HAMER ENVIRONMENTAL
Innovative Solutions to Natural Resource Issues

THREATENED AND ENDANGERED BATS

Recent research has found high numbers of bat fatalities at some wind development sites. As a result, new wind power projects are under increased scrutiny for their potential impacts to bat populations. To better understand and mitigate the impacts of new and future wind projects, rigorous scientific evaluations of site-specific bat species composition, activity, and mortality are required. **Hamer Environmental** offers a full range of environmental services necessary to address these concerns, including:

- State-of-the-art acoustic sampling techniques allowing low cost species identification without mist-netting
- Long-term monitoring using solar-powered acoustic data loggers to assess species composition and indices of abundance during both spring and fall migration
- Site-specific habitat evaluations to assess the potential impacts of construction to local threatened and endangered species
- Post-construction mortality monitoring to support predictions made during pre-construction acoustic surveys
- Development of an assessment tool to estimate "per turbine" mortality using advanced collision-sensor technology
- Operational mitigation and mortality reduction plans

Local and federal agencies often require in-depth studies to minimize impacts, and **Hamer Environmental** can perform bat studies for a variety of developments including:

- Wind energy projects
- Forestry-related activities
- Transportation such as right-of-ways
- Power lines and transmission corridors
- Restoration sites
- Mitigation plans
- Other urban developments
- Dam relicensing

Habitat Assessment and Modeling

Our staff is experienced at identifying habitats used by threatened and endangered bat species, as well as the most up-to-date statistical techniques to predict occupancy.

Mist-Netting

Many state and local agencies require mist-netting within the proposed project to establish presence or non-detection of species. Hamer Environmental staff has hundreds of hours of mist-netting experience, and is knowledgeable handling and identifying threatened and endangered species.

Radio Telemetry

Hamer Environmental has experience tracking bats using radio-telemetry, for both diurnal and nocturnal studies. Many states require radio-telemetry studies to map patterns of habitat use as part of the impact assessment process.

Contact Us

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BIRD OF PREY STUDIES

Hamer Environmental has experience with research, surveying and handling of eagles, falcons, owls, and hawks. We offer custom designed scientific studies, surveys, and monitoring plans for a wide variety of projects that may have impacts to this unique group of birds. Our services include:

- Nesting Surveys and Monitoring
- Raptor Migration Surveys
- Ornithological Radar Studies
- Radio-Telemetry and Tracking Studies
- Habitat Suitability Assessments
- Eagle Conservation Plan Guidance
- Collision Risk Modeling and Analyses
- Mitigation and Adaptive Management Plans
- Habitat Conservation Plans
- Post Construction Monitoring
- Bird and Bat Conservation Strategies

We provide our clients with all of the requirements outlined in the U.S Fish and Wildlife Service's Land-based Wind Energy Guidelines; including timely and frequent communication with State and Federal Agencies and early landscape-level and site specific assessments.

Similar to federal guidelines, we use a "tiered approach" to assess the potential adverse effects to species of concern and their habitats. The tiered approach is a decision making process for collecting information and quantifying the possible risks of the proposed development to species of concern. We then evaluate those risks and make beneficial siting, construction, and operation decisions to successfully permit a project.

Experience

- Raptor Migration and Nesting Surveys; Lakeview Wind Energy Project
- Raptor Surveys Using Ornithological Radar; Chelan PUD Powerline Construction Project
- Bald Eagle and Avian Scavenger Health Assessments; USFWS NW Pacific Coast
- Spotted Owl and Northern Goshawk Surveys; Powerline Construction Project
- Pre-construction Siting Assessments of Raptor Use and Raptor Surveys; Holy Cross Wind Energy Project