Santa Barbara Audubon Society, Inc.
A Chapter of the National Audubon Society

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Ms. Nicole Lieu, Planner
Planning and Development Dept.
County of Santa Barbara
123 E. Anapamu St.
Santa Barbara, CA 93101 28 October 2013

Re: Comments on Recirculated draft EIR for Paradiso del Mare
Case # 09EIR-00000-00003; SCH #2008031101

Please accept the following comments from Santa Barbara Audubon Society. These comments are joined by the Gaviota Coast Conservancy and the Santa Barbara Chapter of the Surfrider Foundation.

Summary of the Letter

The record of Kite occupancy at Paradiso del Mare as presented in the Recirculated draft EIR (hereafter RdEIR) is incomplete. We find that White-tailed Kites were present in the breeding season in eight years between 2002 and the present, not just four years as suggested in the RdEIR. Dudek's field results in 2013 provide no documentation for their claim of six fledglings produced by one brood. Not one of several scientific studies has shown more than five Fledglings or nestlings for White-tailed Kite from a single brood. Contra the RdEIR, White-tailed Kites do use the same nests and nesting areas. Therefore, this nest area is important to protect. The RdEIR does not justify the very small set-backs of 100 feet from the development and 75 feet from the driveway. We provide comparisons to larger set-backs recommended at Paradiso del Mare in 2002 and in other studies. The mitigations offered in the RdEIR fail to offset impacts to Kites because the restoration will not aid the

Vole population. The cumulative human activity generated by this project and its mitigations contribute additional impacts not acknowledged in the RdEIR. Santa Barbara Audubon Society (hereafter SBAS) offers alternative mitigations focused on the prey of White-tailed Kite and protection of movement corridors among Vole habitats. We favor relocation of the Coastal Estate to the north of Union Pacific Railroad track and east of the current site.

Introduction

Santa Barbara Audubon Society (SBAS) is a chapter of the National Audubon Society. SBAS has over 1000 members in Santa Barbara County. The mission of SBAS is to help conserve and restore the earth's natural ecosystems and improve its biological diversity, principally in the Santa Barbara area, and to connect people with birds and nature through education, science-based projects and advocacy.

This letter seeks to share unique information on White-tailed Kites (referred to as Kites) that may improve the project and make it successful in all respects. We want to give the County and the CCC all the information they need to honor the protective policies established by the County to protect White-tailed Kite. The wisdom in this approach rests with the fact that if we protect Kites here we also protect the suite of birds-of-prey that cohabit Paradiso del Mare (also referred to herein as PdM).

Primary Author's Credentials

Mark Holmgren trained in Ecology and Evolution at the University of Colorado and the University of Kansas, specializing in Museum Studies at Kansas. In 1984, he moved to Santa Barbara where from 1984 to 2010 he managed the Vertebrate Collections at UCSB's Cheadle Center for Biodiversity and Ecological Restoration (formerly the Museum of Systematics and Ecology).

In 1986, soon after arriving at UCSB, Holmgren became aware that an important contribution to the literature on White-tailed Kites came from an early 1970s Ph.D. dissertation[1] and a Masters' study[2] from UCSB, he saw the opportunity to continue studies of the local Kite population begun by

[1] Waian, Lee B., 1973. The Behavioral Ecology of the North American White-tailed Kite *(Elanus leucurus majusculus)* of the Santa Barbara Coastal Plain. University of California Santa Barbara, Ph.D., Ecology, 117pp.

[2] Stendell, R.C. 1967. Food and Feeding Behavior of the White-tailed Kite near Santa Barbara, California. MS Thesis, University of California, Santa Barbara, 62pp.

researchers Lee Waian and Rey Stendell. In 1986, he began studying White-tailed Kites at the Los Carneros Wetlands, now partly consumed by the Willow Spring Apartments, and continued that effort to this day, expanding to monitor, catalogue and compile field observations regarding the local White-tailed Kite population.

In the last 27 years, the citizen-based Kite Watch has emerged periodically to augment Holmgren's ongoing data gathering on nesting, nocturnal roosting, and habitat use by Kites between western Santa Barbara and western Goleta—roughly the same area studied by Waian and Stendell. Approximately 18 large open spaces capable of supporting breeding Kites are checked multiple times during the breeding season. Known or likely nocturnal roosting areas are checked weekly throughout the breeding season and nocturnal communal roosting is monitored less often, especially in recent years because the communal roosting habit was lost in this population in the late 1990s.

In 2011, SBAS adopted the Kite Watch project and, in so doing, has supported volunteer coordinators and equipment. Kite Watch brings together from seven to 20 community members per year to one or two late winter training sessions and weekly observations through the breeding season followed by meetings when we share observations. Holmgren then compiles and archives the data.

Kite Watch was especially active from 1997 to 2004 and again from 2011 through 2013. In the intervening years Holmgren gathered information primarily during the breeding period with the informal assistance of local naturalists and bird watchers.

Though not in the Goleta Valley study area, the ARCO Dos Pueblos, later Makar and now the PdM property, garnered Holmgren's interest in about 1998. The information presented below comes from the Kite Watch effort, from other citizens trained to look at White-tailed Kites, or from Holmgren's field observations. Most of this material is in Holmgren's possession but may in time be archived at UCSB's Cheadle Center for Biodiversity and Ecological Restoration.

Holmgren advised the California Coastal Commission in 2002 regarding White-tailed Kite issues associated with the Arco Dos Pueblos Golf Links proposal and he conducted field surveys for White-tailed Kites on PdM in 2004 for Dudek.

Augmenting the Record on Kite Presence at Paradiso del Mare

Although the surveys done for White-tailed Kites on PdM have been termed "exhaustive"[3], Santa Barbara Audubon finds the record of Kite occupancy at as

[3] Dudek, August 23, 2013. White tail Kite Buffer for Tree 184—Paradiso del Mare Project.

presented in the Recirculated dEIR (hereafter RdEIR) lacks reference to available and relevant information. We have found several records that establish the Kites' use of the site in years other than those acknowledged in the RdEIR, regardless of whether or not breeding was successfully carried out. The RdEIR suggests known breeding in 2002 and 2013 and potential nesting in 2000 and 2004. Data introduced here indicate that breeding may have occurred also in 2001, 2003, 2009, and 2011. Without this additional information we cannot clearly see the established fact that Kites value this property and that their use is not occasional, but persistent.

The RdEIR omitted critical information that bears on the value of the site as a site of perennial, or nearly perennial, Kite nest building, nesting, or breeding support. At least one of these phases of reproduction has been witnessed in each year the effort has been made to assess Kite activity. Furthermore, the use of PdM extends outside of the breeding period as indicated by the observation of 18 birds together on 16 November 2003.

In Holmgren's opinion, this property may be exceedingly important to White-tailed Kites along the South Coast. It is close to the western end of the Kite distribution along the South Coast; it is consistently used by Kites at nearly all times in which observers have looked for them there; based on 2013 observations by Dudek, it would seem to harbor a population of prey mammals buffered against dry conditions nearby; and it may have other extraordinary features that we wish to study to understand how to preserve Kites along the South Coast. For example, the sighting of 18 individuals in daytime (on 16 Nov 2003) indicates this property is capable of occasional explosive vole population surges that suggest a healthy population on the site. The RdEIR does not account for the importance of the site, which skews the impact analysis toward the conclusion that impacts can be mitigated. The available information regarding the existing baseline conditions, described in this letter, demonstrate the importance of the site, and the significant impacts to Kites that are likely to result from the proposed development on the PdM site.

Blue = Information presented by Dudek
Black = Additional new information on Kite presence from Holmgren notes.

Year	Information	Significance	Observer. Source of Documentation
1998	Observations by L. Hunt on 15 September 1998 and J. Storrer on 5 and 6 September 1998	Indicates late breeding season or post-breeding presence on the site, but too late to ascertain whether nesting occurred.	L.E. Hunt, J. Storrer. *Kite Histories 1998.doc*

2000	23 March 2000 Eastern half of property: Kite pair north of UPRR tracks and south of Hwy 101. Halfway across property: A different pair of Kites south of the UPRR tracks. A 5th Kite seen.	2 pairs in breeding season indicates an intent to breed,	Mark Holmgren, Keith Zandona. *Arco Dos Pueblos 23Mar 00.doc*
2000	Potential and actual nests present		Fig. 3.4-5 Nest locations.pdf (Dudek) RdEIR References to Nesting
2001	1-Aug-01 Eastern half of property: pair of Kites. Western half of property: 2 juvs with 1 or 2 adults foraging independently and mostly S of Hwy 101	Suggests breeding or the intent to breed on E and W parts of property.	Mark Holmgren, Melissa Kelly, Tom Phillips. *Arco DP 1 Aug 01.doc*
2002	Potential and successful nests present, 2nd nesting attempted		*Fig. 3.4-5 Nest locations.pdf (Dudek)*
2003	28-Feb-03 Kite pair & one lone kite came in from N of Hwy 101. Aggression towards lone kite. Flitter flight seen. Roost flight to the WNW seen.	Suggested territorial pair present possibly intending to breed.	Morgan Ball, Regina Ball. *Kite Summary 27 October 2003.doc*
2003	30-Apr-03 2 kites seen on property - Cartwheel display seen	Suggests paired adults.	Morgan Ball. *Kite Summary 27 October 2003.doc*
2003	14-May-03 0 kites seen.		*Mark Holmgren. Kite Summary 27 October 2003.doc*
2003	11-June-03 2 juvenile Kites seen.	Suggest breeding occurred. PdM provided post-breeding support.	Mark Holmgren, Daniel Wilson. *Kite Summary 27 October 2003.doc*
2003	16-Nov-03 18 Kites gathered on the bluff edge at Naples immediately adjacent to	Though not on PdM, this observation underscores the	Daniel Wilson. *Naples Kites 16 Nov 03.pdf*

	PdM, seen from a surfboard offshore then confirmed on land.	importance of the area for Kites at other times of year.	
2004	7 Aug-04 1 pair of adults on the E end; juvenile Kite on the west end.	Though paired and roosting at night on the east end, breeding was not detected there. Juv on the west end suggests breeding occurred in the vicinity.	Mark Holmgren, Kathy Rindlaub. *Kite Final report 15 Oct 04 sl amended.doc* submitted to Dudek.
2004	Potential, nest building		Fig. 3.4-5 Nest locations.pdf (Dudek)
2007	9-Jun-07 2.64km W Winchester (Calle Real N of Makar or Arco-Dos Pueblos property), (near lone Sycamore on N side of Hwy 101): White-tailed Kite adult N of hwy 101	Kite near property.	Mark Holmgren. *Meadowlark search W of Goleta 9 June 2007.doc*
2009	In e-mail dated 27 Oct 09 John Storrer wrote: "I also saw (2) juvenile kites on the Arco Dos Pueblos (Makar) property in July of this year. This is consistent with Paul Collins' observations of post-breeding use of the site in 2007 and 2008. Based on limited reconnaissance (maybe 3 or 4 "general" visits) I don't think kites nested at DP this year – I did not see kites at any rate."	Based on these comments, Kites probably did not breed on the property this year, but I've not read the Collins reports.	*Kite Histories 2009.doc*
2011	8 May 2011 10:18 to10:25am Kite foraging over the western portion of the PdM property then perched on a tamarisk tree on the N-S wind row.	Presence on the west end of the property in breeding season.	Morgan Ball *Kite Histories 2011 back-up dated 6 Nov 11.doc*

2012	14-Feb-2012 9:50 – 10:04am We saw a pair of Kites 90-100m N of Calle Real at approx. N 34.44104 W 119.93861. One of the pair dropped to 2 dead trees where it tried to bust off branches. She got one and took it to the Monterey Cypress that is between 9 and12 trees N of Calle Real. Bird worked material into the nest. Other adult Kite nearby all the time.	This pair initiated nesting a short distance N of Hwy 101. No indications later that nesting was successful on the east side.	M. Holmgren, Adrian O'Loghlen. *Today 2012.doc*
2013	4-Jun-2013 Pair present near Eagle Creek (E end) and near Tomate Cyn (W end).	Territorial and aggressively foraging adults bringing food to nest.	Morgan Ball. *Kite Summary 2 July 2013.doc*
2013	4-Jun-2013 Dead Kite found along Hwy 101 at N 34.43931 W 119.93370	This suggests that other kites are floating around or other pairs breeding.	Morgan Ball. *Kite Summary 2 July 2013.doc*
2013	13-Jun-13 Dudek biologists report 6 fledglings at west end (at N 34.43732 W 119.94447)	Breeding occurred at the west end in the proposed development envelope.	*2013 Nest Survey Results. Fig. 3.4-5 Nest locations.pdf (Dudek)*

Critique of the 2013 Field Results

Dudek's claim of six fledgling White-tailed Kites observed on 13 June 2013 at and near their nest in a Monterey Pine is outside of the known capabilities of the species and require further documentation. The White-tailed Kite Survey (Dudek 2013)[4] is not credible. If true, the observation probably indicates a second brood breeding nearby that joined the brood on PdM. Whether one brood or two, the observation demands a more careful examination of the buffer used to protect the high reproductive output in this territory.

[4] 2013 Nest Survey Results for the White-Tailed Kite on the Paradiso del Mar Project Site and Recommended Revisions to the Paradiso del Mare Ocean and Inland Estates EIR. Dudek, Job # 6981, 16 August 2013.

While Dixon (1957)[5] noted only one of 124 nests containing 6 eggs, nowhere in the literature or in Holmgren's experience have as many as six eggs advanced to the nestling or fledgling stage. This unique observation by Dudek requires further substantiation. But this observation also stands out for other reasons. By contrast, in the Goleta Valley the 2013 Kite nesting season showed very low productivity. First, we observed a high rate of territory abandonment (8 of 12 territories formed in mid-winter were abandoned by 20 May 2013). Second, of the five pairs that bred we noted fewer fledglings than in other years. Only one nest had as many as three fledglings, the remainder had two or one fledgling. Finally, no second broods were attempted by any breeding pair. These facts indicate that prey populations were very low during the period when the need for food is most intense for Kites. By all indications this was not a favorable year for their prey, and, therefore for breeding Kites, along the South Coast. Yet we see quite the opposite breeding result observed by Dudek at PdM in 2013.

One of the principle drivers of Kite clutch size and breeding success is rainfall in the late winter period prior to the breeding season. Rainfall supports the growth of grasses and herbaceous plants that are the food resources of California Voles and House Mice, and which allows an additional cycle of reproduction. This extra growth also provides additional ground cover for refuge. In turn, these small mammals and their offspring are the food that supports nesting kites and their young. The same lack of late winter or spring rain conditions prevailed three miles to the west of Goleta at PdM. The unique conclusion reached in the Dudek study--that this pair raised six nestlings to fledging stage-- is unprecedented, out of sync with the Goleta population, and requires further documentation before it could be considered credible.

The outstanding questions concerning this observation are:

1. Did both members of the Dudek team observe the 6 fledglings?
2. At what distance were the observations made on 13 June?
3. Is there photographic evidence of the 6 fledglings?
4. Did the observers note plumage differences among the fledglings? If the amount and distribution of bronze juvenal feathers were identical, this would support the interpretation that the young birds were the same age and, therefore, perhaps from the same brood.
5. Were any observations made from the Naples property where Kites have bred recently?
6. Did the Dudek team estimate the size of the 2013 foraging area as they did in 2011[6]? And did they conduct any trapping for small mammals

[5] Dixon, J. B., R. E. Dixon, and J. E. Dixon. 1957. Natural history of the White-tailed Kite in San Diego County, California. *Condor* 59:156-165.

[6] Dudek & Associates. Biological Survey Report for the Paradiso del Mare Residential Project. Prepared for CPH Dos Pueblos Associates. September 1, 2011.

that would tell inform the County on prey density? Taken together, these two pieces of information would offer insight on prey abundance and prey availability that would explain the ability of the adults to feed a brood of six nestlings for more than a month[7].

7. Were there follow-up observations after 13 June to confirm this sighting?

Lacking this kind of documentation, the Dudek conclusion is not believable and open to other interpretation.

Having observed and studied Kites for 26 years, Holmgren knows that this is a difficult species to study. Even if one spends several hours at a site, one may only see part of the story. Often it's tempting to rely on one quick observation to buttress a broad conclusion. In the field, one should try to assemble information based on as many observations as time will allow, and put forth one or more hypotheses, rather than a firm conclusion, when interpreting Kite behavior. Failure to do this may be the source of Dudek's error.

What are the possible scenarios that could account for an observation of six fledgling Kites, some capable of flying, in or near the nest on 13 June 2013?

1. *The observers simply miscounted.* This is not likely.
2. *One of the adults was counted as one of the fledglings.* This is an easy error to make because one often sees only one adult with a brood of fledglings. (By this time in the breeding season the second adult is often preparing her second nest.) The observer may not have expected seeing a second adult and could have mistaken it for a fledgling.
3. *Another brood of Kites was raised simultaneously on Naples or somewhere west of Naples and the two groups merged.* Several times in the Goleta Valley Holmgren has seen broods of kites from nearby breeding pairs join in a kind of nursery-like situation where the larger group of fledglings is overseen by one or more adults. Family groups can merge even when young birds are novice flyers. Observers in the Goleta Kite Watch program have often seen as many as 11 Kites together. For example, on 28 July 1987, 2 adults accompanied 9 young Kites at Coal Oil Point Reserve[8]. On 16 July 2002, 7 or 8 juvenile Kites were with 2 or 3 adult Kites at Goleta Slough[6]. These are not nocturnal roosting situations, but daytime observations involving group parental care.

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[7] Timing of reproductive phases during the Kite breeding season: **Incubation** = 30 days -- **Nestling period** = 35-40 days -- **Fledging** -- **Parental Care after fledging**: 20-30 days

[8] *Kite Data 22 May 2009 CORRECTED FINAL.xls* This file was part of Holmgren's submission to Santa Barbara County Planning and Development as part of the Rincon Report on More Mesa in 2009.

The Dudek team witnessed something that's never been documented before for this species. And they did it in a year that was exceedingly dry and in which no other pair of kites in Goleta raised more than three young. If Dudek is correct, then this is an extraordinary site and we would want to investigate its attributes before we jeopardize continued Kite use of the site by placing homes on it. Perhaps this area holds a template for restoration that we need to model in other places? What prey density exists here that is able to support such prolific breeding? How can we adequately protect or expand those habitats? Or, have the kites shifted their prey preference to some other organisms?

The 2013 Kite report does not provide sufficient detail to weigh these four questions and select a defensible explanation. Until clarifications emerge, the 2013 Dudek Kite Nesting Study should be considered flawed and should not be used as the basis for decisions pertaining to set-backs or relocations of the home or driveway.

Foraging Areas and Set-backs for Kites at PdM

Protecting the nest site

Because the protection of, or mitigation for the loss of, this nest is at the heart of the RdEIR, it's important to set the record straight. Kites may use the same nest platforms and nest trees, and there are several examples of this in the Goleta Valley.

The Dudek report discusses the fidelity of Kite pairs to nest trees and nest platforms between nestings. They quite correctly point out that Kites usually choose new but nearby sites for subsequent nestings. But then Dudek concludes that:

> "scientific based studies, local monitoring, and focused surveys on the PdM project site all provide overwhelming evidence that white-tailed kites do not typically use the same tree for subsequent nesting attempts."

To support the notion that Kites do not use the same nest twice, Dudek quotes Waian (1973)[9] in the RdEIR (p. 104):

> "In a long-term study of white-tailed kite biology in Coastal Santa Barbara County in the late 1960s and early 1970s, Waian (1973) observed no instance in which kites used a nest structure more than once."10

This conclusion, however, contradicts Dudek's assertion in 2001: "The same nests are often used in successive years."[11] Which is it?

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[9] Waian, L.B. 1973. The behavioral ecology of the North American white-tailed kite *(Elanus leucurus majusculus)* of the Santa Barbara coastal plain. Ph.D. Dissertation, University of California, Santa Barbara. 111pp.

[10] Dudek, 2013. dEIR. p. 104

[11] Dudek, 16 November 2001, Raptor Survey for Dos Pueblos Golf Links, p. 8

The Dudek report apparently minimizes the need for adequate set-backs from the nest in this area using the arguments:

a) Kites have never nested at the far west end of PdM near Tomate Creek before, and
b) Kites don't or won't nest in the same tree twice[12].

These assumptions, however, are not borne out by the evidence. First, Dudek does not acknowledge all of the nesting occurrences on the project site in the past 15 year. To the contrary, and as we show above, Dudek only acknowledges two nesting events in 15 years. It's not surprising that Dudek concludes that nesting in Tree 184 has never occurred previously.

Contrary to Dudek's contradictory conclusion, our long-term monitoring project in Goleta has shown that Kites do nest in the same tree, and if not in the same tree, in the same area[13]. Like PdM, Lake Los Carneros has numerous clusters of trees any one of which might seem suitable for nesting. Yet, no less than ten nesting events have occurred within 225 feet of a point south of the dam between 2006 and 2011[14].

Whether they choose the same nest platform, the same tree, or the same area for nesting, for Kites it seems that nothing succeeds like success. A successful nest area is very likely to be one used again. The important point is that choosing a nest site may involve other factors, among which are protection from predators, proximity to other birds-of-prey, and competition for California Voles. Kites are able to balance these factors and one frequently chosen solution is to nest repeatedly in the same area.

The RdEIR and the buffer study consistently use one factor to justify the County's small recommended set-back—the availability of other nest sites on PdM. However, for a planner an appropriate set-back should be based on an understanding the balance of Vole productivity and Kite accessibility to Voles, predator pressures from birds that prey on Kites, and human activity. The information needed to make sound decisions on set-backs are not presented in the RdEIR or in the buffer study.

Because this site has proven to be a successful location for kite nesting, it is critically important that it be protected. Dudek implies throughout these two documents that it's okay if we lose this site because there are plenty of other places on the property to nest. As discussed above, this conclusion is not supported by the research. Rather, kites are loyal to specific areas, if not trees,

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[12] Dudek, August 13, 2013 White-tailed Kite Buffer for Tree 184. p. 3

13 Kites have used the same tree at UCSB 1999, 2000, and 2001; at Lake Los Carneros where 3 trees south of the dam have had 2 nests in them; also at Lake Los Carneros a tree on the peninsula on the north side of the lake was used in 2012 and 2013, both abandoned; at More Mesa, eastern territory, Kites have used the same platform (two successive nesting events in 1998).

[14] E-mail and map from Jeff Hanson15 October 2013 in file: *On Kite nesting in same trees.docx*.

and therefore, protecting the area where kites have successfully nested on site requires an appropriate set-back using data based on habitats able to produce Voles, predator pressure, and human activity.

Therefore, the focus on this site as worthy of protection is appropriate.

Establishing the set-back

The wording in the County's LCP pertaining to Kites requires:

a) *development around the nesting area shall be set back sufficiently far as to minimize impacts on the habitat area, and*
b) *the maximum feasible area shall be retained in grassland to provide feeding area for the kites.*

Consistency with these two concepts requires we incorporate the habitat that supports nesting as much as we protect the nest.

Establishing a set-back requires information concerning small mammal habitat (including productivity, refugia from predators, and food supply for the small mammals), the total area occupied by small mammals, and connections to other similar small mammal habitat. As mentioned previously, information is also needed on Kite predators and competitors within the foraging territory.

How are we to designate a set-back without this information? One way is to look at Kite territory sizes in published studies. Place those territories as though they were a circle with a Kite nest in the center. Then calculate the radius of the circle. This radius would be an approximate set-back needed to maintain the integrity of the habitat needed by a Kite breeding pair.

Several studies offer territory sizes for nesting Kites. Dunk and Cooper (1994)[15] report that territory size ranged from 19.6 to 21.5 ha in northern California. In Santa Barbara, territory sizes at five sites ranged from 17.8-51 ha (Waian 1973)[16]. Six sites in San Diego ranged from 17-88 ha (Henry 1983)[17]. Let's look at this using square footage and then calculate the radius.

Hectare	Feet^2	Radius (in feet) if this was a circle	Radius in Meters
19.6 to 21.5	2,109,726.4 to 2,314,240.7	819 to 858	249 to 261
17.8-51	1,915,976.0 to 5,489,594.3	781 to 1,322	238 to 402
17-88	1,829,864.7 to 9,472,241.1	763 to 1,736	232 to 529

[15] Dunk, J.R. and R.J. Cooper. 1994. Territory size regulation in Black-shouldered Kites. *Auk* 111:588-595.

[16] Waian, L.B. 1973. The behavioral ecology of the North American white-tailed kite *(Elanus leucurus majusculus)* of the Santa Barbara coastal plain. Ph.D. Dissertation, University of California, Santa Barbara. 111pp.

[17] Henry, M.E. 1983. Home range and territoriality in breeding white-tailed kites. MS Thesis, San Diego State University. 132pp.

Therefore, we might suggest that to protect the habitat area a minimal set-back would be 763 feet in a small territory of 17 hectares. However, lacking any objective estimates, and no studies to defend their set-back, the County proposes a 100-foot set back from the home and a 75-foot setback from the driveway.

After receiving input from two biologists in 2002 and conducting his own investigations, California Coastal Commission (CCC) Biologist John Dixon proposed a 100 meters (=328-foot) set-back be established to protect nesting and that no human be allowed in the buffer created by the set-back during the nesting season[18]. The final conditions from the CCC settled on a 300-foot buffer from disturbance[19]. Dixon also recommended that no construction activities take place on the site until after fledging has occurred.

On More Mesa, where Kites are accustomed to recreation activities, Rincon (2010)[20] reported the following with regard to a Public Trail Plan:

> " . . . kites were observed flushing due to human presence within 150 feet, foraging kites were rarely observed attempting to capture prey when humans were within 150 feet, and a female was observed flushing from the nest twice due to a human within less than 150 feet of the nest." p. 213

On this basis, Rincon recommended a trail set-back of up to 125 feet during the nesting season. A setback from construction and from the constant human occupation and disturbance that will result from building residences on the property should be much greater than 100 feet.

SBAS cannot understand how Dudek can recommend such a tiny set-back from the nest trees near Tomate Creek, and offer no justification to support it. Based on the available evidence, it is our conclusion that the project will result in significant and unmitigated impacts to Kites. Discussed below, a much larger buffer and additional mitigation is necessary to reduce impacts below significant levels.

Assessment of Proposed Mitigations

Dudek states on p. 103 of the RdEIR:

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[18] Memorandum from John Dixon to Melanie Hale, CCC Staff, June 7, 2002. Subject: Review of White-tailed Kites at Dos Pueblos.

[19] Arco Dos Pueblos Golf Links Staff Report, CCC Appl. #A-4-STB-93-154-CC, and –A2. 10 June 2002.

[20] More Mesa Biological Resource Study. Prepared for Santa Barbara County Planning and Development, Rincon Consultants, Inc, draft December 2010. http://www.sbcountyplanning.org/projects/07CNS-00116/Documents/More%20Mesa%20Biological%20Resource%20Study%20Dec2010.pdf

> " . . . white-tailed kites would be expected to choose a nesting location proximate to suitable foraging habitat but further from human activity than provided by the proposed project design. Therefore, without mitigation, the proposed project would result in a significant impact to the white-tailed kite nest site identified in 2013."

This correctly states the case. The challenge with the RdEIR is that the mitigations are not properly focused. Only one mitigation may possibly offset impacts to the Kite nesting pair by clearing out invasive exotic weeds. Specifically, none of the proposed mitigations:

a) Solve the problem of loss of a successful Kite nesting area.
b) Several mitigation measures introduce new impacts to the site.
c) Remedies that might increase Vole productivity will come only after this Kite nesting area is lost and after assessment of their long-term success can be evaluated.

We examine each proposed mitigation and our sense of why several do not mitigate the impacts of the lost Kite breeding area.

Impact / Mitigation	Action Proposed	Effectiveness of mitigation
RdEIR and MM-BIO-9a	Relocation of Coastal Estate and use area 100 feet Relocate low-intensity uses 75 feet	Clearly, relocation is appropriate. Placing this house in already disturbed habitat on the N side of the UPRR tracks and on the east side of the property would protect the areas south of the tracks, which are less disturbed and better nesting habitat. However, maintaining the home and driveway near their current positions with set-backs of 100' and 75' will interfere with kite breeding. Furthermore, the position of the home rests within a continuum of suitable habitat on Naples and PdM.
MM-BIO-9b	Nesting Season Restrictions. Requires pre-construction bird-surveys and the application of buffers or delay of construction activities in order to protect nests.	This mitigation contradicts other buffer commitments in the RdEIR. This mitigation will stop construction and create a set-back to 300', yet the proposed buffer around the Kite nest would be only 100'. We believe this mitigation is unrealistic and, more appropriately, should be considered conditions attached just to the construction and the residential structure setback. .
Bio-10	**The proposed project**	

	would result in loss of foraging habitat for white-tailed kites (Class II).	
MM-BIO-10	Habitat Restoration. Planting of both mature and sapling Coast Live Oak trees adjacent to the habitat restoration area to create additional potential nesting habitat on-site	The benefits would not be realized in the short- or mid-term, certainly not in the life span of the pair using this habitat area. There exists no evidence this kind of mitigation can recover habitat for Voles and other Kite prey species. The Upland and Riparian Mitigation and Monitoring Plan is not completed and has not been peer-reviewed by Non-Dudek ecologists or decision-makers. A Class I impact remains because this action does not replace foraging habitat and it does not demonstrate how it will make more Voles available on PdM.
MM BIO-10	Restoration Area Maintenance	Maintenance of restoration designed to replace lost plant communities does not restore small mammals. The cumulative effect of persistent human presence through weeding, replanting, and use of herbicides retard small mammal and bird colonization and reproduction. The result after 5 or more years is that the habitat may or may not look suitable, but it does not function to support reproduction.
MM BIO-10	Conservation Easement Maintenance. 106.8-acre conservation easement area shall be managed for the life of the project to prevent the spread of invasive black mustard and to prevent the transition of the existing mosaic of herbaceous plants to shrubby areas opaque to kites.	Preventing the spread of mustard is not mitigation for areas lost to development. Removing mustard to create situations viable for small mammal reproduction might serve as mitigation. But the engineers of the restoration need to know how each area currently functions for prey animals before creating a restoration plan. Focused surveys for small mammals and habitat assessment of small mammal habitat were not done for this study.
MM BIO-10	Adaptive Management	This would be a necessary component of a well-designed program that focused on small mammals.
MM BIO-10	Upland and Riparian	We would support this plan if it

	Mitigation and Monitoring Plan. 23.5 acres of on-site mitigation/revegetation (i.e., creation and enhancement) that includes 0.11 acre of new riparian, 4.56 acres of new California sagebrush scrub uplands, 5.92 acres of new grasslands, and 12.97 acres of enhanced exotics-free buffer zone areas.	removes mustard stands and areas where other exotic invasives dominate. But it does not mitigate Kite impacts and there is no evidence that it enhances the animal populations that support Kites and other birds-of-prey. In fact, it might displace existing habitat that is providing ecological services to the Kite population. Because there is no prior assessment of areas that support Voles, restoration can damage existing Vole habitat.
BIO-14	loss of or encroachment on 58 non-native trees potentially used for perching by white-tailed kites for the construction of the residential access road, driveway, and residential structure	RdEIR incorrectly defines these trees as perch trees. In fact, the pines and cypress, even the Eucalyptus could be used for nesting as well. The impact is incorrectly described.
MM- BIO-14	Plant 6 Coast Live Oak trees to replace 3 non-natives.	The planting of large CLO trees often leads to failure requiring replanting. With replanting comes additional maintenance and human presence. These trees would not be usable by kites for nesting within the 5-year period following planting. The benefits of this action are weak and, in the cumulative sense, may be considered part of a suite of added impacts.
BIO-17	**project would result in indirect impacts to biological resources such as white-tailed kite from human endeavors associated with residential and agricultural activities (Class II).** Residential development and associated agricultural land uses would result in indirect impacts to wildlife utilization of the project site undeveloped areas. Indirect impacts on	Among the effects of greatest concern are those relating to herbicides and pesticides.

	biological resources may include increased lighting and glare on wildlife species; potential use of pesticides, herbicides and pollutants as a result of landscaping irrigation and stormwater runoff; increased human activity and domestic animal presence that disturb natural habitat areas and displace wildlife populations and fire safety mandated fuel modification. New residential uses may also introduce new noise sources that could interfere with white-tailed kite activities.	
MM-BIO-17a:	No rodenticides. Property owners shall keep records from extermination contractors demonstrating that the contractors hired for management of rodents use methods specified under this condition.	These two actions are best considered project conditions. The use of rodenticides cannot be limited to the site and can be detected only with great difficulty. Requiring record keeping is not reasonable and barely, if at all, enforceable. Therefore, it's mitigation without enforcement teeth. The RdEIR states it correctly: "The human activities associated with residential and agricultural development would be potentially significant to foraging, perching, and nesting behaviors of white-tailed kite and other wildlife species." SBAS feels that a Class I impact to kites and other raptors remains, and also contributes to Cumulative Impacts.
MM-BIO-17b	**Night lighting limitations:** requires that lighting along driveways be minimized, be of low intensity, and be directed downward in order to minimize lighting impacts to kites and other wildlife	Light can be only partially contained. Lacking a statement of the County standards for light restriction, it's difficult to evaluate the effectiveness of the mitigation. But consider that residual light that escapes to habitat probably displaces small nocturnal animals because in lit areas, they are

	due to night-lighting	vulnerable to predators that see well and smell at night: foxes, raccoons, skunks. The residual impact probably remains a contribution to Cumulative impacts.
BIO-18	**Recreational use of the future Coastal Trail would result in the disturbance to nesting birds, including white-tailed kite, during construction of the trail and the public use of the trail (Class II).**	
MM BIO-18	posting of educational and informational signage describing the sensitive nature of the nesting habitat for white-tailed kite and identifying trail use limitations. Five years of surveys for white-tailed kite nesting. "explain why the public shall refrain from disturbing the avian breeding ecosystem." "would describe the importance of kite nesting success and would limit use of public access easements during the nesting season if nesting white-tailed kites are present."	Possibly effective depending upon: a) County's diligence, b) bonding for the cost of surveys, c) competency of the biologist, and d) whether CC&Rs and other conditions stay in effect.
Upland and Riparian Mitigation and Monitoring Plan	With implementation of **Mitigation Measure MM BIO-10**, impacts to white-tailed kite foraging habitat would be significant but mitigable.	We support the restoration of 23.5 acres with some misgivings. Its benefit is that it will displace, hopefully for the long-term, expansive mustard fields. On the other hand, there is no evidence that planting of trees or habitat restoration creates habitat that Voles will thrive in. And there are other ways to do this, as we describe later in this document. Because so much of

		the mitigation package depends upon this being successful, we should have some examples where we know Kites or other birds-of-prey have benefited from typical habitat restoration. On the other hand, there are examples of focused restoration for animals that have restored those populations. (See section on New Mitigation Opportunities.)
p. 111	The proposed 23.5-acre restoration area shall be managed in a manner that sustains high to moderate quality kite foraging habitat to provide for long-term maintenance of restoration acreages identified in item 1, above, and in order to prevent a reduction in grassland foraging habitat due to succession to other habitat types (e.g., scrub habitat). (e.g. seasonal mowing, type conversion, focused herbicide application (i.e. spot spray) or other manipulation of vegetation)	This is not feasible if we expect habitat to be viable for small mammals. The persistent maintenance presence alone will obviate colonization by voles. There is no demonstration that this kind of restoration can recover habitat that functions effectively for small mammals and their predators. The RdEIR does not identify, analyze or seek to mitigate the impact that management of the restoration area will have on voles and other species present on the site.
Conservation Easement Management (p. 111)		Mowing is useful to catch mustard as it begins to grow early in the restoration process, but mowing dates should be shifted one month earlier to Feb-March, same with second mowing April-May. This only partially avoids conflicts with mowing during the bird nesting season. No disking should occur.
p. 111	Adaptive Management Plan	Devil is in the details. We have not read this plan. The overall additions of intense management just considering the Ocean Estate site alone creates an impact that substantially reduces the

		viability of the surrounding habitat for kites. Construction, Restoration, Mowing, Monitoring, Maintenance, utilities, lighting, herbicides, coastal access, 20 spaces of public parking. All this involves a huge increase in presence and activity that works against kites and it's doubtful that it enhances the situation for voles.
Cumulative Impacts		Mitigations, as much as they are in some instances helpful, actually introduce a suite of additional impacts. See later section of our letter.

In our opinion, impacts not fully mitigated are:

a) Loss of rodent populations (prey for kites),
b) Loss of rodent habitat,
c) Disruption of the rodent population,
d) Increased focus by predators on small mammals along property perimeter,
e) Introduction of new predators to the small mammal population (cats),
f) Loss of habitat for kite foraging,
g) Loss of nest site,
h) Increase in night lighting,
i) Ineffectiveness and additional impacts of the proposed restoration with intense maintenance.

Some of these impacts are not articulated in the RdEIR yet they are at the heart of the policies that designate this site as ESH and that conflict with the County's White-tailed Kite protection policies.

New Opportunities for Small Mammal Restoration on PdM

The RdEIR mentions actions that benefit California Voles only once. This characterizes the principle shortcoming of the RdEIR's proposed mitigations; few of them contribute to a solution to the problem—how do we keep the Kites in the western nesting area during and after the home construction? SBAS favors a new approach to ecological restoration that secures the Vole population.

This project provides the impetus to push ecological restoration to evolve in a direction it must routinely go. In fact, there are examples of successful programs such as the one we describe below. The methods put forth are ones used to restore Black-footed Ferrets in Wyoming, and Island Foxes on the Channel Islands. Both are considered successful programs. Here we offer a framework that combines actions on behalf of Kites' preferred prey and refocused restoration of plant communities.

Framework of the Vole Restoration Program

Inventory

First, it's important to establish to what extent Voles exist in the area of the 2013 Kite nest. We want to preserve and secure areas where Voles are already established and where they are able to reproduce. An inventory will clarify the small mammal species that exist and their movement patterns among the areas they use (i.e., their movement corridors). Where on the site are they breeding and where are they feeding? What proportion of the habitat serves as a refuge vs. that which is accessible to predators?

Second, we want to determine the other predators that might compete for Voles in the area.

Choose a Reference Site

Third, we choose a reference site near to PdM where inventories show an active vole population. Use the reference to assist in the design of the habitat restoration (as a model) and to measure success on the PdM site. A different nearby site may serve as the donor site for the captive propagation component.

Choosing a Restoration Site

The choice of sites to restore on PdM will be close to the Kite foraging area, have compromised Vole productivity, but otherwise have most of the elements needed for successful Vole use. From the tool chest of restoration approaches habitat enhancement of existing but compromised habitat would be the proper tool. Restoration involving moderate or extensive soil disturbance will not work.

We propose a two-pronged approach involving:

a) Habitat enhancement designed to increase rates of population growth and seasonally favoring Vole productivity over accessibility to predators,
b) Population enhancement through captive propagation.

Habitat Restoration Success Criteria.

Restoration to benefit animal communities requires important shifts in the way we do measure the results. As already mentioned, restoration targeting plant communities involves a degree of intrusion for maintenance, watering, and weeding that obviates colonization and reproduction for small mammals, especially if the need is for a short-term response such as at PdM. Here we want to minimize intrusion and restrict maintenance to the season when Kites are not breeding. Thus, we need new success criteria from regulatory agencies based not on plant success, which encourages overplanting and excessive maintenance, but rather based on feedback from the animal occupants and from the predatory animals.

Long-term Support for Kites

Finally, we need a landscape level understanding of habitat connectivity among small mammal populations. From that comes restoration where needed and set-backs to ensure movement among populations. This movement is critical to

facilitate prey population recovery following inevitable droughts, floods, diseases, and periods of overhunting by predators.

The objective is to enhance prey productivity from a muted population cycle to a healthy cycle.

Benefits of This Approach of Two-pronged Ecological Restoration

We can install a program here that solves several problems:

1. It reduces intrusions from maintenance to make restored areas functional for predators and prey,
2. It provides a benefit to Kites within a few months of the effort because voles have short generation times with an output of 5 to 10 broods per year,
3. Other predators will benefit from the additional prey.
4. It provides long-term as well as short-term solutions by identifying and securing corridors among site productive to small mammals.
5. With experience in studying the correct parameters where development is proposed, the County of Santa Barbara could determine by inventory alone the degree of threat to White-tailed Kite and their prey and determine more accurately the risk to Kites early in a project.

Once the program is installed and refined at PdM, it can become a model where other Kite populations are diminished only because the site has lost its capacity to recover from catastrophe. Santa Barbara County will have a feasible tool to protect Kite populations and uphold the Kite protection policy.

Captive propagation models

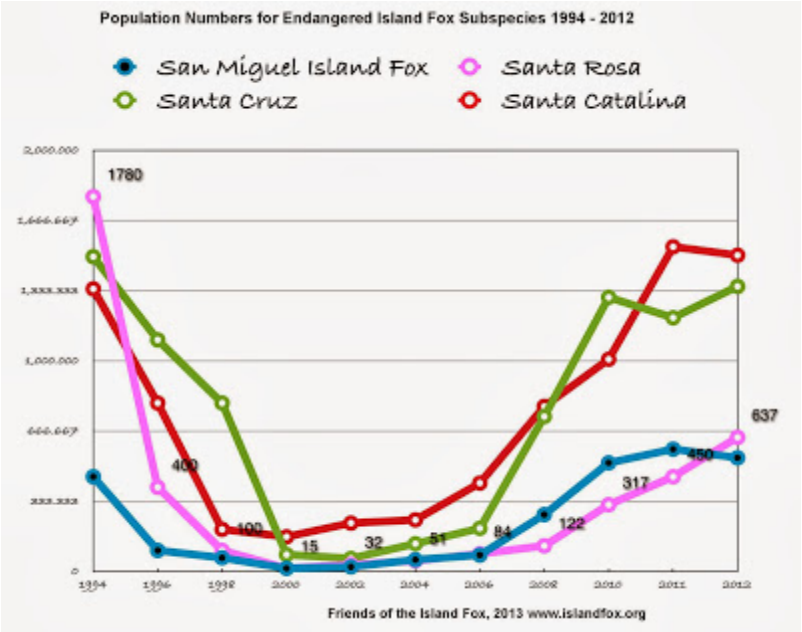
Captive propagation is being applied more often to solve problems with endangered species, threatened or unique gene pools, genetic augmentation, and loss of habitat. Often it is used for education purposes when taking animals from the wild is not legal or ethical. Zoos are frequent practitioners of captive propagation. And of course, small mammals have been bred in captivity as food for snakes and other captive predators for years. The techniques are available and, with some exceptions notably with larger animals, they are becoming more successful.

We choose two models here mostly to demonstrate that captive propagation has been successful rather than to advance specific techniques. Having said that, captive propagation is the extreme form of recovery for PdM. Perhaps it's only necessary where habitats have lost their entire population of Voles. More appropriate for PdM may be modest forms of population assistance that may involve Vole protection (to increase areas where breeding can occur but predation cannot) or habitat augmentation for Voles (providing specific elements of the ecosystem necessary to achieve rapid reproduction) rather than captive propagation. While our examples illustrate the feasibility of captive propagation with predators such as the ferrets and fox, we're even more confident that it can be established for small mammals.

Black-footed Ferret[21]

From a single remaining population of 18 individuals found in Wyoming in 1981, many hundred healthy individuals have been placed in 5 or so prairies in Mexico and the western US.

Island Fox



A program involving captive propagation and treatment for canine distemper has resulted in these population changes in the four races of Island Fox[22].

In sum, there are additional feasible mitigation measures to restore small mammal populations onsite, that are necessary (but not alone sufficient) to reduce impacts to Kites from the Project to less than significant levels. These additional mitigations should be included in the final EIR.

Cumulative Impacts

Impacts on the Local Population of White-tailed Kite

Does the loss of Kites at PDM affect the Goleta Valley Population? The answer is, it's not clear. We don't know of any data that tell us whether Kites at PdM are part of the Goleta Valley population. One indicator would be evidence that these birds roost together. Observations would have to be made during the non-breeding periods of birds flying in the late afternoon toward Goleta or birds from a roost near Goleta flying in the very early morning towards PdM. We

[21] Black-footed Ferret Recovery, **SCIENCE** Vol. 288, 12 MAY 2000. www.sciencemag.org.
[22] http://www1.islandfox.org/

know of no such observations. We've only heard of kites roosting behavior during the breeding season when birds seem to stay near to the PdM property.

Is the local Goleta Valley population increasing or decreasing? That also is not clear primarily because Kites defy the usual indices used to assess population health. However, there are clear indications that the population is more vulnerable now than in the 1970s. We will not present that information here because it may not be relevant to issues at PdM. A separate investigation of the effectiveness of the policies designed to protect Kites is warranted.

Have the mitigation measures presented at PdM been shown to be successful in protecting the White-tailed Kite population in Goleta? We have to consider whether or to what degree these kinds and specific mitigations applied in other projects have offset impacts and benefited Kites in the Goleta Valley. Again, another investigation is warranted.

One comparable situation is the restoration on Goleta Slough at Area I[23]. It is an approximately 40-acre restoration that we think is one of the best in the County. It's a good job because it has multiple habitat types; it mixes dense with open habitats appropriately; it has a persistent fresh water source within it; and maintenance has been vigilant. This is an area where Kites bred, or attempted to breed many years from 1982 to 2004[24]. Once restoration was initiated in 2006, Kites have not returned to nest here. Nesting is impossible here *because of* the conscientious but persistent project maintenance for the plant community. Restoration designed for plant communities generally does not work for animal communities. A completely different approach and set of tools are needed when mitigating impacts to habitats that support birds-of-prey.

In other restoration efforts, planting is so dense that it excludes prey and access to the prey that predators require. Not only small mammals are unable to colonize, but lizards, snakes, and even insects are excluded.

SBAS believes the Cumulative Impacts Analysis in the RdEIR acknowledges the following impacts:

(1) direct impacts from degradation or alteration of riparian habitat;
(2) indirect impacts to water quality resulting from an increase in impervious surfaces and pollutant runoff into nearby water bodies;
(3) increased human and domestic animal presence in close proximity to riparian habitats; and
(4) fragmentation of upland habitat used for wildlife movement.

[23] Area I is located here: N 34.41917 W 119.84426.
[24] Kite Nesting data in care of M. Holmgren.

SBAS Audubon remains concerned about loss of habitat and fragmentation of that which remains. Our concerns are that Dudek has failed to focus on the processes that support White-tailed Kites. As a result, they have:

a) designed mitigation in the form of restoration that does not work and does not address the impacts,
b) failed to present information on fragmentation and loss of habitat connectivity.

If this project is implemented with the current proposed mitigations, long-term degradation of the vitality of the small mammal community and of White-tailed Kite is a likely result. In our opinion, the evidence demonstrates that this will result in a significant impact.

Habitat restoration will not be effective in the short- or mid-term, and it is not reasonable to assume that habitat restoration will be effective in the long term, except where gross impediments to habitats prevail (i.e., in ruderal habitat). Even where dense mustard stands are restored, with the project limited to only 5 years of maintenance, it is very likely mustard and dominant exotics will return.

Information	**Significance**	**SBAS Comment**
BIO-19	**The proposed project would result in cumulative impacts to sensitive species and loss of wildlife habitat (Class II).**	The RdEIR simply suggests that mitigation is sufficient.
	SBAS sees additional impacts not acknowledged in the RdEIR: **Those include:** **1. The addition of numerous workers, heavy equipment, and utilities needed to service the mitigation and maintenance.** **2. Equipment used in the Agricultural operation.** **3. Herbicides and pesticides**	The RdEIR omits impacts to biological resources associated with the new agricultural operation. The RdEIR applies conditions on the use of pesticides and herbicides, but the impacts are not mitigated.

We believe the RdEIR introduces new impacts under the guise of mitigation. The principle impact is project maintenance that accompanies restoration.

In our letter, we present a feasible alternative to the proposed restoration—captive propagation combined with habitat restoration designed to be compatible with small mammal colonization and recruitment.

Conclusion

We're asking whether the significant impact to Kites from the proposed agricultural operations, two housing and guest housing sites, Construction, Restoration, Mowing, Monitoring, Maintenance, utilities, lighting, herbicides, coastal access, 20 spaces of public parking, expanded public access can be mitigated. All this involves a huge increase in presence and activity that works against Kites and coordination of these activities is not considered with regard to the protection of habitats used by Voles. As such, the impacts to these proposed mitigations are, in fact, not assessed.

When examined individually, some of these impacts might be Class II. But collectively, the loss of space, the human presence, the new agricultural use, and the restoration and maintenance amount to significant, unmitigated impacts not acknowledged in the RdEIR.

Santa Barbara Audubon Society appreciates the opportunity to provide comments on the Recirculated dEIR for Paradiso del Mare. We hope that our comments are beneficial to the County.

Yours truly,

Stephen J. Ferry

Co-President

Mark Holmgren, Conservation Committee

Primary Author
Member
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