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September 22, 2003

Sam Blankenship, Senior Biologist Specialist
Habitat Conservation Planning Branch
Department of Fish and Game
1416 Ninth Street
Sacramento, CA 95814

Dear Mr. Blankenship:

These comments regarding the state listing petition for the western burrowing owl are submitted on behalf of the Center for Biological Diversity, lead petitioner, in response to issues raised in comment letters to the California Department of Fish and Game ("CDFG"). This letter mainly addresses substantive issues raised by the commenters but we are compelled to also respond to some of the more egregious inaccuracies, false assertions, and mischaracterizations of the listing petition contained in some of the comment letters.

Comments on the petition received by CDFG include: a California Department of Food and Agriculture transmittal letter dated 8/11/03, two studies on effects of rodenticides, and a report summarizing CDFA comments dated 8/1/03 ("CDFA comments"); a Live Oak Associates letter dated 8/14/03, an undated 2-page outline, and maps and summary tables of HCPs ("LOA comments"); a Nossaman, Gunther, Know & Elliot letter dated 8/14/03, a summary of HCPs, NCCPs, MSCPs and IAs, and a two page letter dated 8/1/03 from Robert Thornton ("NGK&E comments"); the City of Chino Resource Management Plan ("Chino Plan"); and personal communications from biologists Jeff Kidd, Miriam Hulst (DOD), Ingrid Johnson (USBLM) and Cam Barrows.

The apparently off-the-cuff estimate by Jeff Kidd of 500-1,000 breeding pairs of owls in the Palo Verde Valley seems extremely optimistic, as does the second hand report by Robert Thornton of an estimate of over 1,000 nesting pairs by CDFG biologist Nancy Andrews. There are no survey reports or data provided supporting this contention, and the methodology or assumptions this estimate is based upon are not explained. While the population there may prove to be significant, we are aware of no published surveys or reports containing informed breeding population estimates for this area. Biologist Jack Bath, Ph.D. Professor of Zoology at Cal Poly Pomona will be initiating surveys for burrowing owls in the Palo Verde Irrigation District area later this summer, but it will be a long process before any informed quantitative population estimate can be made.

The records provided by Miriam Hulst representing 14 recent probable breeding observations at Camp Roberts and 3 recent probable breeding records at Camp San Luis Obispo (CSLO) are noted. If breeding is confirmed at these locations, breeding birds in coastal San Luis Obispo County may be very nearly extirpated rather than extirpated.

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Please send us the data files for the Coachella Valley observations provided by Ingrid Johnson, so it can be determined how many of these represent confirmed or probable breeding records. The estimate of 5-10 resident pairs in the Coachella Valley by biologist Cam Barrows is noted. Breeding birds in the Coachella Valley may also be very nearly extirpated rather than extirpated.

LOA comments assert that “the petition missed or under reported the size of several populations – Coachella Valley, Palo Verde, Carrizo Plain, Altamont Pass among others.” This is simply not true. The petition discussed all of these populations and the best information available at the time regarding these populations was reported.

For the Coachella Valley, the petition (page 49) discusses surveys in the early 1990s that found no owl pairs and the DeSante et al. (1996) conclusion that breeding owls had apparently been extirpated. The petition noted that CDFG and Coachella Valley Water District biologists who routinely visit suitable nesting habitat reported only 1 recent owl observation, and discussed the handful of other recent breeding season observations (not confirmed breeding) and the belief by some biologists that a remnant breeding population may persist. It is unclear whether the estimate of 5-10 resident pairs by biologist Cam Barrows is based on confirmed breeding records. The LOA comments offer no evidence of confirmed recent breeding in the Coachella Valley. Even if a remnant breeding population is confirmed, the status of the Coachella Valley population would be very nearly extirpated rather than extirpated.

For the Palo Verde Valley, the petition (pages 50 and 52) discusses reports that burrowing owls are rather common in the Colorado River Valley within eastern Imperial and eastern Riverside Counties. No informed population estimates were given in any of the literature cited, so no discussion of numbers was included. As discussed above, the supposed 500-1,000 pairs estimated by Jeff Kidd is unsubstantiated and is just that, an estimate. The LOA comments do not offer any evidence contradicting the petition’s characterization of the status of burrowing owls in the lower Colorado River Valley.

For the Carrizo Plain, the petition (page 38) characterizes the breeding population as “substantial” and gave accurate estimates of the numbers of active owl nests in 1997, 1998, and 1999, the only known published data available on population numbers. The LOA comments do not contradict the estimates by owl biologists Dan Rosenberg and David DeSante, who had conducted the only known population surveys of owls in the Carrizo Plain, nor does LOA offer any evidence of a larger population. The petition accurately reported the best known population estimates at the time and discussed (page 38, footnote 110) the belief of biologist Jennifer Gervais that the Carrizo Plain population may be “much larger than survey efforts indicate.”

For the Altamont Pass, the petition (page 24) reports “numerous observations confirming breeding in the vicinity of Altamont Pass and Bethany Reservoir from 1973-2001,” and discusses all the observations reported to the California Natural Diversity Database, the only known publicly available information on this population at the time. The LOA comments do not offer any evidence contradicting the petition’s characterization of the status of burrowing owls at Altamont Pass, nor does it discuss what additional populations it contends were missed or under reported, as implied by the phrase “among others.”

LOA comments assert that “petitioners were unable to provide evidence of a declining trend in numbers in the Central Valley, with the exception of Sacramento County.” In actuality, the petition

also discusses severe localized and county-wide declines documented recently in Yolo County (page 22), declines in eastern Alameda County in the 1970s (page 24), localized declines in the Stockton area (page 25) in the middle Central Valley, severe historical declines and further declines in the 1970s in the Fresno area (page 28), and declines reported in the 1980s in Tulare County (page 29) in the southern Central Valley. The petition discusses (page 54 and Appendix 3) “particularly heavy” recent declines in numbers of breeding groups of owls in the Central Valley as reported by DeSante et al. (1996).

LOA comments contemplate whether the recent extirpation of breeding owls from 8% of their former range is significant. The fact that this extirpation occurred roughly within a decade and that breeding owls are nearing extirpation or declining astronomically in numerous other areas of the state is cause for alarm. The petition documents significant declines of breeding owls in 25 of the 52 California Counties within the range of the species.

CDFG comments assert (p.1) a “lack of rigorous, qualitative, and quantitative science” in the listing petition. The listing petition is a summary of the best publicly available science on the status of and threats to the western burrowing owl in California at the time it was written. Every effort was made to locate historical and recent data on breeding presence and numbers throughout California. Regional offices of the Department of Fish and Game were contacted as well as Audubon Society chapters and notable owl biologists; ornithological literature and periodicals, published surveys and reports, and known museum collections were scoured for information.

CDFG comments assert (p.1) that “the population surveys, assumptions, and estimates of sampling design employed by the petitioners to support the claims of population and range decline are unreliable.” The most comprehensive and reliable survey to date of breeding burrowing owls in California, conducted by DeSante et al. (1996), thoroughly documents significant population and range decline and very clearly discusses the methodology, assumptions, and estimates used during the survey. This survey was attached to the petition.

CDFG comments assert (p.1) that “the current status of the population and range of the burrowing owl in California has not been determined.” On the contrary, the status of the species within the DeSante et al. (1996) survey area was determined as of 1993, and the current range of the species within California is well known, as discussed in the petition.

CDFG comments assert (p.1) that “petitioners ignore, dismiss, and minimize many of the current mitigation measures.” No significant mitigation measures that we were aware of were ignored. All known and potentially significant mitigation measures were discussed in the petition and found to be de facto inadequate to protect the species from further decline, based on the documented 60% decline of breeding groups of owls within the DeSante et al. (1996) statewide survey area, despite the existence of these mitigation measures.

CDFG makes the ridiculous contention (p.2) that the status of the state’s burrowing owl population can somehow be inferred from documented wildlife mortality incidents officially investigated by the California Department of Fish and Game.

CDFG comments (p.2) cite research by Sheffield (1997) describing breeding bird survey data population trends for the burrowing owl showing a 6.3% upward trend in California from 1980 to 1994. According to Sheffield (1997) the estimates of population trends are based upon data from Sauer et al. (1996), which is a summary of roadside breeding bird surveys by volunteer birders, as

reported to the USGS Patuxent Wildlife Research Center during the annual North American Breeding Bird Survey (NABBS). Sheffield (1997) acknowledges that although NABBS data can be used as tools to estimate population numbers and trends, “there are certain pitfalls associated with their use.” Petitioners rejected the upward trend in California breeding birds in the Sheffield report as not representative of the statewide trend based on its contradiction with the 60% decline in breeding groups documented by DeSante et al. (1996). The NABBS relies upon roadside observations along “randomly located” routes. According to Sauer et al. (1997), the NABBS “produces an index of relative abundance rather than a complete count of breeding bird populations. The data analyses assume that fluctuations in these indices of abundance are representative of the population as a whole.” This assumption appears to have been incorrect for the 1980 to 1994 California breeding bird trend. There may well have been an upward trend of 6.3% in breeding owls along the NABBS routes from 1980 to 1994. However, the trend throughout the majority of the species’ range statewide during that period was a documented decline of 60%. DeSante et al. (1996) conducted thorough, widespread, and methodical searches for breeding birds at known previous breeding locations statewide, a much more reliable and comprehensive indication of population trends.

CDFG comments (p.2) assert that “petitioners state that the burrowing owl is nearly extirpated from Monterey County.” This is not true – the petition states (p.38) that “breeding burrowing owls have now been completely or very nearly extirpated...from *coastal* Monterey County” (emphasis added), noting that only 14 pairs were located in inland Monterey County in a 1992 survey.

CDFG comments again contend (p.15) that the status of the state’s burrowing owl population can somehow be inferred from a USEPA wildlife mortality incident database - a ridiculous contention.

CDFG comments falsely claim (p. 16) that “petitioners repeatedly cite the decline of prairie dog (*Cynomys* spp.) populations and their associated burrows for the decline of burrowing owl populations in California.” Nowhere does the petition claim that the decline of prairie dogs has anything to do with the documented decline of burrowing owl populations in California, nor that prairie dogs are native to California, nor that prairie dogs exist in California.¹

CDFG comments incorrectly state (p. 16) that petitioners “purposely omit” that use of rodenticides by the National Park Service on Anacapa Island was for the purposes of restoration. The justification for use of rodenticides in breeding bird habitat, however altruistic, was deemed irrelevant to a discussion of the impacts on burrowing owls. Though the intent of the use was for restoration, there was a negative effect on burrowing owls.

NGK&E comments incorrectly assert the CESA listing petition must discuss the status and population trends of the western burrowing owl outside of California. Under CESA, only the status of

¹ The petition mentions prairie dogs only 4 times, first on page 9 – “Western burrowing owls generally adopt burrows excavated by other animals, usually those of ground squirrels (*Spermophilus* spp.), prairie dogs (*Cynomys* spp.), American badgers (*Taxidea taxus*), or other small burrowing animals.” This statement refers to the burrow use of the western burrowing owl as a species, not specifically to the California population. Prairie dogs are mentioned again on page 10 – “Burrows excavated by fossorial mammals such as California ground squirrels, prairie dogs, badgers, and marmots (*Marmota flaviventris*) are necessary to the burrowing owl.” Again, this refers to western burrowing owls as a species, not specifically the California population. The next sentence on page 10 is “throughout most of California, burrows of the California ground squirrel are used...” Prairie dogs are mentioned on page 18 in the context of estimating owl densities based on reported densities outside prairie dog towns in Oklahoma. Finally, on page 61, persecution of prairie dogs is mentioned as an example of federally sanctioned rodent control programs: “Farmers and ranchers, with help from the federal government, have long practiced all-out warfare against burrowing rodents. For example, persecution of the prairie dog has reduced them to just 2% of their original numbers (Trulio 1998a).” The remainder of the paragraph goes on to discuss ground squirrel control programs in California.

the species within California is relevant. The petition makes no attempt to define a distinct vertebrate population segment of the burrowing owl, as claimed by NGK&E, but merely discusses the status of the species in California, as is relevant to CESA.

NGK&E comments assert that unnamed “nationally recognized conservation biologists” believe the burrowing owl population in California “may be up to several times higher than 10,000 breeding pairs.” This should be completely discounted as unsubstantiated and wishful thinking – there is absolutely no science or basis for this statement and no credible authority has suggested the statewide population is this high.

NGK&E comments assert that the petition’s statewide population (Appendix 2) estimate “does not include WBO populations in large areas of California, including the Mojave Desert.” Appendix 2 of the petition gives population estimates for those areas of the state where there is survey information or informed estimates. The Mojave Desert may be a large area, but it is not likely to contain significant numbers of breeding owls. As discussed in the petition (pages 49-51), there have been no focused owl surveys and few recent records of confirmed breeding in the Mojave Desert.

NGK&E and LOA comments assert that there are at least 10,000 breeding pairs of owls and that the population could be much larger because of significant populations that were missed by the DeSante et al. (1996) surveys. The DeSante et al. (1996) estimate was 9,266 pairs within the survey area from 1991-1993. There have been documented declines in breeding owls within the survey area in the intervening decade, so the current population could be much lower. The only known significant populations in California not included in the DeSante et al. (1996) estimate are Carrizo Plain (for which the best recent population estimate is more than 32-40 pairs), the Colorado River Valley (for which there is no informed population estimate), and the northeastern California deserts (the best recent estimate is 90-149 pairs). The petition (Appendix 2) adds in these populations for a statewide estimate of 9,365 to 9,682 pairs, which does not factor in population declines in the last decade within the DeSante et al. (1996) survey area.

NGK&E comments assert that the listing of the WBO would be “unprecedented” in the history of CESA, that no other species with a comparable breeding population has been listed. To the contrary, the bank swallow (*Riparia riparia*) was state listed as threatened in 1989. The statewide population of the bank swallow was estimated at over 13,000 pairs 1986, and at 9,950 pairs in 1989 at the time of listing (Report to the Fish and Game Commission on Bank Swallow Populations, California Department of Fish and Game, 2000). A listing decision should consider not only the absolute number of the species, but also be based on documented declines, population trends, and whether or not the species is threatened throughout a significant portion of its range.

NGK&E comments include a list of Conservation Plans and HCPs covering the western burrowing owl. As discussed in the petition, these HCPs cover at most 15% of the state’s breeding owls, allow for varying levels of development or destruction of breeding habitat, often offer insufficient mitigations and lack of secure funding to follow through on promised mitigations, and expire in 20-50 years. All of these HCPs are discussed in the petition, with the exception of the Santa Nella Community Specific Plan in Merced County, the Camp Pendleton Management Plan in Orange and San Diego Counties, and the El Sobrante Landfill in Riverside County. None of these three plans offer notable protection for any owl population of significance. The Santa Nella Plan only covers 70 acres and it is unknown if breeding owls occur on project site; the Camp Pendleton Plan covers 40,000 acres of grassland, but burrowing owls are apparently almost extirpated from Camp Pendleton (see petition pages 42-43); and the El Sobrante Landfill preserves only 219 acres of grasslands that have not

been documented to support breeding owls. It is unclear why NGK&E included the Pacific Lumber HCP in this list, as the Humboldt County timberlands subject to the HCP are outside of the known range of the species.

Attached is a letter by burrowing owl biologist Jack Barclay commenting on the inadequacy of the Chino Resource Management Plan in mitigating significant impacts to burrowing owls. Additionally, the Tri-County Conservation League is submitting comments to DGFG on the inadequacies of the Chino Plan – we incorporate these comments by reference.

NGK&E comments assert that the burrowing owl population has declined in only a small portion of its range and that the “petition admits that the WBO numbers are stable in 95% of its range.” This is the opposite of the reality. The petition documents significant historical declines throughout the S. F. Bay Area and southwestern California and in portions of Central Valley. The petition documents “particularly heavy” recent declines in numbers of breeding groups in the Central Valley, “astronomical” declines in numbers of breeding groups central-western and southwestern California, and extirpation or near-extirpation from numerous coastal Bay Area and southwestern California Counties. In all, the petition documented significant declines of breeding owls in 25 of the 52 California Counties within the range of the species, hardly a small portion of its range.

The listing petition submitted to the Fish and Game Commission clearly demonstrated that the western burrowing owl is in serious danger of becoming extinct throughout a significant portion of its range in California and warrants listing under CESA.

Sincerely,

Jeff Miller
Center for Biological Diversity

cc: Robert Hight, Director
CA Department of Fish and Game

Ronald Rempel, Deputy Director
CA Department of Fish and Game
Division of Habitat Conservation