

SUBJECT: WIND ENERGY ZONING ORDINANCE AMENDMENT AND GENERAL PLAN AMENDMENT TO THE MOUNTAIN EMPIRE SUBREGIONAL PLAN (BOULEVARD SUBREGIONAL PLANNING AREA) AND BORREGO SPRINGS COMMUNITY PLAN TO ALLOW WIND ENERGY DEVELOPMENT, POD 10-007 (DISTRICTS: ALL)

**Memorandum for the Record**

The following memorandum is provided in response to the Stephan C. Volker letter received on May 7, 2013 and the Donna Tisdale email dated May 13, 2013. The comments included in both the letter and the email do not raise new issues that had not been previously considered nor do they require additional analysis. A brief response to the issues raised is provided below.

- I. **Introduction** – This section summarizes the Conservation Groups opposition to the project.
- II. **Need for Wind Energy Generation and Project Alternatives** – The Board of Supervisors must determine how the County can best meet project objectives and, in doing so, consider the Project benefits when weighed against its impacts. CEQA findings and a Statement of Overriding Considerations have been prepared pursuant to CEQA Guidelines and provided under Attachment G of the May 8, 2012 Board letter. The Statement of Overriding Considerations on Page 210 of the staff report contains an analysis of the benefits the project provides. These benefits include energy and greenhouse gas reduction benefits, technological benefits, economic benefits and regulatory benefits for your Board’s consideration.
- III. **Noise Impacts** – The letter does not raise new issues that had not been previously considered nor does it require additional analysis. Noise issues related to infrasound (ILFN) have previously been considered. The letter asserts “recent studies convincingly demonstrate that wind turbine-generated ILFN *does* have significant adverse health effects.” Exhibits are provided to support this assertion; however, the letter misrepresents exhibit findings and does not balance them with reviews or research that present the prevailing consensus that ILFN has no demonstrated adverse health effects.

The letter also claims that the County should use “G” weighted noise measurements or unweighted measurements to assess noise from wind turbines. However, there currently is no established or effective G-weighted standard for measuring impacts from wind turbines and the use of C-weighting, as the County proposes, adequately captures the low frequency component associated with large wind turbines.

- IV. **Hydrological Impacts** – Staff reviewed Dr. Ponce’s report and consulted with County Groundwater Geologist Jim Bennett on this issue. It was determined that future large wind turbine projects will have to prepare a groundwater investigation pursuant to the County Groundwater Ordinance. The investigation will ensure that there is sufficient groundwater to serve the proposed use plus build out of the General Plan in that particular water basin. As such, the Groundwater Ordinance will preclude significant impacts to groundwater resources.

In a May 13, 2013 e-mail, Donna Tisdale provided information about the California Public Utilities Commission suspending the bulk water sales of the Live Oak Springs Water Company and that the suspension affects certain renewable energy projects, such as the Tule wind energy project and Soitec Solar project. It is unclear how this information is relevant to the Wind Ordinance Amendment project. The Wind Ordinance Amendment project does not

propose any specific wind energy projects. Moreover, proposed and approved renewable energy projects must have a source of water supply, and proposed projects that require a Major Use Permit more than 20 acre feet of groundwater per year will be required to prepare a groundwater study to ensure that the project, together with build out of the General Plan in that particular water basin, will not cause any significant impacts to groundwater supply.

- V. **Impacts to Birds and Bats** – Staff worked closely with the wildlife agencies on the siting criteria for small wind turbines but ultimately disagreed on the buffer width for known golden eagle nests. While there is no evidence that small residential turbines would have adverse effects on golden eagle, the County agreed that a 4,000 foot buffer, which is the distance used in the San Diego Multiple Species Conservation Program Plan, would minimize any potential disruptions to nesting eagles. The two-mile buffer recommended by the US Fish and Wildlife Service was rejected after GIS analysis showed that it would constrain too much of the project area and impede the project objectives.

Mr. Volker's letter states, "...recent studies have also shown that wind turbine blades not only strike and kill bats, but also kill them through barotrauma, a condition caused by the sudden loss of air pressure behind the moving blades which causes the balloon-like lungs of bats to implode." Mr. Volker does not cite any recent studies, nor does his cited April 12, 2012 letter on the Project cite any studies. Therefore, no evidence has been presented to substantiate this alleged effect. In analyzing potential impacts to biological resources for the Wind Energy Ordinance EIR, the County relied on numerous studies as well as published guidelines. Two primary sources recommended by the wildlife agencies were the California Energy Commission (CEC) Guidelines for Reducing Impacts to Birds and Bats from Wind Energy Development and the USFWS Land-Based Wind Energy Guidelines. Neither of these guidelines recognizes barotrauma as an issue. However, the USFWS Guidelines state, "At some projects, bat fatalities are higher than bird fatalities, but the exposure risk of bats at these facilities is not fully understood." This information was included in the Wind Energy Ordinance EIR (Page 2.4-30).

For small wind turbines, the County proposes to minimize direct and indirect impacts to bats by requiring a 300-400 foot setback from known significant roost sites for bat species. For large wind turbines, the County proposes to apply the latest available biological guidelines from the USFWS, CDFG, CEC, and from the Avian Power Line Interaction Committee during the discretionary environmental review of future large wind turbine projects. While at the present time staff is unaware of any evidence that barotrauma is a potentially significant adverse impact to bat species, any available evidence supporting this assertion would not change the conclusions made in the County's Wind Energy Ordinance EIR. As discussed and analyzed in Section 2.4 of the EIR, it was determined that the proposed Project would have significant and unavoidable effects to: (1) candidate, sensitive, or special-status species (including bat species); (2) riparian habitat or sensitive natural communities; and (3) wildlife movement (including the flight paths of birds and bats).

- VI. **Electric and Magnetic Field Emissions** – The letter does not raise new issues that had not been previously considered nor does it require additional analysis. The studies mentioned in the Volker letter by Milham and Morgan, and Havas and Colling do not scientifically demonstrate a causal health impact of EMF on health.

- VII. **Shadow Flicker** – The Wind Energy Ordinance EIR includes a brief discussion of shadow flicker in Section 2.6.7, Other Field-Related Public Concerns or Hazards. As noted in the introduction to this section, the discussion of other public health concerns and hazards, such as shadow flicker, is not considered in the context of CEQA/NEPA for determination of environmental impacts. This is because there is no agreement among scientists that shadow flicker creates a hazard or health risk, and there are no recognized standards for defining or evaluating such impacts. Rather, these public health concerns were included in the EIR for general discussion and disclosure since the issues had been raised during the scoping and Notice of Preparation period.

County staff does not agree that a road setback approved in Ireland constitutes substantial evidence that shadow flicker from wind turbines results in safety hazards to motorists. Section 2.6.7 of the Wind Energy Ordinance EIR provides thorough discussion and rationale with regard to this subject.

- VIII. **Property Values** – Pursuant to Section 15131 of the CEQA Guidelines, economic and social effects of a project shall not be treated as significant effects on the environment. Therefore, property value impacts were not analyzed or considered in the project EIR.
- IX. **Grandfather Request** – This section summarizes the Conservation Groups’ opposition to Iberdrola renewable request to have the Tule wind project “grandfathered” under the County’s Code of ordinance.