O5 Backcountry Against Dumps

O5-1 This comment is a cover email to the comments submitted on behalf of Backcountry Against Dumps and Donna Tisdale. Responses to the individual comments within the attached comment letter and 13 exhibits mentioned in this comment are included below. No further response is required.

O5-2 This comment provides an introduction to comments that follow. No further response is required.

O5-3 The comment discusses concern about piecemeal environmental review (referencing *Berkeley Keep Jets Over the Bay Commission v. Board of Port Commissioners of the City of Oakland* [2001] 91 Cal.App.4th 1344, 1358). The comment also states that environmental consideration does not become submerged by chopping a large project into many little ones (referencing *Bozung v. Local Agency Formation Commission* [1975] 13 Cal.3d 263, 283–284). The references to these two legal cases are noted and do not specifically call into question the conclusions made or analysis contained within the Campo Wind Project with Boulder Brush Facilities (Project) Draft Environmental Impact Report (EIR). No further response is required. Refer to Global Response GR-3 for a discussion regarding "piecemeal" environmental analysis.

O5-4 Please refer to Global Response GR-3 for a discussion regarding piecemeal environmental analysis.

O5-5 This comment refers to extracts of Chapter 1, Project Description, Location, and Environmental Setting, of the Draft EIR regarding the high-voltage substation and the Torrey Wind Project. Please refer to Global Response GR-3 regarding the relationship of the Torrey Wind Project to the proposed Project.

O5-6 This comment states that the County of San Diego (County) may not piecemeal a project that would not be constructed but for the Boulder Brush Facilities' substation and switchyard. Please refer to Global Response GR-3 regarding piecemealing environmental analysis.

O5-7 The comment expresses concern that the Draft EIR omits meaningful consideration of numerous potentially significant environmental impacts. However, the comment does not specifically mention or identify environmental impacts; thus, no further response is required, and no edits to the Draft EIR are required.

O5-8 The comment states that the "Draft EIR fails to meaningfully analyze impacts to golden eagles." The comment references Exhibit 1 to this comment letter and also states the

Draft EIR did not attempt to quantify the number of expected golden eagle collisions with wind turbine blades and electrocutions from power lines. The comment further states it is impossible know how significant the Project's impacts to golden eagles will be without a collision and electrocution quantification.

In response, the Draft EIR includes a thorough analysis for impacts to golden eagles. The Draft EIR used the Eagle Conservation Plan Guidance Module 1 – Land-Based Wind Energy Version 2 and the U.S. Fish and Wildlife (USFWS) Land-Based Wind Energy Guidelines.[1,2] These guidelines were used to inform analysis and study design, as well as to facilitate discussion with USFWS during consultation to identify potential eagle mortality risk posed by a wind project and associated powerlines in this location. These plans proceed in stages with initial site analysis, more focused studies including collecting avian use data, then analysis at the end once data has been acquired. This is an entirely voluntary process and the data analysis is used for agency consultation and permitting, not necessarily for California Environmental Quality Act (CEQA) purposes.

Additionally, consultation with USFWS was undertaken to confirm the appropriate methodology, data sets, and industry-standard practices to be used for assessing Project effects on eagles. Methods confirmed with USFWS for use on other recent wind energy projects in California were utilized in order to gather pre-Project data to evaluate the need for an eagle take permit. Survey methods for migratory birds and eagles were disclosed to, and approved by, USFWS on October 10, 2018. USFWS did not request any modifications to the survey methods nor were additional surveys requested. All-day eagle-specific migration surveys were performed during fall 2017 and 2018, and year-round 30-minute point count surveys were performed beginning in September 2017, as discussed in Section 3.3 of the Biological Resources Technical Report included as Appendix D to the Draft EIR. The 30-minute point counts were in excess of what was requested by the USFWS.

In terms of risk of avian electrocution, electrocution is of limited risk due to the type of infrastructure (wire size and spacing to avoid wing-related electrical arching) and wiring protections (e.g., insulation) proposed for the Project, as well as the Project's required compliance with the Avian Power Line Interaction Committee standards. The effects related to potential golden eagle collisions and electrocution are addressed in Chapter 2.3, Biological Resources, and the Biological Resources Technical Report

[1] USFWS 2013. "Eagle Conservation Plan Guidance Module 1–Land-Based Wind Energy Version 2." April 2013. Accessed from https://www.fws.gov/migratorybirds/pdf/management/eagleconservationplanguidance.pdf

[2] USFWS 2012. "U.S. Fish and Wildlife Service Land-Based wind Energy Guidelines." March 23, 2012. Accessed from https://www.fws.gov/ecological-services/es-library/pdfs/WEG_final.pdf

(Appendix D) of the Draft EIR. The Draft EIR determined that the chance for collisions/electrocutions is very low and potential impacts would be less than significant. Nonetheless, mitigation measures M-BI-8 and M-BI-B recommend mitigation for reducing effects to raptors and other birds, including from collisions or electrocution. In addition, M-BI-9 and M-BI-B(d) require removal of large animal carcasses that may attract carrion-consuming birds of prey. Golden eagles are aerial predators, but they are also known to scavenge and utilize carrion. Therefore, the Draft EIR includes an adequate evaluation of impacts to golden eagles. Please also refer to Global Response GR-5, Biological Resources, for additional details regarding analysis of eagles.

O5-9 The comment indicates that the "Draft EIR fails to meaningfully analyze impacts to bats." The comment provides introductory and informational text for Comment O5-10. Specifically, the comment states that wind facilities can kill bats through collisions and barotrauma, and that bats are attracted to wind turbines and associated infrastructure and use them as night or foraging roosts.

In response, the reference to 2020 peer-reviewed scientific journal article written by K.A. MacGregor and J. Lemaitre, included as Exhibit 2 to this comment letter, discussing the role of bats in the Earth's ecosystem is noted.

The 2017 V.J. Bennett, A.M. Hale, and D.A. Williams study, Fecal Surveys Reveal Species-Specific Bat Activity at Wind Turbines, included as Exhibit 3 to this comment letter, is also noted. The study in north-central Texas collected bat feces and carcasses at an established wind turbine farm. However, the research does not state if the site was known to support bat species before the construction of the wind turbines, and therefore it is not clear whether the turbines attracted more bats than prior to construction of wind turbines. However, as noted in Response to Comment O5-10, the proposed Project's direct impacts to bats would be negligible and would not be considered significant.

O5-10 The comment states the Draft EIR fails to meaningful analyze the Project-specific bat impacts and cumulative impacts of bat fatalities at wind farms in the region. The comment references the Draft EIR's conclusion that bats are not anticipated to have a high number of collisions, but then states the conclusion is not supported by evidence. The comment correctly states that Appendix D to the Draft EIR includes a table of "Acoustic Activity Indices for All Bats Detected in the Vicinity of the Boulder Brush Corridor." The comment also states that the "Draft EIR fails to provide similar data for the 'Campo Corridor.'"

In response, regarding the potential relative risk of collision for bats, a number of factors were considered in the analysis provided in the Chapter 2.3 and the Biological Resources Technical Report (Appendix D) of the Draft EIR, including the abundance of bats in the vicinity of the Project Site, bat usage of the study area, flying heights of bats, and lighting as a potential attractant. Also refer to the section Avian Species and Bats in Global Response GR-5.

It was concluded that direct impacts to bats could result in mortality or injury due to collisions at wind turbines; however, the potential effects of the Project on the regional meta-community of bats, including those species known to be susceptible to collision with turbine blades, would be negligible. Although potential direct impacts to bats would not be considered significant, implementation of the Bird and Bat Conservation Strategy as part of mitigation measure M-BI-B for the Campo Wind Facilities, as required by the Record of Decision issued by the Bureau of Indian Affairs, would further reduce potential impacts associated with bat collisions with wind turbines.

Regarding the Campo Corridor, bat data is presented in Table 19 of Appendix H to the Draft Environmental Impact Statement (EIS) prepared for the Project by the Bureau of Indian Affairs, as noted in Section 4.4.2 of Appendix D to the Draft EIR.

O5-11 The comment states that the "Draft EIR fails to consider (1) two key factors for determining Project-specific bat impacts (barotrauma and turbine blade collisions), and (2) the cumulative effects of bat fatalities from wind turbines across the region." Barotrauma and collisions are discussed in Comment O5-12, and the cumulative effects of bat fatalities are discussed in Comment O5-10.

O5-12 The comment states the Draft EIR fails to discuss the risk to bats of barotrauma and that barotrauma is only mentioned in the Draft EIR, without explanation or quantification of impact risk. In response, the wind turbines were considered to present a potential risk to bats for both collision and barotrauma impacts. The Final EIR has been revised in Section 2.3.3.2 to clarify this point. In regard to research regarding barotrauma, in 2018 the National Renewable Energy Laboratory conducted one of the few studies to attempt to analyze actual risk related to the barotrauma hypothesis.[3] They used computational simulations and analytics to determine actual risk. Using realistic assumptions regarding activity (e.g., 15 meters per second as the highest wind speed that bats would be expected to fly) and survival pressures (i.e., existing data regarding rats as a surrogate), and comparing three different distances from the blade, they

[3] NREL (National Renewable Energy Laboratory). 2018. *Estimating the Likelihood of Bat Barotrauma using Computational Simulations and Analytical Calculations*. Prepared by M. Lawson, S. Jenne, and R. Thresher. Golden, Colorado: NREL. March 20, 2018.

concluded that (1) the pressure drop on the suction side of the blade was a factor of four less than the lethality threshold for rats, (2) the low-pressure region over the blade is highly localized, and (3) the minimum pressure in the tip vortex is a factor of three less than the lethality threshold for rats. While the actual relationship between rat thresholds and bat thresholds is not known, they seem to be an equivalent surrogate and the conclusion was that it seemed unlikely that barotrauma is a significant contributor to turbine-related bat deaths.

O5-13 The comment states the Draft EIR fails to address the risk that wind turbines could attract more bats to the area. The comment also refers to Exhibit 3 to this comment letter. Refer to Response to Comment O5-9 for discussion of attracting bats due to wind turbines.

O5-14 The comment states that the Draft EIR fails to properly analyze the Project's audible noise impacts. Please refer to Responses to Comments O5-16 through O5-27 and O6-81 through O6-112. Please also refer to Global Response GR-4, Noise.

O5-15 The comment states that the acoustical analysis in the Draft EIR has numerous technical errors as discussed in dBF's February 3, 2020, review of the analysis (included as Exhibit 4 to this comment letter). Please refer to Responses to Comments O5-16 through O5-27 and O6-81 through O6-112. Please also refer to Global Response GR-4.

O5-16 The comment states that the Draft EIR fails to discuss in the main text the issue of amplitude-modulated wind turbine noise (the "whoosh" sound). The comment also refers to Exhibit 5 to this comment letter. In response, the Acoustical Analysis Report (Appendix G to the Draft EIR) addresses amplitude-modulated wind turbine noise in Section 6.2.2.2 and concludes that "measurable and audible amplitude modulation is expected to be a very rare event" on the basis of cited research by Resource Systems Group. Additionally, and as explained in Section 6.2.2.2 of Appendix G, the aerodynamic conditions that can allow potential amplitude-modulated noise are typically due to temperature inversion, which the Bureau of Land Management notes occurs at wind speeds approximately less than 3 meters per second, which is at or below the speed at which typical modern wind turbines begin to operate and make the lowest levels of noise emission. Further, even if amplitude modulation were to occur, there are no local, state, or federal standards of significance for determining the environmental impact of this cyclical variation in noise pressure. Please refer to Amplitude Modulation in Global Response GR-4 for further discussion. In regard to annoyance, please refer to Global Response GR-2, Public Health.

O5-17 The comment states the Acoustical Analysis Report (Appendix G to the Draft EIR) for the Project dismisses the risk of amplitude modulation from Project turbines by citing a 2016 study in unnamed locations. Please refer to Response to Comment O5-16. Also refer to Amplitude Modulation in Global Response GR-4.

O5-18 The comment refers to reports completed by Wilson-Ihrig, dated March 18, 2019, and dBF Associates, dated December 16, 2019, specifically mentioning amplitude modulation, which are included as Exhibit 8 to this comment letter. In response, the County finds that these reports fail to provide sufficient evidence that a significant environmental impact due to amplitude modulation would occur as a result of the Project. Please refer Response to Comment O5-16 and Amplitude Modulation in Global Response GR-4.

O5-19 The comment states that the Draft EIR fails to meaningfully describe the range of health impacts associated within noise generation and exposure to wind-turbine noise. The comment mentions stress, sleep disturbance, and reduced quality of life. Please refer to Global Response GR-2.

O5-20 The comment provides a reference to the Friant Ranch case, stating that the court found the Draft EIR failed to "give any sense of the nature and magnitude of the 'health and safety problems caused by the physical changes' resulting from the Project as required by the CEQA guidelines" (*Friant Ranch*, 6 Cal.5th at. 522 [quoting CEQA Guidelines Section 15126.2(a)]). In response, the Friant Ranch decision calls for the quantification of adverse health impacts that an EIR has identified to be significant and unavoidable where it is feasible to do so. The Draft EIR for this Project did not identify health impacts from wind turbine noise as significant and unavoidable. The County does, however, acknowledge studies that have found that a minority of people self-report symptoms of fatigue, stress, and sleep disturbance from wind turbines. Please refer to Global Response GR-2 for further discussion.

O5-21 The comment states the Draft EIR fails to mention stress and sleep or otherwise connect the Project's noise generated impacts to health outcomes. In response, Chapter 2.5, Section 2.5.3.5, Public Concerns of Health Effects, of the Draft EIR provides a discussion of health effects related to infrasound, low-frequency noise, and other issues raised by the public. Global Response GR-2 also includes a discussion of concerns raised by the public regarding health effects. These discussions are primarily based on the County Public Health Position Statement, initially prepared in 2012 and subsequently updated in 2019.

As explained in the Draft EIR, the County Public Health 2019 Position Statement summarizes conclusions from the most recent peer-reviewed literature and scientific publications with respect to any causal link or other associations between wind turbines and individual health or public health concerns. The County Public Health 2019 Position Statement, which is a part of the County's record of proceedings for this Project, concludes that indirect impacts on health through sleep disturbance are possible but not readily quantifiable because the stress and sleep disturbance is based on perceptions of annoyance, which are subjective. The County Public Health 2019 Position Statement states, "The majority of evidence shows that, while noise from wind turbines is not causally related to adverse health effects, wind turbines may be a source of annoyance for a small minority of community residents. That annoyance may cause stress for these individuals, and that stress may be associated with certain reported health effects." Please refer to Global Response GR-2 for additional discussion of the County Public Health 2019 Position Statement's conclusions. Unlike the criteria air pollutants involved in the Friant Ranch case—for which there are large scale epidemiological studies showing adverse health outcomes related to asthma, cancer, and respiratory illness from criteria air pollutants—there are no defined or adopted CEQA standards for defining health risk from these concerns and no general agreement among scientists that wind turbines contribute to health risks, as stated in the Draft EIR Chapter 2.5, Section 2.5.3.5. Also refer to Draft EIR Chapter 2.6, Noise, and Global Response GR-4.

O5-22 The comment references two studies that investigated the physiologically measured sleep effects of nocturnal wind turbine noise in a laboratory setting, and references Exhibit 9 to this comment letter. Please refer to Response to Comment O5-21 and Global Response GR-2.

O5-23 The comment is an extension of the preceding Comment O5-22 referencing sleep effects and depression as potential effects of wind turbine operation. In response, the cited Poulsen study[4] concludes "no consistent associations" linking "first-time redemption of sleep medication and antidepressants" to indoor low-frequency noise from wind turbines. Please refer also to Global Response GR-2.

O5-24 The comment states that the Draft EIR fails to meaningfully analyze the Project's impacts associated with infrasound and low-frequency noise. The comment also references discussion in Exhibit 11 to this comment letter. In response, the Draft EIR

[4] Poulsen, A.H., O. Raaschou-Nielsen, A. Peña, A.N. Hahmann, R.B. Nordsborg, M. Ketzel, J. Brandt, and M. Sørensen, 2019, "Impact of Long-Term Exposure to Wind Turbine Noise on Redemption of Sleep Medication and Antidepressants: A Nationwide Cohort Study," Environmental Health Perspectives, 127 (3) (attached as Exhibit 10 to Comment Letter O5).

analyzes low-frequency noise in Chapter 2.6 and Chapter 2.5, Hazards and Hazardous Materials, and discusses infrasound in Chapter 2.5, Section 2.5.3.5. As for a low-frequency noise impact assessment, the Draft EIR evaluates the contrast between a C-weighted aggregate wind turbine operation noise level from the Project to the Residual Background Sound Criterion as required by the County (per Ordinance 10262). The County does not have any regulations pertaining to infrasound. In addition, neither the Bureau of Indian Affairs nor the Campo Band of Diegueño Mission Indians have regulations related to infrasound. Please also refer to Global Responses GR-2 and GR-4 for further discussion of infrasound and low-frequency noise.

O5-25 The comment references a 2018 Carlile study (Exhibit 11 to this comment letter) and states that A-weighted and C-weighted measurements exclude low frequencies from wind turbines. The comment also references a 2019 Poulsen et al. study, which is included as Exhibit 10 to this comment letter. The comment then references studies by Wilson Ihrig and dBF commissioned by Backcountry Against Dumps.

In response, the cited Carlile study is a literature review and offers no primary research findings. The "exclude crucial low frequencies" quoted by the comment from the Carlile study simply reinforces the fact that defined sound weighting scales like A, C, and even G do indeed filter infrasound and low-frequency noise. A comparative graph of these three weighting scales for the sound spectrum between 0 and 100 Hertz, which adjust an unweighted level by a frequency-dependent quantity of decibels, is shown in the commenter's cited Wilson-Ihrig report and reproduced in Global Response GR-4. Please refer to Global Response GR-4 for further discussion of measuring low frequencies.

O5-26 The comment references a Wilson-Ihrig study, dated March 18, 2019, and an earlier Wilson-Ihrig report, dated February 28, 2014, and their respective noise measurements, and states that wind turbine-generated infrasound was measured at residences within 8 miles of the Kumeyaay and Tule turbines. In response, the County acknowledges the referenced Wilson-Ihrig studies and a dBF Associates report, dated December 16, 2019, also referenced by the comment, that may have indeed measured infrasound and low-frequency noise contributions from the distant operating wind turbines in the vicinity. This comment does not raise a specific issue regarding the adequacy of the Draft EIR. The County does not have any regulations or standards pertaining to infrasound levels. Noise impacts analyzed as part of the Draft EIR are discussed in Chapter 2.6, Noise, of the Draft EIR, and the Acoustical Analysis Report (Appendix G to the Draft EIR). Additionally, please refer to Global Response GR-2 Public Health, and GR-4 Noise for Project specific responses regarding the health impacts of noise, including low-frequency noise and infrasound.

O5-27 The comment states the Draft EIR does not consider the recent confirmation of significant infrasound and low-frequency noise production of the three existing wind turbine projects within the Project Vicinity. In response, there are no County or federal regulations pertaining to infrasound. Section 6952(f) of the County's Zoning Ordinance includes an assessment of low-frequency noise by comparing C-weighted noise from Project wind turbine operation with the Residual Background Sound Criteria, which is an A-weighted L90 background sound level plus 5 decibels. The L90 value, based on baseline measurements reported in the Draft EIR, should include (A-weighted) acoustical contribution from existing operating wind turbines and other sound sources that—in aggregate—compose the outdoor sound environment during the surveyed field conditions. Please also refer to Global Response GR-4 which includes a discussion of infrasound and low-frequency noise.

O5-28 The comment states that the Draft EIR fails to quantify the Project's lifecycle greenhouse gas emissions. In response, under CEQA, a lifecycle analysis is not required. A lifecycle analysis is used to assess the overall greenhouse gas (GHG) impacts of a fuel, including each stage of its production and use[5]. When considering Manhattan Beach's adoption of an ordinance banning point-of-sale plastic bags within the city limits, the California Supreme Court held (*Save the Plastic Bag Coalition v. City of Manhattan Beach* [2011] 52 Cal.4th 155, 175):

> this case serves as a cautionary example of overreliance on generic studies of 'life cycle' impacts associated with a particular product. Such studies, when properly conducted, may well be a useful guide for the decision maker when a project entails substantial production or consumption of the product. When, however, increased use of the product is an indirect and uncertain consequence, and especially when the scale of the project is such that the increase is plainly insignificant, the product 'life cycle' must be kept in proper perspective and not allowed to swamp the evaluation of actual impacts attributable to the project at hand.

Please refer also to Response to Comment O5-29.

O5-29 The comment states in order to meaningfully analyze the Project's global warming impact, the County must conduct a lifecycle assessment of the Project's greenhouse

[5] United States Environmental Protection Agency. 2020. Lifecycle Analysis of Greenhouse Gas Emissions under the Renewable Fuel Standard. https://www.epa.gov/renewable-fuel-standard-program/lifecycle-analysis-greenhouse-gas-emissions-under-renewable-fuel#:~:text=Contact%20Us-,Lifecycle%20Analysis%20of%20Greenhouse%20Gas%20Emissions%20under%20the%20Renewable%20Fuel,of%20its%20production%20and%20use.

gas emissions. Please refer to Response to Comment O5-28. The California Natural Resources Agency chose to delete the word "lifecycle" from Appendix F of the CEQA Guidelines because there is no existing regulatory definition of lifecycle, such emissions may not be caused by the project under consideration, and a lead agency may not be able to require mitigation for emissions that result from the manufacturing process, among other reasons. Please also refer to Response to Comment O5-28.

O5-30 The comment refers to Backcountry Against Dumps' January 29, 2020, comments to the Federal Aviation Administration (FAA), in which the comment states that the Project could cause significant and life-threatening impacts to aviation that could not be avoided or sufficiently mitigated by the proposed mitigation measures. The January 29, 2020, comments were previously submitted as public comments on the Final EIS and are included as Exhibit 13 to this comment letter.

In response, each wind turbine aeronautical study includes soliciting feedback from the FAA and military services, including airports, instrument flight procedures impact team, flight standards, technical operations, frequency management, U.S. Air Force, U.S. Navy, U.S. Army, Department of Homeland Security, and Department of Defense (DoD) Siting Clearinghouse. Specific to the DoD Siting Clearinghouse review, all military services assess a project to determine if there is a risk associated with adverse impacts on the military's operations and readiness. To date, there have been no objections or concerns raised by any of the military services or the DoD Siting Clearinghouse. There are no military training routes or military operations areas overlying the Project Site. And, although there is no published military airspace overlying the Project Site, the Developer has committed to installing FAA-approved obstruction lighting that ensures nighttime conspicuity for both civilian, military, and emergency operators. This lighting will comply with FAA's marking and lighting guidance described in FAA Advisory Circular 70/7460-lL.

As the Project is required to obtain Determinations of No Hazard from the FAA for Project wind turbines, safety and efficiency of air traffic operations throughout the Project Area will be maintained after the Project is constructed and during the Project's operation.

As discussed in Chapter 2.5 of the Draft EIR, due to the height of the proposed turbines the Developer would be required to submit form FAA 7460-1 to the FAA 45 days prior to the start of construction. Appropriate filing of these forms to the FAA for Project turbines would ensure that the Project would be in compliance with FAA regulations. Please refer to Global Response GR-9, Aviation.

O5-31 The comment states that the Draft EIR fails to analyze the Project's impacts on environmental justice. In response, CEQA requires an analysis of physical impacts to the environment; it does not require analysis of social and economic impacts. Under CEQA, "[a]n economic or social change by itself shall not be considered a significant effect on the environment . . . the focus of the analysis shall be on the physical changes" (14 CCR 15131 and 15382). An analysis of environmental justice impacts is not required as part of the analysis contained within the Draft EIR. Thus, no changes to the Draft EIR are required. However, the Final EIS includes an analysis of environmental justice impacts; refer to Section 4.7 of the Final EIS for a discussion of environmental justice impacts. Please refer also to Global Response GR-1, Socioeconomic Impacts.

O5-32 The comment states that the County must adopt feasible mitigation measures to offset environmental justice impacts. As explained in Response to Comment O5-31, an analysis of impacts related to environmental justice is not required. Thus, mitigation measures to offset environmental justice impacts are not required. However, the Final EIS includes an analysis of environmental justice impacts; refer to Section 4.7 of the Final EIS for a discussion of environmental justice impacts.

O5-33 The comment states that the Project requires a certificate of public convenience and necessity pursuant to the California Public Utilities Commission's General Order 131-D, because it includes major electric transmission line facilities that are designed for immediate or eventual operation at 200 kilovolts or more. In response, the County understands that if approved, the Project will comply with all applicable California Public Utilities Commission requirements, including General Order 131-D. The comment does not raise an issue regarding the analysis in the Draft EIR; therefore, no further response is required.

O5-34 The comment provides concluding remarks. The comment does not raise an issue regarding the analysis in the Draft EIR; therefore, no further response is required.

O5-35 This comment includes the contents of Exhibit 1, included as an attachment to this comment letter. Exhibit 1 is excerpted from a scientific research textbook titled Birds of Prey Biology and Conservation in the XXI Century. The chapter, titled Impact of Renewable Energy on Birds of Prey, discusses direct mortality and indirect effects resulting from habitat loss, avoidance, and displacement due to renewable energy facilities. In regard to wind energy facilities, the exhibit discusses collision risk and avoidance behaviors. Regarding electrical transmission facilities, electrocution and collision risks are discussed. The text included in this exhibit does not raise an issue regarding the analysis contained within the Draft EIR; thus, no edits to the Draft EIR are required. However, the Draft EIR does include an analysis of impacts to birds of prey—also called raptors—in Chapter 2.3 and the Biological Resources Technical Report (Appendix D to the Draft EIR). Please also see Global Response GR-5.

O5-36 This comment includes the contents of Exhibit 2, included as an attachment to this comment letter. Exhibit 2 is excerpted from the Global Ecology and Conservation journal. The article is titled The Management Utility of Large-Scale Environmental Drivers of Bat Mortality at Wind Energy Facilities: The Effects of Facility Size, Elevation, and Geographic Location. The study analyzed bat mortalities at wind energy facilities in Quebec, Canada. The text included in this exhibit does not raise an issue regarding the analysis contained within the Draft EIR; thus, no edits to the Draft EIR are required. However, the Draft EIR does include an analysis of impacts to bats in Chapter 2.3 and the Biological Resources Technical Report (Appendix D to the Draft EIR). Please also see Avian Species and Bats in Global Response GR-5.

O5-37 This comment includes the contents of Exhibit 3, included as an attachment to this comment letter. Exhibit 3 is an accepted manuscript for the Mammalian Biology journal. The exhibit is titled Fecal Surveys Reveal Species-Specific Activity at Wind Turbines. The study included systematic searches for bat feces at a wind energy facility Texas to determine if bats were active at turbines. The text included in this exhibit does not raise an issue regarding the analysis contained within the Draft EIR; thus, no further response is required. However, the Draft EIR does include an analysis of impacts to bats in Section 2.3 and the Biological Resources Technical Report (Appendix D to the Draft EIR). Please also see Avian Species and Bats in Global Response GR-5.

O5-38 This comment includes the contents of Exhibit 4, included as an attachment to this comment letter. Exhibit 4 consists of a review by dBF Associates Inc., dated February 3, 2020, of the Draft EIR Chapter 2.6, the Acoustical Analysis Report (Appendix G to the Draft EIR), and the Addendum to Appendix G. The response to individual comments contained within the dBF February 3, 2020, report can be found in Responses to Comments O6-81 through O6-112. Please also refer to Global Response GR-4.

O5-39 This comment includes the contents of Exhibit 5, included as an attachment to this comment letter. Exhibit 5 consists of a 2018 scientific research article titled Understanding Stress Effects of Wind Turbine Noise – The Integrated Approach. The study combines the methodology of stress psychology and noise measurement to an integrated approach. The text included in this exhibit does not raise an issue regarding the analysis contained within the Draft EIR; thus, no edits to the Draft EIR are required. For a discussion of anticipated impacts regarding noise, refer to Chapter 2.6 of the Draft EIR. Please also refer to Global Response GR-2 and Global Response GR-4.

O5-40 This comment includes the contents of Exhibit 6, included as an attachment to this comment letter. Exhibit 6 consists of a scientific research article titled Influence of Visibility of Wind Farms on Noise Annoyance – a Laboratory Experiment with Audio-

Visual Simulations. The objective of the study was to investigate the audio-visual effects of different wind turbine noise situations on short-term noise annoyance in a psychophysical laboratory experiment. The text included in this exhibit does not raise an issue regarding the analysis contained within the Draft EIR. For a discussion of anticipated impacts regarding noise, refer to Chapter 2.6 of the Draft EIR. For a discussion of anticipated impacts regarding aesthetics, refer to Chapter 2.1, Aesthetics, of the Draft EIR.

O5-41 This comment includes the contents of Exhibit 7, included as an attachment to this comment letter. Exhibit 7 consists of a 2019 scientific research article titled Prevalence of Wind Farm Amplitude Modulation at Long-Range Residential Locations. The study investigates the prevalence and characteristics of wind farm amplitude modulation at nine different residences located near a South Australian wind farm. The text included in this exhibit does not raise an issue regarding the analysis contained within the Draft EIR; thus, no edits to the Draft EIR are required. For a discussion of anticipated impacts regarding noise, refer to Chapter 2.6 of the Draft EIR. Please also refer to Global Response GR-4.

O5-42 This comment includes the contents of Exhibit 8, included as an attachment to this comment letter. Exhibit 8 consists of an acoustical survey completed by dBF Associates Inc. on December 16, 2019, to document infrasound and low-frequency noise generated by the existing wind turbines in the Boulevard area of unincorporated San Diego County, California. The details and information contained within this exhibit do not raise an issue with the adequacy of the analysis contained within the Draft EIR; thus, no edits to the Draft EIR are required. For a discussion of anticipated impacts regarding noise, refer to Chapter 2.6 of the Draft EIR. Please also to refer to Global Response GR-4.

O5-43 This comment includes the contents of Exhibit 9, included as an attachment to this comment letter. Exhibit 9 consists of a 2018 scientific research article titled Wind Turbine Noise and Sleep: Pilot Studies on the Influence of Noise Characteristics. The studies presented in this exhibit examine the acoustical properties of wind turbine noise that might be of relevance regarding effects on sleep. The text included in this exhibit does not raise an issue regarding the analysis contained within the Draft EIR; thus, no edits to the Draft EIR are required. For a discussion of anticipated impacts regarding noise, refer to Chapter 2.6 of the Draft EIR. Please also refer to Global Response GR-2 and Global Response GR-4.

O5-44 This comment includes the contents of Exhibit 10, included as an attachment to this comment letter. Exhibit 10 consists of a scientific research article titled Impact of Long-

Term Exposure to Wind Turbine Noise on Redemption of Sleep Medication and Antidepressants: A Nationwide Cohort Study. The objective of this study was to investigate whether long-term wind turbine noise exposure is associated with the redemption of prescriptions for sleep medication and antidepressants. The text included in this exhibit does not raise an issue regarding the analysis contained within the Draft EIR; thus, no edits to the Draft EIR are required. For a discussion of anticipated impacts regarding noise, refer to Chapter 2.6 of the Draft EIR. Please also refer to Global Response GR-2 and Global Response GR-4.

O5-45 This comment includes the contents of Exhibit 11, included as an attachment to this comment letter. Exhibit 11 consists of a 2018 scientific research article titled A Review of the Possible Perceptual and Physiological Effects of Wind Turbine Noise. This review considers the nature of the sound generated by wind turbines, focusing on the low-frequency sound and infrasound to understand the usefulness of the sound measure where people work and sleep. The text included in this exhibit does not raise an issue regarding the analysis contained within the Draft EIR; thus, no edits to the Draft EIR are required. For a discussion of anticipated impacts regarding noise, refer to Chapter 2.6 of the Draft EIR. Please also refer to Global Response GR-2 and Global Response GR-4.

O5-46 This comment includes the contents of Exhibit 12, included as an attachment to this comment letter. Exhibit 12 consists of a 2012 scientific research article titled Life Cycle Greenhouse Gas Emissions of Utility-Scale Wind Power: Systematic Review and Harmonization. The review was performed to determine the causes of variability in estimates of life cycle greenhouse gas emissions. The text included in this exhibit does not raise an issue regarding the analysis contained within the Draft EIR; thus, no edits to the Draft EIR are required. For a discussion of anticipated impacts regarding greenhouse gas emissions, refer to Chapter 3.1.4, Greenhouse Gas Emissions, of the Draft EIR. Please also to Responses to Comments O5-28 and O5-29.

O5-47 This comment consists of a cover email dated February 3, 2020, for Exhibit 13. The cover email, prepared by Alexis Krieg from the Law Offices of Stephan C. Volker, is an introduction to the first part of Exhibit 13 (which consists of a January 29, 2020, Comment Letter to the FAA and eight attached exhibits). Please see Responses to Comments O5-48 through O5-74.

O5-48 This first comment of Exhibit 13 consists of a comment letter dated January 29, 2020 from the Law Offices of Stephan C. Volker on behalf of Backcountry Against Dumps and Donna Tisdale. The cover email is an introduction to the following comments submitted pursuant to the FAA's October 21, 2019, Public Notice for Aeronautical

Study No. 20191-WTW-4585-OE. The cover email requests the following comments and eight attached exhibits be included in the public record for the Project. Please see Responses to Comments O5-49 through O5-74.

O5-49 The comment states that, in addition to the comments provided by Backcountry Against Dumps for the Draft EIS, dated July 8, 2019, the Project would create unacceptably dangerous aeronautical hazards, and requests rejection of the Project. This comment is an introduction to comments that follow. Please refer to Responses to Comments O5-49 through O5-74.

O5-50 The comment states that the Project's structures will create collision risks and turbulence harmful to aviation, will degrade aircraft safety systems, and will impair pilot safety. However, the comment does not provide substantiation as to how or why the Project would do so. Thus, no further response can be provided. Also refer to Global Response GR-9.

O5-51 The comment states that the Project poses serious safety hazards that mere lighting alone cannot eliminate, that the idea that these impacts can be mitigated simply by including lighting on the wind turbine towers and meteorological towers is mistaken, and that the Project must therefore be rejected. However, the comment does not explain how or why lighting as required by the FAA would not mitigate impacts. As stated in the Draft EIR Section 2.5.3.2, due to the height of the proposed turbines the Developer would be required to submit form FAA 7460-1 to the FAA 45 days prior to the start of construction. Appropriate filing of these forms to the FAA would ensure that the Project is in compliance with FAA regulations. With compliance with FAA regulations, the Project would result in less-than-significant impacts. Thus, this comment does not provide any new information that would warrant revisions to the analysis within the Draft EIR. Also refer to Global Response GR-9.

O5-52 The comment provides information regarding the use of the airspace around the Project Area by military operations and personnel. The comment is noted.

Please see Response to Comment O5-30, which addresses the use of airspace around the Project Area by military operations and personnel. Please also refer to Global Response GR-9.

O5-53 The comment provides information regarding Donna Tisdale's (a client of the author of this comment letter, as noted in the comment letter) personal observation of military aircraft flying at low altitudes around the Project Area. The comment is noted. The comment does not raise an issue with the adequacy of the analysis contained within the Draft EIR. Also refer to Global Response GR-9.

O5-54 The comment states that the FAA has identified that the 76 turbines included in the Project would exceed the FAA obstruction standards, and that they would cause the minimum en-route altitude and minimum obstruction clearance altitude to increase by 200 feet. These comments are noted. Appropriate filing to the FAA for Project turbines would ensure that the Project is in compliance with FAA regulations, and therefore, would result in a less-than-significant impact. Please also refer to Global Response GR-9.

O5-55 The comment states that the increase in minimum height altitude would pose burdens on aviation and present hazards to commercial or private aircraft users, and references a statement made by the Civil Aviation Authority. These comments are noted. Please refer to Response to Comment O5-54 and Global Response GR-9.

O5-56 The comment provides information detailing aircraft collisions with wind turbines and meteorological towers within the United States, and states that the lighting on the turbines and towers does not eliminate the risk to aircraft completely. These comments are noted. This comment does not raise an issue with the adequacy of the analysis contained within the Draft EIR. Please refer to Global Response GR-9.

O5-57 The comment provides information stating that turbulence from wind turbines can impact aeronautic operations. These comments are noted. These comments do not raise an issue with the adequacy of the analysis contained within the Draft EIR. Please refer to Global Response GR-9.

O5-58 The comment states that radar systems can be impaired or disrupted by wind energy facilities. These comments are noted. These comments do not raise an issue with the adequacy of the analysis contained within the Draft EIR. Please also refer to Global Response GR-9.

O5-59 The comment discusses the "twinkling or blade flash effect" turbines can cause on aircraft radar, and states that degradation of radar function in mountainous terrain is extremely dangerous to aircraft operations. These comments are noted. These comments do not raise an issue with the adequacy of the analysis contained within the Draft EIR. Please refer to Global Response GR-9.

O5-60 The comment states that since the Project is located in mountainous terrain where storm activity is more frequent and severe winds are more common, impaired visibility combined with degraded radar function would pose severe aviation hazards. This statement does not raise an issue with the adequacy of the analysis contained within the Draft EIR. For a discussion of impacts regarding airport and aircraft hazards, refer to Chapter 2.5 of the Draft EIR. Please also refer to Global Response GR-9.

O5-61 The comment states that the wind turbines will pose hazards to emergency services, such as medical flights and aerial firefighting, since the turbines could force these aircraft to take additional time due to re-routing or could compromise their mission. Please refer to Aerial Firefighting in Global Response GR-7, Fire Protection Services and Wildfire Impacts and Global Response GR-9.

O5-62 The comment states concerns regarding aircraft-based firefighting. Please refer to Aerial Firefighting in Global Response GR-7 and Global Response GR-9.

O5-63 The comment states that the Project would increase wildfire risks within the area, and as such would increase the likelihood of required firefighting resources. As discussed in Chapter 2.9, Wildfire, of the Draft EIR, the Project would increase wildfire risks due the construction, operation, and decommissioning of infrastructure associated with the Project. However, with the implementation of a Fire Protection Plan, implementation of mitigation measures M-WF-1 and M-BI-C(h), and adherence to regulatory requirements regarding wildfire hazards, impacts were determined to be less than significant. With regard to firefighting resources, as described in detail in Chapter 3.1.8, Public Services, demand for fire protection related to the Project would not exceed the availability of services provided by the Campo Reservation Fire Protection District or the San Diego County Fire Authority. Refer also to Response to Comment O5-79 and Global Response GR-7.

O5-64 This comment states that fire suppression activities both in the air and on the ground would be impaired as a result of the Project's high-voltage facilities. Please refer to Global Response GR-7 and Global Response GR-9.

O5-65 The comment states that FAA-required lighting on the turbines would not eliminate hazards to aircraft, since the lighting would not be placed on the turbines, but on the nacelle, which is below the top of the spinning turbine wings. This comment is noted. The turbines would be required to comply with all FAA regulations regarding lighting of wind turbines; refer to Section 2.5.2 of the Draft EIR for a discussion of applicable FAA regulations regarding turbine lighting standards.

O5-66 The comment suggests that the FAA-required lights are ineffective for pilots who use night vision goggles. Although there is no published military airspace overlying the Project Site, the Developer will be required to install FAA-approved obstruction lighting that ensures nighttime conspicuity for both civilian, military, and emergency operators. This lighting will comply with FAA's marking and lighting guidance described in FAA Advisory Circular 70/7460-lL. The use of night vision goggles is outside the scope of potential environmental impacts to be analyzed under CEQA.

Please also refer to x comment letter submitted by Stephan C. Volker on behalf of Backcountry Against Dumps and Donna Tisdale to the Bureau of Indian Affairs includes 11 Exhibits. Please refer to Responses to Comments J-1 though J-130 of Appendix T to the Final EIS for response to this comment.

O5-69 Exhibit 2 to Exhibit 13 of Comment Letter O5 consists of pictures of helicopters. No issues regarding the analysis contained within the Draft EIR are provided; therefore, no further response is required.

O5-70 Exhibit 3 to Exhibit 13 of Comment Letter O5 consists of the Civil Aviation Authority Policy and Guidelines on Wind Turbines document. No issues regarding the analysis contained within the Draft EIR are provided; therefore, no further response is required.

O5-71 Exhibit 4 to Exhibit 13 of Comment Letter O5 consists of a document detailing wind energy and aviation safety and fatalities occurring within the United States. No specific concerns regarding the analysis contained within the Draft EIR are provided; therefore, no further response is required.

O5-72 Exhibit 5 to Exhibit 13 of Comment Letter O5 consists of a report prepared by the Kansas Department of Transportation detailing wind farm turbulence impacts on general aviation airports in Kansas. No specific concerns regarding the analysis contained within the Draft EIR are provided; therefore, no further response is required.

O5-73 Exhibit 6 to Exhibit 13 of Comment Letter O5 consists of a report prepared by the University of Zilina in Slovakia detailing wind farms impacts on aviation. No specific concerns regarding the analysis contained within the Draft EIR are provided; therefore, no further response is required.

O5-74 Exhibit 7 to Exhibit 13 of Comment Letter O5 consists of a publication provided by the National Wildfire Coordinating Group, detailing standardized aerial operating procedures for wildfire fighting. No specific concerns regarding the analysis contained within the Draft EIR are provided. Please refer to Global Response GR-7 and Global Response GR-9.

O5-75 Exhibit 8 to Exhibit 13 of Comment Letter O5 consists of an engineering brief provided by the FAA about the interaction of light emitting diodes used in obstruction lighting fixtures with Night Vision Imaging Systems on board aircraft. No specific concerns regarding the analysis contained within the Draft EIR are provided; therefore, no further response is required.