



**California Energy Commission**

# **Draft Outline for Statewide Guidelines for Reducing Wildlife Impacts From Wind Energy Development in California**

**Susan Sanders  
Project Coordinator  
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# 1. Introduction

- Need, purpose and scope
- Relationship to state, federal laws
- Other guidelines and references



## 2. Pre-permitting Assessment

Assess seasonal/annual variation in bird and bat use and sensitivity of the site to provide:

- Fatal-flaws assessment;
- Information for siting turbines & infrastructure;
- Information for impact analysis;
- Baseline for post-construction survey.



## 2a. Preliminary Information Gathering

- Assess validity of data from adjacent sites;
- Consult with CDFG, USFWS, local experts;
- Record searches;
- Reconnaissance site survey.



## 2b. Pre-permitting Field Surveys

Recommendations for frequency, duration, scope of study based on site sensitivity, level of information, size of project.

Evaluation of field methods and study design including:

- Diurnal avian use and behavior surveys;
- Nocturnal studies for bats, night-flying birds;
- Sampling protocol, statistics for fatality estimates.



## 3. Impact Analysis

- Direct impacts: bird/bat collision, construction, habitat loss;
- Indirect impacts: disturbance, behavioral avoidance;
- Cumulative impact analysis.



## 4. Post-construction Surveys

- Count fatalities, compare pre-construction estimates;
- Evaluate effectiveness of mitigation measures and provide feedback for adaptive management;
- Provide standardized information for monitoring reports to agencies.



## 4a. Fatality Monitoring, Use of Site

- Carcass count – address search interval, searcher bias, scavenger removal, search radii, metrics for carcass count;
- Ongoing point count, transects, or nocturnal surveys.



## 4b. Interpreting & Reporting Monitoring Data

- Availability of report for public, agency review;
- Technical Advisory Committee for data interpretation, adaptive management;
- Statewide reporting/tracking wind facility mortality.



## 5. Mitigation

- Avoidance/Minimization Measures
- Post-Construction Measures
- Compensatory Mitigation



## 6. Guidelines Updates and Revisions

- Mechanism for ongoing feedback
- Process to update/revise guidelines



# Your Input on Guideline Development

- Important issues omitted from outline?
- Topics included that should be eliminated?
- Issues for in-depth discussions at future workshops?