including an appendix in the next and concluding fatality report that describes the large variation and uncertainty in APWRA data and how different analytical approaches produce different conclusions.
- The SRC noted the improvements in the report and complimented its authors.

Public Comment

Renee Culver, NextEra, asked how consistent golden eagle fatality rates were across BLOBs. Doug Leslie said fatality rates varied largely across BLOBs because so few golden eagle fatalities occur in APWRA. The fatality rates also differ depending on the analysis approach.

Renee Culver, NextEra, asked what new knowledge the Monitoring Team hopes to gain from recalculating the fatality estimates for under-monitored BLOBs. She suggested focusing on different analytical options within the BLOB approach rather than calculating estimates by turbine type, turbine string, etc. In response, Doug Leslie said the Team wants to characterize the variation around the estimates and address the under-monitored BLOBs issue. He added that it also addresses why some species may require different analytical approaches.

Heather Beeler, USFWS, said she supports analyzing the data in different ways and being transparent about the different approaches. With regard to permitting, USFWS wants to know which analytical framework works best for golden eagles.

Renee Culver, NextEra, asked what type of estimators the Monitoring Team will calculate. Doug Leslie clarified that the estimators refer to different methods for analyzing the data, not specific coefficients for APWRA.

SRC Actions

The SRC agreed to create a subcommittee (Julie Yee and Mike Morrison of the SRC and the Monitoring Team) to discuss analytical issues for the next fatality report.

Next Steps

The Analytical Subcommittee of Mike Morrison and Julie Yee will work with the Monitoring Team to consider approaches for analytical issues such as under-sampled BLOBs and the inherent APWRA data variability.

Meeting Summary Approval

Related Documents

[P280 SRC Call Notes 11-22-13](#)

SRC members approved P280, the November 22, 2013 Conference Call meeting summary, as is.

Subcommittee Recommendation on 2014-15 Special Study

Related Documents

[P286 Alameda County Memo on 2014-15 Special Study](#)

[M104 Memo on Background Mortality Subcommittee](#)

Presentation on the Special Study Subcommittee Recommendation

Per SRC direction at its February meeting, a Special Study Subcommittee (SRC members Mike Morrison and Julie Yee and the Monitoring Team) reviewed potential focused studies for the 2014-15 bird year, given budget constraints – 50% budget reduction for the 2014-15 Monitoring Program. Sandra Rivera, Alameda County, said there will be widespread turbine removals in 2015; therefore, a special study should conclude by March 2015. Also, County supervisors are concerned about program costs, so the SRC needs to consider a recommendation on a special study in light of a very cost-conscious environment: is the benefit of the study worth the cost?

The Subcommittee recommended a background mortality study to help investigate unexpectedly high small bird mortality during the seasonal shutdown. The study design could involve matched pairs (similar areas with and without turbines) or have a gradient

design (survey further beyond turbine strings), and ideally occur 1-2 months before and after the seasonal shutdown. Alameda County requested the SRC review the subcommittee's suggestions and develop a consensus rationale for conducting a special study or selecting a cost savings option.

SRC Discussion on the Subcommittee's Recommendations

SRC members and the Monitoring Team primarily discussed the background mortality study design and its applicability to repowered turbines.

Responses to SRC Questions

County Staff, Special Study Subcommittee members, and wind company representatives provided the following information on SRC questions:

- An SRC member asked what the permits require as far as monitoring for the upcoming year. Sandra Rivera said the CUPs do call for monitoring, however, there are now no additional required management actions left to implement. Few old-generation turbines will remain when current CUPs expire in 2018 (possibly only Ogin and/or AWI).
- Sandra Rivera said the County Board of Supervisors decided to reduce the 2014-15 Monitoring Program to \$250,000 because the 50% reduction criteria was judged to have been met as well as cost concerns and lowered old-generation turbine activity.
- Doug Leslie said the study duration may be 5.5 months at most (October 1 through mid-March). The study design would likely incorporate known burrowing owl use areas since this species has been subject to unexpectedly high mortality during the seasonal shutdown, but all found bird carcasses will be included in the analysis.
- Doug Leslie said the background mortality study would be helpful because there is a large amount of unexplained mortality. A background mortality study could change the context in how the Monitoring Team analyzes already-collected data and inform repowering projects of current background mortality and/or indirect turbine-related mortality.

SRC members made the following key points:

- It would be helpful to have additional information on Shawn Smallwood's burrowing owl behavior studies, and the SRC suggested he provide a report at a future conference call or in-person meeting.
- Potential causes for increased burrowing owl fatalities during the seasonal shutdown might include re-inhabiting breeding grounds and perching opportunities for predators.
- The subcommittee recommended a matched-pairs rather than a gradient study design approach.
- The study could be designed to attempt to prioritize information that is applicable to repowering.
- The study could help open a black box and answer a long-standing question of why there are high burrowing owl fatalities during seasonal shutdown.
- The study could help explain one of the reasons that repowering is effective
- While the study might not provide a statistically robust result, it could provide a sense of the order of magnitude of difference.

- The study could provide information about the effectiveness or ineffectiveness of seasonal shutdown, and potential unintentional impacts on avian mortality
- An SRC member expressed concern on whether the study could sufficiently inform future repowering, because repowered turbines and turbine layout differ so much from old-generation projects.
- The study proposal needs a clear objective, rationale, background and methods to justify implementation. It should also clearly acknowledge its application limitations.
- There will be limitations to a one-year study, and a multi-year study would potentially have more power.

Public Comment on Background Mortality Study

Joan Stewart, NextEra, said if the County approves NextEra's permit application, the company will remove all of its old-generation turbines out of the APWRA by the end of September 2015.

Heather Beeler, USFWS, asked whether birds use non-operating turbines (e.g., "feathering" turbines). An SRC member said an earlier SRC discussion determined that fatalities at feathering turbines, or unlocked slowly rotating but non-operating turbines, were few in number and unavoidable.

Renee Culver, NextEra, expressed concern that time and budget constraints would limit the background mortality study's applicability for repowering.

Zach Walton, NextEra attorney, said companies implement mitigation measures based on extrapolated analyses then adjust mitigation as necessary. He expressed concern that the study could impact repowering projects, as extrapolations from a one-year study may limit mitigation adjustments if there are no future data to track progress. Doug Leslie of the Monitoring Team said extrapolating is not an uncommon practice, and the Team will use the best data available. A Subcommittee/SRC member said the study's purpose is not to develop a fatality estimate for highly-specific model analyses. The special study will only inform companies of whether background mortality is a significant contributor to fatality rates.

Joan Stewart, NextEra, said the study design should consider perching structures other than turbines. NextEra will also remove several on-site pole lines as part of their old-generation turbine removal. A Subcommittee/SRC member said the study design should include perching structures representative of the ambient environment, but also avoid structures designated for removal.

Renee Culver, NextEra, said that a past Monitoring Team American kestrel/burrowing owl (KB) study addressing background mortality was labor intensive, expensive, and still had high uncertainty. An SRC member said this is a more controlled study than the KB study. Another SRC member said the Monitoring Team still needs to conduct a sensitivity analysis to determine the study's feasibility.

Brad Schafer, ICF, said the County may be able to use the background mortality study to adjust the PEIR adaptive management thresholds.

Heather Beeler, USFWS, said USFWS would want a longer study before considering major decision actions based on the research, but she recommended moving forward with the background mortality study. Doug Leslie said wind companies may want to continue surveying for background mortality as part of their repowering monitoring.

Possible Alternative Studies

Renee Culver, NextEra, provided three alternative study options if the SRC determines that the background mortality is unfeasible: golden eagle genetic population analysis, burrowing owl feather/tissue aging, and golden eagle isotope population analysis.

SRC Discussion of Alternative Studies

SRC members asked numerous questions about the study ideas. Based on SRC discussion of alternative studies' utility for repowering, SRC members were split on whether to support the golden eagle population study as an alternative if the background mortality study idea is determined not to be feasible. A golden eagle genetic study could potentially help inform how repowering may affect the golden eagle population (i.e., affecting a local or regional population) and mitigation options, but would also be severely compromised by the short timeframe available for any alternate study.

SRC members raised the following key points:

- The golden eagle study needs sufficient sampling spatially-stratified across APWRA and neighboring areas to detect the next distinct golden eagle population.
- The golden eagle study may have limited applicability for repowering, because management actions cannot control eagle behavior.
- Burrowing owl feather/tissue aging cannot produce adequate specific age data to inform repowering projects.
- The isotope analysis requires more fine-tuning before it can sufficiently address golden eagle populations, even though this information is important.
- A golden eagle population genetic analysis study has merit as an alternative if the background mortality study is found not to be feasible.

Monitoring Team Project Manager Doug Leslie said he saw potential merit in the golden eagle genetic study idea, as it might be useful in helping to identify the applicable geographic area for implementing mitigation.

Public Comment on Alternative Studies

Heather Beeler, USFWS, said Todd Katzner research on the golden eagle genome is available online.

Joan Stewart, NextEra, said much of the golden eagle literature assumes wind companies affect a "local" population, but the existence of a truly "local" population is still uncertain. In response, Heather Beeler said past studies have identified both local and region-sized populations.

In response to SRC questions, Heather Beeler said USFWS may use the genetic data developed if the study is undertaken towards informing golden eagle management beyond Alameda County jurisdiction.

Zach Walton, NextEra attorney, said the golden eagle genetic study may inform wind turbine permitting. Renee Culver, NextEra, said the genetic population study may identify mitigation options outside of a company's local project area. Heather Beeler said USFWS historically denied golden eagle mitigation requests for habitat compensation far from the project area. If the genetic study suggests a region-sized golden eagle population, USFWS may consider remote habitat compensation as a satisfactory mitigation measure.

SRC Recommendation on a 2014-15 Special Study

The SRC was asked to consider whether it considers the background mortality study important to do, helpful but not necessary, or not worth the expense. Individual SRC members supported the study idea, with some seeing the study as merely helpful, while others saw it as important.

The SRC supported conducting a background mortality focused study for the 2014-15 bird year, and agreed that the Monitoring Team should conduct a sensitivity analysis to help guide the study design including sample size. The SRC referred it to the subcommittee.

The SRC agreed to the following draft goal, objectives, and rationale language for the background mortality study:

Study Goal

- Test the hypothesis that non-turbine-related background mortality is a significant contributor to fatality rates at APWRA turbines.

Specific Objectives

- Determine background mortality.
- Select sample sites that include known burrowing owl use areas. Focus study design on surveying burrowing owls.
- As indicated by study result, re-evaluate monitoring data and adjust results accordingly.
- Determine if data are sufficient for adjusting thresholds or implementing (P)EIR mitigation measures

Rationale:

- In order to better evaluate fatality rates at both old generation and new repowered turbines, it is essential to understand background mortality in the APWRA, particularly for smaller focal species (e.g., burrowing owls and American kestrels).

Next Steps

- Renee Culver of NextEra will provide an update at the July 9 conference call on burrowing owl studies conducted for the company's repowering.
- The July 9 conference call also will include SRC review of special study goals, objectives, and rationale drafted at this meeting.
- The Monitoring Team will conduct a sensitivity/power analysis and budget estimates for the background mortality study to present to the SRC on July 9.

SRC 2014-15 Work Plan

Related Documents

[P81 SRC Meeting Plan in 2014-15](#)

Sandra Rivera, Alameda County, and Facilitator Ariel Ambruster oriented the SRC to the proposed 2014-15 work plan. The County may delay the final SRC meeting depending on the SRC's review of the special study results.

Some SRC members indicated a preference for in-person meetings because of webinar logistics. An SRC member suggested the SRC review the special study and draft 2014-15 fatality report separately to retain the regular work plan schedule, perhaps in a conference call.

Future SRC Meetings

Next Conference Call Meeting:

July 9, 2014, 9:00 a.m. – 12:30 p.m. Pacific Standard Time

Potential Topics:

- Draft APWRA Repowering PEIR
- Background Mortality Study Sensitivity Analysis and Budget Estimates
- SRC Special Study Rationale
- Shawn Smallwood Burrowing Owl Study Update

Next Steps

- Facilitator Ariel Ambruster will continue to circulate and update SRC comments to the draft repowering PEIR.

Documents Circulated at Meeting

[P285 Alameda County Memo on Questions for Repowering DPEIR Review](#)

[P287 Draft Repowering Program Environmental Impact Report](#)

[P288 ICF DPEIR Presentation Slides](#)

[M101 APWRA 2005-2012 Bird Fatality Report](#)

[M104 June 2014 Presentation Slides](#)

[P280 SRC Call Notes 11-22-13](#)

[P286 Alameda County Memo on 2014-15 Special Study](#)

[M104 Memo on Background Mortality Subcommittee](#)

[P81 SRC Meeting Plan in 2014-15](#)

SRC Meeting Participants

SRC Members

Joanna Burger

Jim Estep

Mike Morrison

Sue Orloff

Julie Yee

Staff

Sandra Rivera, Alameda County

William Fleishhacker, Alameda County

Ariel Ambruster, Facilitator
Stephanie Horii, Assistant Facilitator

Monitoring Team/ICF

Chris Brungardt
Doug Leslie
Brad Schafer
Sally Zeff

Others

(Meeting sign-in is optional)

Heather Beeler, US Fish and Wildlife
Services (FWS)
Renee Culver, NextEra
Bob Eggers, Altamont Winds, Inc. (AWI)
Annie Mudge, EDF Renewable Energy
(EDF)
Andrew Roth, AWI
Brian Sarantos, EDF
Joan Stewart, NextEra

List of SRC Agreements Developed June 9, 2014

(Compiled from this document)

SRC Recommendation on a 2014-15 Special Study

The SRC supported conducting a background mortality focused study for the 2014-15 bird year

The SRC agreed to the following draft goal, objectives, and rationale language for the background mortality study (specific language subject to change):

Study Goal

- Test the hypothesis that non-turbine-related background mortality is a significant contributor to fatality rates at APWRA turbines.

Specific Objectives

- Determine background mortality.
- Select sample sites that include known burrowing owl use areas. Focus study design on surveying burrowing owls.
- As indicated by study result, re-evaluate monitoring data and adjust results accordingly.
- Determine if data are sufficient for adjusting thresholds or implementing (P)EIR mitigation measures

Rationale:

- In order to better evaluate fatality rates at both old generation and new repowered turbines, it is essential to understand background mortality in the APWRA, particularly for smaller focal species (e.g., burrowing owls and American kestrels).

Next Steps

- Renee Culver of NextEra will provide an update at the July 9 conference call on burrowing owl studies conducted for the company's repowering.
- The July 9 conference call also will include SRC review of special study goals, objectives, and rationale drafted at this meeting.
- The Monitoring Team will conduct a sensitivity/power analysis and budget estimates for the background mortality study to present to the SRC on July 9.