September 24, 2012

Dave Harlow,
Desert Renewable Energy Conservation Plan (DRECP)
California Energy Commission
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California Energy Commission
Dockets Office, MS-4
Docket No. 09-RENEW EO-01
1516 Ninth Street
Sacramento, CA 95814-5512
docket@energy.state.ca.us

Re:
2012_9_10_DRECP_Independent_Science_Panel_Draft_Report_2012

Dear Director Harlow:

For over 100 years Audubon has conserved birds, other wildlife and their habitat for the benefit of humanity and biodiversity, and connected people to nature. Audubon California is the state program of Audubon with 50,000 members and supporters.

We have participated in the Stakeholder Process for the DRECP since the beginning, and have played a role on the Covered Species and Mapping Resources Committees.

In recognition of the growing threats to human and ecological communities presented by the release of greenhouse gases and the resultant climate change, Audubon has championed the aggressive development of both energy conservation and renewable energy generation to reduce those threats. In locations throughout our state Audubon at the state level, and our chapters at a local level, have successfully collaborated on the development of renewable energy facilities—striking a balance between landscape and species conservation priorities and renewable energy.

We wish to make the following comments on the above referenced September 10, 2012 report from the Independent Science Panel on the DRECP.

1. We strongly support most of the recommendations of the panel and look forward to the response to the recommendations by the DRECP REAT agencies.

We especially support the recommendation of the panel on page 7:

We stress that California Species of Special Concern (SSC) and BLM Sensitive Species (BLM SS) should be strongly considered as candidates for the Covered Species List.

2. We disagree with the highlighted part of the paragraph below which appears on page 7 of the Report:

We have concerns about the exclusion of some species from the current list of 77 Covered Species, which disproportionately represents species associated with wetlands, riparian habitats, and agricultural areas and omits many desert-dependent special-status species (e.g., CDFG Species of Special Concern and BLM Sensitive Species). ***It includes some species that are primarily associated with active agricultural operations that are unlikely to be significantly affected by Plan actions (e.g., greater sandhill crane, Swainson's hawk, mountain plover, tricolored blackbird),***

while excluding other desert-dependent species of conservation concern that may be affected by utility-scale solar and wind projects (e.g., several bats and rare pocket mice, badger, and a variety of desert song birds, lizards, and plants; see below for details). It is not clear to the ISP how rare and endemic invertebrates were considered in determining the list. ISA 2010 made specific recommendations and gave detailed guidance on how to consider them. Potential consequences of an insufficiently inclusive Covered Species list are highly significant, including inadequate reserve design, misdirected adaptive management and monitoring actions, loss of biological diversity, and lawsuits and permitting delays if listed species that are not covered are found in a project area.

a. It is our opinion that Swainson's Hawk will be significantly affected by Plan actions, and should be included in the Covered Species list for the following reasons:

(1). Swainson's Hawk is a threatened species under the California Endangered Species Act;

(2). Despite the fact that SWHA has done well in Central Valley agriculture, the breeding population and it's geographic range is still well below historic levels. Recovery of the species would imply restoring them to their historic breeding range.
b. The Antelope Valley breeding population is the only remaining breeding population in Southern California, and the document *Swainson's Hawk Survey Protocols, Impact Avoidance, and Minimization Measures for Renewable Energy Projects in the Antelope Valley of Los Angeles and Kern Counties, California, State of California, California Energy Commission and Department of Fish and Game, May 13, 2010* highlights the special nature of this population. (attached).

(3). Loss of foraging habitat, nesting disturbance from construction and operation, and mortality from collision with wind turbines

could have significant impact on the population of Swainson's Hawk in the Antelope Valley. Because the population is so small, each impact is greater on the population by proportion.

b. It is our opinion that Mountain Plover will be significantly affected by Plan actions and should be included in the Covered Species list for the following reasons:

(1). 51% of the entire population of the species winters in California.

(2). Our organization and others conducted Mountain Plover surveys in California in 94, 98, 2002, 2011, and 2012.A

Antelope Valley wintering populations counted for between 1.2% - 26% of the California wintering population of Mountain Plover (average 12%).

Imperial Valley wintering populations counted for between 38.3% - 89.3% of the California wintering population of Mountain Plover (average 64%).

On the average, these two agricultural areas of the DRECP accounted for 76% of the California wintering population of Mountain Plover.

(3). Loss of suitable agricultural land to solar, wind and geothermal projects in the Imperial Valley could have a significant impact on Mountain Plovers. There currently is no real understanding of site fidelity, how big their foraging range is, or their metrics of their movements.

(4). The precautionary principle says that given the proportion of the wintering population in the DRECP area and the lack of understanding of how this species uses its wintering habitat, the species should be Covered.

c. It is our opinion that Tricolored Blackbird will be significantly affected by Plan Actions and should be included in the Covered Species of the DRECP for the following reasons:

(1). Tricolored Blackbirds in the Antelope Valley comprises ½ or more of the Southern California population of Tricolored Blackbirds.

(2). The genetic diversity of the Southern California population is higher than that of the much larger Central Valley population. Moreover, the genetic movement seems to be from southern California TO the Central Valley meaning that southern California is a genetic reservoir for the species keeping the entire population from being completely inbred.

Genetic diversity (as measured by microsatellite heterozygosity) for the southern California (H_o=0.60) and Central Valley (H_o=0.58) populations are at moderately high levels and genetic tests for signatures of recent population bottleneck events is negative. So there are not any indications of significant reductions in genetic diversity from microsatellite analysis (which can be correlated to reduction in fitness in a number of vertebrate studies when Ho drops below ~0.5). The microsatellite derived inbreeding coefficient values (F_{IS}) of 0.090 for the Central Valley and 0.121 for the southern California population are significant Values ~0.1 are considered an indicator of a moderate level of inbreeding, but future monitoring is warranted to see if the values increase over time considering TRBL recent demographics.

The southern California population has a higher average number of microsatellite alleles per marker than the Central Valley population (10.38 vs. 8.5 alleles on average per marker). This higher allelic diversity of the southern California population,

despite its much smaller census population size compared to the Central Valley population, suggests that the southern California population is an important reservoir of genetic variation for the species overall.[1]

(3). While solar and wind projects in the Antelope Valley rarely impact Tricolored Blackbird breeding habitat, birds from the largest colonies in the Antelope Valley forage in a group long distances into areas that have been planned for solar and wind projects and fly at the level of rotor swept area of wind turbines.

Thank you for the opportunity to comment on the report.

Sincerely,

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[1] Dr. Elena C. Berg, Dr. John P. Pollinger, Dr. Thomas B. Smith, Population structure of the Tricolored Blackbird (agelauius tricolor) in California: are northern and southern populations genetically distinct?, Center for Tropical Research, UCLA, Los Angeles, California, 2011.