PLANNING COMMISSION

Meeting Date: __04/15/2024____

ADDITIONAL ITEM ADDED AFTER DISTRIBUTION OF PACKET (#1)

AGENDA ITEM # __3___

Applicant/Project Name: Hughes SMCC, LLC
Project Number: EIR23-006 & SDP22-0002

Brief Description: Email Public Comment from Lozeau Drury LLP

Date __04/15/2024___
Time _11:20 a.m.__

LOZEAU DRURY LLP
T 510.836.4200
F 510.836.4205
1939 Harrison Street, Ste. 150
Oakland, CA 94612
www.lozeaudrury.com
brian@lozeaudrury.com

April 15, 2024

VIA EMAIL

Mike Barnett
Christopher Carroll
Diana Cavanaugh
Eric Flodine
Kevin Norris
Fatima Rios Perez
Lionel Saulsberry
Steve Kildoo (Alternate)
Arturo Rico (Alternate)
Planning Commission
City of San Marcos
1 Civic Center Drive
San Marcos, CA 92069
gjackson@san-marcos.net

Chris Garcia, Planner
Planning Division
City of San Marcos
1 Civic Center Drive
San Marcos, CA 92069
cgarcia@san-marcos.net

Re: Comment on Environmental Impact Report
Hughes Circuits Project
File No. TMP-2049; Case Nos.: SDP22-0002, EIR23-006
Planning Commission Agenda Item 3 (April 15, 2024)

To the San Marcos Planning Commission and Planner Garcia:

This comment is submitted on behalf of Supporters Alliance For Environmental Responsibility ("SAFER") and its members living or working in and around the City of San Marcos ("City") regarding the final environmental impact report ("EIR") prepared for the Hughes Circuit Project (File No. TMP-2049; Case Nos. SDP22-0002, EIR23-006) ("Project") to be considered as Agenda Item 3 at the Planning Commission's April 15, 2024 meeting.

SAFER is concerned that approval of the Project and certification of the EIR will violate the California Environmental Quality Act ("CEQA") by: (1) failing to adopt the feasible and environmentally superior reduced-intensity alternative; (2) relying on impermissibly narrow project objectives; (3) failing to adequately disclose and mitigate impacts to sensitive biological resources; and (4) failing to adequately respond to comments from the U.S. Fish & Wildlife Service. SAFER respectfully requests that the Planning Commission refrain from approving the Project at this time and instead direct staff to revise and recirculate the EIR.

PROJECT DESCRIPTION

The Project proposed the construction of a 67,410 square-foot light industrial building on an undeveloped 10.46-acre site located on South Pacific Street south of Linda Vista Drive (APNs: 219-223-20-00 and 219-223-22-00). Project construction would occur on 2.61 acres of the 10.46-acre site. The light industrial building includes a 56,310 square-foot first floor, a 11,100 square-foot mezzanine, and 72 parking spaces, including 4 electric vehicle charging stations, 9 carpool and zero emission parking stalls, 4 accessible stalls, and 1 U.S. Postal Service parking stall. The Project requires discretionary approval of a Site Development Plan.

LEGAL STANDARD

CEQA requires that an agency analyze the potential environmental impacts of its proposed actions in an EIR (except in certain limited circumstances). (See, e.g., Pub. Resources Code, § 21100.) The EIR is the very heart of CEQA. (*Dunn-Edwards v. BAAQMD* (1992) 9 Cal.App.4th 644, 652.) "The 'foremost principle' in interpreting CEQA is that the Legislature intended the act to be read so as to afford the fullest possible protection to the environment within the reasonable scope of the statutory language." (*Communities for a Better Environment v. Cal. Resources Agency* (2002) 103 Cal.App.4th 98, 109 (*CBE v. CRA*).)

CEQA has two primary purposes. First, CEQA is designed to inform decision makers and the public about the potential, significant environmental effects of a project. (14 CCR § 15002(a)(1).) "Its purpose is to inform the public and its responsible officials of the environmental consequences of their decisions before they are made. Thus, the EIR 'protects not only the environment but also informed self-government.'" (*Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 564.) The EIR has been described as "an environmental 'alarm bell' whose purpose it is to alert the public and its responsible officials to environmental changes before they have reached ecological points of no return." (*Berkeley Keep Jets Over the Bay v. Bd. of Port Comm'rs*. (2001) 91 Cal.App.4th 1344, 1354 (*Berkeley Jets*); *County of Inyo v. Yorty* (1973) 32 Cal.App.3d 795, 810.)

Second, CEQA requires public agencies to avoid or reduce environmental damage when "feasible" by requiring "environmentally superior" alternatives and all feasible mitigation measures. (14 CCR § 15002(a)(2) and (3); see also *Berkeley Jets*, 91 Cal.App.4th at 1354; *Citizens of Goleta Valley*, 52 Cal.3d at 564.) The EIR serves to provide agencies and the public with information about the environmental impacts of a proposed project and to "identify ways that environmental damage can be avoided or significantly reduced." (14 CCR § 15002(a)(2).) If the project will have a significant effect on the environment, the agency may approve the project only if it finds that it has "eliminated or substantially lessened all significant effects on the environment where feasible" and that any unavoidable significant effects on the environment are "acceptable due to overriding concerns." (Pub. Res. Code, § 21081; 14 CCR § 15092(b)(2)(A) and (B).)

While the courts review an EIR using an "abuse of discretion" standard, "the reviewing

court is not to 'uncritically rely on every study or analysis presented by a project proponent in support of its position. A 'clearly inadequate or unsupported study is entitled to no judicial deference.'" (*Berkeley Jets*, 91 Cal.App.4th at 1355 [quoting, *Laurel Heights Improvement Assn. v. Regents of University of California* (1988) 47 Cal. 3d 376, 391, 409, n. 12.) "A prejudicial abuse of discretion occurs 'if the failure to include relevant information precludes informed decisionmaking and informed public participation, thereby thwarting the statutory goals of the EIR process.'" (*Berkeley Jets, supra*, 91 Cal.App.4th at 1355.)

An EIR must "include[] sufficient detail to enable those who did not participate in its preparation to understand and to consider meaningfully the issues the proposed project raises." (*Sierra Club v. Cty. of Fresno* (2018) 6 Cal.5th 502, 510.) "Whether or not the alleged inadequacy is the complete omission of a required discussion or a patently inadequate one-paragraph discussion devoid of analysis, the reviewing court must decide whether the EIR serves its purpose as an informational document." (*Id.* at 516.) "The determination whether a discussion is sufficient is not solely a matter of discerning whether there is substantial evidence to support the agency's factual conclusions." (*Id.*) As the Court emphasized:

> [W]hether a description of an environmental impact is insufficient because it lacks analysis or omits the magnitude of the impact is not a substantial evidence question. A conclusory discussion of an environmental impact that an EIR deems significant can be determined by a court to be inadequate as an informational document without reference to substantial evidence.

(*Id.* at 514.)

In general, mitigation measures must be designed to minimize, reduce or avoid an identified environmental impact or to rectify or compensate for that impact. (14 CCR § 15370.) Where several mitigation measures are available to mitigate an impact, each should be discussed and the basis for selecting a particular measure should be identified. (14 CCR § 15126.4(a)(1)(B).) A lead agency may not make the required CEQA findings unless the administrative record clearly shows that all uncertainties regarding the mitigation of significant environmental impacts have been resolved.

When a significant environmental issue is raised in comments on the draft EIR, the response must be detailed and must provide a reasoned, good faith analysis. (14 CCR §15088(c); *Banning Ranch Conservancy v. City of Newport Beach* (2017) 2 Cal.5th 918, 940; *Covington v. Great Basin Unified Air Pollution Control Dist*. (2019) 43 Cal.App.5th 867, 878 [rejecting adequacy of response that did not explain why suggested mitigation was infeasible].) The failure of a lead agency to respond to comments raising significant environmental issues before approving a project frustrates CEQA's informational purpose and may render the EIR legally inadequate. (See *Flanders Found. v. City of Carmel-by-the-Sea* (2012) 202 Cal.App.4th 603, 615; *Rural Landowners Ass'n v. City Council* (1983) 143 Cal.App.3d 1013, 1020.)

DISCUSSION

I. The City Must Adopt the Environmentally Superior Reduced-Intensity Alternative.

Where a project is found to have significant and unavoidable impacts, CEQA requires the adoption of a feasible alternative that meets most of the project objectives but results in fewer significant impacts. (*Citizens of Goleta Valley v. Bd. of Supervisors* (1988) 197 Cal.App.3d 1167, 1180-81; *see also, Burger v. County of Mendocino* (1975) 45 Cal.App.3d 322) A "feasible" alternative is one that is capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social and technological factors. (Pub. Res. Code § 21061.1; 14 CCR § 15364.)

Here, the EIR concluded that the Project will have a significant and unavoidable impact due to the vehicle miles traveled (VMT) of the Project's employees. (FEIR, p. 3.15-1.) The EIR also included an analysis of a reduced development intensity alternative ("Reduced Alternative") for a 21,800 square-foot building instead of 67,410 square feet. (FEIR, p. 4-9.) The EIR concluded that the Reduced Alternative would reduce the Project's significant and unavoidable transportation impact to less than significant and identified the Reduced Alternative as the "environmentally superior alternative."

In order to approve the Project with its significant transportation impacts, the City must make a finding that "[s]pecific economic, legal, social, technological, or other considerations . . . ***make infeasible*** the . . . .project alternatives identified in the final EIR." (Pub. Res. Code, § 21081(a)(3); 14 CCR § 15091(a)(3).) Here, the City has not—and cannot—support a finding that the Reduced Alternative is infeasible. Instead, the EIR and the draft resolution for adopting the EIR merely state that the Reduced Alternative would not meet Project Objective #3 ("Develop a fiscally sound and employment-generating land use that maximizes the use of the light-industrial zoned area").

Notably, the environmentally superior Reduced Alternative may not be rejected as *infeasible* simply because it might not be as fiscally sound or generate as much employment as the Project. (*Citizens of Goleta Valley v. Bd. of Supervisors* (1988) 197 Cal.App.3d 1167, 1180-81.) Rather, "[w]hat is required is evidence that the additional costs or lost profitability are sufficiently severe as to render it impractical to proceed with the project." (*Id*.; see also *Burger v. County of Mendocino* (1975) 45 Cal.App.3d 322.) Therefore, the fact that the Reduced Alternative does not satisfy Project Objective #3 does not render the alternative *infeasible*. Furthermore, as discussed below, Project Objective #3 is impermissibly narrow, further underscoring that it cannot be relied upon to reject adoption of the Reduced Alternative.

Because the City lacks the foundation to reject the Reduced Alternative as infeasible, the City cannot make the required findings for the Project's significant and unavoidable transportation impact. (See Pub. Res. Code, § 21081(a); 14 CCR § 15091(a).) As a result, the Planning Commission should not approve the Project at this time and instead direct staff to bring

back the Reduced Alternative at a later date for approval.

II. The Project Objectives Are Impermissibly Narrow.

An overly narrow definition of a project's objectives constitutes a violation of CEQA because such a restrictive formulation would improperly foreclose consideration of alternatives. (*See City of Santee v. County of San Diego* (1989) 214 Cal.App.3d 1438.) CEQA prohibits an applicant from limiting their ability to implement the project in a way that precludes it from implementing reasonable alternatives to the project. (*See Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 736.)

Here, Project Objective #3 is overly narrow because it forecloses the possibility of implementing a less intensive project. According to Project Objective #3, any potential project must "[d]evelop a fiscally sound and employment-generating land use ***that maximizes the use*** of the light-industrial zoned area." (FEIR, p. 4-1 [emphasis added].) With this objective, the City limits itself to considering a project at least as large as the Project's 67,000 square-feet without considering how less-intensive developments might reduce or eliminate the Project's impacts.

Project Objective #3 should be revised in an updated EIR prior to approval of the Project to ensure that the City is not impermissibly committing itself to the Project and its significant impacts.

III. The EIR Fails to Adequately Disclose and Mitigate the Project's Impacts on Biological Resources.

SAFER retained expert ecologist Dr. Shawn Smallwood, Ph.D., to review the EIR, including the Biological Resources Technical Report prepared by the applicant's consultant Dudek ("Biological Report"), and to provide an analysis of the Project's impacts on biological resources. Dr. Smallwood's comment and CV are attached hereto as **Exhibit A**. Dr. Smallwood also prepared a separate comment the final EIR's Response to Comments, attached hereto as **Exhibit B**.

As discussed below, Dr. Smallwood found that: (1) the Biological Report underestimated the diversity of species on site and the Project's likely impacts to those species; (2) the Biological Report failed to provide substantial evidence of the Project's impacts; (3) the EIR failed to assess or mitigate the Project's impacts to species due to habitat loss, movement impacts, traffic mortality, and cumulative impacts; and (4) the EIR's mitigation measures are inadequate to reduce the Project's impacts to less-than-significant levels. Additionally, the Final EIR failed to adequately respond to comments from the United States Fish and Wildlife Service.

A. The EIR underestimates the diversity of species using the Project site.

The EIR readily admits that the Project site is an ecologically abundant area, providing

habitat for special-status wildlife, including Bell's vireo (federally endangered), white-tailed kite (CDFW fully protected), and Cooper's hawk (CDFW Watch List), and special-status plants, including, San Diego Button Celery (federally/state endangered), thread-leaved brodiaea (state endangered, federally threatened), and spreading navarretia (federally threatened). (FEIR, pp. 3.3-9 to -10.) However, according to Dr. Smallwood, the EIR still underestimates the ecological value of the site.

Dr. Smallwood's associate, Noriko Smallwood, MS, conducted a 3.5-hour site visit on March 16, 2024. (Ex. A, p. 1.) She detected 37 species of vertebrate wildlife, six of which are special-status species, including Allen's hummingbird. (*Id*., pp. 1-2.) Ms. Smallwood detected 18 species that were not detected in the EIR's Biological Report, including the special-status species Allen's hummingbird. (*Id*., p. 22.)

Dr. Smallwood calculated that more thorough site visits would reveal an even greater diversity of wildlife. (Ex. A, pp. 13-15.) Given more time to survey the site, Dr. Smallwood's predicts that he would have detected 155 species of vertebrate wildlife, 25 of which would be special-status species. (*Id*., p. 14.) Based on his review of the EIR and the site visit, Dr. Smallwood concluded that "the large number of species I predict at the project site is indicative of a species-rich wildlife community that warrants a serious survey effort." (*Id*.)

B. The EIR's Biological Report cannot be relied upon to determine the Project's impacts to biological resources.

Dr. Smallwood identified numerous deficiencies in the EIR's Biological Report. (Ex. A, pp. 15-22.) As a result of the Biological Report's deficiencies, the EIR's conclusion that impacts to biological resources would be less than significant is unsupported by substantial evidence and should not be relied upon by the Planning Commission. Instead, the biological resources section of the EIR should be revised and recirculated for public review and comment.

First, Dr. Smallwood found that the surveys conducted for the Biological Report in 2023 were inadequate. (Ex. A, pp. 16-17.) Detection surveys conducted for the federally threaten California gnatcatcher "fell short of the most critically important minimum standards of the available survey protocol, " including failing to indicate whether consultation with the U.S. Fish & Wildlife Service had occurred and failing to conduct at least six (6) breeding-season surveys. (*Id*., p. 17.) Given the suitable habitat for California gnatcatcher on the Project site and documented occurrences of the species within a mile of the Project site, Dr. Smallwood concludes that "***it is a certainty that California gnatcatchers use the project site***, if not to breed, then at least as a dispersal stop-over or for other purposes." (Ex. B., pp. 1-2.) Additionally, because a focused detection survey was conducted *only* for California gnatcatcher, the surveys' failure to detect other special-status species "cannot be construed to mean that those species are absent from the project site." (Ex. A, p. 16.) The EIR must be revised to include updated protocol-level surveys that meet the minimum standards of the U.S. Fish & Wildlife Service. (Ex. B, p. 3.)

Second, the Biological Report failed to conduct a detection survey for the federally endangered San Diego fairy shrimp, even though the Report concedes that the species "is known to occur within the immediate vicinity of the Project site and has a high potential to occur within the on-site vernal pools." (Ex. A, p. 17.) The Biological Report claims that focused surveys were not necessary, claiming that the Project would not result in any impacts to the vernal pools. However, this conclusion is belied by the fact that the EIR explicitly requires the restoration of vernal pools as a mitigation measure. The mitigation measure for vernal pool restoration clearly shows that there will be impacts to the vernal pools. As a result, the Biological Report should have included detection surveys for San Diego fairy shrimp.

Third, the Biological Report improperly screened out many special-status species from further consideration by concluding only a single database, the California Natural Diversity Data Base ("CNDDB"), to characterize the baseline environmental setting at the Project site. (Ex. A, p. 20.) However, as Dr. Smallwood explains, "CNDDB is not designed to support absence determinations or to screen out species from characterization of a site's wildlife community." (*Id*.). By consulting multiple databases in addition to CNDDB, including iBird and iNaturalist, Dr. Smallwood found that 151 special-status species are known to occur near enough to the Project site to warrant further analysis. (*Id*., pp. 20-21.) Yet, the Biological Report only analyzed the occurrence likelihood for 55 of those species. (*Id*., p. 21.) By limiting its database review to only CNDDB, the Biological Report underestimates the likelihood of special-status species occurring on the site and cannot be lied upon to conclude that impacts would be less than significant.

C. The EIR failed to disclose and mitigate the Project's biological impacts due to habitat loss, wildlife movement, window collisions, and road mortality.

Dr. Smallwood found that the EIR failed to adequately discuss numerous significant impacts on biological resources, including habitat loss, movement impacts, traffic mortality, and cumulative impacts. (Ex. A, pp. 30-36.) By failing to disclose and mitigate these impacts, the EIR is inadequate and cannot be relied upon to conclude that impacts will be less than significant.. As such, the EIR must be revised to account for the impacts discussed below.

1. Habitat loss.

Dr. Smallwood found that the EIR failed to fully account for the impacts to wildlife from the loss of habitat, which includes the non-native vegetation on site as well as the native vegetation. (Ex. A, pp. 30-32.) Based on studies of other areas with severe habitat fragmentation, Dr. Smallwood predicts that the Project would result in a significant loss of 43 bird nests, which corresponds to an overall loss of 201 birds per year. (*Id*., pp. 30-31.) Furthermore, the EIR's proposed mitigation measure to merely preserve the undeveloped portion of the Project site would do nothing to reduce this impact and the proposed mitigation measure for invasive species removal and restoration could further *exacerbate* this impact. The EIR must be revised and recirculated to adequately evaluate the impacts to biological resources from habitat loss.

2. Wildlife Movement

Dr. Smallwood found that the EIR applied improper standards to conclude that the Project's impacts to wildlife movement would not be significant. (Ex. A, pp. 32.) According to the EIR, impacts to wildlife movement would not be significant because:

> [The Project site] is entirely bounded by existing development, is not contiguous with native habitats, and is outside of areas where wildlife movement opportunities do occur (along undeveloped open space habitat corridors). Areas may be used by smaller urban-adapted mammal species and bird species, but such areas are not considered refuge as a wildlife corridor or habitat linkage.

(FEIR, pp. 3.3-34.) However, the EIR's reasoning is flawed.

First, the EIR's assertion that the site is used only by smaller urban-adapted mammal and bird species is belied by the biological surveys conducted for the EIR's Biological Report and by Noriko Smallwood. Of the species observed in those surveys, only19% could be categorized as small, urban-adapted species. (Ex. A, p. 32.)

Second, the EIR's reliance on the fact that the site is not a "wildlife corridor" or "habitat linkage" is misplaced. However, "the CEQA standard goes to wildlife movement ***regardless of whether the movement is channeled by a corridor***." (Ex. A, p. 32 [emphasis added].) Even if the Project site is not a wildlife corridor, the impacts can still be significant because, as Dr. Smallwood explains:

> [A] site such as the project site is critically important for wildlife movement because it composes an increasingly diminishing area of open space within a growing expanse of anthropogenic uses, forcing more species of volant wildlife to use the site for stopover and staging during migration, dispersal, and home range patrol (Warnock 2010, Taylor et al. 2011, Runge et al. 2014). The project, due to its elimination of at least 2.85 acres of vegetation cover and due to its insertion of a large warehouse into the aerospace used by birds, bats and butterflies. would cut wildlife off from a large portion of one of the last remaining stopover and staging opportunities in the project area, forcing volant wildlife to travel even farther between remaining stopover sites.

(*Id*., pp. 31-32.) The impacts identified by Dr. Smallwood would be significant and must be addressed and mitigated in a revised EIR. (*Id*., p. 32.)

3. Traffic Mortality

The EIR fails to address the impacts to wildlife from collisions with traffic generated by the Project. (Ex. A, pp. 33-35.) According to the EIR, the Project would result in 1,519,046

annual vehicle miles traveled ("VMT") annually. (*Id*., p. 35.) Based on the Project's annual VMT, Dr. Smallwood calculates that traffic from the Project will kill at least 832 vertebrate animals per year. (*Id*..) Especially due to the special-status species likely to occur at or near the Project, these collisions represent a significant impact to wildlife that must be addressed, discussed, and mitigated in a revised EIR.

4. Cumulative Impacts

The EIR improperly concludes that the Project's cumulative impacts to biological resources will not be significant because the Project-level impacts will be less than significant. However, this conclusion ignores that "[c]umulative impacts can result from individually minor but collectively significant projects taking place over a period of time." (14 CCR § 15355(b).) Therefore, the question of whether there will be cumulative impacts is a distinct question from whether the Project itself will have significant impacts.

The EIR also claims that consistency with the conservation policies of the Draft San Marcos Subarea Plan and General Plan would ensure that cumulative impacts would not be significant. However, as explained in the CEQA Guidelines, the EIR must "explain how implementing the particular requirements in the plan, regulation or program ensure that the project's incremental contribution to the cumulative effect is not cumulatively considerable." (14 CCR § 15064(h)(3).) The EIR does not contain any such explanation and, as a result, fails to provide substantial evidence that cumulative biological impacts would be less than significant.

D. The EIR's proposed mitigation measures for biological resources are inadequate.

The EIR concluded that mitigation measures were necessary to reduce the Project's significant impacts to special-status plant and animal species (FEIR, 3.3), sensitive natural communities, and protected jurisdictional resources under regulation by the U.S. Army Corps of Engineers (USACE), the Regional Water Quality Control Board (RWQCB), and/or California Department of Fish & Wildlife (CDFW) to less-than-significant levels. (FEIR, p. 3.3-30, -32, -33.) Dr. Smallwood's review of the biological mitigation measures found that the measures do not ensure that the Project's impacts would be less than significant. The mitigation measures should be strengthened in a revise EIR prior to approval of the Project. (See *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 727 [agency may not rely on mitigation measures of uncertain efficacy].)

First, any purported reduction in the Project's impacts from MM-BIO-1 (On-site Preservation) is wholly illusory. MM-BIO-1 requires the on-site preservation of 8.07 acres of the Project site. (FEIR, p. 3.3-37.) The conservation of the 8.07 acres does nothing to reduce the impacts to the 2.61 acres directly impacted by the Project. Even with the preservation of 8.07 acres, "the project would result in a net loss of natural vegetation and of wildlife . . . .[E]very portion of this patch of open space that is converted to impervious surface is going to result in

significant cumulative impacts that cannot be offset by merely preserving what is left.. (Ex. A, p. 37.) Even if the preservation of 8.07 acres is laudable, it cannot be relied upon to *reduce* the impacts of the proposed 2.61-acre Project.

Second, MM-BIO-13 (Federal and State Agency Permits) merely requires the Project to adhere to the permitting requirements of USACE, RWQCB, and CDFW. Again, any purported mitigation of the Project's impacts from MM-BIO-13 is illusory because permits are already required regardless of MM-BIO-13.

Third, MM-BIO-6 (Breeding Season Avoidance) and MM-BIO-12 (Nesting Bird Survey) rely on an incorrect range of dates (February 15 to August 31) for bird nesting/breeding season (FEIR, pp. 3.3-40, -43.) CDFW has now recognized the avian breeding season as February1 to September 15. (Ex. A, pp. 39, 41.) MM-BIO-6 and MM-BIO-12 must be revised accordingly to ensure that they are actually effective in mitigating the Project's impacts.

Fourth, nest avoidance and pre-construction surveys for California gnatcatcher and other species (MM-BIO-11 and MM-BIO-12) would only mitigate the direct loss of species during construction of the Project. (Ex. A, p. 41.) These mitigation measures would do nothing to mitigate the impacts from loss of habitat and breeding capacity, which will reverberate long after the Project is constructed. (*Id*.)

The EIR's mitigation measures for biological resources should be revised and strengthened in order to ensure that the impacts of the Project will be less than significant. A revised EIR should also consider additional mitigation measures, including a requirement for minimal use of rodenticides and avicides and compensatory payments to wildlife rehabilitation facilities. (Ex. A, p. 42.)

IV. The Final EIR Fails to Adequately Respond to Comments from the U.S. Fish & Wildlife Service.

An agency's responses to comments on a draft EIR must specifically explain the reasons for rejecting suggestions received in comments and for proceeding with a project despite its environmental impacts. Such explanations must be supported with specific references to empirical information, scientific authority, and/or explanatory information. (*Cleary v. County of Stanislaus* (1981) 118 Cal.App.3d 348, 357.) The responses must manifest a good faith, reasoned analysis; conclusory statements unsupported by factual information will not suffice. (*People v. County of Kern* (1974) 39 Cal.App.3d 830, 841.)

The United States Fish and Wildlife Service (USFWS) submitted a comment on the draft EIR, raising concerns over the Project's impacts on plants and wildlife and making recommendations for the final EIR. However, the final EIR failed to adopt the recommendations of USFWS without providing a good-faith explanation of why the recommendations were ignored.

In its comment on the draft EIR, USFWS noted the importance of mitigating impacts to the federally endangered San Diego fairy shrimp, explaining:

> [T]he project site is designated critical habitat for the federally endangered San Diego fairy shrimp . . . and the vernal pools on the project site have a high potential to be occupied by fairy shrimp. Therefore, ***we recommend protocol fairy shrimp surveys be conducted***. The FElR should evaluate potential impacts from invasive species removal and vernal pool restoration to brodiaea, button celery, navarretia, and fairy shrimp (if found) and include mitigation measures to avoid and minimize potential impacts developed in coordination with the Service

(FEIR, Appx. K, p. 20 [emphasis added].) Despite USFWS' recommendation, no surveys for fairy shrimp were conducted for the final EIR. Instead, the FEIR claims that "fairy shrimp would not be impacted during project construction or restoration" and would only be included for surveys moving forward. (*Id.*, p. 24.) But that is *not* what USFWS recommended. USFWS recommended that surveys for fairy shrimp be conducted *before* preparation of the final EIR in order to formulate adequate mitigation measures (in consultation with USFWS) *prior to* approval of the Project.

The final EIR has failed to provide any basis for why the recommendations of USFWS for fairy shrimp surveys were ignored. A fairy shrimp survey should be conducted and the results, including any mitigation measures identified in consultation with USFWS, should be included in a revised EIR prior to approval of the Project. (Ex. B, p. 5.)

CONCLUSION

Approval of the Project and the EIR would violate CEQA by: (1) failing to adopt the feasible and environmentally superior reduced-intensity alternative; (2) relying on impermissibly narrow project objectives; (3) failing to adequately disclose and mitigate impacts to sensitive biological resources; and (4) failing to adequately respond to comments from the U.S. Fish & Wildlife Service. For those reasons, SAFER requests that Planning Commission refrain from approving the Project at this time and, instead, direct staff to revise and recirculate the EIR to ensure compliance with CEQA.

Sincerely,

Brian B. Flynn
Lozeau Drury LLP

EXHIBIT A

Shawn Smallwood, PhD
3108 Finch Street
Davis, CA 95616

Attn: Chris Garcia
City of San Marcos
1 Civic Center Drive
San Marcos, California 92069

29 March 2024

RE: Hughes SMCC Industrial Project San Marcos

Dear Mr. Garcia,

I write to comment on potential impacts to biological resources that could result from the proposed Hughes SMCC Industrial Project, which I understand would add a 67,410 square foot warehouse building on 10.86 acres located on South Pacific Street in San Marcos. I comment on the analyses of impacts to biological resources in Dudek (2023) and the DEIR (City of San Marcos 2023).

My qualifications for preparing expert comments are the following. I hold a Ph.D. degree in Ecology from University of California at Davis, where I also worked as a post-graduate researcher in the Department of Agronomy and Range Sciences. My research has been on animal density and distribution, habitat selection, wildlife interactions with the anthrosphere, and conservation of rare and endangered species. I authored many papers on these and other topics. I served as Chair of the Conservation Affairs Committee for The Wildlife Society – Western Section. I am a member of The Wildlife Society and Raptor Research Foundation, and I've lectured part-time at California State University, Sacramento. I was Associate Editor of wildlife biology's premier scientific journal, The Journal of Wildlife Management, as well as of Biological Conservation, and I was on the Editorial Board of Environmental Management. I have performed wildlife surveys in California for thirty-seven years. My CV is attached.

SITE VISIT

On my behalf, Noriko Smallwood, a wildlife biologist with a Master's Degree from California State University Los Angeles, visited the site of the proposed project for 3.37 from 07:10 to 10:32 hours on 16 March 2024. She walked the site's perimeter, stopping to scan for wildlife with use of binoculars. Noriko recorded all species of vertebrate wildlife she detected, including those whose members flew over the site or were seen nearby, off the site. Animals of uncertain species identity were either omitted or, if possible, recorded to the Genus or higher taxonomic level.

Conditions were sunny with 5 mph east wind and temperatures of 46-61° F. The site was covered in annual grass, coastal sage scrub, and eucalyptus woodland (Photos 1-3).

Photos 1-3. *Views of the project site, 16 March 2024. Photos by Noriko Smallwood.*

Noriko detected 37 species of vertebrate wildlife at or adjacent to the project site, including six species with special status (Table 1). Noriko saw red-shouldered hawk and red-tailed hawk (Photos 4 and 5), Allen's hummingbird and Nuttall's woodpecker (Photos 6 and 7), western gull and double-crested cormorant (Photos 8 and 9), black phoebe and house finch (Photos 10 and 11), savannah sparrow and Lincoln's sparrow

(Photos 12 and 13), white-crowned sparrow and song sparrow (Photos 14 and 15), Cassin's kingbird (Photos 16 and 17), California towhee (Photo 18), red-winged blackbird and great-tailed grackle (Photos 19 and 20), American crow and great egret (Photos 21 and 22), orange-crowned warbler and common yellowthroat (Photos 23 and 24), ring-billed gull and mourning dove (Photos 25 and 26), mallard (Photo 27), California ground squirrel and bushtit (Photos 28 and 29), Great Basin fence lizard (Photo 30), American bullfrog and red-eared slider (Photos 31 and 32), among the other species listed in Table 1.

Noriko Smallwood certifies that the foregoing and following survey results are true and accurately reported.

Noriko Smallwood

Table 1. *Species of wildlife Noriko observed during 3.37 hours of survey on 16 March 2024.*

Common name	***Species name***	**Status[1]**	**Notes**
Great Basin fence lizard	*Sceloporus occidentalis longipes*		
American bullfrog	*Lithobates catesbeianus*	Non-native	Adjacent to site
Red-eared slider	*Trachemys scripta elegans*	Non-native	Adjacent to site
Mallard	*Anas platyrhynchos*		Flew over
Mourning dove	*Zenaida macroura*		
Anna's hummingbird	*Calypte anna*		Territorial
Allen's hummingbird	*Selasphorus sasin*	BCC	Many, territorial
Ring-billed gull	*Larus delawarensis*		Circled over
Western gull	*Larus occidentalis*	BCC	Flew over
Double-crested cormorant	*Nannopterum auritum*	TWL	Flew over
Great egret	*Ardea alba*		Flew over
Red-shouldered hawk	*Buteo lineatus*	BOP	Circled nearby
Red-tailed hawk	*Buteo jamaicensis*	BOP	Flew over, perched nearby
Nuttall's woodpecker	*Picoides nuttallii*	BCC	
Cassin's kingbird	*Tyrannus vociferans*		Foraged
Black phoebe	*Sayornis nigricans*		Gathered nest material from site
American crow	*Corvus brachyrhynchos*		
Cliff swallow	*Petrochelidon pyrrhonota*		Flew over
Bushtit	*Psaltriparus minimus*		Foraged
House wren	*Troglodytes aedon*		
European starling	*Sturnus vulgaris*	Non-native	
Scaly-breasted munia	*Lonchura punctulata*	Non-native	Calling adjacent to site
House finch	*Haemorphous mexicanus*		Foraged

Common name	*Species name*	Status[1]	Notes
Lesser goldfinch	*Spinus psaltria*		Foraged
White-crowned sparrow	*Zonotrichia leucophrys*		Foraged
Savannah sparrow	*Passerculus sandwichensis*		Foraged
Song sparrow	*Melospiza melodia*		
Lincoln's sparrow	*Melospiza lincolnii*		
California towhee	*Melozone crissalis*		Foraged
Red-winged blackbird	*Agelaius phoeniceus*		Adjacent to site
Great-tailed grackle	*Quiscalus mexicanus*		Flew over
Orange-crowned warbler	*Oreothlypis celata*		Foraged
Common yellowthroat	*Geothlypis trichas*		
Yellow-rumped warbler	*Setophaga coronata*		
Desert cottontail	*Sylvilagus audubonii*		One observed
California ground squirrel	*Otospermophilus beecheyi*		Two observed
Kangaroo rat	*Dipodomys sp.*		Burrows

[1] Listed as FT or FE = federal threatened or endangered, CT or CE = California threatened or endangered, CFP = California Fully Protected (CFG Code 3511), SSC = California Species of Special Concern, BCC = U.S. Fish and Wildlife Service Bird of Conservation Concern, TWL = Taxa to Watch List (Shuford and Gardali 2008), and BOP = Birds of Prey (California Fish and Game Code 3503.5).

Photos 4 and 5. *Red-shouldered hawk adjacent to the project site (left), and red-tailed hawk on the project site (right), 16 March 2024. Photos by Noriko Smallwood.*

Photos 6 and 7. *Allen's hummingbird on the project site(left), and Nuttall's woodpecker adjacent to the project site (right), 16 March 2024. Photos by Noriko Smallwood.*

Photos 8 and 9. *Western gull (left), and double-crested cormorant (right) flying over the project site, 16 March 2024. Photos by Noriko Smallwood.*

Photos 10 and 11. *Black phoebe with nest material (left), and house finch (right) on the project site, 16 March 2024. Photos by Noriko Smallwood.*

Photos 12 and 13. *Savannah sparrow (left), and Lincoln's sparro (right) on the project site, 16 March 2024. Photos by Noriko Smallwood.*

Photos 14 and 15. *White-crowned sparrow (left), and song sparrow (right) on the project site, 16 March 2024. Photos by Noriko Smallwood.*

Photos 16 and 17. *Cassin's kingbird catching a moth on the project site, 16 March 2024. Photos by Noriko Smallwood.*

Photo 18. *California towhee foraging in leaf litter on the project site, 16 March 2024. Photo by Noriko Smallwood.*

Photos 19 and 20. *Red-winged blackbird adjacent to the project site (left), and great-tailed grackle flying over the project site (right), 16 March 2024. Photos by Noriko Smallwood.*

Photos 21 and 22. *American crow (left), and great egret (right) on the project site, 16 March 2024. Photos by Noriko Smallwood.*

Photos 23 and 24. *Orange-crowned warbler (left), and common yellowthroat (right) on the project site, 16 March 2024. Photos by Noriko Smallwood.*

Photos 25 and 26. *Ring-billed gull (left), and mourning dove (right) flying over the project site, 16 March 2024. Photos by Noriko Smallwood.*

Photo 27. *Mallards flying over the project site, 16 March 2024. Photo by Noriko Smallwood.*

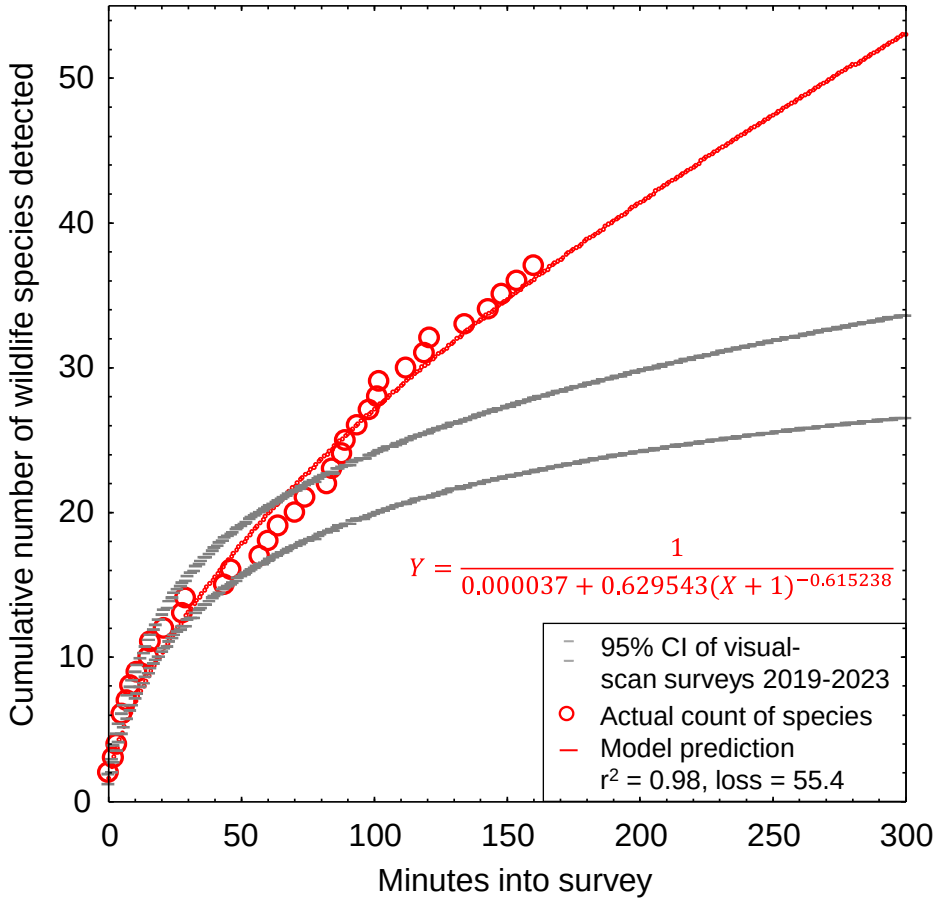
Photos 28 and 29. *California ground squirrel (left) and bushtit (right) on the project site, 16 March 2024. Photos by Noriko Smallwood.*

Photo 30. *Great Basin fence lizard on the project site, 16 March 2024. Photo by Noriko Smallwood.*

Photos 31 and 32. *American bullfrog (left) and red-eared slider (right) in water bodies adjacent to the project site, 16 March 2024. Photos by Noriko Smallwood.*

I fit a nonlinear regression model to Noriko's cumulative number of vertebrate species detected with time into her 16 March 2024 survey to predict the number of species that she would have detected with a longer survey or perhaps with additional biologists available to assist her. The model is a logistic growth model which reaches an asymptote that corresponds with the maximum number of vertebrate wildlife species that could have been detected during the survey. In this case, the model predicts many more species of vertebrate wildlife were available to be detected on the morning of March 16th (Figure 1). Unfortunately, I do not know the identities of the undetected species, but the pattern in her data indicates high use of the project site compared to 34 surveys at other sites she and I have completed in the region. Compared to models fit to data she and I collected from other sites in the region between 2019 and 2023, the data from the project site start off within the 95% confidence interval (CI) of the rate of accumulated species detections with time into the survey, but after only about 90 minutes, Noriko's rate of species detections exceeded the upper bound of the 95% CI (Figure 1). Importantly, however, the species that Noriko did and did not detect on 16 March 2024 composed only a fraction of the species that would occur at the project site over the period of a year or longer. This is because many species are seasonal in their occurrences.

Figure 1. *Actual and predicted relationships between the number of vertebrate wildlife species detected and the elapsed survey time based on Noriko's visual-scan survey on 16 March 2024. Note that the relationship would differ if the survey was based on another method or during another season.*



At least a year's worth of surveys would be needed to more accurately report the number of vertebrate species that occur at the project site, but I only have Noriko's one survey.

However, by use of an analytical bridge, a modeling effort applied to a large, robust data set from a research site can predict the number of vertebrate wildlife species that likely make use of the site over the longer term. As part of my research, I completed a much larger survey effort across 167 km² of annual grasslands of the Altamont Pass Wind Resource Area, where from 2015 through 2019 I performed 721 1-hour visual-scan surveys, or 721 hours of surveys, at 46 stations. I used binoculars and otherwise the methods were the same as the methods I and other consulting biologists use for surveys at proposed project sites. At each of the 46 survey stations, I tallied new species detected with each sequential survey at that station, and then related the cumulative species detected to the hours (number of surveys, as each survey lasted 1 hour) used to accumulate my counts of species detected. I used combined quadratic and simplex methods of estimation in Statistica to estimate least-squares, best-fit nonlinear models of the number of cumulative species detected regressed on hours of survey (number of surveys) at the station: $\hat{R} = \frac{1}{1/a+b\times(Hours)^c}$, where $\hat{R}$ represented cumulative species richness detected. The coefficients of determination, r^2, of the models ranged 0.88 to 1.00, with a mean of 0.97 (95% CI: 0.96, 0.98); or in other words, the models were excellent fits to the data.

I projected the predictions of each model to thousands of hours to find predicted asymptotes of wildlife species richness. The mean model-predicted asymptote of species richness was 57 after 11,857 hours of visual-scan surveys among the 46 stations of my research site. I also averaged model predictions of species richness at each incremental increase of number of surveys, i.e., number of hours (Figure 2). On average I would have detected 13.6 species over my first 3.37 hours of surveys at my research site in the Altamont Pass (3.37 hours to match the 3.37 hours Noriko surveyed at the project site), which composed 23.9% of the predicted total number of species I would detect with a much larger survey effort at the research site. Given the example illustrated in Figure 2, the 37 species Noriko detected after her 3.37 hours of survey at the project site likely represented 23.9% of the species to be detected after many more visual-scan surveys over another year or longer. With many more repeat surveys through the year, Noriko would likely detect $37/0.239 = 155$ species of vertebrate wildlife at the site. Assuming Noriko's ratio of special-status to non-special-status species was to hold through the detections of all 155 predicted species, then continued surveys would eventually detect 25 special-status species of vertebrate wildlife.

Because my prediction of 155 species of vertebrate wildlife, including 25 special-status species of vertebrate wildlife, is derived from daytime visual-scan surveys, and would detect few nocturnal mammals such as bats, the true number of species composing the wildlife community of the site must be larger. Noriko's reconnaissance survey should serve only as a starting point toward characterization of the site's wildlife community, but it certainly cannot alone inform of the inventory of species that use the site. More surveys are needed than her survey to inventory use of the project site by wildlife. Nevertheless, the large number of species I predict at the project site is indicative of a species-rich wildlife community that warrants a serious survey effort.

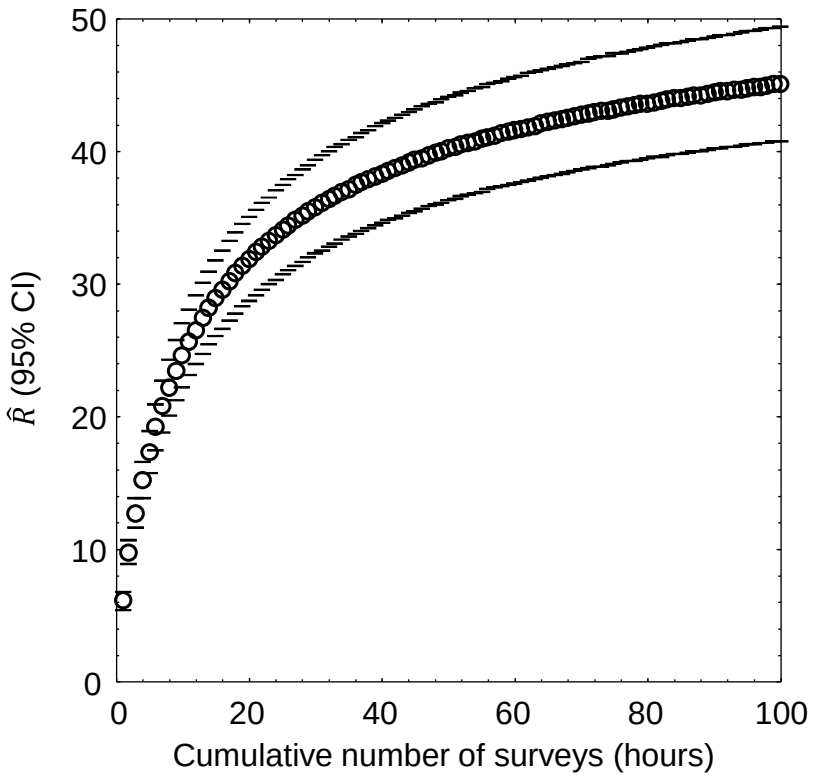


Figure 2. *Mean (95% CI) predicted wildlife species richness, $\hat{R}$, as a nonlinear function of hour-long survey increments across 46 visual-scan survey stations across the Altamont Pass Wind Resource Area, Alameda and Contra Costa Counties, 2015–2019. Note that the location of the study is largely irrelevant to the utility of the graph to the interpretation of survey outcomes at the project site. It is the pattern in the data that is relevant, because the pattern is typical of the pattern seen elsewhere.*

EXISTING ENVIRNMENTAL SETTING

The first step in analysis of potential project impacts to biological resources is to accurately characterize the existing environmental setting, including the biological species that use the site, their relative abundances, how they use the site, key ecological relationships, and known and ongoing threats to those species with special status. A reasonably accurate characterization of the environmental setting can provide the basis for determining whether the site holds habitat value to wildlife, as well as a baseline against which to analyze potential project impacts. For these reasons, characterization of the environmental setting, including the project site's regional setting, is one of CEQA's essential analytical steps. Methods to achieve this first step typically include (1) surveys of the site for biological resources, and (2) reviews of literature, databases and local experts for documented occurrences of special-status species. In the case of the proposed project, these needed steps have been inadequate.

Environmental Setting informed by Field Surveys

To CEQA's primary objective to disclose potential environmental impacts of a proposed project, the analysis should be informed of which biological species are known to occur at the proposed project site, which special-status species are likely to occur, as well as the limitations of the survey effort directed to the site. Analysts need this information to characterize the environmental setting as a basis for opining on, or predicting, potential project impacts to biological resources.

The DEIR's characterization of the existing environmental setting is founded on a series of surveys completed by Dudek (2023). Dudek's (2023) survey objectives were to "identify the existing conditions and determine the potential biological constraints to the Project." Dudek's biologists reportedly "conducted vegetation mapping and a general biological reconnaissance, … focused rare plant surveys in spring and summer 2021 to determine the presence/absence of various special-status species, … Watershed mapping for the vernal pools and jurisdictional delineation, … Focused surveys for coastal California gnatcatcher." The stated objectives were appropriately pursued via separate surveys. However, it is unclear what Dudek (2023) meant by its objective of determining potential biological constraints to the project. Furthermore, the rare plant surveys might have been focused, but they failed to meet the minimum standards of the CDFW (2018) guidelines for reconnaissance surveys directed toward plants. Finally, the absence portion of presence/absence determinations could not have been supported by the surveys that were completed.

Dudek (2023) appropriately summarizes survey limitations, including that the surveys were unlikely to detect nocturnally active animals and fall migrants. However, Dudek (2023) should have elaborated on survey limitations by, for example, pointing out that its surveys also would have missed species present only during the winter months. It should have pointed out that the only protocol-level detection survey performed was for California gnatcatcher, but that these surveys fell short of the US Fish and Wildlife Service's survey protocol in important ways (see comment below). It should have pointed out that the failures to detect any of the potentially-occurring wildlife species cannot be construed to mean that those species are absent from the project site. It also should have pointed out that its surveys were not designed to characterize wildlife movement on the site, or movement to and from the site, or how the site factors into wildlife movement in the region (see comment below).

Dudek's (2023) reporting of survey results is confusing. Dudek (2023:31) reports, "A total of 29 wildlife species were observed at the Project site…" However, App. B lists 36 species of vertebrate wildlife. Further confusing is that Dudek's App. B duplicates App. A of Erin Bergmen's report of her California gnatcatcher surveys, which is App. E to Dudek (2023). I surmise that Dudek's biologists detected 29 species of wildlife during its reconnaissance surveys, but reported the list of species Bergmen detected during her California gnatcatcher surveys. Unreported is whether any of the 29 species detected by other Dudek biologists differed from those detected by Bergmen.

That there should have been differences in the wildlife species between Dudek's reconnaissance surveys and Bergmen's California gnatcatcher surveys is evident in the large differences in survey outcomes between Bergmen's surveys and Noriko's survey of 2024. Bergmen detected 20 species that Noriko did not, and Noriko detected 18 species that Bergmen did not. In my experience it is typical to uniquely detect a group of species in each of two or more surveys performed at the same site, but not typically of such long lists of species as uniquely detected by Bergmen and Noriko. The large differences in species detected between Bergmen's and Noriko's surveys are indicative of either or both strong seasonal variation and inter-annual variation in wildlife species occurrences at the project site. These differences should have been evident between Dudek's

reconnaissance surveys in April 2021 and Bergmen's California gnatcatcher surveys in May 2023. That the list of detected species differed between the surveys is clear, based on the mismatch of the numbers of species detected, but Dudek (2023) fails to report which species were detected in the reconnaissance surveys.

Between Dudek's and Noriko's surveys, at least 54 species of vertebrate wildlife were detected, including at least 12 special-status species. This result is indicative of a wildlife species-rich site. A site with so many species detected as members of the wildlife community warrants implementation of protocol-level detection surveys for special-status species. A detection survey follows a methodological protocol formulated by experts on the species. The protocol balances cost against a reasonable likelihood of detection should the species be present. If the protocol is followed, but the species is not detected, then the negative outcome of the detection survey can serve as support for an absence determination, i.e., the species at issue can be determined absent from the site for however long the protocol specifies. Dudek (2023) implemented a detection survey only for California gnatcatcher. However, Dudek's (2023) survey fell short of the most critically important minimum standards of the available survey protocol (Table 2). There is no indication that Bergmen consulted within the USFWS within 10 days of the start of her surveys, and if she did consult with the USFWS, then that she did so should have been reported in the DEIR. Also, only three breeding-season surveys were completed, whereas the protocol requires six breeding-season surveys as well as nine surveys outside the breeding season at sites outside the NCCP process. Dudek's (2023) absence determination applied to California gnatcatcher should not be accepted.

Dudek (2023:14) reports that "San Diego fairy shrimp (*Branchinecta sandiegonensis*), a federally endangered species, is known to occur within the immediate vicinity of the Project site and has a high potential to occur within the on-site vernal pools." And on page 32, "The Project site also overlaps with USFWS designated critical habitat for San Diego fairy shrimp." It is therefore curious that no detection surveys were performed for San Diego fairy shrimp. Dudek (2023:14) has an explanation: "Because the proposed Project would not result in impacts to the vernal pools, focused surveys to document the presence/absence of this species are not necessary at this time." However, the DEIR's mitigation for project impacts includes such measures as removing invasive species and restoration of vernal pools. In other words, the DEIR proposes measures that could potentially take San Diego fairy shrimp, which Dudek (2023) reports as "known to occur in the immediate vicinity of the Project site and has a high potential to occur within the on-site vernal pools." Without the appropriate surveys for this and other special-status species, the DEIR's characterization of the existing environmental setting is incomplete, potentially misleading, and could result in significant takings of special-status species on both the building footprint and the portions of the project site to be "preserved."

Given that California ground squirrels were found on site (Photo 28), it is surprising to me that detection surveys were not completed for burrowing owl. With ground squirrels on site, detection surveys for burrowing owl are warranted (CDFW 2012).

Table 2. *Assessment of whether surveys achieved the standards in the USFWS's recommended California gnatcatcher survey protocol.*

Standard in USFWS (1997)	**Assessment of surveys performed**	**Was the standard met?**
Permitted biologists notify the Service ≥10 days before intended surveys	No report of having notified the Service	No
If within NCCP process, then complete 3 surveys separated by ≥7 days between 15 March and 30 June	DEIR and Dudek (2023) inform that the City declines to participate with NCCP	---
If outside NCCP process, then complete 6 surveys separated by ≥7 days between 15 March and 30 June, and 9 surveys separated by ≥14 days between 1 July and 14 March	Completed only 3 breeding-season surveys and no non-breeding-season surveys	No
Surveys shall be conducted between 06:00 and 12:00 Hours	Surveys completed within these times	Yes
Surveys shall avoid excessive heat, wind, rain, fog, or other inclement weather		Yes
Surveys are to be call-back surveys until individuals first detected		Yes
Slowly walk survey routes covering ≤40 ha/day in the NCCP process and ≤32 ha/day otherwise		Yes
Report survey locations, names of survey personnel, methods used, ha covered by each biologist, numbers of surveys, dates, start and stop times of surveys, weather conditions at the start of each survey, and numbers of times recordings of gnatcatcher vocalizations were broadcast		Yes
Report descriptions of the vegetation communities surveyed, number, age and sex of gnatcatchers detected, and provision of all data and field notes	No field notes provisioned	Mostly

Dudek's (2023) surveys detected six special-status species of plants, four of which were San Diego button celery (*Eryngium aristulatum* var. *parishii*), which is federally and state endangered, thread-leaved brodiaea (*Brodiaea filifolia*), which is federally threatened and state endangered, spreading navarretia (*Navarretia fossalis*), which is federally threatened, and Orcutt's brodiaea (*Brodiaea orcuttii*), which is ranked CRPR 1B.1. The other two species included small-flowered morning glory (*Convolvulus simulans*) and graceful tarplant (*Holocarpha virgata* ssp. *elongata*), both ranked CRPR 4.2. Dudek (2023) does not recognize these latter two species as special-status species because they "are not considered special-status under CEQA." I disagree. Rankings of CRPR 4.2 are for species with "limited distribution," or "fairly threatened in California." Limited distribution is another way of describing a biological species as rare. Whether of limited distribution or fairly threatened in California, either or both of these characterizations qualifies a species as having special status under CEQA, as Rare is one of CEQA's defining terms for what should be considered special-status species (threatened or endangered being the other two qualifiers).

Although Dudek's (2023) biologists managed to detect six special-status species of plants on the project site, Dudek (2023) did not conduct its reconnaissance survey to achieve the minimum standards of CDFW (2018) for detecting special-status species of plants. Few of CDFW's (2018) preparatory steps were completed and reported. The qualifications of the biologists were not summarized with respect to special-status species of plants. No reference site was surveyed. And little was specifically reported of survey findings related to special-status species of plants. Surveys for special-status species of plants are grossly inadequate, and I argue that they are nearly entirely missing. The DEIR is incomplete.

Although habitat assessment was not a stated survey objective, Dudek (2023:12) reports that "expected wildlife use of the site was determined by known habitat preferences of local species and knowledge of their relative distributions in the area." Habitat preference is a consequence of measurement of resource selection in use-and-availability studies, none of which are cited in Dudek (2023). None of the habitats ascribed to species of wildlife in Dudek (2023: App. D) are sourced to the scientific literature or to any use-and-availability studies. No field method is described by Dudek (2023) for measuring use and availability of wildlife species on the project site, and of course there is no method described for doing so for all of the species of wildlife that were not detected. There is no indication that Dudek's biologists carried a check-off sheet to cross-walk habitat preferences of wildlife species with conditions seen on the project site. As for knowledge of relative distributions in the area, such knowledge is obviously regarded as insufficient, which is why surveys are conducted in support of characterizations of the existing environmental setting. If knowledge of species' distributions in the area sufficed, there would be no need for surveys nor any need for survey standards. In reality, no biologist possesses sufficient knowledge of relative distributions in the area. Appropriate surveys are needed.

The results of the reconnaissance surveys, and of the California gnatcatcher surveys, are further confused by the map of findings in Dudek's (2023) Figure 6. Dudek (2023:32) reports, "The federally and state endangered least Bell's vireo was observed during the

field reconnaissance study moving into the vernal pool areas from the willow riparian habitat. Least Bell's vireo was heard and observed numerous times." However, least Bell's vireo is represented as a point feature on Figure 6, as if the species was statically located on the project site and does not make use of that part of the site where the building footprint would be located. Cooper's hawk is also represented by a point feature on Figure 6, as if Cooper's hawks do not move. However, white-tailed kite, which was incidentally observed along with Cooper's hawk during the initial site visit, lacks any representation on Figure 6, which makes me wonder exactly where it was seen and over this portion of the project site it moved. Wildlife, especially birds, are highly mobile, so point features on a map are usually unrealistic.

The most effective methodology for habitat assessment is a survey of sufficient effort to determine whether each potentially occurring species truly occurs at the project site. The presence of a species confirms the existence of habitat of the species. The weakness of this approach is that undetected species might truly occur on the site, either because the survey failed to detect the species that was truly present or the habitat was unoccupied at the time of the survey. Each detection of a species provides certainty of the presence of the species' habitat whereas lack of detection provides uncertainty unless a compelling argument can be made for true absence, such as negative results of an adequately implemented detection survey. Given this uncertainty associated with all of the species that were not detected by Dudek's surveys, Dudek's surveys were suitable for determining the presence of habitat of only 36 species of vertebrate wildlife, and incapable of determining whether habitat is absent for any other wildlife species.

Environmental Setting informed by Desktop Review

The purpose of literature and database review and of consulting with local experts is to inform the field survey, and to augment interpretation of its outcome. Analysts need this information to identify which species are known to have occurred at or near the project site, and to identify which other special-status species could conceivably occur at the site due to geographic range overlap and migration flight paths.

Dudek (2023) did not reportedly review eBird (https://eBird.org) or iNaturalist (https://www.inaturalist.org) for documented occurrence records at or near the project site. Instead, Dudek (2023) queried the California Natural Diversity Data Base (CNDDB) for documented occurrences of special-status species within the USGS Quadrangle of the project site and the immediately surrounding Quadrangles. By taking this approach, Dudek (2023) and the DEIR immediately screen out many special-status species from further consideration in the characterization of the wildlife community as part of the existing environmental setting. CNDDB is not designed to support absence determinations or to screen out species from characterization of a site's wildlife community. As noted by CNDDB, "*The CNDDB is a positive sighting database. It does not predict where something may be found. We map occurrences only where we have documentation that the species was found at the site. There are many areas of the state where no surveys have been conducted and therefore there is nothing on the map. That does not mean that there are no special status species present.*" Dudek (2023) and the DEIR misuse CNDDB.

CNDDB relies entirely on volunteer reporting from biologists who were allowed access to whatever properties they report from. Many properties have never been surveyed by biologists. Many properties have been surveyed, but the survey outcomes never reported to CNDDB. Many properties have been surveyed multiple times, but not all survey outcomes reported to CNDDB. Furthermore, CNDDB is interested only in the findings of special-status species, which means that species more recently assigned special status will have been reported many fewer times to CNDDB than were species assigned special status since the inception of CNDDB. The lack of many CNDDB records for species recently assigned special status had nothing to do with whether the species' geographic ranges overlap the project site, but rather more to do with the brief time for records to have accumulated since the species were assigned special status. And because negative findings are not reported to CNDDB, CNDDB cannot provide the basis for estimating occurrence likelihoods of species undocumented on the project site.

In my assessment based on database reviews and site visits, 151 special-status species of wildlife are known to occur near enough to the site to warrant analysis of occurrence potential (Table 3). Of these 155 species, 13 (8.6%) were recorded on or just off of the project site, and another 30 (20%) species have been documented within 1.5 miles of the site ('Very close'), another 23 (15%) within 1.5 and 4 miles ('Nearby'), and another 74 (49%) within 4 to 30 miles ('In region'). Nearly half (44%) of the species in Table 3 have been reportedly seen within 4 miles of the project site. The site therefore supports multiple special-status species of wildlife and carries the potential for supporting many more special-status species of wildlife based on proximity of recorded occurrences. The site is far richer in special-status species than is characterized in the DEIR.

Thirty of the species in Table 3 are covered by the San Diego County MSCP, including two species seen on the project site and seven species seen within 1.5 miles of the site. Insufficient mitigation directed to these 30 species would interfere with the MSCP. The 121 (80%) special-status species in Table 3 that are not covered by the MSCP, including 11 seen on the project site, and 23 species seen within 1.5 miles of the site. These 121 special-status species of wildlife that lack coverage under the MSCP would be in need of mitigation other than of the MSCP should the project go forward.

Dudek (2023) analyzes the occurrence likelihoods of only 55 (36%) of the special-status species in my Table 3. Dudek's smaller analytical effort results from its misuse of CNDDB to screen out most of the species that could potentially occur at the project site (see comments above). Of the species Dudek analyzes, Dudek identifies three that were observed by Dudek's biologists on the project site, and determines the occurrence likelihoods to be high for two species, moderate for five, low for 29, and not expected for 16 species. And for 96 special-status species in my Table 3, Dudek provides no occurrence likelihood determinations at all, including for nine species documented on the project site – six of them by Noriko's survey. The analysis was flawed from the initial misuse of CNDDB to screen out special-status species from next-steps.

The two species Dudek determines to have high likelihoods of occurrence were San Diego fairy shrimp and Riverside fairy shrimp, both species of which Dudek (2023)

reports have been documented close to the project site but for which I lack such close-by records in iNaturalist (I did not use CNDDB). Of the species Dudek determines to have moderate likelihood of occurrence, I found records of three of the species within 1.5 miles of the site, and a record of another species between 1.5 and 4 miles of the site. Of the species Dudek determines to have low likelihood of occurrence, Dudek detected one of them – yellow warbler – on the project site, and I found records of four of the species within 1.5 miles of the site, and records of another 10 species between 1.5 and 4 miles of the site. (It is unclear why Dudek would determine that a species it saw onsite would be determined to have a low likelihood of occurrence.) Of the species Dudek determines to be not expected, I found records of two of them – white-faced ibis and least bittern – within 1.5 miles of the site. The white-faced ibises were on vernal pools located only 600 m from the project site, which should have contributed to a determination of high likelihood of occurrence. Similarly, northern harrier, which had been recorded at the same location as the white-faced ibises, warrants a high likelihood of occurrence instead of the low likelihood Dudek assigns it. Furthermore, the location where these species were documented has since been graded for another construction project, leaving the project site the likely destination of refugees from the graded site. Taken altogether, too many of Dudek's determinations of occurrence likelihoods of special-status species fail to comport with the evidence. Dudek's (2023) analysis is not reliable.

According to Dudek (2023:31), "Due to the presence of multiple sensitive vegetation communities and wetland habitats on predominantly undeveloped land, the Project site has moderate value as habitat for these endangered, rare, or threatened wildlife species. … seven special-status wildlife species have a moderate to high potential to occur." However, as noted above, many more than seven special-status species have moderate to high likelihoods of occurrence on the project site. More fundamentally, it is unclear what Dudek means by moderate value as habitat, as no definition nor quantification is made available for the reader to understand what qualifies a place as low, moderate or high value to a species, I acknowledge my use of the same terminology for the sake of argument, but it must be understood that occurrence-likelihood categories of not expected, low, medium, and high are poor substitutes for simply reporting the survey effort, i.e., survey history, and where and when each potentially-occurring species was detected relative to the project site. Considering that Noriko's survey added 18 species to the list of documented species onsite, it is reasonable to assume that additional surveys would add many more species to the list, and that the survey effort to date remains grossly insufficient for accurately characterizing the existing environmental setting.

Furthermore, Dudek applies this determination of moderate habitat value to the entire wildlife community, but habitat is a species-specific term. And anyway, the wildlife community is rich, as it is documented to support at least 54 species of vertebrate wildlife including 12 special-status species, and it is predicted to support at least 155 species of diurnally active vertebrate wildlife including 25 special-status species. "Moderate value" is not how I would characterize the existing environmental setting; but rather as species-rich environment that supports multiple threatened and endangered species and other special-status species already documented and yet to be adequately surveyed.

Table 2. *Occurrence likelihoods of special-status bird species at or near the proposed project site, according to eBird/iNaturalist records (https://eBird.org, https://www.inaturalist.org) and on-site survey findings, where 'Very close' indicates within 1.5 miles of the site, "nearby" indicates within 1.5 and 4 miles, and "in region" indicates within 4 and 30 miles, and 'in range' means the species' geographic range overlaps the site. Entries in bold font identify species detected by Noriko.*

Common name	***Species name***	**Status[1]**	**MHCP cover**	**Occurrence potentials**	
				DEIR	**Data base records, Site visits**
Vernal pool fairy shrimp	*Branchinecta lynchi*	FT			In region
San Diego fairy shrimp	*Branchinecta sandiegonensis*	FE, CSD1	Yes	High	In region
Riverside fairy shrimp	*Streptocephalus woottoni*	FE	Yes	High	In region
Monarch	*Danaus plexippus*	FC, CSD2		Moderate	Very close
Quino checkerspot butterfly	*Euphydryas editha quino*	FE, CSD1			In region
Hermes copper	*Lycaena hermes*	FE, CSD1			In region
Crotch's bumble bee	*Bombus crotchii*	CCE			Nearby
Western spadefoot	*Spea hammondii*	SSC, CSD2	Yes	Moderate	Nearby
Arroyo toad	*Anaxyrus californicus*	FE, SSC	Yes	Not expected	In region
California red-legged frog	*Rana draytonii*	FT, SSC, CSD1	Yes		In region
Western pond turtle	*Emys marmorata*	SSC, CSD1	Yes	Not expected	In region
San Diego banded gecko	*Coleonyx variegatus abbotti*	SSC, CSD1			In region
Blainville's horned lizard	*Phrynosoma blainvillii*	SSC		Low	Nearby
Coronado skink	*Plestiodon skiltonianus interparietalis*	WL, CSD2		Low	Nearby
Orange-throated whiptail	*Aspidoscelis hyperythra*	WL	Yes	Low	Nearby
Coastal whiptail	*Aspidoscelis tigris stejnegeri*	SSC, CSD2		Low	Nearby
San Diegan legless lizard	*Anniella stebbinsi*	SSC			In region
Coastal rosy boa	*Lichanura trivirgata*	CSD2, CSD2			Nearby
California glossy snake	*Arizona elegans occidentalis*	SSC		Low	In region
San Diego ringneck snake	*Diadophis punctatus similis*	CSD2, CSD2		Low	Nearby
Coast patch-nosed snake	*Salvadora hexalepis virgultea*	SSC, CSD2		Low	In region
Two-striped gartersnake	*Thamnophis hammondii*	SSC, CSD1		Low	Nearby
South coast gartersnake	*Thamnophis sirtalis pop. 1*	SSC, CSD2		Low	In range

Common name	*Species name*	Status[1]	MHCP cover	Occurrence potentials	
				DEIR	Data base records, Site visits
Red-diamond rattlesnake	*Crotalus ruber*	SSC, CSD2		Low	Very close
Brant	*Branta bernicla*	SSC2			In region
Cackling goose (Aleutian)	*Branta hutchinsii leucopareia*	WL			In region
Redhead	*Aythya americana*	SSC2, CSD2			Very close
Harlequin duck	*Histrionicus histrionicus*	SSC2			In region
Western grebe	*Aechmophorus occidentalis*	BCC, CSD1			Very close
Clark's grebe	*Aechmophorus clarkii*	BCC			Very close
Western yellow-billed cuckoo	*Coccyzus americanus occidentalis*	FT, CE, BCC, CSD2		Not expected	In region
Black swift	*Cypseloides niger*	SSC3, BCC, CSD2			In region
Vaux's swift	*Chaetura vauxi*	SSC2, BCC			On site
Costa's hummingbird	*Calypte costae*	BCC			Very close
Rufous hummingbird	*Selasphorus rufus*	BCC			Very close
Allen's hummingbird	*Selasphorus sasin*	BCC			**On site**
Light-footed Ridgway's rail	*Rallus obsoletus levipes*	FE, CE, CFP		Not expected	In region
American avocet[2]	*Recurvirostra americana*	BCC			In region
Snowy plover	*Charadrius nivosus*	BCC			In region
Western snowy plover	*Charadrius nivosus nivosus*	FT, SSC, BCC	Yes	Not expected	In range
Whimbrel[2]	*Numenius phaeopus*	BCC			In region
Long-billed curlew	*Numenius americanus*	WL, CSD2			In region
Marbled godwit	*Limosa fedoa*	BCC			In region
Red knot (Pacific)	*Calidris canutus*	BCC			In region
Short-billed dowitcher	*Limnodromus griseus*	BCC			In region
Willet	*Tringa semipalmata*	BCC			In region
Laughing gull	*Leucophaeus atricilla*	WL, CSD2			In region
Heermann's gull	*Larus heermanni*	BCC			In region
Western gull	*Larus occidentalis*	BCC			**On site**
California gull	*Larus californicus*	BCC, WL, CSD2			Very close

Common name	***Species name***	**Status[1]**	**MHCP cover**	**Occurrence potentials**	
				DEIR	**Data base records, Site visits**
California least tern	*Sternula antillarum browni*	FE, CE, FP, CSD1	Yes	Not expected	In region
Gull-billed tern	*Gelochelidon nilotica*	BCC, SSC3			In region
Black tern	*Chlidonias niger*	SSC2, BCC, CSD2			In region
Elegant tern	*Thalasseus elegans*	BCC, WL, CSD1	Yes		In region
Black skimmer	*Rynchops niger*	BCC, SSC3, CSD1			In region
Common loon	*Gavia immer*	SSC, CSD2			In region
Brandt's cormorant	*Urile penicillatus*	BCC			In region
Double-crested cormorant	*Phalacrocorax auritus*	WL, CSD2			**On site**
American white pelican	*Pelacanus erythrorhynchos*	SSC1, BCC, CSD2			Very close
California brown pelican	*Pelecanus occidentalis californicus*	FP, CSD2	Yes		In region
Least bittern	*Ixobrychus exilis*	SSC2, CSD2		Not expected	Very close
Green heron	*Butorides striatus*	CSD2			Very close
White-faced ibis	*Plegadis chihi*	WL, CSD1	Yes	Not expected	Very close
Turkey vulture	*Cathartes aura*	BOP, CSD1			Very close
Osprey	*Pandion haliaetus*	WL, BOP, CSD1	Yes		Very close
White-tailed kite	*Elanus luecurus*	CFP, BOP, CSD1		On site	On site
Golden eagle	*Aquila chrysaetos*	BGEPA, CFP, BOP, WL, CSD1	Yes	Not expected	In region
Northern harrier	*Circus cyaneus*	BCC, SSC3, BOP, CSD1		Low	Very close
Sharp-shinned hawk	*Accipiter striatus*	WL, BOP, CSD1			Nearby
Cooper's hawk	*Accipiter cooperii*	WL, BOP, CSD1	Yes	On site	On site
Bald eagle	*Haliaeetus leucocephalus*	CE, BGEPA, BOP, CSD1			In region
Red-shouldered hawk	*Buteo lineatus*	BOP			**On site**
Swainson's hawk	*Buteo swainsoni*	CT, BOP, CSD1		Low	Nearby
Red-tailed hawk	*Buteo jamaicensis*	BOP			**On site**
Ferruginous hawk	*Buteo regalis*	WL, BOP, CSD1			Very close

Common name	***Species name***	**Status[1]**	**MHCP cover**	**Occurrence potentials**	
				DEIR	**Data base records, Site visits**
Zone-tailed hawk	*Buteo albonotatus*	BOP			In region
Harris' hawk	*Parabuteo unicinctus*	WL, BOP			In region
Rough-legged hawk	*Buteo lagopus*	BOP			In region
Barn owl	*Tyto alba*	BOP, CSD2			Very close
Western screech-owl	*Megascops kennicotti*	BOP			Nearby
Great horned owl	*Bubo virginianus*	BOP			Very close
Burrowing owl	*Athene cunicularia*	BCC, SSC2, BOP, CSD1		Low	In region
Long-eared owl	*Asio otus*	BCC, SSC3, BOP, CSD1			In region
Short-eared owl	*Asia flammeus*	BCC, SSC3, BOP, CSD2			In region
Lewis's woodpecker	*Melanerpes lewis*	BCC, CSD1			Nearby
Nuttall's woodpecker	*Picoides nuttallii*	BCC			**On site**
American kestrel	*Falco sparverius*	BOP			On site
Merlin	*Falco columbarius*	WL, BOP, CSD2			Very close
Peregrine falcon	*Falco peregrinus*	BOP, CSD1	Yes		Very close
Prairie falcon	*Falco mexicanus*	WL, BOP, CSD1			In region
Olive-sided flycatcher	*Contopus cooperi*	BCC, SSC2, CSD2			Nearby
Willow flycatcher	*Empidonax trailii*	CE			Nearby
Southwestern willow flycatcher	*Empidonax traillii extimus*	FE, CE, CSD1	Yes	Low	In region
Vermilion flycatcher	*Pyrocephalus rubinus*	SSC2, CSD1			Nearby
Least Bell's vireo	*Vireo bellii pusillus*	FE, CE, CSD1	Yes	On site	On site
Loggerhead shrike	*Lanius ludovicianus*	SSC2, CSD1			Nearby
Oak titmouse	*Baeolophus inornatus*	BCC			Very close
California horned lark	*Eremophila alpestris actia*	WL, CSD2		Low	Nearby
Bank swallow	*Riparia riparia*	CT, CSD1		Low	Nearby
Purple martin	*Progne subis*	SSC2, CSD1			In region
Wrentit	*Chamaea fasciata*	BCC			On site
California gnatcatcher	*Polioptila c. californica*	FT, SSC2, CSD1	Yes	Moderate	Very close

Common name	***Species name***	**Status[1]**	**MHCP cover**	**Occurrence potentials**	
				DEIR	**Data base records, Site visits**
Western bluebird	*Sialia mexicana*	CSD2	Yes		Very close
Clark's marsh wren	*Cistothorus palustris clarkae*	SSC2			In range
Coastal cactus wren	*Campylorhynchus brunneicapillus sandiegensis*	SSC1, BCC, CSD1	Yes	Not expected	In region
California thrasher	*Toxostoma redivivum*	BCC			Very close
Cassin's finch	*Haemorhous cassinii*	BCC			In region
Lawrence's goldfinch	*Spinus lawrencei*	BCC			Nearby
Grasshopper sparrow	*Ammodramus savannarum*	SSC2, CSD1			Very close
Black-chinned sparrow	*Spizella atrogularis*	BCC			Nearby
Gray-headed junco	*Junco hyemalis caniceps*	WL			In region
Bell's sparrow	*Amphispiza b. belli*	WL, CSD1	Yes	Low	Nearby
Oregon vesper sparrow	*Pooecetes gramineus affinis*	SSC2, BCC			In range
Belding's savannah sparrow [3]	*Passerculus sandwichensis beldingi*	CE, BCC, CSD1	Yes	Not expected	In region
Large-billed savannah sparrow [3]	*Passerculus sandwichensis rostratus*	SSC2, CSD2	Yes		In region
Southern California rufous-crowned sparrow	*Aimophila ruficeps canescens*	WL, CSD1	Yes	Moderate	Very close
Yellow-breasted chat	*Icteria virens*	SSC3, CSD1	Yes	Low	Very close
Yellow-headed blackbird	*Xanthocephalus xanthocephalus*	SSC3			Very close
Bullock's oriole	*Icterus bullockii*	BCC			Very close
Tricolored blackbird	*Agelaius tricolor*	CT, BCC, SSC1, CSD1		Low	Very close
Lucy's warbler	*Leiothlypis luciae*	SSC3, BCC, CSD1			In region
Virginia's warbler	*Leiothlypis virginiae*	WL, BCC			In region
Yellow warbler	*Setophaga petechia*	SSC2, CSD2		Low	On site
Summer tanager	*Piranga rubra*	SSC1, CSD2			Nearby
California leaf-nosed bat	*Macrotus californicus*	WBWG:H, CSD2			In range
Pallid bat	*Antrozous pallidus*	SSC, WBWG:H, CSD2		Low	In region

Common name	***Species name***	**Status[1]**	**MHCP cover**	**Occurrence potentials**	
				DEIR	**Data base records, Site visits**
Mexican long-tongued bat	*Choeronycteris mexicana*	SSC, WBWG:M, CSD2		Not expected	In range
Townsend's big-eared bat	*Corynorhinus townsendii*	SSC, WBWG:H, CSD2		Low	In region
Silver-haired bat	*Lasionycteris noctivagans*	WBWG:M			In region
Spotted bat	*Euderma maculatum*	SSC, WBWG:H, CSD2			In region
Western red bat	*Lasiurus blossevillii*	SSC, WBWG:H			In region
Hoary bat	*Lasiurus cinereus*	WBWG:M		Not expected	In region
Western yellow bat	*Lasiurus xanthinus*	SSC, WBWG:H		Not expected	In region
Western small-footed myotis	*Myotis cililabrum*	WBWG:M			In region
Miller's myotis	*Myotis evotis*	WBWG:M			In region
Little brown myotis	*Myotis lucifugus*	WBWG:M			In region
Fringed myotis	*Myotis thysanodes*	WBWG:H, CSD2			In region
Long-legged myotis	*Myotis volans*	WBWG:H, CSD2			In region
Yuma myotis	*Myotis yumanensis*	WBWG:LM, CSD2		Low	In region
Western mastiff bat	*Eumops perotis*	SSC, WBWG:H, CSD2		Low	In region
Pocketed free-tailed bat	*Nyctinomops femorosaccus*	SSC, WBWG:M		Not expected	In region
Big free-tailed bat	*Nyctinomops macrotis*	SSC, WBWG:MH		Not expected	In region
San Diego black-tailed jackrabbit	*Lepus californicus bennettii*	SSC, CSD2	Yes	Low	In range
Stephens' kangaroo rat	*Dipodomys stephensi*	FE, CT, CSD1	Yes	Low	In region
Northwestern San Diego pocket mouse	*Chaetodipus fallax fallax*	SSC, CSD2	Yes	Moderate	In region
Dulzura pocket mouse	*Chaetodipus californicus femoralis*	SSC, CSD2		Low	In range
Pallid San Diego pocket mouse	*Chaetodipus fallax pallidus*	SSC, CSD2			In range
Los Angeles pocket mouse	*Perognathus longimembris brevinasus*	SSC, CSD2			In range
San Diego desert woodrat	*Neotoma lepida intermedia*	SSC, CSD2		Low	In region
Southern grasshopper mouse	*Onychomys torridus ramona*	SSC			In range

Common name	*Species name*	Status[1]	MHCP cover	Occurrence potentials	
				DEIR	Data base records, Site visits
American badger	*Taxidea taxus*	SSC, CSD2	Yes	Low	In region

[1] Listed as FT or FE = federal threatened or endangered, FC = federal candidate for listing, BCC = U.S. Fish and Wildlife Service Bird of Conservation Concern, CT or CE = California threatened or endangered, CCT or CCE = Candidate California threatened or endangered, CFP = California Fully Protected (California Fish and Game Code 3511), SSC = California Species of Special Concern (not threatened with extinction, but rare, very restricted in range, declining throughout range, peripheral portion of species' range, associated with habitat that is declining in extent), SSC1, SSC2 and SSC3 = California Bird Species of Special Concern priorities 1, 2 and 3, respectively (Shuford and Gardali 2008), WL = Taxa to Watch List (Shuford and Gardali 2008), and BOP = Birds of Prey (CFG Code 3503.5), WBWG = Western Bat Working Group with priority rankings, of low (L), moderate (M), and high (H), and CSD1 and CSD2 = Group 1 and Group 2 species on County of San Diego Sensitive Animal List (County of San Diego 2010).

[2] Uncertain if BCC based on 2021 Bird of Conservation Concern list.

[3] Uncertain of subspecies, but either resident Belding's or wintering large-billed savannah sparrows.

POTENTIAL BIOLOGICAL IMPACTS

An impacts analysis should consider whether and how a proposed project would affect members of a species, larger demographic units of the species, the whole of a species, and ecological communities. The accuracy of this analysis depends on an accurate characterization of the existing environmental setting. In the case of the proposed project, the existing environmental setting has not been accurately characterized, and several important types of potential project impacts have been inadequately analyzed. These types of impacts include habitat loss, interference with wildlife movement, and wildlife-automobile collision mortality.

HABITAT LOSS

The DEIR presents a flawed analysis of potential project impacts to plants and wildlife. At page 3.3-32, the DEIR states "Permanent impacts to non-native vegetation communities/land covers totaling 0.74 acres are not considered significant because these land covers are not considered sensitive; they are non-native and provide little biological resource value." However, what the DEIR neglects to consider is that these and other vegetation complexes on the project site are habitat to wildlife. Between Dudek's (2023) and Noriko's surveys, 54 species of vertebrate wildlife were documented on the project site, including 12 special-status species. The existing vegetation cover, including those portions composed of non-native species, supports all of these species of wildlife and other wildlife species yet to be detected by sufficient survey effort.

Habitat loss results in diminished productive capacity of affected wildlife species, but Dudek (2023) and the DEIR make no attempt to estimate this lost capacity for any of the wildlife species potentially affected. In the case of birds, two methods exist for estimating the loss of productive capacity that would be caused by the project. One method would involve surveys to count the number of bird nests and chicks produced. The alternative method would be to infer productive capacity from estimates of total nest density elsewhere.

Because the project is located within an area that has undergone severe habitat fragmentation, the habitat that remains in fragmented patches probably no longer supports its original productive capacity of wildlife (Smallwood 2015). However, several studies have estimated total avian nest density at locations that had likewise been highly fragmented. Two study sites in grassland/wetland/woodland complexes within agricultural matrices had total bird nesting densities of 32.8 and 35.8 nests per acre (Young 1948, Yahner 1982) for an average 34.3 nests per acre. To acquire a total nest density closer to conditions in California, Noriko surveyed through the breeding season of 2023 over 4.29 acres of grassland in the San Jacinto Wildlife Area, 1.23 acres of sage scrub in Murrieta, and 0.7 acres of riparian woodland in Temecula. Noriko tabulated 3.72 bird nests/acre in grassland, 3.26 nests/acre in sage scrub, and 28.55 bird nests/acre in riparian woodland. Applying her estimated total nest densities to the project site's direct-impact footprint of 0.61 acres of grassland, 0.89 acres of sage scrub (including offsite impacts), and 1.35 acres of riparian/woodland/wetland predicts 44 bird nest sites. Smallwood and Smallwood (2023) measured additional losses of birds

adjacent to project sites that had been developed since our initial pre-construction surveys, averaging -2%. The project site's vegetation occurring outside the project building's footprint would consist of 5.6 acres of grassland/wildflowers, 1.72 acres of sage scrub, and 0.74 acres of riparian/woodland/wetland. Applying Noriko's total nest densities to these acreages would predict 48 nest sites, of which 2% would be lost, totaling 1 nest site. The project would eliminate 45 nest sites. Assuming 1.39 broods per nest site based on Noriko's review of 322 North American bird species, which averaged 1.39 broods per year, then I predict the project would cost California 63 nest attempts/year.

The loss of 45 nest sites and 63 nest attempts/year would easily qualify as a significant project impact that has not been quantitatively addressed in the DEIR. But the impact would not end with the immediate loss of nest sites as nest substrate is removed and foraging grounds graded in preparation for impervious surfaces. The reproductive capacity of the site would be lost. The average number of fledglings per nest in Young's (1948) study was 2.9. Assuming Young's (1948) study site typifies bird productivity, the project would prevent the production of 183 fledglings per year. Assuming an average bird generation time of 5 years, the lost capacity of both breeders and annual fledgling production can be estimated from an equation in Smallwood (2022): {(nests/year × chicks/nest × number of years) + (2 adults/nest × nests/year) × (number of years ÷ years/generation)} ÷ (number of years) = 201 birds per year denied to California.

The DEIR erroneously concludes that project impacts to sensitive upland vegetation communities and to wetland vegetation communities would be reduced to less that significant levels by preserving what would remain of the vegetation communities and by invasive species removals and restoration. The preservation measure would probably help, but it would not compensate for cumulative impacts such as from habitat fragmentation and diminishment of the preserved vegetation caused by noise, light and other forms of pollution that would result from the project. It would not prevent project-generated traffic from destroying the wildlife moving across surrounding roads to and from the preserved vegetation (see below).

Invasive species removals and restoration would pose additional potential impacts to special-status species of plants and wildlife on the project site. These measures could damage or destroy the habitats of at least 54 species of vertebrate wildlife, including at least 12 special-status species of wildlife. The City needs to better understand how the vegetation on the project site is being used as habitat, and by which species of wildlife. The City needs to better understand this in order to minimize impacts of invasive species removals and "restoration" to wildlife. As examples, the habitat restoration could be timed to minimize direct impacts, or it could be phased for the same purpose. Blindly destroying what vegetation exists at the site as part of invasive species removals and habitat restoration could end up taking special-status species without mitigating the impacts. Compensatory mitigation would be warranted.

The DEIR needs to be revised to appropriately analyze the project's impacts to wildlife caused by habitat loss and habitat fragmentation. If invasive plant removals or wetland restoration are pursued, then the DEIR needs to be revised to appropriately analyze

potential impacts resulting from these actions and how they themselves would be mitigated.

INTERFERENCE WITH WILDLIFE MOVEMENT

One of CEQA's principal concerns regarding potential project impacts is whether a proposed project would interfere with wildlife movement in the region. Unfortunately, the DEIR's analysis of whether the project would interfere with wildlife movement in the region is flawed and misleading. According to Dudek (2023:32), "the Project site is not expected to provide for wildlife movement or serve as an important habitat linkage, and is not located within a Biological Core Linkage Area (Ogden 2001)." Ogden (2001) is missing from the list of references, so I could not understand what Dudek's reasoning. Dudek's determination is conclusory.

Dudek (2023:32) also reasons that "the approximately 108-foot-wide San Diego County Water Authority right-of-way that bisects the site causes vehicle disturbance from human activity that would prevent special-status wildlife species from frequently dispersing throughout the Project site." However, disturbance from human activity occurs worldwide, some of which undoubtedly prevents special-status species from dispersing where they wish, but some of which undoubtedly does not. Dudek (2023) presents no evidence that the San Diego Water Authority's right-of-way prevents wildlife movement. In fact, the presence of 12 documented special-status species of wildlife on the project site refutes Dudek's absurd assertion that the right-of-way prevents movement of special-status species.

Similarly flawed analysis is found in the DEIR, which on page 3.3-34, opines that "Development on the project site would not interfere with wildlife movement … The project site … is entirely bounded by existing development, is not contiguous with native habitats, and is outside of areas where wildlife movement opportunities do occur (along undeveloped open space habitat corridors). Areas may be used by smaller urban-adapted mammal species and bird species, but such areas are not considered refuge as a wildlife corridor or habitat linkage." First, more species of wildlife than small urban-adapted (synanthropic) mammals and birds occur on the project site. Of the 54 species of vertebrate wildlife documented on the project site by Dudek's and Noriko's surveys, only 10 could be described as synanthropic small birds; the other 44 (81%) species cannot be characterized as the types of wildlife the DEIR asserts are the only type to occur on the project site.

Furthermore, whether the site includes or is within a wildlife movement corridor is not the only consideration when it comes to the standard CEQA Checklist question of whether the project would interfere with wildlife movement in the region. The primary phrase of the CEQA standard goes to wildlife movement regardless of whether the movement is channeled by a corridor. In fact, a site such as the project site is critically important for wildlife movement because it composes an increasingly diminishing area of open space within a growing expanse of anthropogenic uses, forcing more species of volant wildlife to use the site for stopover and staging during migration, dispersal, and home range patrol (Warnock 2010, Taylor et al. 2011, Runge et al. 2014). The project,

due to its elimination of at least 2.85 acres of vegetation cover and due to its insertion of a large warehouse into the aerospace used by birds, bats and butterflies. would cut wildlife off from a large portion of one of the last remaining stopover and staging opportunities in the project area, forcing volant wildlife to travel even farther between remaining stopover sites. This impact would be significant, and as the project is currently proposed, it would be unmitigated.

TRAFFIC IMPACTS TO WILDLIFE

Project-generated traffic would endanger wildlife that must, for various reasons, cross roads used by the project's traffic to get to and from the project site (Photos 35–37), including along roads far from the project footprint. Vehicle collisions have accounted for the deaths of many thousands of amphibian, reptile, mammal, bird, and arthropod fauna, and the impacts have often been found to be significant at the population level (Forman et al. 2003). Across North America traffic impacts have taken devastating tolls on wildlife (Forman et al. 2003). In Canada, 3,562 birds were estimated killed per 100 km of road per year (Bishop and Brogan 2013), and the US estimate of avian mortality on roads is 2,200 to 8,405 deaths per 100 km per year, or 89 million to 340 million total per year (Loss et al. 2014). Local impacts can be more intense than nationally.

Photo 35. *A Gambel's quail dashes across a road* on *3 April 2021. Such road crossings are usually successful, but too often prove fatal to the animal. Photo by Noriko Smallwood.*

Photo 36. *Mourning dove killed by vehicle on a California road. Photo by Noriko Smallwood, 21 June 2020.*

Photo 37 *Raccoon killed on Road 31 just east of Highway 505 in Solano County. Photo taken on 10 November 2018.*

The nearest study of traffic-caused wildlife mortality was performed along a 2.5-mile stretch of Vasco Road in Contra Costa County, California. Fatality searches in this study found 1,275 carcasses of 49 species of mammals, birds, amphibians and reptiles over 15 months of searches (Mendelsohn et al. 2009). This fatality number needs to be adjusted for the proportion of fatalities that were not found due to scavenger removal and searcher error. This adjustment is typically made by placing carcasses for searchers to find (or not find) during their routine periodic fatality searches. This step was not taken at Vasco Road (Mendelsohn et al. 2009), but it was taken as part of another study next to Vasco Road (Brown et al. 2016). Brown et al.'s (2016) adjustment factors for carcass persistence resembled those of Santos et al. (2011). Also applying searcher detection rates from Brown et al. (2016), the adjusted total number of fatalities was estimated at 12,187 animals killed by traffic on the road. This fatality number over 1.25 years and 2.5 miles of road translates to 3,900 wild animals per mile per year. In terms comparable to the national estimates, the estimates from the Mendelsohn et al. (2009) study would translate to 243,740 animals killed per 100 km of road per year, or 29 times that of Loss et al.'s (2014) upper bound estimate and 68 times the Canadian estimate. An analysis is needed of whether increased traffic generated by the project site would similarly result in local impacts on wildlife.

For wildlife vulnerable to front-end collisions and crushing under tires, road mortality can be predicted from the study of Mendelsohn et al. (2009) as a basis. My analysis of the Mendelsohn et al. (2009) data resulted in an estimated 3,900 animals killed per mile along a county road in Contra Costa County. Two percent of the estimated number of fatalities were birds, and the balance was composed of 34% mammals (many mice and pocket mice, but also ground squirrels, desert cottontails, striped skunks, American badgers, raccoons, and others), 52.3% amphibians (large numbers of California tiger salamanders and California red-legged frogs, but also Sierran treefrogs, western toads, arboreal salamanders, slender salamanders and others), and 11.7% reptiles (many western fence lizards, but also skinks, alligator lizards, and snakes of various species). VMT is useful for predicting wildlife mortality because I was able to quantify miles traveled along the studied reach of Vasco Road during the time period of the Mendelsohn et al. (2009), hence enabling a rate of fatalities per VMT that can be projected to other sites, assuming similar collision fatality rates.

Predicting project-generated traffic impacts to wildlife

The DEIR predicts 1,519,046 annual VMT. During the Mendelsohn et al. (2009) study, 19,500 cars traveled Vasco Road daily, so the vehicle miles that contributed to my estimate of non-volant fatalities was 19,500 cars and trucks × 2.5 miles × 365 days/year × 1.25 years = 22,242,187.5 vehicle miles per 12,187 wildlife fatalities, or 1,825 vehicle miles per fatality. This rate divided into the predicted annual VMT, above, would predict 832 vertebrate wildlife fatalities per year. Located next to open space occupied by many wild animals, this prediction is all the more credible.

Based on my analysis, the project-generated traffic would cause significant impacts to wildlife. The DEIR does not address this potential impact, let alone propose to mitigate it. Mitigation measures to improve wildlife safety along roads are available and are feasible, and they need exploration for their suitability with the proposed project. Given the predicted level of project-generated, traffic-caused mortality, and the lack of any proposed mitigation, it is my opinion that the proposed project would result in potentially significant adverse biological impacts. The DEIR should be revised to appropriately analyze the potential impacts of project-generated automobile traffic on wildlife.

INTERFERENCE WITH LOCAL NCCP/HCP

Dudek (2023:33) reports that "…the City is no longer an active participant in the Natural Community Conservation Plan program or the subregional MHCP conservation planning effort … it is the City's policy to comply with the conservation policies identified in the Draft San Marcos Subarea Plan, including an assessment of designated Biological Core Linkage Areas and MHCP Focused Planning Areas in the context of proposed projects. In addition, the Project will be evaluated to ensure consistency with CEQA." Thirty (37.5%) of the species covered by the MHCP potentially occur on the project site, and two of them are documented on the site and seven are documented within 1.5 miles of the site. The project site is therefore important to the conservation objectives of the MHCP, but the DEIR does not explain specifically how the proposed mitigation achieves the conservation objectives of the MHCP. It is my opinion that the project as planned would interfere with the conservation objectives of the San Diego Association of Governments' Multi-Habitat Conservation Plan.

CUMULATIVE IMPACTS

The DEIR presents a flawed analysis of cumulative impacts, including to biological resources. The DEIR (p. 3.3-35) asserts that "The project is not located within a designated Biological Core Linkage Area or Focused Planning Area, and therefore, it is consistent with the conservation policies of the Draft San Marcos Subarea Plan," … and "would be required to conform to the goals and policies in the City of San Marcos General Plan … related to the protection of biological resources. Following implementation of proposed mitigation measures, the project is expected to be found to be in conformance with the Draft San Marcos Subarea Plan and the General Plan." The DEIR states further that "Through the implementation of required mitigation, impacts

to present and potentially present sensitive wildlife species would be reduced to a level below significance for the project and for cumulative projects. Therefore, cumulative impacts with regard to special-status wildlife species would not be cumulatively considerable." However, according to CEQA Guidelines §15064(h)(3), "a project's incremental contribution to a cumulative impact can be found not cumulatively considerable if the project would comply with an approved plan or mitigation program that provides specific requirements that would avoid or substantially lessen the cumulative problem within the geographic area of the project." And "When relying on a plan, regulation or program, the lead agency should explain how implementing the particular requirements in the plan, regulation or program ensure that the project's incremental contribution to the cumulative effect is not cumulatively considerable." The DEIR provides no explanation of how implementing the particular requirements of the City of San Marcos Subarea Plan and the General Plan would minimize, avoid or offset the project's contributions to cumulative impacts.

Even should project-level mitigation be implemented as proposed, development projects are causing cumulative impacts in California. To measure the impacts of habitat loss to wildlife caused by mitigated development projects, Noriko Smallwood and I revisited 80 sites of proposed projects that we had originally surveyed in support of comments on CEQA review documents (Smallwood and Smallwood 2023). We revisited the sites to repeat the survey methods at the same time of year, the same start time in the day, and the same methods and survey duration in order to measure the effects of mitigated development on wildlife. We structured the experiment in a before-after, control-impact experimental design, as some of the sites had been developed since our initial survey and some had remained undeveloped. We found that mitigated development resulted in a 66% loss of species on site, and 48% loss of species in the project area. Counts of vertebrate animals declined 90%. "Development impacts measured by the mean number of species detected per survey were greatest for amphibians (-100%), followed by mammals (-86%), grassland birds (-75%), raptors (-53%), special-status species (-49%), all birds as a group (-48%), non-native birds (-44%), and synanthropic birds (-28%). Our results indicated that urban development substantially reduced vertebrate species richness and numerical abundance, even after richness and abundance had likely already been depleted by the cumulative effects of loss, fragmentation, and degradation of habitat in the urbanizing environment," and despite all of the mitigation measures and existing policies and regulations.

The DEIR needs to be revised to appropriately analyze potential project contributions to cumulative impacts to wildlife in the City of San Marcos, and which could interfere with the MHCP. To do this, ongoing development in the City needs to be examined for its contributions to habitat fragmentation and how this fragmentation is affecting wildlife movement in the region. It also needs to examine City-wide annual VMT and to what degree this VMT is contributing to wildlife-vehicle collision mortality.

MITIGATION

MM-BIO-1 *On-Site Preservation. Impacts to sensitive vegetation shall be mitigated through the on-site preservation of 8.07 acres of sensitive upland and wetland vegetation. … A land manager shall be identified to ensure that the project is managed and protected in perpetuity. A conservation easement shall be recorded prior to the issuance of a grading permit.*

Whereas I concur with the implementation of this measure, I must point out that the 8.07 acres of sensitive upland and wetland vegetation proposed for on-site preservation is already there. The only added benefit of the measure is that these 8.07 acres would be designated as preserved. Even preserved, however, the project would result in a net loss of natural vegetation and of wildlife on a patch of open space that remains following severe habitat fragmentation – every portion of this patch of open space that is converted to impervious surface is going to result in significant cumulative impacts that cannot be offset by merely preserving what is left.

The merits of the DEIR's MM-BIO-1 are at odds with the existing environmental setting described by Dudek (2023). Dudek (2023:32) characterizes these 8.07 acres of sensitive upland and wetland vegetation as disturbed to the degree that special-status species are claimed to be prevented from dispersing on site, and as inundated with invasive species and hemmed in by surrounding development. Whereas Dudek sets about characterizing these acres as of only "moderate habitat value," the DEIR finds these acres as the most convenient for mitigation. What had been described as substantially disturbed and degraded is now described as sensitive and in need of preservation. Considering this blatant attempt to have it both ways, I suggest that the existing environmental setting is in much better condition than generally characterized in the DEIR. The FEIR's impacts analyses need to be founded on a more accurate characterization of the existing environmental setting.

MM-BIO-2 *Onsite Habitat Restoration. Onsite habitat restoration will consist of the removal and restoration of invasive species, vernal pool restoration, and development of a habitat restoration plan. …*

Habitat is that part of the environment that is used by members of a species (Hall et al. 1997). It is therefore essential that habitat restoration be monitored for success in terms of the species whose habitat is undergoing restoration. Otherwise, habitat restoration is simply an exercise in gardening that is only assumed to be of any benefit to the plants and animals whose habitat is being "restored."

Prior to the development of a habitat restoration plan, surveys are needed to determine which special-status species are supported by habitat on the project site. It would be scientifically indefensible and reckless to proceed with habitat restoration without first learning which species' habitat is present. Surveys are needed to determine whether and where San Diego fairy shrimp occur on the project site. The same is true for burrowing owl and least Bell's vireo. Surveys that meet the minimum standards of USFWS are needed for California gnatcatcher. Surveys are needed for burrowing owl, and surveys

are needed to learn how white-tailed kites and Cooper's hawks use the project site. Distribution maps need to be produced for all six special-status species of plants that Dudek found on site, and surveys for all special-status species of plants need to be performed to the standards of CDFW (2018). Before it is known where habitat of each species occurs on the project site, nobody should set about removing invasive species, restoring habitat or even developing a restoration plan. A restoration plan would need to be much better informed than it would be currently.

MM-BIO-2 *Habitat Restoration Plan. The applicant shall prepare a conceptual habitat restoration plan outlining the restoration described above. Upon approval a 5-year implementation effort would follow the plan, including topographic reconstruction, weed control, seeding, container planting, irrigation, and a program of monitoring and reporting. The restoration plan shall be prepared by persons with expertise in southern California ecosystems and native plant revegetation techniques. The plan should include, at a minimum: (a) a description of the mitigation site; (b) the plant species to be used, container sizes, and seeding rates; (c) a schematic depicting the mitigation area; (d) planting schedule; (e) a description of the irrigation methodology; (f) measures to control non-native vegetation on site; (g) specific success criteria; (h) a detailed monitoring program; (i) contingency measures should the success criteria not be met; and (j) identification of the party responsible for meeting the success criteria and providing for conservation of the mitigation site in perpetuity.*

Note that none of the text in the preceding paragraph identifies the species of which habitat would be restored, nor does it mention that monitoring would be directed towards the performance of those species. If habitat undergoing restoration is California gnatcatcher habitat, then the plan needs to specifically identify California gnatcatcher as the subject of performance monitoring. The same would apply to least Bell's vireo, yellow warbler, San Diego fairy shrimp, and any other special-status species of plant or animal that occurs on the project site. Developing a habitat restoration plan based on what Dudek (2023) reports would be grossly premature.

MM-BIO-3 *Landscaping. The applicant shall ensure that development landscaping adjacent to on- or off-site habitat does not include exotic plant species that may be invasive to native habitats. Exotic plant species not to be used include any species listed on the California Invasive Plant Council's (Cal-IPC) "Invasive Plant Inventory" List. In addition, landscaping should not use plants that require intensive irrigation, fertilizers, or pesticides adjacent to preserved lands and water runoff from landscaped areas should be directed away from the biological conservation easement area and contained and/or treated within the development footprint.*

It would be more informative to identify the plants that would be used in landscaping, so that the reader can assess the veracity of the claims that species would be selected to minimize irrigation, fertilizers and pesticides.

MM-BIO-3 *The applicant shall ensure that development lighting adjacent to all on- or offsite habitat shall be directed away from and/or shielded so as not to illuminate native habitats.*

Whereas I concur with the implementation of this measure should the project go forward, I must note that its benefits would be trivial in comparison to the project's impacts to wildlife.

MM-BIO-4 *Temporary Installation Fencing. The project applicant shall temporarily fence the limits of the project impact footprint and install other appropriate sediment trapping devices to prevent additional impacts to, and the spread of silt from the construction zone into, adjacent habitats to be avoided. Fencing and sediment trapping devices will be installed in a manner that does not impact habitats to be avoided. If work occurs beyond the fenced limits of impact, all work will cease until the problem has been remedied to the satisfaction of the City. Any habitat impacts that occur beyond the authorized work will be offset at ratios approved by the City. Temporary construction fencing and sediment trapping devices will be removed upon project completion.*

Whereas I concur with the implementation of this measure should the project go forward, I must note that its benefits would be trivial in comparison to the project's impacts to wildlife.

MM-BIO-5 *Environmental Awareness Training. A Workers Environmental Awareness Training Program shall be implemented with the contractor and all active construction personnel prior to construction to ensure knowledge of sensitive wildlife which may occur onsite including coastal California gnatcatcher and least Bell's vireo, their habitat, and general compliance with environmental/permit regulations and mitigation measures. …*

Whereas I concur with the implementation of this measure should the project go forward, I must note that its benefits would be trivial in comparison to the project's impacts to wildlife.

MM-BIO-6 *Breeding Season Avoidance. The removal of coastal sage scrub and wetland vegetation from the project impact footprint will occur from September 1 to February 14 to avoid the bird breeding season. Further, to the maximum extent practicable, grading activities associated with construction of the project will occur from September 1 to February 14 to avoid the breeding season. If project construction must occur during the breeding season, MM-BIO-10 and MM-BIO-11 will be implemented.*

This measure is repeated in MM-BIO-12, so it is redundant. As I comment under MM-BIO-12, the avian breeding season recognized by the CDFW is now 1 February through 15 September. The DEIR should be revised accordingly.

MM-BIO-7 *Work Hours. Project construction will occur during daylight hours. However, if temporary night work is required, night lighting shall abide by city standards and shall be, selectively placed, shielded, and directed away from natural habitats.*

Whereas I concur with the implementation of this measure should the project go forward, I must note that its benefits would be trivial in comparison to the project's impacts to wildlife.

MM-BIO-8 *Construction Best Management Practices. The project applicant will ensure that the following conditions are implemented during project construction in order to minimize potential impacts to sensitive vegetation and species:*

1. Employees will strictly limit their activities, vehicles, equipment, and construction materials to the fenced project footprint;
2. To avoid attracting predators, the project site will be kept as clean of debris as possible. All food related trash items will be enclosed in sealed containers and regularly removed from the site;
3. Pets of project personnel will not be allowed on the project site; and,
4. *Impacts from fugitive dust will be avoided and minimized through watering and other appropriate measures consistent with the Construction General Permit Order 2009-009-DWQ.*

Whereas I concur with the implementation of this measure should the project go forward, I must note that its benefits would be trivial in comparison to the project's impacts to wildlife.

MM-BIO-9 *Biological Monitor Requirements and Duties. A qualified biologist will be on site daily during initial clearing/grubbing and weekly during grading activities within 500 feet of coastal California gnatcatcher and least Bell's vireo habitat to ensure compliance with all project-imposed mitigation measures.* The biologist will be responsible for the following duties: *Oversee installation of and inspect temporary fencing and erosion control measures ….*
1. Periodically monitor the work area to ensure that work activities do not generate excessive amounts of dust…
2. Halt work, if necessary, and confer with the USFWS and City to ensure the proper implementation of species and habitat protection measures. …
3. Submit weekly letter reports (including photographs of impact areas) via regular or electronic mail (email) to the City during clearing/grubbing of potential habitat and/or project construction resulting in ground disturbance within 500 feet of avoided potential habitat. …
4. *Submit a final report to the City within 60 days of project completion that includes the following: (1) as-built construction drawings for grading with an overlay of any active nests; (2) photographs of habitat areas during pre-construction and post-construction conditions; and (3) other relevant summary information documenting that authorized impacts were not exceeded and that general compliance with the avoidance/minimization provisions and monitoring program as required by the USFWS were achieved.*

Whereas I concur with the implementation of this measure should the project go forward, I must note that its benefits would be trivial in comparison to the project's

impacts to wildlife. I also recommend that the final report of biological monitoring be made available to the public at the same time it is submitted to the City.

MM-BIO-10 *California Gnatcatcher Survey. For initial clearing/grubbing of coastal California gnatcatcher habitat within the project development footprint, a biologist holding a Section 10(a)(1)(A) permit shall perform a minimum of three (3) focused surveys, on separate days, to determine the presence of California gnatcatchers or nests in the project impact footprint. Surveys will begin a maximum of seven (7) days prior to performing initial clearing/grubbing, and one survey will be conducted the day immediately prior to the initiation of clearing/grubbing. …*

Protocol-level detection surveys need to be completed to the minimum standards of USFWS. These surveys need to be completed in support of a revised DEIR. If the DEIR is certified, then MM-BIO-10 needs to be implemented.

MM-BIO-11 *California Gnatcatcher Nest Avoidance and Minimization Measures. If an active coastal California gnatcatcher (Polioptila californica californica) nest is found on site or within 500 feet of project grading activities, the biologist shall postpone work within 500 feet of the nest and contact the U.S. Fish and Wildlife Service (USFWS) and the City of San Marcos …*

If the project goes forward, I concur with this measure. However, I must point out that any avoidance of take of California gnatcatcher nests would be a one-time avoidance. After project construction, the reproductive capacity of California gnatcatchers would be permanently eliminated from the project site to the degree equal to the average number of nest sites lost. Compensatory mitigation would be warranted for this impact.

MM-BIO-12 *General Pre-Construction Surveys. This mitigation measure serves to avoid take of birds protected under the Migratory Bird Treaty Act and California Fish and Game Code during the nesting season.*

The measure is misleading by suggesting that preconstruction surveys would avoid take of birds. The measure might minimize take, but it would not avoid take.

MM-BIO-12 *Nesting Bird Survey. To avoid any direct impacts on raptors and/or any migratory birds protected under the Migratory Bird Treaty Act and California Fish and Game Code, removal of habitat that supports active nests on the proposed area of disturbance shall occur outside the nesting season for these species (which is February 15 through August 31, annually).*

The avian breeding season recognized by the CDFW is now 1 February through 15 September. The DEIR should be revised accordingly. As I commented on MM-BIO-11, avoidance of any nests would be one-time only. After project construction, the reproductive capacity of nesting birds would be permanently eliminated from the project site to the degree equal to the average number of nest sites lost (see above for an estimate of this number, under Habitat Loss). Compensatory mitigation would be warranted for this impact.

MM-BIO-12 *Nesting Bird Survey*. If *construction occurs during the nesting season then preconstruction nesting bird surveys must be conducted within 72 hours of construction-related activities. …*

Whereas I concur that preconstruction, take-avoidance surveys should be completed, in my experience the majority of bird nests would not be found by biologists assigned to the survey. For instance, I surveyed for grassland nesters as part of an intensive survey effort that I performed from March through mid-August 2023 on a Central Valley site. I surveyed the site 30 times. I found that the nests of grassland birds are the most difficult to locate. Cavity nesters can more effectively defend their nests against predators, whereas ground nesters are highly vulnerable to predation, and thus the most cryptic of nesters. Ground nesters, which include bird species that occur at the project site, are highly adept at concealing their nests both physically and behaviorally. Based on my experience, it is highly likely that preconstruction survey would fail to find any of the nests of ground-nesting birds that truly occur on the project site. The DEIR's implication that preconstruction survey would reduce potential impacts to nesting birds to less-than-significant is unsubstantiated by evidence in the DEIR.

MM-BIO-13 *Federal and State Agency Permits. Prior to impacts occurring to … jurisdictional aquatic resources, the project applicant … shall obtain the following permits: USACE 404 permit, RWQCB 401 Water Quality Certification, and CDFW Fish and Game Code 1600 Streambed Alteration Agreement*.

Obtaining the necessary permits is an administrative step, but not a legitimate mitigation measure. MM BIO-13 should be eliminated from the DEIR and summarized elsewhere as an administrative necessity.

RECOMMENDED MEASURES

Pest Control: The project should commit to minimal use of rodenticides and avicides. It should commit to no placement of poison bait stations outside the buildings.

Road Mortality: Compensatory mitigation is needed for the increased wildlife mortality that would be caused by bird-window collisions and the project-generated road traffic in the region. I suggest that this mitigation can be directed toward funding research to identify fatality patterns and effective impact reduction measures such as reduced speed limits and wildlife under-crossings or overcrossings of particularly dangerous road segments. Compensatory mitigation can also be provided in the form of donations to wildlife rehabilitation facilities (see below).

Fund Wildlife Rehabilitation Facilities: Compensatory mitigation ought also to include funding contributions to wildlife rehabilitation facilities to cover the costs of injured animals that will be delivered to these facilities for care. Many animals would likely be injured by collisions with automobiles traveling to and from the project's buildings.

Shawn Smallwood, Ph.D.

LITERATURE CITED

Bishop, C. A. and J. M. Brogan. 2013. Estimates of avian mortality attributed to vehicle collisions in Canada. Avian Conservation and Ecology 8:2. http://dx.doi.org/10.5751/ACE-00604-080202.

Brown, K., K. S. Smallwood, J. Szewczak, and B. Karas. 2016. Final 2012-2015 Report Avian and Bat Monitoring Project Vasco Winds, LLC. Prepared for NextEra Energy Resources, Livermore, California.

CDFW (California Department of Fish and Wildlife). 2012. Staff Report on Burrowing Owl Mitigation. Sacramento, California.

CDFW (California Department of Fish and Wildlife). 2018. Protocols for surveying and evaluating impacts to special status native plant populations and sensitive natural communities. https://nrm.dfg.ca.go

Dudek. 2023. Biological Resources Technical Report: Hughes Circuits Project. Report to Hughes Circuits, Inc., San Marcos, California.

Forman, T. T., D. Sperling, J. A. Bisonette, A. P. Clevenger, C. D. Cutshall, V. H. Dale, L. Fahrig, R. France, C. R. Goldman, K. Heanue, J. A. Jones, F. J. Swanson, T. Turrentine, and T. C. Winter. 2003. Road Ecology. Island Press, Covello, California.

Hall, L. S., P. R. Krausman, and M. L. Morrison. 1997. "The habitat concept and a plea for standard terminology." Wildlife Society Bulletin 25:173-82.

Loss, S. R., T. Will, and P. P. Marra. 2014. Estimation of bird-vehicle collision mortality on U.S. roads. Journal of Wildlife Management 78:763-771.

Mendelsohn, M., W. Dexter, E. Olson, and S. Weber. 2009. Vasco Road wildlife movement study report. Report to Contra Costa County Public Works Department, Martinez, California.

Runge, C. A., T. G. Martin, H. P. Possingham, S. G. Willis, and R. A. Fuller. 2014. Conserving mobile species. Frontiers in Ecology and Environment 12(7): 395–402, doi:10.1890/130237.

Santos, S. M., F. Carvalho, and A. Mira. 2011. How long do the dead survive on the road? Carcass persistence probability and implications for road-kill monitoring surveys. PLoS ONE 6(9): e25383. doi:10.1371/journal.pone.0025383

Shuford, W. D., and T. Gardali, [eds.]. 2008. California bird species of special concern: a ranked assessment of species, subspecies, and distinct populations of birds of immediate conservation concern in California. Studies of Western Birds 1. Western Field Ornithologists, Camarillo, California.

Smallwood, K. S. 2015. Habitat fragmentation and corridors. Pages 84-101 in M. L. Morrison and H. A. Mathewson, Eds., Wildlife habitat conservation: concepts, challenges, and solutions. John Hopkins University Press, Baltimore, Maryland, USA.

Smallwood, K. S. 2022. Utility-scale solar impacts to volant wildlife. Journal of Wildlife Management: e22216. https://doi.org/10.1002/jwmg.22216

Smallwood, K. S., and N. L. Smallwood. 2023. Measured effects of anthropogenic development on vertebrate wildlife diversity. Diversity 15, 1037. https://doi.org/10.3390/d15101037.

Taylor, P. D., S. A. Mackenzie, B. G. Thurber, A. M. Calvert, A. M. Mills, L. P. McGuire, and C. G. Guglielmo. 2011. Landscape movements of migratory birds and bats reveal an expanded scale of stopover. PlosOne 6(11): e27054. doi:10.1371/journal.pone.0027054.

U.S. Fish and Wildlife Service. 1997. Coastal California Gnatcatcher (*Polioptila californica californica*) presence/absence survey guidelines, February 28, 1997. Carlsbad Fish and Wildlife Office, Carlsbad, California.

Warnock, N. 2010. Stopping vs. staging: the difference between a hop and a jump. Journal of Avian Biology 41:621-626.

Yahner, R. H. 1982. Avian nest densities and nest-site selection in farmstead shelterbelts. The Wilson Bulletin 94:156-175.

Young, H. 1948. A comparative study of nesting birds in a five-acre park. The Wilson Bulletin 61:36-47.

Kenneth Shawn Smallwood
Curriculum Vitae

3108 Finch Street
Davis, CA 95616
Phone (530) 756-4598
Cell (530) 601-6857
puma@dcn.org

Born May 3, 1963 in
Sacramento, California.
Married, father of two.

Ecologist

Expertise

- Finding solutions to controversial problems related to wildlife interactions with human industry, infrastructure, and activities;
- Wildlife monitoring and field study using GPS, thermal imaging, behavior surveys;
- Using systems analysis and experimental design principles to identify meaningful ecological patterns that inform management decisions.

Education

Ph.D. Ecology, University of California, Davis. September 1990.
M.S. Ecology, University of California, Davis. June 1987.
B.S. Anthropology, University of California, Davis. June 1985.
Corcoran High School, Corcoran, California. June 1981.

Experience

- 762 professional reports, including:
- 90 peer reviewed publications
- 24 in non-reviewed proceedings
- 646 reports, declarations, posters and book reviews
- 8 in mass media outlets
- 92 public presentations of research results

Editing for scientific journals: Guest Editor, *Wildlife Society Bulletin*, 2012-2013, of invited papers representing international views on the impacts of wind energy on wildlife and how to mitigate the impacts. Associate Editor, *Journal of Wildlife Management*, March 2004 to 30 June 2007. Editorial Board Member, *Environmental Management*, 10/1999 to 8/2004. Associate Editor, *Biological Conservation*, 9/1994 to 9/1995.

Member, Alameda County Scientific Review Committee (SRC), August 2006 to April 2011. The five-member committee investigated causes of bird and bat collisions in the Altamont Pass Wind Resource Area, and recommended mitigation and monitoring measures. The SRC reviewed the science underlying the Alameda County Avian Protection Program, and advised

the County on how to reduce wildlife fatalities.

Consulting Ecologist, 2004-2007, California Energy Commission (CEC). Provided consulting services as needed to the CEC on renewable energy impacts, monitoring and research, and produced several reports. Also collaborated with Lawrence-Livermore National Lab on research to understand and reduce wind turbine impacts on wildlife.

Consulting Ecologist, 1999-2013, U.S. Navy. Performed endangered species surveys, hazardous waste site monitoring, and habitat restoration for the endangered San Joaquin kangaroo rat, California tiger salamander, California red-legged frog, California clapper rail, western burrowing owl, salt marsh harvest mouse, and other species at Naval Air Station Lemoore; Naval Weapons Station, Seal Beach, Detachment Concord; Naval Security Group Activity, Skaggs Island; National Radio Transmitter Facility, Dixon; and, Naval Outlying Landing Field Imperial Beach.

Part-time Lecturer, 1998-2005, California State University, Sacramento. Instructed Mammalogy, Behavioral Ecology, and Ornithology Lab, Contemporary Environmental Issues, Natural Resources Conservation.

Senior Ecologist, 1999-2005, BioResource Consultants. Designed and implemented research and monitoring studies related to avian fatalities at wind turbines, avian electrocutions on electric distribution poles across California, and avian fatalities at transmission lines.

Chairman, Conservation Affairs Committee, The Wildlife Society--Western Section, 1999-2001. Prepared position statements and led efforts directed toward conservation issues, including travel to Washington, D.C. to lobby Congress for more wildlife conservation funding.

Systems Ecologist, 1995-2000, Institute for Sustainable Development. Headed ISD's program on integrated resources management. Developed indicators of ecological integrity for large areas, using remotely sensed data, local community involvement and GIS.

Associate, 1997-1998, Department of Agronomy and Range Science, University of California, Davis. Worked with Shu Geng and Mingua Zhang on several studies related to wildlife interactions with agriculture and patterns of fertilizer and pesticide residues in groundwater across a large landscape.

Lead Scientist, 1996-1999, National Endangered Species Network. Informed academic scientists and environmental activists about emerging issues regarding the Endangered Species Act and other environmental laws. Testified at public hearings on endangered species issues.

Ecologist, 1997-1998, Western Foundation of Vertebrate Zoology. Conducted field research to determine the impact of past mercury mining on the status of California red-legged frogs in Santa Clara County, California.

Senior Systems Ecologist, 1994-1995, EIP Associates, Sacramento, California. Provided consulting services in environmental planning, and quantitative assessment of land units for their conservation and restoration opportunities basedon ecological resource requirements of 29 special-status species. Developed ecological indicators for prioritizing areas within Yolo County

to receive mitigation funds for habitat easements and restoration.

Post-Graduate Researcher, 1990-1994, Department of Agronomy and Range Science, *U.C. Davis*. Under Dr. Shu Geng's mentorship, studied landscape and management effects on temporal and spatial patterns of abundance among pocket gophers and species of Falconiformes and Carnivora in the Sacramento Valley. Managed and analyzed a data base of energy use in California agriculture. Assisted with landscape (GIS) study of groundwater contamination across Tulare County, California.

Work experience in graduate school: Co-taught Conservation Biology with Dr. Christine Schonewald, 1991 & 1993, UC Davis Graduate Group in Ecology; Reader for Dr. Richard Coss's course on Psychobiology in 1990, UC Davis Department of Psychology; Research Assistant to Dr. Walter E. Howard, 1988-1990, UC Davis Department of Wildlife and Fisheries Biology, testing durable baits for pocket gopher management in forest clearcuts; Research Assistant to Dr. Terrell P. Salmon, 1987-1988, UC Wildlife Extension, Department of Wildlife and Fisheries Biology, developing empirical models of mammal and bird invasions in North America, and a rating system for priority research and control of exotic species based on economic, environmental and human health hazards in California. Student Assistant to Dr. E. Lee Fitzhugh, 1985-1987, UC Cooperative Extension, Department of Wildlife and Fisheries Biology, developing and implementing statewide mountain lion track count for long-term monitoring.

Fulbright Research Fellow, Indonesia, 1988. Tested use of new sampling methods for numerical monitoring of Sumatran tiger and six other species of endemic felids, and evaluated methods used by other researchers.

Projects

Repowering wind energy projects through careful siting of new wind turbines using map-based collision hazard models to minimize impacts to volant wildlife. Funded by wind companies (principally NextEra Renewable Energy, Inc.), California Energy Commission and East Bay Regional Park District, I have collaborated with a GIS analyst and managed a crew of five field biologists performing golden eagle behavior surveys and nocturnal surveys on bats and owls. The goal is to quantify flight patterns for development of predictive models to more carefully site new wind turbines in repowering projects. Focused behavior surveys began May 2012 and continue. Collision hazard models have been prepared for seven wind projects, three of which were built. Planning for additional repowering projects is underway.

Test avian safety of new mixer-ejector wind turbine (MEWT). Designed and implemented a before-after, control-impact experimental design to test the avian safety of a new, shrouded wind turbine developed by Ogin Inc. (formerly known as FloDesign Wind Turbine Corporation). Supported by a $718,000 grant from the California Energy Commission's Public Interest Energy Research program and a 20% match share contribution from Ogin, I managed a crew of seven field biologists who performed periodic fatality searches and behavior surveys, carcass detection trials, nocturnal behavior surveys using a thermal camera, and spatial analyses with the collaboration of a GIS analyst. Field work began 1 April 2012 and ended 30 March 2015 without Ogin installing its MEWTs, but we still achieved multiple important scientific advances.

Reduce avian mortality due to wind turbines at Altamont Pass. Studied wildlife impacts caused by 5,400 wind turbines at the world's most notorious wind resource area. Studied how impacts are perceived by monitoring and how they are affected by terrain, wind patterns, food resources, range management practices, wind turbine operations, seasonal patterns, population cycles, infrastructure management such as electric distribution, animal behavior and social interactions.

Reduce avian mortality on electric distribution poles. Directed research toward reducing bird electrocutions on electric distribution poles, 2000-2007. Oversaw 5 founds of fatality searches at 10,000 poles from Orange County to Glenn County, California, and produced two large reports.

Cook *et al*. v. Rockwell International *et al*., No. 90-K-181 (D. Colorado). Provided expert testimony on the role of burrowing animals in affecting the fate of buried and surface-deposited radioactive and hazardous chemical wastes at the Rocky Flats Plant, Colorado. Provided expert reports based on four site visits and an extensive document review of burrowing animals. Conducted transect surveys for evidence of burrowing animals and other wildlife on and around waste facilities. Discovered substantial intrusion of waste structures by burrowing animals. I testified in federal court in November 2005, and my clients were subsequently awarded a $553,000,000 judgment by a jury. After appeals the award was increased to two billion dollars.

Hanford Nuclear Reservation Litigation. Provided expert testimony on the role of burrowing animals in affecting the fate of buried radioactive wastes at the Hanford Nuclear Reservation, Washington. Provided three expert reports based on three site visits and extensive document review. Predicted and verified a certain population density of pocket gophers on buried waste structures, as well as incidence of radionuclide contamination in body tissue. Conducted transect surveys for evidence of burrowing animals and other wildlife on and around waste facilities. Discovered substantial intrusion of waste structures by burrowing animals.

Expert testimony and declarations on proposed residential and commercial developments, gas-fired power plants, wind, solar and geothermal projects, water transfers and water transfer delivery systems, endangered species recovery plans, Habitat Conservation Plans and Natural Communities Conservation Programs. Testified before multiple government agencies, Tribunals, Boards of Supervisors and City Councils, and participated with press conferences and depositions. Prepared expert witness reports and court declarations, which are summarized under Reports (below).

Protocol-level surveys for special-status species. Used California Department of Fish and Wildlife and US Fish and Wildlife Service protocols to search for California red-legged frog, California tiger salamander, arroyo southwestern toad, blunt-nosed leopard lizard, western pond turtle, giant kangaroo rat, San Joaquin kangaroo rat, San Joaquin kit fox, western burrowing owl, Swainson's hawk, Valley elderberry longhorn beetle and other special-status species.

Conservation of San Joaquin kangaroo rat. Performed research to identify factors responsible for the decline of this endangered species at Lemoore Naval Air Station, 2000-2013, and implemented habitat enhancements designed to reverse the trend and expand the population.

Impact of West Nile Virus on yellow-billed magpies. Funded by Sacramento-Yolo Mosquito and Vector Control District, 2005-2008, compared survey results pre- and post-West Nile Virus epidemic for multiple bird species in the Sacramento Valley, particularly on yellow-billed magpie and American crow due to susceptibility to WNV.

Workshops on HCPs. Assisted Dr. Michael Morrison with organizing and conducting a 2-day workshop on Habitat Conservation Plans, sponsored by Southern California Edison, and another 1-day workshop sponsored by PG&E. These Workshops were attended by academics, attorneys, and consultants with HCP experience. We guest-edited a Proceedings published in Environmental Management.

Mapping of biological resources along Highways 101, 46 and 41. Used GPS and GIS to delineate vegetation complexes and locations of special-status species along 26 miles of highway in San Luis Obispo County, 14 miles of highway and roadway in Monterey County, and in a large area north of Fresno, including within reclaimed gravel mining pits.

GPS mapping and monitoring at restoration sites and at Caltrans mitigation sites. Monitored the success of elderberry shrubs at one location, the success of willows at another location, and the response of wildlife to the succession of vegetation at both sites. Also used GPS to monitor the response of fossorial animals to yellow star-thistle eradication and natural grassland restoration efforts at Bear Valley in Colusa County and at the decommissioned Mather Air Force Base in Sacramento County.

Mercury effects on Red-legged Frog. Assisted Dr. Michael Morrison and US Fish and Wildlife Service in assessing the possible impacts of historical mercury mining on the federally listed California red-legged frog in Santa Clara County. Also measured habitat variables in streams.

Opposition to proposed No Surprises rule. Wrote a white paper and summary letter explaining scientific grounds for opposing the incidental take permit (ITP) rules providing ITP applicants and holders with general assurances they will be free of compliance with the Endangered Species Act once they adhere to the terms of a "properly functioning HCP." Submitted 188 signatures of scientists and environmental professionals concerned about No Surprises rule US Fish and Wildlife Service, National Marine Fisheries Service, all US Senators.

Natomas Basin Habitat Conservation Plan alternative. Designed narrow channel marsh to increase the likelihood of survival and recovery in the wild of giant garter snake, Swainson's hawk and Valley Elderberry Longhorn Beetle. The design included replication and interspersion of treatments for experimental testing of critical habitat elements. I provided a report to Northern Territories, Inc.

Assessments of agricultural production system and environmental technology transfer to China. Twice visited China and interviewed scientists, industrialists, agriculturalists, and the Directors of the Chinese Environmental Protection Agency and the Department of Agriculture to assess the need and possible pathways for environmental clean-up technologies and trade opportunities between the US and China.

Yolo County Habitat Conservation Plan. Conducted landscape ecology study of Yolo County to spatially prioritize allocation of mitigation efforts to improve ecosystem functionality within the County from the perspective of 29 special-status species of wildlife and plants. Used a hierarchically structured indicators approach to apply principles of landscape and ecosystem ecology, conservation biology, and local values in rating land units. Derived GIS maps to help guide the conservation area design, and then developed implementation strategies.

Mountain lion track count. Developed and conducted a carnivore monitoring program throughout California since 1985. Species counted include mountain lion, bobcat, black bear, coyote, red and gray fox, raccoon, striped skunk, badger, and black-tailed deer. Vegetation and land use are also monitored. Track survey transect was established on dusty, dirt roads within randomly selected quadrats.

Sumatran tiger and other felids. Upon award of Fulbright Research Fellowship, I designed and initiated track counts for seven species of wild cats in Sumatra, including Sumatran tiger, fishing cat, and golden cat. Spent four months on Sumatra and Java in 1988, and learned Bahasa Indonesia, the official Indonesian language.

Wildlife in agriculture. Beginning as post-graduate research, I studied pocket gophers and other wildlife in 40 alfalfa fields throughout the Sacramento Valley, and I surveyed for wildlife along a 200 mile road transect since 1989 with a hiatus of 1996-2004. The data are analyzed using GIS and methods from landscape ecology, and the results published and presented orally to farming groups in California and elsewhere. I also conducted the first study of wildlife in cover crops used on vineyards and orchards.

Agricultural energy use and Tulare County groundwater study. Developed and analyzed a data base of energy use in California agriculture, and collaborated on a landscape (GIS) study of groundwater contamination across Tulare County, California.

Pocket gopher damage in forest clear-cuts. Developed gopher sampling methods and tested various poison baits and baiting regimes in the largest-ever field study of pocket gopher management in forest plantations, involving 68 research plots in 55 clear-cuts among 6 National Forests in northern California.

Risk assessment of exotic species in North America. Developed empirical models of mammal and bird species invasions in North America, as well as a rating system for assigning priority research and control to exotic species in California, based on economic, environmental, and human health hazards.

Peer Reviewed Publications

Smallwood, K. S. 2022. Utility-scale solar impacts to volant wildlife. Journal of Wildlife Management: e22216. https://doi.org/10.1002/jwmg.22216

Smallwood, K. S., and N. L. Smallwood. 2021. Breeding Density and Collision Mortality of Loggerhead Shrike (*Lanius ludovicianus*) in the Altamont Pass Wind Resource Area. Diversity 13, 540. https://doi.org/10.3390/d13110540.

Smallwood, K. S. 2020. USA wind energy-caused bat fatalities increase with shorter fatality search intervals. Diversity 12(98); https://doi.org/10.3390/d12030098

Smallwood, K. S., D. A. Bell, and S. Standish. 2020. Dogs detect larger wind energy impacts on bats and birds. Journal of Wildlife Management 84:852-864. DOI: 10.1002/jwmg.21863.

Smallwood, K. S., and D. A. Bell. 2020. Relating bat passage rates to wind turbine fatalities.

Diversity 12(84); doi:10.3390/d12020084.

Smallwood, K. S., and D. A. Bell. 2020. Effects of wind turbine curtailment on bird and bat fatalities. Journal of Wildlife Management 84:684-696. DOI: 10.1002/jwmg.21844

Kitano, M., M. Ino, K. S. Smallwood, and S. Shiraki. 2020. Seasonal difference in carcass persistence rates at wind farms with snow, Hokkaido, Japan. Ornithological Science 19: 63 – 71.

Smallwood, K. S. and M. L. Morrison. 2018. Nest-site selection in a high-density colony of burrowing owls. Journal of Raptor Research 52:454-470.

Smallwood, K. S., D. A. Bell, E. L. Walther, E. Leyvas, S. Standish, J. Mount, B. Karas. 2018. Estimating wind turbine fatalities using integrated detection trials. Journal of Wildlife Management 82:1169-1184.

Smallwood, K. S. 2017. Long search intervals under-estimate bird and bat fatalities caused by wind turbines. Wildlife Society Bulletin 41:224-230.

Smallwood, K. S. 2017. The challenges of addressing wildlife impacts when repowering wind energy projects. Pages 175-187 in Köppel, J., Editor, Wind Energy and Wildlife Impacts: Proceedings from the CWW2015 Conference. Springer. Cham, Switzerland.

May, R., Gill, A. B., Köppel, J. Langston, R. H.W., Reichenbach, M., Scheidat, M., Smallwood, S., Voigt, C. C., Hüppop, O., and Portman, M. 2017. Future research directions to reconcile wind turbine–wildlife interactions. Pages 255-276 in Köppel, J., Editor, Wind Energy and Wildlife Impacts: Proceedings from the CWW2015 Conference. Springer. Cham, Switzerland.

Smallwood, K. S. 2017. Monitoring birds. M. Perrow, Ed., Wildlife and Wind Farms - Conflicts and Solutions, Volume 2. Pelagic Publishing, Exeter, United Kingdom. www.bit.ly/2v3cR9Q

Smallwood, K. S., L. Neher, and D. A. Bell. 2017. Turbine siting for raptors: an example from Repowering of the Altamont Pass Wind Resource Area. M. Perrow, Ed., Wildlife and Wind Farms - Conflicts and Solutions, Volume 2. Pelagic Publishing, Exeter, United Kingdom. www.bit.ly/2v3cR9Q

Johnson, D. H., S. R. Loss, K. S. Smallwood, W. P. Erickson. 2016. Avian fatalities at wind energy facilities in North America: A comparison of recent approaches. Human–Wildlife Interactions 10(1):7-18.

Sadar, M. J., D. S.-M. Guzman, A. Mete, J. Foley, N. Stephenson, K. H. Rogers, C. Grosset, K. S. Smallwood, J. Shipman, A. Wells, S. D. White, D. A. Bell, and M. G. Hawkins. 2015. Mange Caused by a novel Micnemidocoptes mite in a Golden Eagle (*Aquila chrysaetos*). Journal of Avian Medicine and Surgery 29(3):231-237.

Smallwood, K. S. 2015. Habitat fragmentation and corridors. Pages 84-101 in M. L. Morrison and H. A. Mathewson, Eds., Wildlife habitat conservation: concepts, challenges, and solutions. John Hopkins University Press, Baltimore, Maryland, USA.

EXHIBIT B

Shawn Smallwood, PhD
3108 Finch Street
Davis, CA 95616

Attn: Chris Garcia
City of San Marcos
1 Civic Center Drive
San Marcos, California 92069

11 April 2024

RE: Hughes SMCC Industrial Project San Marcos

Dear Mr. Garcia,

I write to reply to the City's responses to comments provided by the U.S. Fish and Wildlife Service on the Draft Environmental Impact Report (DEIR) prepared for the Hughes SMCC Industrial Project. I also reviewed the FEIR in support of my replies.

Response A4-5a: "The comment states that the threatened coastal California gnatcatcher (*Polioptila californica californica*) has a moderate potential to occur on site and recommends that protocol gnatcatcher surveys should be conducted on the project site. In response, City staff met with USFWS staff, the applicant representatives, and environmental consultants on the project site in May 2023 for a site visit and to review biological resource findings.

Reply: To set the record straight, whereas the City's response implies that the USFWS determines the occurrence likelihood of California gnatcatcher to be moderate, the USFWS comment only notes that the DEIR characterizes the occurrence likelihood to be moderate. The USFWS's comment does not determine a moderate occurrence likelihood to California gnatcatcher.

As I commented in my letter of 29 March 2024, it is unclear what the DEIR means by moderate occurrence likelihood. Neither Dudek (2023) nor the DEIR explains its occurrence likelihood categories. No standards or measurement thresholds are described to help determine whether the occurrence likelihoods should be not expected, low, medium, or high. None of these categories carry any probability of occurrence or of survey detection. That the species was not detected by Dudek (2023) is unsupportive of the occurrence likelihood determination because Dudek (2023) did not achieve the minimum of the most important detection survey standard by failing to complete the schedule of surveys the protocol recommends (See Table 2 and associated text of my comment letter of 29 March 2024). Dudek (2023) completed only half of the recommended six of breeding-season surveys, and none of the nine non-breeding-season surveys.

More compelling than whether California gnatcatchers were observed during the few surveys completed is that the vegetation community of the site typifies that of California gnatcatcher habitat, and observations of the species have been documented within a

mile or so all around the project site (Figure 1). Given the evidence, it is a certainty that California gnatcatchers use the project site, if not to breed, then at least as a dispersal stop-over or for other purposes. The DEIR's determination of a moderate likelihood of occurrence is of unclear meaning but generally minimalizes the importance of the project site to California gnatcatcher contrary to the available evidence.

Figure 1*. eBird records (teardrops) of California gnatcatcher very close to the project site (located at the upper-central portion of the image, where red teardrops indicate sightings in the past month, but in these cases the sightings were made on 6 and 8 April 2024.*

Response A4-5b: At that site visit, USFWS requested completion of additional California gnatcatcher and brodiaea surveying as a result of the wet winter/spring season that had occurred. A 2023 focused California gnatcatcher survey report was completed for the site on June 29, 2023, and was submitted to USFWS for review at that time. This June 2023 report found that no coastal California gnatcatchers were observed during any survey.

Reply: The surveys for California gnatcatcher were not completed as recommended by the survey protocol (USFWS 1997). The response does not report whether or how the USFWS responded to the City's submission of its June 2023 report. Based on my understanding of the survey protocol, the most important methodological step of the survey protocol was left grossly incomplete.

Response A4-5c: Thirty-eight species of wildlife were detected during the surveys and are provided in Appendix A of the subject report. No rare species were detected within the impact area, and the report re-confirmed that the impact area on site is highly

disturbed compared to the rest of the site, which is consistent with the findings of the biological technical report prepared for the project.

Reply: AS I commented in my letter of 29 March 2024, the surveys completed by Dudek (2023) "failed to meet the minimum standards of the CDFW (2018) guidelines for reconnaissance surveys directed toward plants." Therefore, the failure to detect rare species of plants is unsupportive of any absence determinations. Stating that no rare species were detected is pseudoscientific in that it is technically true but inappropriately interpreted. If one does not search sufficiently to detect a rare plant or animal, it is likely the plant or animal will not be found.

That 38 species of wildlife were detected is indicative of a substantial shortfall in the surveys, as I commented in my letter of 29 March 2024. Between Dudek's and Noriko Smallwood's surveys, at least 54 species of vertebrate wildlife were detected, including at least 12 special-status species. Furthermore, I analytically bridged Noriko Smallwood's survey findings to a larger research effort of my own to predict that continued diurnal visual-scan surveys over the period of a year or longer to capture seasonal variation in wildlife use of the site predicts 155 species of vertebrate wildlife, including 25 special-status species of vertebrate wildlife. Dudek's survey effort came nowhere close to representing the species richness of the site or the true suite of species that occurs there. In fact, each survey completed at the site added a large number of new species detections, indicative of high seasonal variation or high variation in general. The project site lacks an accurate characterization of its existing environmental setting.

The response characterizes the impact area on site as highly disturbed, but fails to explain whether or how the disturbed nature of the site prevents use of it by wildlife. It is not even explained what the City means by "disturbed," as every environment is disturbed in one way or another. Many species of plants and wildlife are disturbance-adapted, including some special-status species such as California horned larks and burrowing owls. Unless the City can explain its meaning, and unless it can provide evidence that the disturbed nature of the site prevents the occurrences of whichever species of wildlife it is referencing (no particular species are mentioned), then it is a meaningless characterization and a misleading insinuation that wildlife should not occur at the site.

Response A4-5d: Furthermore, the project would implement Mitigation Measure (MM) BIO-10 (California Gnatcatcher Survey), MM-BIO-11 (California Gnatcatcher Nest Avoidance and Minimization Measures), and MM-BIO- 12 (General Pre-Construction Surveys), as outlined in Section 3.3, Biological Resources, of the EIR."

Reply: As I commented in my letter of 29 March 2024, protocol-level detection surveys need to be completed to the minimum standards of USFWS (1997). These surveys need to be completed in support of a revised DEIR. If the DEIR is certified, then MM-BIO-10 needs to be implemented. And, "If the project goes forward, I concur with this measure [MM-BIO-11]. However, I must point out that any avoidance of take of California gnatcatcher nests would be a one-time avoidance. After project construction, the reproductive capacity of California gnatcatchers would be permanently eliminated from

the project site to the degree equal to the average number of nest sites lost. Compensatory mitigation would be warranted for this impact." And regarding MM-BIO-12, "The avian breeding season recognized by the CDFW is now 1 February through 15 September. The DEIR should be revised accordingly. As I commented on MM-BIO-11, avoidance of any nests would be one-time only. After project construction, the reproductive capacity of nesting birds would be permanently eliminated from the project site to the degree equal to the average number of nest sites lost (see above for an estimate of this number, under Habitat Loss). Compensatory mitigation would be warranted for this impact."

Response A4-6: "The comment states that MM-BIO-1 says a long-term manager would be selected and a biological conservation easement recorded before a grading permit is issued, but appropriate funding and a longterm management plan has not been identified for the preserve. The comment recommends the applicant establish a non-wasting endowment for an amount approved by USFWS based on a Property Analysis Record (PAR). The comment states that ongoing funding needs to be secured for the perpetual management, maintenance, and monitoring of the biological conservation area by an agency, nonprofit, or other entity approved by USFWS. In response, a PAR-like analysis would be completed, and the cost for an endowment would be developed as part of the Mitigation Plan. The following text has been added to MM-BIO-2 under Habitat Restoration Plan in Section 3.3 of the Final EIR, to address this comment: As part of the mitigation planning a PAR-like cost evaluation will be developed and approved by USFWS to help determine long term costs in the endowment required to support those costs. The applicant is required to fund the endowment before the issuance of grading permits, and the endowment agreement shall be approved by USFWS."

Reply: My understanding of the USFWS's recommendation is to name the long-term manager and to identify the funding for the management of the preserve prior to EIR certification. By deferring these actions, the reviewing public will be unable to meaningfully participate with them. The USFWS is not the only party with a stake in the qualifications and suitability of the long-term preserve manager and in the source and amount of funding available to manage the preserve over the long-term. The EIR needs to include these details and the public needs the opportunity to review and comment on them.

Response A4-7a: "The comment states that MM-BIO-2 mitigates the loss of 1.1 acres of wetland vegetation by removing invasive species and performing vernal pool restoration, including some minor recontouring within the preserve.

Reply: The comment does not state this. It does not state that MM-BIO-2 mitigates anything. The comment merely summarizes what the DEIR states about MM-BIO-2.

Response A4-7b: The comment reiterates that the project site is known to be occupied by brodiaea, button celery, and navarretia. The comment also states that the project site is designated a critical habitat for the federally endangered San Diego fairy shrimp (*Branchinecta sandiegonensis*). The comment recommends conducting protocol

fairy shrimp surveys and evaluating potential impacts from invasive species removal and vernal pool restoration to brodiaea, button celery, navarretia, and fairy shrimp. The comment also requests including mitigation measures to avoid and minimize potential impacts, that the invasive species removal and restoration plan be prepared in coordination with USFWS, and that all restoration exclude vernal pools within the San Diego County Water Authority easement. In response, it is acknowledged that fairy shrimp are present on site. However, fairy shrimp would not be impacted during project construction or restoration. All protocol surveys would include fairy shrimp in plans, and fairy shrimp would be a species targeted in the planning effort. Additionally, mitigation measures MM-BIO-2 and MM-BIO-13 have been modified in Section 3.3 of the Draft EIR, as reflected in the Final EIR, to address this comment. MM-BIO-2 has been modified to include the following language under Vernal Pool Restoration: Any recontouring will avoid impacts to existing vernal pools and existing sensitive species and is intended to develop new pools or to expand pools from existing locations. Mitigation measure MM-BIO-13 has been modified to include the following language: The project applicant will consult with the U.S. Fish and Wildlife Service and get approval of the mitigation plan to ensure that it does not impact listed species."

Reply: The project could cause indirect impacts to special-status plants and brachiopods by altering the hydrology of the site. The 43-foot-tall building could also shade adjacent patches of rare plants. The proposed mitigation measures of habitat restoration and invasive species removals could harm vernal pool brachiopods and rare plants. The USFWS is justified in its recommendations to complete protocol-level detection surveys and to consult with the USFWS regarding the proposed removals of invasive species. These actions need to be completed prior to EIR certification so that the reviewing public can review and comment on them.

Thank you for your consideration,

Shawn Smallwood

_____

Shawn Smallwood, Ph.D.

LITERATURE CITED

CDFW (California Department of Fish and Wildlife). 2018. Protocols for surveying and evaluating impacts to special status native plant populations and sensitive natural communities. https://nrm.dfg.ca.go

Dudek. 2023. Biological Resources Technical Report: Hughes Circuits Project. Report to Hughes Circuits, Inc., San Marcos, California.

U.S. Fish and Wildlife Service. 1997. Coastal California Gnatcatcher (*Polioptila californica californica*) presence/absence survey guidelines, February 28, 1997. Carlsbad Fish and Wildlife Office, Carlsbad, California.