

APPENDIX 6.6-5

AVIAN TRANSMISSION LINE MORTALITY REPORT



Michael Bumgardner  
Bumgardner Biological Consulting  
11571 Prospect Hill Drive  
Gold River, CA 95670-8216

# Bumgardner Biological Consulting

February 1, 2007

Joe Stenger  
TRC  
2666 Rodman Drive  
Los Osos, CA 93402

Dear Mr. Stenger:

As per a request from the California Department of Fish and Game (DFG), Bumgardner Biological Consulting (BBC) has conducted additional research into avian transmission line mortality in the vicinity of the five miles of additional electric transmission line that is associated with the proposed Avenal Energy Project (proposed project). The additional five miles of transmission line would be located adjacent to an existing Pacific Gas & Electric (PG&E) transmission line corridor located immediately south of the Gates Substation in Fresno and Kings counties. The existing transmission line corridor currently contains two parallel 500 kV lines and two 230 kV lines.

BBC contacted Sheila Byrne (PG&E) on November 28, 2006 in regards to data that PG&E has collected on avian transmission line strikes along the subject PG&E transmission line corridor (pers. comm.). Ms. Byrnes is PG&E's in-house technical expert on avian mortality associated with electric transmission lines and towers. Ms. Byrne was unaware of any avian mortality data collected by PG&E or other entities in the vicinity of the proposed project. Furthermore, she indicated that the existing transmission line corridor is not within an area that is known to be an avian migratory corridor or that attracts large numbers of birds. Therefore, the magnitude of avian line strikes in the area is likely negligible (if it occurs at all). Nonetheless, she suggested speaking with Mark Dedon (PG&E), Michael Best (PG&E), and John Bridges (Western Area Power Administration).

Mr. Dedon is an in-house PG&E biologist who also has conducted substantial research on avian transmission line strikes. BBC contacted Mr. Dedon on December 6, 2006 (pers. comm.). Mr. Dedon was not aware of any avian mortality associated with PG&E's existing transmission line corridor south of the Gates Substation. Furthermore, Mr. Dedon indicated that he had conducted surveys within the transmission line corridor from the Gates Substation to the Midway Substation in 2002 and found no evidence of avian mortality that could be attributed to line strikes. Consequently, he concurred with Ms. Byrne's assessment that the magnitude of avian line strikes in the project area is rare (if it occurs at all).

*Quality Biological Services Through Technical  
Proficiency and Experienced Management*



February 1, 2007

Page 2

BBC also contacted John Bridges via e-mail on December 6, 2006. Mr. Bridges is an in-house expert on avian mortality associated with electric transmission lines and towers for the Western Area Power Administration (WAPA). Though most of his experience is from the Cosumnes River north, he responded via e-mail on December 7, 2006 that he is unaware of any avian mortality from line strikes in the vicinity of the proposed project.

BBC also sent an e-mail to Michael Best on December 6, 2006 requesting information on power outages that could be attributed to avian transmission line strikes along the PG&E transmission line corridor south of the Gates substation. Mr. Best is PG&E's Bird Protection Program Manager. He responded on December 14, 2006 that avian transmission line strikes rarely cause power outages and thus go undetected. However, he was not aware of any avian line strike issues in the vicinity of the proposed project. Most of the avian line strike incidents that he has dealt with have occurred further north in the San Joaquin and Sacramento valleys.

Lastly, BBC conducted an internet search for information on known avian migration or movement corridors within the vicinity of the proposed project. This research resulted in no identification of known migration or movement corridors for avian species in the project vicinity. The nearest known migration corridor is the adjacent foothills of the Coast Ranges (where raptors routinely migrate along the ridgelines during fall migration). The absence of a known migration corridor in the project vicinity is not unexpected given the lack of local geographic characteristics that usually accompany such corridors (e.g., ridgelines, mountain gaps or passes, coast lines, substantial wetland resources, etc.). Furthermore, the area surrounding the existing transmission line corridor consists entirely of agricultural land uses. Therefore, the area does not provide the types of natural resources that attract large numbers of avian species (e.g., wetlands, lakes, reservoirs, etc.).

Consequently, there is no evidence to suggest that construction of an additional electric transmission line within the existing transmission line corridor located south of the Gateway Substation in Kings County would result in increased avian mortality from line strikes.

Should you have any questions in regards to information presented in this technical memorandum please do not hesitate to contact me (916-638-7368).

Sincerely,

A handwritten signature in cursive script that reads "Michael Bumgardner".

Michael Bumgardner  
Bumgardner Biological Consulting