



State of California – Natural Resources Agency  
DEPARTMENT OF FISH AND WILDLIFE  
Inland Deserts Region  
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[www.wildlife.ca.gov](http://www.wildlife.ca.gov)

GAVIN NEWSOM, Governor  
CHARLTON H. BONHAM, Director



March 18, 2025  
*Sent via email*

Leilani Henry  
Assistant Planner  
City of Hesperia  
9700 Seventh Ave  
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[lhensy@hesperiaca.gov](mailto:lhensy@hesperiaca.gov)

Bickmore Warehouse 5.22 Acre Site (Project)  
Mitigated Negative Declaration (MND)  
SCH# 2025021160

Dear Leilani Henry:

The California Department of Fish and Wildlife (CDFW) received a Notice of Intent to Adopt an MND from the City of Hesperia (City) for the Project pursuant the California Environmental Quality Act (CEQA) and CEQA Guidelines.<sup>1</sup>

Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect California fish and wildlife. Likewise, we appreciate the opportunity to provide comments regarding those aspects of the Project that CDFW, by law, may be required to carry out or approve through the exercise of its own regulatory authority under the Fish and Game Code.

## CDFW ROLE

CDFW is California's **Trustee Agency** for fish and wildlife resources and holds those resources in trust by statute for all the people of the State. (Fish & G. Code, §§ 711.7, subd. (a) & 1802; Pub. Resources Code, § 21070; CEQA Guidelines § 15386, subd. (a).) CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species. (*Id.*, § 1802.) Similarly, for purposes of CEQA, CDFW is charged by law to provide, as available, biological expertise during public agency environmental review efforts, focusing specifically on Projects and related activities that have the potential to adversely affect fish and wildlife resources.

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<sup>1</sup> CEQA is codified in the California Public Resources Code in section 21000 et seq. The "CEQA Guidelines" are found in Title 14 of the California Code of Regulations, commencing with section 15000.

Leilani Henry, Assistant Planner  
City of Hesperia  
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CDFW is also submitting comments as a **Responsible Agency** under CEQA. (Pub. Resources Code, § 21069; CEQA Guidelines, § 15381.) CDFW expects that it may need to exercise regulatory authority as provided by the Fish and Game Code. As proposed, for example, the Project may be subject to CDFW's lake and streambed alteration regulatory authority. (Fish & G. Code, § 1600 et seq.) Likewise, to the extent implementation of the Project as proposed may result in "take" as defined by State law of any species protected under the California Endangered Species Act (CESA) (Fish & G. Code, § 2050 et seq.), the Project proponent may seek related take authorization as provided by the Fish and Game Code.

## **PROJECT DESCRIPTION SUMMARY**

**Proponent:** DW Bickmore, LLC.

**Objective:** The Project proposes the construction and subsequent operation of two new warehouse buildings within a 5.22-acre parcel. The first warehouse will be 39,530 square feet and the second warehouse will be 40,248 square feet. The rest of the parcel will be developed into parking lots for both cars and large trucks and landscaping.

**Location:** The Project is located in the north-central portion of the City of Hesperia, southwest of the corner of Mojave Street and E Avenue. The Project site's latitude and longitude are 34.434457°N, -117.290067°W.

**Timeframe:** Not specified

## **COMMENTS AND RECOMMENDATIONS**

CDFW offers the comments and recommendations below to assist the City in adequately identifying and/or mitigating the Project's significant, or potentially significant, direct and indirect impacts on fish and wildlife (biological) resources. Editorial comments or other suggestions may also be included to improve the document.

### **COMMENT # 1: Nesting Birds**

**Issue:** The Project may have impacts on nesting birds, including CESA-listed birds, Species of Special Concern, and common birds that are subject to Fish and Game Code sections 3503.5, and 3513, and the Migratory Bird Treaty Act of 1918.

**Specific impact:** The Project as described could result in direct take associated with vehicle and equipment strike, indirect take associated with Project operations such as attracting predators, displacement, and reduction of habitat and habitat quality associated with road infrastructure.

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**Why impact would occur:** The MND does not require nesting bird pre-construction surveys to minimize and avoid impacts to nesting birds.

**Evidence impact would be significant:** Fish and Game Code section 3503 makes it unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by Fish and Game Code or any regulation made pursuant thereto. Fish and Game Code section 3513 makes it unlawful to take or possess any migratory nongame bird except as provided by the rules and regulations adopted by the Secretary of the Interior under provisions of the Migratory Bird Treaty Act of 1918, as amended (16 U.S.C. § 703 et seq.). Fish and Game Code section 3503.5 makes it unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-prey) to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by Fish and Game Code or any regulation adopted pursuant thereto.

**Recommended potentially feasible mitigation measure to reduce impacts to less than significant:** CDFW strongly recommends the adoption of BIO-2 for inclusion in the final MND.

**Mitigation Measure: BIO-2 Pre-construction Nesting Bird Surveys (New)**

**A qualified avian biologist shall conduct pre-construction nesting bird surveys at the appropriate time of day/night, during appropriate weather conditions no more than 3 days prior to the initiation of ground disturbing activities. The survey shall focus on all suitable nesting areas such as but not limited to: trees, shrubs, bare ground, burrows, cavities, and structures. If a nest is suspected, but not confirmed, the qualified avian biologist shall establish a disturbance-free buffer until additional surveys can be completed, or until the location can be confirmed based on observations. If a nest is observed, but thought to be inactive, the qualified avian biologist shall monitor the nest for at least 1 hour for passerine birds and 4 hours for raptors. When an active nest is confirmed, the qualified avian biologist shall immediately establish a conservative buffer surrounding the nest based on their best professional judgement and experience. The buffer shall be delineated to ensure that its location is known by all persons working within the vicinity but shall not be marked in such a manner that it attracts predators. The qualified avian biologist shall monitor the nest to determine the efficacy of the buffer and shall adjust the buffer accordingly if it is determined that birds are having an adverse reaction. The qualified avian biologist shall monitor the nest daily until activities are no longer within 300 feet of the nest, or the fledglings become independent of their nest, or the nest has failed.**

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## **COMMENT # 2: CDFW Streambed Alteration Agreement**

**Issue:** Based on aerial imagery, a culvert is present on the Project site along E Avenue and the Project as described may result in substantial impacts to an unnamed desert wash.

**Specific impact:** Construction activities may result in the placement of fill material within streambeds, leading to the loss of desert wash habitat for biological resources.

**Why impact would occur:** Grading activities to construct the Project could potentially place fill within streambeds on the site, obstructing the natural flow of streams.

**Evidence impact would be significant:** Fish and Game Code section 1602 requires an entity to notify CDFW prior to commencing any activity that may do one or more of the following: Substantially divert or obstruct the natural flow of any river, stream or lake; Substantially change or use any material from the bed, channel or bank of any river, stream, or lake; or Deposit debris, waste or other materials that could pass into any river, stream or lake. Please note that "any river, stream or lake" includes those that are episodic (i.e., those that are dry for periods of time) as well as those that are perennial (i.e., those that flow year-round). This includes ephemeral streams, desert washes, and watercourses with a subsurface flow.

**Recommended potentially feasible mitigation measure to reduce impacts to less than significant:** CDFW strongly recommends the adoption of the following new measure, BIO-3, for inclusion in the final MND.

### **Mitigation Measure: BIO-3 CDFW Streambed Alteration Agreement (New)**

**Prior to construction activities, mapping of stream resources in the Project area shall be conducted to identify streams on site. If Project construction activities occur within a streambed, then the California Department of Fish and Wildlife (CDFW) shall be notified pursuant to Fish and Game Code section 1602. If CDFW determines that the Project may substantially affect fish and wildlife resources, then CDFW shall issue a Streambed Alteration Agreement (Agreement). The Agreement shall include measures to avoid, minimize, and mitigate impacts to Fish and Game Code section 1602 resources.**

## **COMMENT # 3: Burrowing owl (*Athene cunicularia*)**

**Issue:** Burrowing owl is a candidate species under CESA. The Project has the potential to result in permanent and temporary loss and degradation of burrowing owl habitat. The Project may result in take of burrowing owl during construction and the life of the Project. If the Project, including Project construction or any Project related activity

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during the life of this Project, may result in the take of a CESA-listed species, CDFW recommends that the Project proponent seek appropriate authorization (i.e., Incidental Take Permit [ITP]) prior to Project implementation.

**Specific impact:** The MND does not include pre-construction surveys for burrowing owl, a CESA candidate species.

**Why impact would occur:** Construction activities have the potential to take burrowing owls by collapsing burrows and modifying foraging and nesting habitat.

**Evidence impact would be significant:** The Project, as described, may result in injury, direct mortality, indirect mortality, disruption of breeding behavior, and/or may reduce reproductive capacity of burrowing owl. On October 10, 2024, the Fish and Game Commission designated burrowing owl as a candidate species under CESA. CDFW considers the take of burrowing owl and the loss of the species' habitat as a significant impact, unless mitigated to a level of less than significant, which would occur through a CESA ITP. Further, burrowing owl is protected under Fish and Game Code section 3503.5 and the Migratory Bird Treaty Act.

**Recommended potentially feasible mitigation measure to reduce impacts to less than significant:** CDFW strongly recommends new measure BIO-4 for inclusion in the final MND.

#### **Mitigation Measure: BIO-4 Burrowing Owl (NEW)**

**Prior to the initiation of construction activities (i.e., grubbing, clearing, staging, digging), focused burrowing owl surveys shall be conducted by a qualified biologist according to the CDFW Staff Report on Burrowing Owl Mitigation<sup>2</sup> (CDFG, 2012 or most recent version) for the Project site and surrounding 500 ft radius. Take avoidance surveys shall be conducted no less than 14 days prior to the start of Project-related activities. Burrowing owls may re-colonize a site after only a few days, thus time lapses between Project activities require subsequent take avoidance surveys including but not limited to a final survey conducted within 24 hours prior to ground disturbance, in accordance with the Staff Report on Burrowing Owl Mitigation (CDFG 2012 or most recent version). If the surveys confirm the presence of burrowing owls, impacts to burrowing owl shall be fully avoided. If impacts to burrowing owl are unavoidable, the City should apply for a CESA ITP.**

#### **Additional Comments and Suggestions**

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<sup>2</sup> California Department of Fish and Wildlife. 2012. Staff Report on Burrowing Owl Mitigation.

Leilani Henry, Assistant Planner  
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### **Submitting Data on Special Status Species**

CDFW strongly recommends the Project proponent submits data to the California Natural Diversity Database at <https://wildlife.ca.gov/Data/CNDDDB/Submitting-Data>, regarding any special status species such as but not limited to: desert tortoise, Bendire's thrasher, burrowing owl, Cooper's hawk, golden eagle, LeConte's thrasher, loggerhead shrike, northern harrier, prairie falcon, Swainson's hawk observed within or adjacent to the Project area.

### **ENVIRONMENTAL DATA**

CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a database which may be used to make subsequent or supplemental environmental determinations. (Pub. Resources Code, § 21003, subd. (e).) Accordingly, please report any special status species and natural communities detected during Project surveys to the California Natural Diversity Database (CNDDDB). The CNDDDB field survey form can be filled out and submitted online at the following link: <https://wildlife.ca.gov/Data/CNDDDB/Submitting-Data>. The types of information reported to CNDDDB can be found at the following link: <https://www.wildlife.ca.gov/Data/CNDDDB/Plants-and-Animals>.

### **ENVIRONMENTAL DOCUMENT FILING FEES**

The Project, as proposed, would have an impact on fish and/or wildlife, and assessment of environmental document filing fees is necessary. Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW. Payment of the environmental document filing fee is required in order for the underlying Project approval to be operative, vested, and final. (Cal. Code Regs, tit. 14, § 753.5; Fish & G. Code, § 711.4; Pub. Resources Code, § 21089.)


### **CONCLUSION**

CDFW appreciates the opportunity to comment on the MND to assist the City in identifying and mitigating Project impacts on biological resources.

Questions regarding this letter or further coordination should be directed to Jason Bill, Senior Environmental Scientist (Specialist) at [Christopher.Bill@wildlife.ca.gov](mailto:Christopher.Bill@wildlife.ca.gov)

Leilani Henry, Assistant Planner  
City of Hesperia  
March 18, 2025  
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Sincerely,

DocuSigned by:  
  
84FBB8273E4C480...

Alisa Ellsworth  
Environmental Program Manager

ec: Office of Planning and Research, State Clearinghouse, Sacramento  
[State.clearinghouse@opr.ca.gov](mailto:State.clearinghouse@opr.ca.gov)

## ATTACHMENTS

Attachment A: Mitigation Monitoring and Reporting Plan

## REFERENCES

California Department of Fish and Game (CDFG). 2012. Staff report on burrowing owl mitigation. State of California, Natural Resources Agency. Available for download at: [Microsoft Word - BUOW Staff Report final 030712 REV 1.doc \(ca.gov\)](#)

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City of Hesperia  
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Attachment A

Mitigation Monitoring and Reporting Plan

Biological Resources (BIO)		
Mitigation Measure	Implementation Schedule	Responsible Party
<p><u>BIO-2 Pre-construction Nesting Bird Surveys</u></p> <p>A qualified avian biologist shall conduct pre-construction nesting bird surveys at the appropriate time of day/night, during appropriate weather conditions no more than 3 days prior to the initiation of ground disturbing activities. The survey shall focus on all suitable nesting areas such as but not limited to: trees, shrubs, bare ground, burrows, cavities, and structures. If a nest is suspected, but not confirmed, the qualified avian biologist shall establish a disturbance-free buffer until additional surveys can be completed, or until the location can be confirmed based on observations. If a nest is observed, but thought to be inactive, the qualified avian biologist shall monitor the nest for at least 1 hour for passerine birds and 4 hours for raptors. When an active nest is confirmed, the qualified avian biologist shall immediately establish a conservative buffer surrounding the nest based on their best professional judgement and experience. The buffer shall be delineated to ensure that its location is known by all persons working within the vicinity but shall not be marked in such a manner that it attracts predators. The qualified avian biologist shall monitor the next to determine the efficacy of the buffer and shall adjust the</p>	Prior to initiation of all ground disturbing activities	Project proponent and Qualified Avian Biologist

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<p>buffer accordingly if it is determined that birds are having an adverse reaction. The qualified avian biologist shall monitor the next daily until activities are no longer within 300 feet of the nest, or the fledglings become independent of their nest, or the nest has failed.</p>		
<p><u>BIO-3 CDFW Streambed Alteration Agreement</u></p> <p>Prior to construction activities, mapping of stream resources in the Project area shall be conducted to identify streams on site. If Project construction activities occur within a streambed, then the California Department of Fish and Wildlife (CDFW) shall be notified pursuant to Fish and Game Code section 1602. If CDFW determines that the Project may substantially affect fish and wildlife resources, then CDFW shall issue a Streambed Alteration Agreement (Agreement). The Agreement shall include measures to avoid, minimize, and mitigate impacts to Fish and Game Code section 1602 resources.</p>	<p>Prior to initiation of all ground disturbing activities</p>	<p>Project proponent</p>
<p><u>BIO-4 Burrowing Owl</u></p> <p>Prior to the initiation of construction activities (i.e., grubbing, clearing, staging, digging), focused burrowing owl surveys shall be conducted by a qualified biologist according to the CDFW Staff Report on Burrowing Owl Mitigation (CDFG, 2012 or most recent version) for the Project site and surrounding 500 ft radius. Take avoidance surveys shall be conducted no less than 14 days prior to the start of Project-related activities. Burrowing owls may re-colonize a site after only a few days, thus time lapses between Project activities require subsequent take avoidance surveys including but not limited to a final survey conducted within 24 hours prior to ground disturbance, in accordance with the Staff Report on Burrowing Owl Mitigation (CDFG 2012 or most recent version). If the surveys confirm the presence of burrowing owls, impacts to burrowing</p>	<p>Prior to initiation of all ground disturbing activities</p>	<p>Project proponent and Qualified Biologist</p>

Leilani Henry, Assistant Planner  
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owl shall be fully avoided. If impacts to burrowing owl are unavoidable, the City should apply for a CESA ITP.		
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March 31, 2025

Leilani Henry, Assistant Planner  
City of Hesperia, Planning Department  
9700 Seventh Ave.  
Hesperia, CA. 92345

Regarding: SPR23-00018

Dear Leilani,

This is to confirm that the Mojave Water Agency has no conflict with this project.

Sincerely,  
Christy Huiner  
Senior Water Resource Analyst  
Mojave Water Agency  
[chuiner@mojavewater.org](mailto:chuiner@mojavewater.org)  
760-946-7066

13846 Conference Center Drive  
Apple Valley, CA 92307  
Phone: (760) 946-7000 | Fax: (760) 240-2642  
[WWW.MOJAVEWATER.ORG](http://WWW.MOJAVEWATER.ORG)

## **Mojave Desert Air Quality Management District**

**Brad Poiriez**, *Executive Director*  
14306 Park Avenue, Victorville, CA 92392-2310  
760.245.1661 • Fax 760.245.2022  
[www.MDAQMD.ca.gov](http://www.MDAQMD.ca.gov) • @MDAQMD



March 11, 2024

Leilani Henry, Assistant Planner  
City of Hesperia, Planning Department  
9700 Seventh Avenue  
Hesperia, CA 92345

### **Project: Hesperia Bickmore Warehouse**

Dear Ms. Henry:

The Mojave Desert Air Quality Management District (District) has reviewed the Project Notice and Initial Study for the proposed Bickmore Warehouse Project in Hesperia. The proposed project would involve the construction and subsequent operation of two new warehouse buildings, referred to as Warehouse 1 and Warehouse 2, within the 5.22-acre property. Warehouse 1 would consist of 39,530 square feet of floor area including a 36,101 square feet of warehouse floor area and a 3,520 square foot office. Warehouse 2 would consist of 40,248 square feet of floor area including a 36,728 square feet of warehouse floor area and a 3,520 square foot office. The total floor area of the two buildings would be 79,778 square feet.

The District has reviewed the project notice and agrees with the findings of the initial study that this project would not result in an exceedance of MDAQMD significance thresholds. The District recommends that the City of Hesperia require the following dust mitigation measures be required for the construction portion of the development (enforceable by the District AND by the land use agency) should the project be approved:

- Prepare and submit to the MDAQMD, prior to commencing earth-moving activity, a dust control plan that describes all applicable dust control measures that will be implemented at the project;
- Signage compliant with Rule 403 Attachment B shall be erected at each project site entrance not later than the commencement of construction.
- Use a water truck to maintain moist disturbed surfaces and actively spread water during visible dusting episodes to minimize visible fugitive dust emissions. For projects with exposed sand or fines deposits (and for projects that expose such soils through earthmoving), chemical stabilization or covering with a stabilizing layer of gravel will be required to eliminate visible dust/sand from sand/fines deposits.
- All perimeter fencing shall be wind fencing or the equivalent, to a minimum of four feet of height or the top of all perimeter fencing. The owner/operator shall maintain the wind

fencing as needed to keep it intact and remove windblown dropout. This wind fencing requirement may be superseded by local ordinance, rule or project-specific biological mitigation prohibiting wind fencing.

- All maintenance and access vehicular roads and parking areas shall be stabilized with chemical, gravel or asphaltic pavement sufficient to eliminate visible fugitive dust from vehicular travel and wind erosion. Take actions to prevent project-related trackout onto paved surfaces, and clean any project-related trackout within 24 hours. All other earthen surfaces within the project area shall be stabilized by natural or irrigated vegetation, compaction, chemical or other means sufficient to prohibit visible fugitive dust from wind erosion.
- Obtain District permits for any miscellaneous process equipment that may not be exempt under District Rule 219 including, but not limited to: Internal Combustion Engines with a manufacture's maximum continuous rating greater than 50 brake horsepower.

Thank you for the opportunity to review this Initial Study. If you have any questions regarding this letter, please contact me at (760) 245-1661, extension 1846, or Bertrand Gaschot at extension 4020.

Sincerely,



**Chris Anderson**

Planning and Air Monitoring Supervisor

CA/bg

Hesp Bickmore Warehouse 2025 11 Mar



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Mitchell@lozeaudrury.com

*Via Email*

March 31, 2025

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Michael Hearn, Deputy Community  
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Melinda Sayre, Deputy City Manager/City  
Clerk  
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Hesperia, CA 92345  
cityclerk@cityofHesperia.us

**Re: Comment on the Initial Study (IS) and Mitigated Negative Declaration (MND)  
for Bickmore Warehouse 5.22 Acre Site Project (SCH 2025021160)**

Dear Ms. Henry, Mr. Hearn, and Ms. Sayre

I am writing on behalf of Supporters Alliance for Environmental Responsibility ("SAFER") regarding the Initial Study and Mitigated Negative Declaration ("IS/MND") prepared for the Bickmore Warehouse Project, including all actions related or referring to the proposed construction of two new warehouse buildings located on the southwest corner of Mojave Street and East Avenue (APN: 0410-05-111) in the City of Hesperia ("Project").

SAFER is concerned that the IS/MND is improper under the California Environmental Quality Act due to the IS/MND's failure to adequately assess the Project's potentially significant environmental impacts. SAFER requests that an environmental impact report (EIR) be prepared for the Project rather than an MND because there is a fair argument that the Project may have adverse environmental impacts. An EIR will ensure that potentially significant impacts of this Project are fully disclosed, analyzed, and mitigated.

SAFER reserves the right to supplement this comment throughout the administrative process. *Galante Vineyards v. Monterey Peninsula Water Management Dist.*, 60 Cal. App. 4th 1109, 1121 (1997).

March 31, 2025  
Comment on IS/MND for Bickmore Warehouse Project  
City of Hesperia  
Page 2 of 2

Sincerely,

*Mitchell E. Thielemann*

Mitchell E. Thielemann  
LOZEAU DRURY LLP



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*Via Email*

April 29, 2025

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Melinda Sayre, Deputy City Manager/City  
Clerk  
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[cityclerk@cityofHesperia.us](mailto:cityclerk@cityofHesperia.us)

**Re: Comment on the Initial Study and Mitigated Negative Declaration for  
Bickmore Warehouse Project (SCH 2025021160)**

Dear Ms. Henry, Mr. Hearn, and Ms. Sayre

I am writing on behalf of Supporters Alliance for Environmental Responsibility ("SAFER") regarding the Bickmore Warehouse Project, including all actions related or referring to the proposed construction of two new warehouse buildings located on the southwest corner of Mojave Street and East Avenue in the City of Hesperia ("Project").

After careful review of the Initial Study and Mitigated Negative Declaration ("MND") prepared for the Project, SAFER has concluded that the MND does not adequately analyze the Project's impacts and that there is a fair argument that the Project may have adverse environmental impacts. We therefore request that the City of Hesperia ("City") prepare an environmental impact report ("EIR") for the Project pursuant to the California Environmental Quality Act ("CEQA"), Public Resources Code section 21000, et seq. SAFER's comments are supported by the analysis of several highly qualified experts, which are attached hereto.

## **PROJECT DESCRIPTION**

The Project would involve the construction and subsequent operation of two new warehouse buildings within the currently undeveloped 5.22-acre (202,261 square foot) project site. Warehouse 1 would consist of 39,530 square feet of floor area, including 36,101 square feet of

warehouse floor area and a 3,520 square foot office. Warehouse 2 would consist of 40,028 square feet of floor area, including 36,728 square feet of warehouse floor area and a 3,520 square foot office. The total floor area of the two buildings would be 79,778 square feet. The warehouses would be single level with a maximum height of 41 feet. Parking areas would be located to the eastern and southern portion of the site, including a total of 73 parking spaces.

As discussed below, the Project will have many undisclosed or inadequately mitigated environmental impacts, including significant negative effects on biological resources.

## LEGAL STANDARD

As the California Supreme Court has held “[i]f no EIR has been prepared for a nonexempt project, but substantial evidence in the record supports a fair argument that the project may result in significant adverse impacts, the proper remedy is to order preparation of an EIR.” (*Communities for a Better Env’t v. South Coast Air Quality Mgmt. Dist.* (2010) 48 Cal.4th 310, 319-320 [citing *No Oil, Inc. v. City of Los Angeles* (1974) 13 Cal.3d 68, 75, 88; *Brentwood Assn. for No Drilling, Inc. v. City of Los Angeles* (1982) 134 Cal.App.3d 491, 504-505].) “Significant environmental effect” is defined very broadly as “a substantial or potentially substantial adverse change in the environment.” (Pub. Res. Code § 21068; *see also* 14 CCR § 15382.)

The EIR is the very heart of CEQA. *Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1184, 1214 (*Bakersfield Citizens*); *Pocket Protectors v. City of Sacramento* (2004) 124 Cal.App.4th 903, 927. The EIR is an “environmental ‘alarm bell’ whose purpose is to alert the public and its responsible officials to environmental changes before they have reached the ecological points of no return.” *Bakersfield Citizens*, 124 Cal.App.4th at 1220. The EIR also functions as a “document of accountability,” intended to “demonstrate to an apprehensive citizenry that the agency has, in fact, analyzed and considered the ecological implications of its action.” *Laurel Heights Improvements Assn. v. Regents of Univ. of Cal.* (1988) 47 Cal.3d 376, 392. The EIR process “protects not only the environment but also informed self-government.” *Pocket Protectors*, 124 Cal.App.4th at 927.

Where an initial study shows that the project may have a significant effect on the environment, a mitigated negative declaration may be appropriate. However, a mitigated negative declaration is proper *only* if the project revisions would avoid or mitigate the potentially significant effects identified in the initial study “to a point where clearly no significant effect on the environment would occur, and...there is no substantial evidence in light of the whole record before the public agency that the project, as revised, may have a significant effect on the environment.” PRC §§ 21064.5 and 21080(c)(2); *Mejia v. City of Los Angeles* (2005) 130 Cal.App.4th 322, 331. In that context, “may” means a reasonable possibility of a significant effect on the environment. PRC §§ 21082.2(a), 21100, 21151(a); *Pocket Protectors*, 124 Cal.App.4th at 927; *League for Protection of Oakland’s etc. Historic Res. v. City of Oakland* (1997) 52 Cal.App.4th 896, 904-05.

Under the “fair argument” standard, an EIR is required if any substantial evidence in the record indicates that a project may have an adverse environmental effect—even if contrary evidence exists to support the agency’s decision. 14 CCR § 15064(f)(1); *Pocket Protectors*, 124

Cal.App.4th at 931; *Stanislaus Audubon Society v. County of Stanislaus* (1995) 33 Cal.App.4th 144, 150-51; *Quail Botanical Gardens Found., Inc. v. City of Encinitas* (1994) 29 Cal.App.4th 1597, 1602. The “fair argument” standard creates a “low threshold” favoring environmental review through an EIR rather than through issuance of negative declarations or notices of exemption from CEQA. *Pocket Protectors*, 124 Cal.App.4th at 928. The “fair argument” standard is virtually the opposite of the typical deferential standard accorded to agencies. As a leading CEQA treatise explains:

This ‘fair argument’ standard is very different from the standard normally followed by public agencies in making administrative determinations. Ordinarily, public agencies weigh the evidence in the record before them and reach a decision based on a preponderance of the evidence. [Citations]. The fair argument standard, by contrast, prevents the lead agency from weighing competing evidence to determine who has a better argument concerning the likelihood or extent of a potential environmental impact. The lead agency’s decision is thus largely legal rather than factual; it does not resolve conflicts in the evidence but determines only whether substantial evidence exists in the record to support the prescribed fair argument.

Kostka & Zishcke, *Practice Under CEQA*, §6.29, pp. 273–74.

The Courts have explained that “it is a question of law, not fact, whether a fair argument exists, and the courts owe no deference to the lead agency’s determination. Review is de novo, with a preference for resolving doubts in favor of environmental review.” *Pocket Protectors*, 124 Cal.App.4th at 928 (emphasis in original).

## DISCUSSION

### I. THERE IS SUBSTANTIAL EVIDENCE OF A FAIR ARGUMENT THAT THE PROJECT WILL HAVE POTENTIALLY SIGNIFICANT IMPACTS ON BIOLOGICAL RESOURCES.

An EIR is required because substantial evidence in the record indicates a fair argument that the Project will have significant biological impacts. Specifically, expert wildlife biologist Dr. Shawn Smallwood, Ph.D. has concluded that the Project site has value as a habitat for special status species and that the Project will have significant impacts on biological resources. Dr. Smallwood’s comments and CV are attached as Exhibit A.<sup>1</sup> Additionally, Rare Plant Ecologist Christopher Winchell has concluded that the Project will result in significant impacts to special status plant species and burrowing owls. Mr. Winchell’s comments and CV are attached as Exhibit B.<sup>2</sup> The City therefore must prepare an EIR for the Project. Dr. Smallwood’s comments are supported by a site visit by wildlife biologist Noriko Smallwood (“Ms. Smallwood”).<sup>3</sup> Mr.

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<sup>1</sup> Ex. A, at 1.

<sup>2</sup> Ex. B, at 1.

<sup>3</sup> Ex. A, at 2.

Winchell's comments are supported by a site visit performed on March 14, 2025 to determine the suitability or presence of special-status plant and animal species.<sup>4</sup>

**1. The MND Fails to Adequately Describe the Project's Environmental Setting.**

The City inadequately characterized the existing environmental setting by failing to conduct adequate field surveys and desktop review. Every CEQA document must start from a "baseline" assumption. The CEQA "baseline" is the set of environmental conditions against which to compare a project's anticipated impacts. *Communities for a Better Env't. v. So. Coast Air Qual. Mgmt. Dist.* (2010) 48 Cal. 4th 310, 321. Section 15125(a) of the CEQA Guidelines (14 C.C.R., § 15125(a)) states in pertinent part that a lead agency's environmental review under CEQA:

"...must include a description of the physical environmental conditions in the vicinity of the project, *as they exist at the time [environmental analysis] is commenced*, from both a local and regional perspective. This environmental setting will normally constitute the baseline physical conditions by which a Lead Agency determines whether an impact is significant." (Emphasis added.)

(See, *Save Our Peninsula Committee v. County of Monterey* (2001) 87 Cal.App.4th 99, 124-125.) As the court of appeal has explained, "the impacts of the project must be measured against the 'real conditions on the ground,'" and not against hypothetical permitted levels. (*Save Our Peninsula, supra*, 87 Cal.App.4th 99, 121-123.)

The MND takes a mistaken view of species and habitat, stating that "[s]ensitive biological resources include a variety of plant and animal species that are specialized and endemic to a particular habitat type."<sup>5</sup> However, the relationship between habitat and species involves much more than just a vegetation complex assigned to a "habitat type."<sup>6</sup> The MND is misleading in that it insinuates that sensitive species do not exist on the site merely because certain unidentified vegetation complexes are supposedly not present on the site.<sup>7</sup>

The MND claims that "[a]ccording to the United States Fish and Wildlife Service, there are no wetland or migratory bird nesting areas located within the project site," and that "[n]o offsite . . . migratory bird nesting areas would be affected by the proposed development since all development will be confined to the project site. *As a result, no impacts would occur.*"<sup>8</sup> However, the MND does not report the basis of these findings. No surveys or reports are cited and there is no other evidence to support this claim.<sup>9</sup>

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<sup>4</sup> Ex. B, at 2.

<sup>5</sup> MND, at 32.

<sup>6</sup> Ex. A, page 10.

<sup>7</sup> Id.

<sup>8</sup> MND, page 33.

<sup>9</sup> Ex. A, page 11.

There are also notable inconsistencies between the City's conclusions regarding the environmental setting.<sup>10</sup> For example, the MND repeatedly characterizes the project site as "showing signs of human disturbances"<sup>11</sup> later described as "severe artificial disturbances associated with off-road vehicle activity, discing, and installation of modern flood control culverts, and modern refuse dumping."<sup>12</sup> However, the MND also reports that "**the site in its entirety is undisturbed.**"<sup>13</sup> While there do appear to be signs of disturbances, they were not severe enough to prevent the occurrence of 34 Joshua trees on the site, nor the wildlife that Ms. Smallwood and Mr. Winchell detected on and around the site.<sup>14</sup> The City's repeated inconsistencies and exaggerations preclude an understanding of the environmental setting and an effective impact analysis of the environmental setting.

The MND's environmental setting characterization is also deficient because no wildlife surveys have been completed at the project site. The City did not send any professional ecologists to survey the site, and the MND provides no reason for this deficiency of the CEQA review process.<sup>15</sup> Similarly, there were no protocol-level detection surveys conducted for monarch butterflies, Crotch's bumble bee, Mohave Desert tortoises, Mohave ground squirrels, Swainson's hawks, burrowing owls, or LeConte's thrashers.<sup>16</sup> While there was a survey conducted for Joshua trees, the CDFW guidelines for rare plants was not implemented. Therefore, Joshua trees aside, the findings of the MND lack connection to field surveys of plants and wildlife and there is no substantial evidence to support the MND's conclusions of less-than-significant impacts.

Dr. Smallwood notes that the MND does not report on the findings of any desktop review.<sup>17</sup> Similarly, USFWS findings are reported, but no source documents are cited. There is no evidence in the MND that a review of wildlife occurrence records was completed.<sup>18</sup> The omission of this review is a major deficiency that prevents disclosure of potential environmental impacts that would result from this project.

Numerous special status species will be adversely affected by the Project. "Special Status Species" is a universal term used in the scientific community for species that are considered sufficiently rare that they require special consideration and/or protection and should be, or have been, listed as rare, threatened or endangered by the Federal and/or State governments. Based on a database review and Ms. Smallwood's site visit, Dr. Smallwood estimates that 114 special-status species of wildlife are known to occur on or near enough to the site to warrant analysis of occurrence potential.<sup>19</sup> Four (4) special status species were recorded on or just off the project site,

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<sup>10</sup> Id.

<sup>11</sup> MND, pages 3, 7, 9, 21, 24, 27, 32.

<sup>12</sup> Id. at 37.

<sup>13</sup> Id. at 33 (emphasis added).

<sup>14</sup> Ex. A, page 11.

<sup>15</sup> Id. at 12.

<sup>16</sup> Id.

<sup>17</sup> Id. at 12.

<sup>18</sup> Id.

<sup>19</sup> Id.

and nearly half of these species have reportedly been seen within 4 miles of the project site.<sup>20</sup> Ms. Smallwood's brief site visit survey identified 4 special status species on the proposed Project site: one species on the U.S. Fish and Wildlife Service Bird of Conservation Concern (BCC) (California gull), two species on the Taxa to Watch List (California gull; California horned lark), one species on Bird of Prey (BOP) listed under California Fish and Game Code 3503.5 (American Kestrel), and one species located on the California Species of Special Concern list (Loggerhead shrike).<sup>21</sup>

Furthermore, Mr. Winchell's survey identified suitable burrowing owl foraging and nesting habitat on the Project site, as well as suitable habitat for desert kit fox and California ground squirrel, which dig burrows suitable for burrowing owl use.<sup>22</sup> Mr. Winchell's site visit determined that the site has potential to support 11 special-status plant species, including crowned muilla and the Western Joshua tree.<sup>23</sup> Therefore, the site supports multiple special-status species of wildlife, and carries the potential to support many more.

Because the MND fails to accurately describe the Project's environmental setting, a fair argument exists that the Project may have a significant impact on wildlife requiring preparation of an EIR..

## **2. The MND Lacks Evidence to Support a Finding that the Project Will Not Interfere with Wildlife Movement.**

The MND provides no serious analysis of the potential for the project to interfere with wildlife movement in the region. The MND merely states that "[t]he site's utility as a habitat and a migration corridor is constrained by the presence of an adjacent roadways and the development that is present in the neighboring areas. *As a result, no impacts would occur.*"<sup>24</sup> However, the MND cites no evidence that the adjacent roads and/or development constrain habitats or wildlife movement in any way.<sup>25</sup> If the MND's reasoning carried any weight, Ms. Smallwood should not have been able to see wildlife on the site.<sup>26</sup>

Further, the City did not retain any wildlife ecologists to survey the project site or surroundings. There was no program of observation to characterize wildlife use of the site for movement, nor any surveys to determine which species of wildlife occur on or around the site.<sup>27</sup> The existence of roads does not truly serve as a barrier to wildlife movement, as wildlife collisions with automobiles is one of the largest anthropogenic sources of wildlife mortality.<sup>28</sup>

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<sup>20</sup> Id.

<sup>21</sup> Id. at 7.

<sup>22</sup> Ex. B, at 3.

<sup>23</sup> Id. at 1.

<sup>24</sup> MND, at 34 (emphasis added).

<sup>25</sup> Ex. A, at 19.

<sup>26</sup> Id.

<sup>27</sup> Id.

<sup>28</sup> Id.

A fair argument can be made for the need to prepare an EIR to appropriately analyze the potential impacts to volant wildlife, as well as potential mitigation strategies.

**3. There is Substantial Evidence that the Project will have a Significant Impact on Biological Resources as a Result of Traffic Collisions.**

As a result of increased traffic resulting from the Project, Dr. Smallwood identified likely impacts to special-status species. Indeed, mortality and injuries caused by project-generated traffic is one of the project's most substantial impacts to wildlife.<sup>29</sup> "Project-generated traffic would endanger wildlife that must, for various reasons, cross roads used by the project's traffic. . .including along roads far from the project footprint but which would nevertheless be traversed by automobiles head to or from the project's building."<sup>30</sup> Vehicle collisions with special-status species is not a minor issue, but rather results in the death of millions of species each year, and impacts have been found to be significant at the population level.<sup>31</sup>

Based on his calculations, Dr. Smallwood predicts that the Project's annual VMT<sup>32</sup> would cause 731 vertebrate wildlife fatalities per year due to project-generated traffic, including special-status species.<sup>33</sup> Dr. Smallwood concludes the Project's traffic-related injuries and fatalities to wildlife constitutes a significant impact.<sup>34</sup> The MND does not address this potential impact and therefore lacks any evidence that the impact will not be significant. An EIR is necessary to appropriately analyze the impact of wildlife collision mortality resulting from project-generated traffic.

**4. There is Substantial Evidence that the Project will have a Significant Impact on Biological Resources as a Result of Habitat Loss and the Resulting Lost Breeding Capacity.**

While habitat loss results in the immediate decline in birds and other animals, it also results in a permanent loss of productive capacity.<sup>35</sup> The MND does not attempt to estimate the numerical or productive capacities of the site for nesting birds as a result of habitat lost from Project Development. This is likely because the MND improperly concludes that birds do not nest on the site. Contrary to the MND's conclusion, Ms. Smallwood observed at least 11 species of nesting birds on her site visit.<sup>36</sup> Ms. Smallwood's survey was only a reconnaissance survey, and therefore unsuitable for detecting all bird nests.

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<sup>29</sup> Id.

<sup>30</sup> Id.

<sup>31</sup> Id.

<sup>32</sup> While the MND does not report a prediction of annual vehicle miles traveled ("VMT"), Dr. Smallwood was able to predict VMT based on his experience analyzing traffic collision impacts at similar warehouse projects.

<sup>33</sup> Id. at 21-22.

<sup>34</sup> Id. at 22.

<sup>35</sup> Id. at 18.

<sup>36</sup> Id. at 18.

Based on field research, Dr. Smallwood estimates that development of the Project would result in the loss of 5.1 nest sites, 7.1 nest attempts, and 20.6 fledgling birds per year at the project site, which would result in an ongoing yearly loss of 23 birds.<sup>37</sup> Most, if not all, of these birds are protected by the federal Migratory Bird Treaty Act and by California's Migratory Bird Protection Act.<sup>38</sup> This loss of nests and birds each year is a potentially significant impact that has not been analyzed. An EIR is required to fully analyze the Project's impact on lost breeding capacity, and to mitigate that impact.

#### **5. There is a Fair Argument that the Project Will Adversely Affect Special Status Species.**

Dr. Smallwood proposes numerous mitigations measures that could vastly reduce the above impacts, such as measures to improve wildlife safety along roads, compensatory mitigation bird-window collisions, compensatory mitigation for road mortality, and funding of wildlife rehabilitation facilities. These mitigation measures should be analyzed in an EIR, alongside appropriate mitigation measures based on a valid characterization of the environmental setting and imposed if feasible.

Therefore, the Project will have a substantial adverse effect on special status species, and continuation of the Project without preparing and circulating an EIR will lead to habitat disturbance and modifications that will directly and indirectly affect special status species.

#### **6. The Project's Cumulative Impacts Analysis is Fundamentally Flawed**

Recognizing that several projects may together have a considerable impact, CEQA requires an agency to consider the "cumulative impacts" of a project along with other projects in the area. (Pub. Res. Code § 21083(b); 14 Cal. Code Regs. §15355(b).) If a project may have cumulative impacts, the agency must prepare an EIR, since "a project may have a significant effect on the environment if '[t]he possible effects of a project are individually limited but cumulatively considerable.'" (*CBE*, 103 Cal.App.4th at 98, 114; *Kings County Farm Bur.*, 221 Cal.App.3d at 721.) It is vital that an agency assess "'the environmental damage [that] often occurs incrementally from a variety of small sources . . .'" (*Bakersfield Citizens For Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1184, 1214.)

The cumulative impacts analysis in the MND is fundamentally flawed. The MND concludes that "[t]he proposed project *would not* have impacts that are individually limited, but cumulatively considerable. The environmental impacts will not lead to a cumulatively significant impact on any of the issues analyzed herein."<sup>39</sup> This conclusion is unsupported by substantial

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<sup>37</sup> Id.

<sup>38</sup> Id. at 19.

<sup>39</sup> MND, at 89.

evidence. It is premised on the idea that no wildlife occurs on the project site.<sup>40</sup> However, as discussed above, special status wildlife and plants are present on site and there is substantial evidence that the Project will have significant impacts on biological resources. A cumulative impacts analysis that complies with CEQA must be completed.

## **II. THE MND'S PROPOSED BIOLOGICAL MITIGATION MEASURES ARE INSUFFICIENT TO BRING THE BIOLOGICAL RESOURCES IMPACTS TO A LEVEL BELOW SIGNIFICANCE.**

An MND is improper because there is no evidence that the Project's proposed mitigation measures will not avoid or mitigate the potentially significant biological resources impacts "to a point where clearly no significant effect on the environment would occur, and...there is no substantial evidence in light of the whole record before the public agency that the project, as revised, may have a significant effect on the environment." PRC §§ 21064.5 and 21080(c)(2).

Dr. Smallwood and Mr. Winchell identified the multiple special status species and habitat on or near the Project site that will be impacted by the Project. However, the formulation of appropriate mitigation cannot occur until an adequate survey effort for wildlife on and around the project site is conducted.<sup>41</sup> The available protocol level detection survey guidelines also need to be implemented for multiple special-status species.<sup>42</sup> The single proposed mitigation measure is insufficient and therefore cannot guarantee that proposed measures will reduce the impacts below significance.

### **1. The MND does not disclose impacts to Western Joshua Trees.**

Western Joshua Trees are a candidate species under the California Endangered Species Act.<sup>43</sup> At least 34 WJT are found on the Project site. However, the MND makes no assessment of the impacts that Project will have on Western Joshua Trees, and the conclusion that any impacts will be less-than-significant with mitigation is unsupported.

Appendix B of the MND is a Protected Plant Preservation Plan. This Plan details a survey conducted to determine the number of WJT on the Project site, and the number of WJT suitable for transplantation. However, neither the MND nor the Preservation Plan disclose whether, and to what extent, the Project will impact WJTs on the Project site. Because the Project may have a significant impact on WJTs, an EIR is required.

### **2. The MND's Mitigation of Impacts to Western Joshua Trees Violate CEQA.**

In general, mitigation measures must be designed to minimize, reduce or avoid an identified environmental impact or to rectify or compensate for that impact. (CEQA Guidelines §

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<sup>40</sup> Ex. A, at 22.

<sup>41</sup> Id. at 22.

<sup>42</sup> Id.

<sup>43</sup> <https://wildlife.ca.gov/Conservation/Environmental-Review/WJT/FAQ#602113850-is-wjt-still-a-candidate-under-the-california-endangered-species-act>

15370.) A public agency may not rely on mitigation measures of uncertain efficacy or feasibility. (*Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 727 (finding groundwater purchase agreement inadequate mitigation measure because no record evidence existed that replacement water was available).) “Feasible” means capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social and technological factors. (14 CCR § 15364.) Mitigation measures must be fully enforceable through permit conditions, agreements or other legally binding instruments. (14 CCR § 15126.4(a)(2).)

Mitigation Measure BIO-1 provides:

Mitigation for direct impacts to the western Joshua trees within the Project site will be fulfilled through attainment of a Western Joshua Tree Conservation Act (WJTCA) Incidental Take Permit and a payment of the elected fees as described in Section 1927.3 of the WJTCA. California Department of Fish and Wildlife (CDFW) determines the final fee. Alternatively, mitigation will occur through off-site conservation or through a CDFW approved mitigation bank, or as required by a Section 2081 Incidental Take Permit.<sup>44</sup>

This mitigation measure violates CEQA in numerous ways.

First, there is no evidence that obtaining an incidental take permit and a payment of a fee will actually minimize, reduce, avoid, rectify, or compensate for lost Joshua Trees as required by (CEQA Guidelines § 15370.) Moreover, there is no explanation of whether or how compliance with WJTCA would reduce impacts to a less than significant level under CEQA since there is no disclosure of what the Project’s impacts on Joshua Trees will be.

Second, paying a fee does not constitute adequate mitigation unless there is evidence that the fees will fund a specific mitigation plan that will actually be implemented in its entirety. (*Napa Citizens for Honest Gov. v. Bd. Of Supervisors* (2001) 91 Cal.App.4th 342 (no evidence that impacts will be mitigated simply by paying a fee); *Anderson First Coal. v. City of Anderson* (2005) 130 Cal.App.4th 1173 (traffic mitigation fee is inadequate because it does not ensure that mitigation measure will actually be implemented); see also *Save Our Peninsula Committee v. Monterey County Bd. of Supervisors*, supra, 87 Cal.App.4th 99, 140 [commitment to pay fees without any evidence that mitigation will actually occur is inadequate].) No such evidence is provided here.

Third, Even if paying a fee did mitigate the impact – which there is no evidence of - the fee amount will not be determined until some later time after CEQA review is complete, improperly deferring mitigation.

Fourth, the MND also improperly defers mitigation by stating “Alternatively, mitigation will occur through off-site conservation or through a CDFW approved mitigation bank, or as required by a Section 2081 Incidental Take Permit.” Lead agencies may defer formulating

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<sup>44</sup> MND, p. 34.

mitigation until after project approval only “when it is impractical or infeasible to include those details during the project’s environmental review.” (CEQA Guidelines § 15126.4(a)(1)(B); *see also POET, LLC v. State Air Res. Bd.* (2013) 218 Cal.App.4th 681, 736.) In the limited circumstances where deferring mitigation is justified, the EIR must (1) commit itself to the mitigation, (2) adopt specific performance standards the mitigation will achieve, and (3) identify the types of potential actions that can feasibly achieve that performance standard. (Guidelines § 15126.4, subd. (a)(1)(B).) The MND does none of this.

Finally, there is no explanation of why 3 of the 34 trees were deemed suitable for transplantation, yet nothing in the mitigation measure requires any transplantation.

While not included in the mitigation measure, the MND states that “CDFW may require relocation of WJT based on the final WJT census.” It is unclear if the MND considers this mitigation. If so, it is improper under CEQA because there is no evidence that relocation will actually occur or that relocation will reduce impacts to less-than-significant, particularly given the Protection Plan’s conclusion that only 3 of the 34 trees are suitable for transplantation. Where feasibility is called into question, the agency must demonstrate feasibility. (*Sundstrom v County of Mendocino* (1988) 202 Cal.App.3d 296, 308-309 [mitigation calling for a future use permit for sludge disposal was improperly deferred because there was no evidence of feasibility in the face of uncertainty: “the record discloses that the applicant presented no plans for sludge disposal and that no solution was readily available.”].)

Also not included in mitigation measure Bio-1, the MND lists three “minimization measures” that are “applicable to the Joshua Tree that is present on the project site.” The first minimization measure is;

The Joshua tree will be retained in place or replanted somewhere on the site where they can remain in perpetuity or will be transplanted to an off-site area approved by the city where they can remain in perpetuity. Joshua trees which are deemed not suitable for transplanting will be cut-up and discarded as per City requirements.

MND, p. 33.

This measure is vague, uncertain, and the efficacy is unsupported. Again, only 3 of the 34 trees on site are suitable for transplantation according to the Protection Plan. There is no evidence that cutting up and discarding 31 of the 34 protected Joshua Trees will mitigate impacts to these trees. In fact, the mitigation measure here seems to actually cause an impact, and this impact must be analyzed.

Moreover, the literature-based justification for determining transplantation suitability of Western Joshua trees was not provided.<sup>45</sup> The plan states that transplant suitability is “based on industry standards,” and provides a list of the suitability criteria without citation or reference, resulting in the exclusion of four of the seven living western Joshua trees occurring on the project

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<sup>45</sup> Ex. B, at 3.

site.<sup>46</sup> However, based upon the CDFW's Western Joshua Tree Relocation Guidelines and Protocols, Mr. Winchell concluded that all seven living Joshua trees on the Project site are suitable for transplantation.<sup>47</sup>

Moreover, the MND does not disclose how these vaguely described "minimization measures" will be enforced. Mitigation measures must be fully enforceable through permit conditions, agreements or other legally binding instruments. 14 CCR § 15126.4(a)(2). *See Woodward Park Homeowners Assn., Inc. v. City of Fresno* (2007) 150 Cal. App. 4th 683, 730 (project proponent's agreement to a mitigation by itself is insufficient; mitigation measure must be an enforceable requirement). Here, there is no discussion of whether and now any of the "minimization measures" will be enforced, violating CEQA.

Relying only on a mitigation measure that violates CEQA and vague measures not included as enforceable mitigation measures, there is no evidence that impacts to Joshua Trees will be reduced below significance. An EIR is needed to analyze and mitigate the Project's potentially significant impact and adopt CEQA-compliant mitigation measures to mitigate impacts on the protected Western Joshua Trees.

### **3. The City Fails to Implement Mitigation Measures to Protect Wildlife Species Observed on the Project Site.**

There is more than a fair argument that an EIR is necessary to adequately identify and formulate mitigation measures for the bird species observed on and near the Project site. The City not only fails to propose any mitigation for potential wildlife impacts—it fails to address these impacts altogether. The MND requires no mitigation for wildlife and provides no justification for this critical gap in the CEQA review process. No wildlife surveys were conducted at the Project site, and the MND fails to explain this omission.

An EIR is essential to develop an effective mitigation strategy. At a minimum, the City must conduct both reconnaissance-level and protocol-level surveys for special-status species. However, none of these surveys were conducted as part of the MND. The only wildlife survey conducted regarding the Project was a brief, less-than-three-hour perimeter survey conducted by Ms. Smallwood, who did not even have access to the interior of the Project site. Yet, despite these limitations, her short survey still identified four special-status species.

The MND fails to accurately characterize the environmental setting, as it includes no survey data to establish a baseline for protected wildlife species in the area. The City then uses this lack of data to justify the complete absence of any wildlife mitigation measures. Given that even a limited perimeter survey detected multiple special-status species, the need for further data is clear. So too is the City's failure to incorporate any measures to address potential wildlife impacts into the MND or the Project itself. For these reasons, preparation of an EIR is not only warranted

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<sup>46</sup> Id.

<sup>47</sup> Id.

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but necessary to support a legally adequate impact analysis and to formulate appropriate and feasible mitigation measures.

## **CONCLUSION**

For the foregoing reasons, SAFER requests that the City prepare an Environmental Impact Report to analyze and mitigate the Project's significant adverse environmental impacts.

Sincerely,

*Mitchell E. Thielemann*

Mitchell E. Thielemann  
LOZEAU DRURY LLP

# EXHIBIT A

Shawn Smallwood, PhD  
3108 Finch Street  
Davis, CA 95616

Leilani Henry, Assistant Planner  
City of Hesperia Development Department, Planning Division  
9700 Seventh Avenue  
Hesperia, California 92345

19 March 2025

RE: Bickmore Warehouse

Dear Ms. Henry,

I write to comment on potential impacts to biological resources from the proposed Bickmore Warehouse project, which I understand would add two warehouses totaling 79,778 square-feet of floor space on 5.22 acres at the southwest corner of Mojave Street and E Avenue in Hesperia, California. I comment on the analyses of impacts to biological resources in the Initial Study/Mitigated Negative Declaration (IS/MND).

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 anthroposphere, 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.

## **THE WILDLIFE COMMUNITY AS BIOLOGICAL RESOURCE**

Most environmental reviews pursuant to the California Environmental Quality Act (CEQA) focus on special-status species because CEQA's Checklist Evaluation of Environmental Impacts specifies that such evaluation includes potential impacts to special-status species. However, an important policy of CEQA is "to prevent the elimination of fish or wildlife species due to man's activities, insure that fish and wildlife populations do not drop below self-perpetuating levels, and preserve for future generations representations of all plant and animal communities and examples of the major periods of California history." Pub. Res. Code § 21001(c). This policy is not restricted to special-status species, but applies to wildlife populations and plant and animal communities. In fact, the CEQA Guidelines Section 21155.1 defines wildlife habitat as "the ecological communities upon which wild animals, birds, plants, fish, amphibians, and invertebrates depend for their conservation and protection." The CEQA Checklist Evaluation assigns priority to special-status species to balance

information and cost, but it does not exclude the need to evaluate environmental impacts to other species, which, after all, are members of the very communities within which special-status species inter-depend for survival and reproduction.

All wildlife species should be of concern in a CEQA review, but the CEQA prioritizes special-status species. The species I consider to be special-status species are those listed in California's Special Animals List inclusive of threatened and endangered species under the California and federal Endangered Species Acts, candidates for listing under CESA and FESA, California's Fully Protected Species, California species of special concern, and California's Taxa to Watch List (<https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109406>), continental and region-specific US Fish and Wildlife Service Birds of Conservation Concern (<https://www.fws.gov/sites/default/files/documents/birds-of-conservation-concern-2021.pdf>), and naturally rare species such as raptors protected by California's Birds of Prey laws, Fish and Game Code Sections 3503, 3503.5, 3505 and 3513 (see <https://wildlife.ca.gov/Conservation/Birds/Raptors>).


## **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 2.83 hours from 06:14 to 09:04 hours on 6 March 2025. She walked the site's perimeter where accessible, 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 10-17 MPH south wind and temperatures of 37-42° F. The site is mostly undisturbed with Joshua tree woodland (Photos 1-3).

Noriko saw California gull (Photo 4), loggerhead shrike and American kestrel (Photos 5 and 6), common raven (Photo 7), rock pigeon (Photo 8), house finch (Photos 9 and 10), among the other species listed in Table 1. Noriko detected 14 species of vertebrate wildlife at or adjacent to the project site, including four species with special status (Table 1).

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



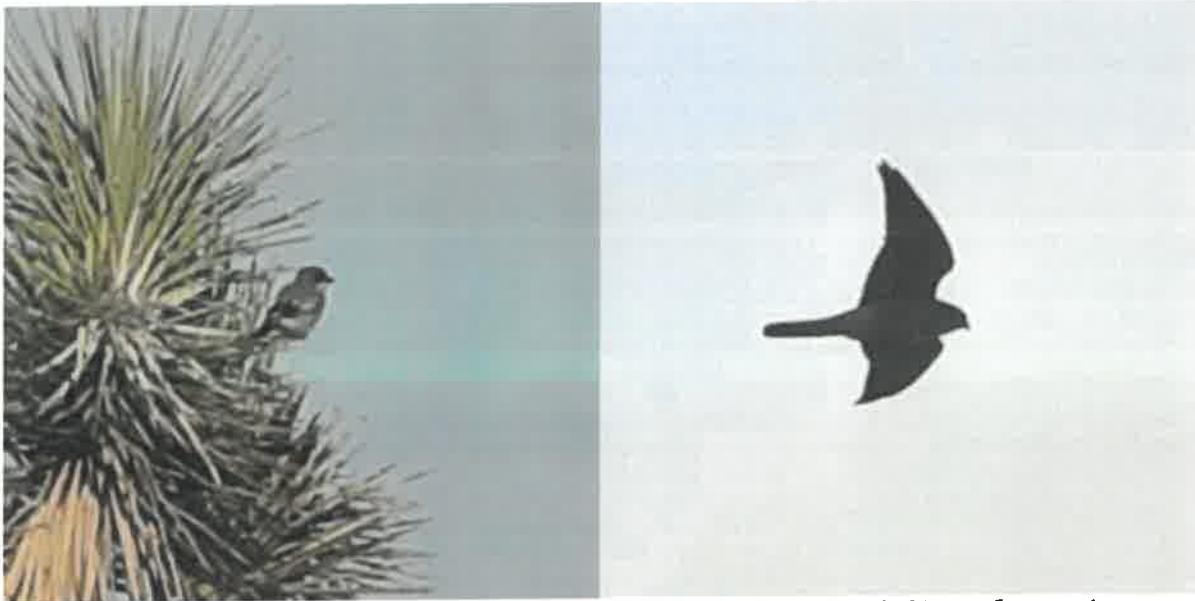
Noriko Smallwood



**Photos 1, 2, and 3.** Views of the project site, which contains Joshua tree (top), creosote (all), cholla (bottom), among other plant species, 6 March 2025. Photos by Noriko Smallwood.



**Photo 4.** *California gull on the project site, 6 March 2025. Photo by Noriko Smallwood.*



**Photos 5 and 6.** *Loggerhead shrike just off of the project site (left), and American kestrel on the project site (right), 6 March 2025. Photos by Noriko Smallwood.*



**Photo 7.** *Common raven on the project site, 6 March 2025. Photo by Noriko Smallwood.*



**Photo 8.** *Rock pigeons on the project site, 6 March 2025. Photo by Noriko Smallwood.*



**Photos 9 and 10.** *House finches on the project site, 6 March 2025. Photos by Noriko Smallwood.*

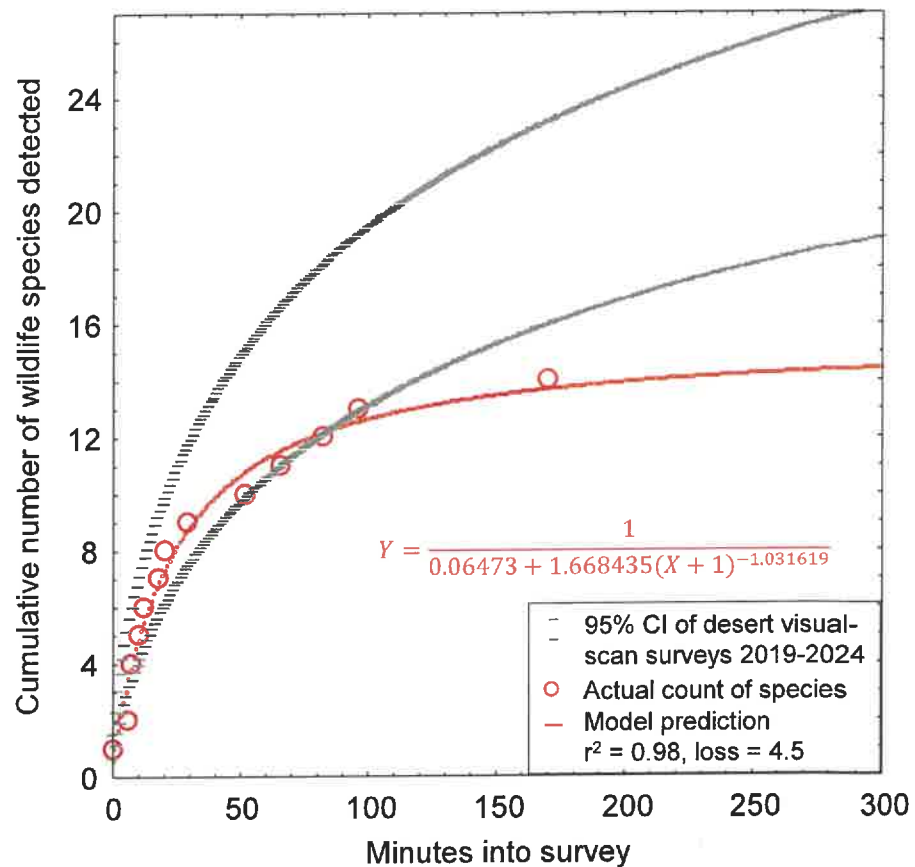
**Table 1.** Species of wildlife Noriko observed during 2.83 hours of survey on 6 March 2025.

Common name	Species name	Status <sup>1</sup>	Notes
Rock pigeon	<i>Columba livia</i>	Non-native	Flew over, perched just off site
California gull	<i>Larus californicus</i>	BCC, WL	Flew over
American kestrel	<i>Falco sparverius</i>	BOP	Flew over
Loggerhead shrike	<i>Lanius ludovicianus</i>	SSC2	Perched on Joshua tree just off site
Common raven	<i>Corvus corax</i>		Foraged, flew over
California horned lark	<i>Eremophila alpestris actia</i>	WL	On site and flew over
Tree swallow	<i>Tachycineta bicolor</i>		Flock flew over
Mountain bluebird	<i>Sialia currucoides</i>		Perched just off site
House sparrow	<i>Passer domesticus</i>	Non-native	Just off site
House finch	<i>Haemorphous mexicanus</i>		Foraged
Sparrow sp.			Likely Savannah sparrow or white-crowned sparrow
California ground squirrel	<i>Otospermophilus beecheyi</i>		Burrows
Domestic dog	<i>Canis familiaris</i>	Non-native	3 observed
Kangaroo rat	<i>Dipodomys sp.</i>		Many burrows

<sup>1</sup> Listed on Special Animals List as SSC = California Species of Special Concern (see Shuford and Gardali 2008 for numbers indicating priority of concern) or WL = Taxa to Watch List (<https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109406>); listed by U.S. Fish and Wildlife Service as BCC = Bird of Conservation Concern (<https://www.fws.gov/sites/default/files/documents/birds-of-conservation-concern-2021.pdf>); or protected as BOP = Birds of Prey (California Fish and Game Code 3503.5).

The species of wildlife Noriko detected at the project site comprised only a sampling of the species that were present during her survey. To demonstrate this, I fit a nonlinear regression model to Noriko's cumulative number of vertebrate species detected with time into her 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 fit to her survey data predict 15 species of vertebrate wildlife were available to be detected during each of her surveys, or only 1 more species than she detected (Figure 1).

**Figure 1.** Actual and predicted relationships between the numbers of vertebrate wildlife species detected and the elapsed survey time based on Noriko's visual-scan survey on 6 March 2025.



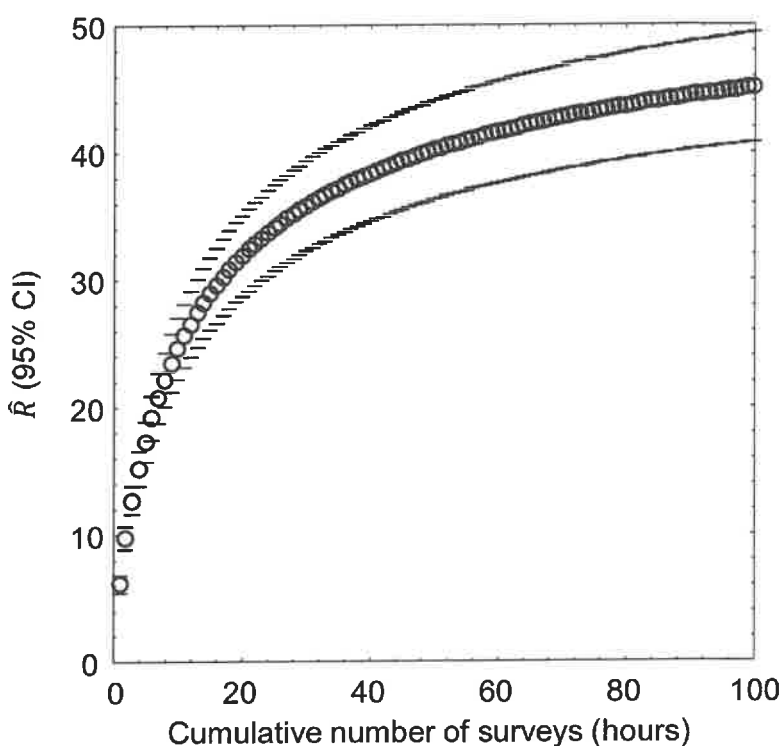
Unknown is the identity of the species Noriko missed, but the pattern in her data indicates average use of the project site compared to 19 surveys at other desert sites she and I have completed in California (Figure 1). Importantly, however, the species Noriko did and did not detect on 6 March composed 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 occurrence, and the members of many others would visit the site only periodically while patrolling large home ranges.

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 km<sup>2</sup> 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:  $\hat{R} = \frac{1}{1/a+b \times (\text{Hours})^c}$ , 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 12.2 species over my first 2.83 hours of surveys at my research site in the Altamont Pass (2.83 hours to match the 2.83 hours Noriko surveyed at the project site), which composed 21.4% 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 14 species Noriko detected after her 2.83 hours of survey at the project site likely represented 21.4% 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  $14/0.214 = 65$  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 65 predicted species, then continued surveys would eventually detect 19 special-status species of vertebrate wildlife.

**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.



Because my prediction of 65 species of vertebrate wildlife, including 19 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 one survey to inventory the project site's wildlife community. Nevertheless, the large number of species I predict at the project site is indicative of a relatively species-rich wildlife community that warrants a serious survey effort.

## **EXISTING ENVIRONMENTAL SETTING**

The first step in analysis of potential project impacts to biological resources is to accurately characterize the existing environmental setting, including the wildlife community and any key ecological relationships and known and ongoing threats to special-status species. A reasonably accurate characterization of the environmental setting can provide the 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 the 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 required steps remain incomplete and misleading.

Before I begin my comments on field surveys and desktop review, I need to address a mistaken view of species and habitat. According to the IS/MND (p. 32), "Sensitive biological resources include a variety of plant and animal species that are specialized and endemic to a particular habitat type." Habitat is defined as the portion of the environment that is used by members of a species for survival and reproduction (Hall et al. 1997, Morrison et al. 1998), whereas a habitat type refers to a vegetation complex. A species' habitat is not just a vegetation complex (Hall et al. 1997, Krausman 2016). A habitat is the home of a species, as it provides the cover, forage, templates for breeding, and opportunities for socialization, the combination of which is specific to the species, but which encompasses a portion of the aerosphere, underlying soils, water bodies and the biological community where the species is resident or seasonal at both ends of a migration route and all places in between. In other words, habitat is much more than a vegetation complex assigned to a "habitat type." Habitats of some species are more restricted geographically than of others, often contributing to species being referred to as sensitive because habitat loss to these species comprises a larger proportion of remaining habitat. Also contributing to the sensitivity of a species is the degree to which humans seek to take the species' habitat for economic gain. Thus, the IS/MND's insinuation is misleading that habitat types to which sensitive species are specialized and dependent upon do not exist on the project site. The insinuation pigeon-holes sensitive species into unidentified vegetation complexes that are supposedly not present.

For many species, it is unclear why the species is experiencing numerical decline or spatial contraction and therefore is labeled as sensitive. By far the most often hypothesized reasons are habitat loss and habitat fragmentation, but one specific portion of the habitat might account for the decline. The burrowing owl is a useful example, because it has long been associated with a wide range of open environments including the very environment of the project site, and it has long been described as exploitive of disturbed environments such as areas graded for roads or construction projects. Despite its seemingly robust nature, the burrowing owl is in rapid decline across all of California, recently prompting the California Fish and Game Commission to designate it a candidate for listing under the California Endangered Species Act. Habitat loss and habitat fragmentation is likely causing the decline of the burrowing owl, but a specific part of the burrowing owl's habitat might explain a disproportionate amount of the decline, and that is the loss of an important mutualist species – the ground squirrel (K. S. Smallwood unpublished data; Smallwood and Morrison 2018, 2024).

The IS/MND reports, "According to the United States Fish and Wildlife Service, there are no wetland or migratory bird nesting areas located within the project site." Unreported, however, is the basis of the USFWS 's findings. Did the USFWS perform surveys on the site? If the findings originate from a USFWS report, no such report is cited.

Shortly after the above statement, the IS/MND claims "No offsite ... migratory bird nesting areas would be affected by the proposed development since all development will be confined to the project site. *As a result, no impacts would occur.*" This finding combined with the previous finding implies that migratory birds do not nest anywhere. The IS/MND's findings cannot possibly be true. The bases of these findings are not reported, because they do not exist.

Furthermore, I am suspicious that the City paid little attention to what it wrote about the environmental setting. As an example, having repeatedly characterized the project site as "showing signs of human disturbances" (IS/MND: 3, 7, 9, 21, 24, 27, 32), which were later described as "severe artificial disturbances associated with offroad vehicle activity, discing, and installation of modern flood control culverts, and modern refuse dumping" (twice stated on p. 37), the IS/MND (p. 33) reports, "The site in its entirety is undisturbed." Of course, the site is not entirely undisturbed, nor are the disturbances that the IS/MND as severe in their consequences to plants and wildlife as the IS/MND implies. The disturbances were insufficiently severe to prevent the occurrences of 34 Joshua trees on the site, nor the wildlife that Noriko Smallwood detected on and around the site.

### **Environmental Setting informed by Field Surveys**

To the 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.

Other than Noriko Smallwood's survey, no surveys for wildlife have been completed at the project site. The City did not send any professional wildlife ecologists to survey the site. The IS/MND provides no reason for this deficiency of the CEQA review, but the failure to complete surveys for wildlife is a major deficiency that prevents disclosure of potential environmental impacts that would result from the project. The project should not move forward without having the appropriate foundation for impacts analyses and the formulation of a mitigation strategy.

Not only has there been no reconnaissance survey for wildlife on the project site, but no protocol-level detection surveys have been conducted for monarch, Crotch's bumble bee, Mohave Desert tortoises, Mohave ground squirrels, Swainson's hawks, burrowing owls or LeConte's thrashers. RCA (2023) surveyed the project site for Joshua trees, but not for any other species of rare plants. Thus, the CDFW (2018) survey guidelines for rare plants have also yet to be implemented. Except for Joshua trees, the findings of the IS/MND lack any connection to field surveys of plants and wildlife.

### **Environmental Setting informed by Desktop Review**

The purpose of literature and database reviews 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.

The IS/MND does not report on the findings of any desktop review. Findings of the USFWS are reported, but no source document is cited. The IS/MND presents no evidence that a review of wildlife occurrence records was completed. The IS/MND provides no reason for this deficiency of the CEQA review process, but the omission of a desktop review is a major deficiency that prevents disclosure of potential environmental impacts that would result from the project. The project should not move forward without having the appropriate foundation for impacts analyses and the formulation of a mitigation strategy.

In my assessment based on a database review and a site visit, 114 special-status species of wildlife are known to occur near enough to the site to warrant analysis of occurrence potential (Table 2). Of these 114 species, 4 (3.5%) were recorded on or just off the project site, and another 17 (15%) species have been documented within 1.5 miles of the site ('Very close'), another 29 (25%) within 1.5 and 4 miles ('Nearby'), and another 54 (47%) within 4 to 30 miles ('In region'). Almost half (44%) of the species in Table 2 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 the proximities of recorded occurrences. The site is far richer in special-status species than the City would have the reader believe.

**Table 2.** Occurrence likelihoods of special-status bird species inferred from proximities of occurrence records in 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 Smallwood.

Common name	Species name	Status <sup>1</sup>	Database records, Site visit
Monarch	<i>Danaus plexippus</i>	FC	In region
Crotch’s bumble bee	<i>Bombus crotchii</i>	CCE	Very close
Western pond turtle	<i>Emys marmorata</i>	SSC	In region
Mojave desert tortoise	<i>Gopherus agassizii</i>	FT, CE	In region
Blainville’s horned lizard	<i>Phrynosoma blainvillii</i>	SSC	In region
Brant	<i>Branta bernicla</i>	SSC2	In region
Cackling goose (Aleutian)	<i>Branta hutchinsii leucopareia</i>	WL	Nearby
Redhead	<i>Aythya americana</i>	SSC2	Nearby
Barrow’s goldeneye	<i>Bucephala islandica</i>	SSC	In region
Western grebe	<i>Aechmophorus occidentalis</i>	BCC	Nearby
Clark’s grebe	<i>Aechmophorus clarkii</i>	BCC	In region
Western yellow-billed cuckoo	<i>Coccyzus americanus occidentalis</i>	FT, CE	In region
Black swift	<i>Cypseloides niger</i>	SSC3, BCC	In region
Vaux’s swift	<i>Chaetura vauxi</i>	SSC2	Nearby
Costa’s hummingbird	<i>Calypte costae</i>	BCC	Very close
Calliope hummingbird	<i>Selasphorus calliope</i>	BCC	In region
Rufous hummingbird	<i>Selasphorus rufus</i>	BCC	Nearby
Allen’s hummingbird	<i>Selasphorus sasin</i>	BCC	Nearby
American avocet	<i>Recurvirostra americana</i>	BCC	Nearby
Mountain plover	<i>Charadrius montanus</i>	SSC2, BCC	In range
Snowy plover	<i>Charadrius nivosus</i>	BCC	In region
Western snowy plover	<i>Charadrius nivosus nivosus</i>	FT, SSC	In range
Long-billed curlew	<i>Numenius americanus</i>	WL	In region
Marbled godwit	<i>Limosa fedoa</i>	BCC	In region
Pectoral sandpiper	<i>Calidris melanotos</i>	BCC	In region
Short-billed dowitcher	<i>Limnodromus griseus</i>	BCC	In region
Lesser yellowlegs	<i>Tringa flavipes</i>	BCC	In region

<b>Common name</b>	<b>Species name</b>	<b>Status<sup>1</sup></b>	<b>Database records, Site visit</b>
Willet	<i>Tringa semipalmata</i>	BCC	In region
Franklin's gull	<i>Leucophaeus pipixcan</i>	BCC	In region
Heermann's gull	<i>Larus heermanni</i>	BCC	In region
California gull	<i>Larus californicus</i>	BCC, WL	<b>On site</b>
California least tern	<i>Sterna antillarum browni</i>	FE, CE, CFP	In region
Black tern	<i>Chlidonias niger</i>	SSC2, BCC	Nearby
Common loon	<i>Gavia immer</i>	SSC	Very close
Double-crested cormorant	<i>Phalacrocorax auritus</i>	WL	Very close
American white pelican	<i>Pelicanus erythrorhynchos</i>	SSC1	Nearby
Least bittern	<i>Ixobrychus exilis</i>	SSC2	In region
White-faced ibis	<i>Plegadis chihi</i>	WL	Nearby
Turkey vulture	<i>Cathartes aura</i>	BOP	Very close
Osprey	<i>Pandion haliaetus</i>	WL, BOP	Very close
White-tailed kite	<i>Elanus leucurus</i>	CFP, BOP	In region
Golden eagle	<i>Aquila chrysaetos</i>	BGEPA, CFP, BOP, WL	In region
Northern harrier	<i>Circus cyaneus</i>	BCC, SSC3, BOP	Nearby
Sharp-shinned hawk	<i>Accipiter striatus</i>	WL, BOP	Very close
Cooper's hawk	<i>Accipiter cooperii</i>	WL, BOP	Very close
Bald eagle	<i>Haliaeetus leucocephalus</i>	CE, BGEPA, BOP	Nearby
Red-shouldered hawk	<i>Buteo lineatus</i>	BOP	Nearby
Swainson's hawk	<i>Buteo swainsoni</i>	CT, BOP	Nearby
Red-tailed hawk	<i>Buteo jamaicensis</i>	BOP	Very close
Ferruginous hawk	<i>Buteo regalis</i>	WL, BOP	Nearby
Zone-tailed hawk	<i>Buteo albonotatus</i>	BOP	In region
Harris' hawk	<i>Parabuteo unicinctus</i>	WL, BOP	In region
Rough-legged hawk	<i>Buteo lagopus</i>	BOP	In region
American barn owl	<i>Tyto furcata</i>	BOP	Nearby
Western screech-owl	<i>Megascops kennicottii</i>	BOP	In region
Great horned owl	<i>Bubo virginianus</i>	BOP	Very close
Burrowing owl	<i>Athene cunicularia</i>	BCC, CCE, SSC2, BOP	Very close
Long-eared owl	<i>Asio otus</i>	BCC, SSC3, BOP	In region

<b>Common name</b>	<b>Species name</b>	<b>Status<sup>1</sup></b>	<b>Database records, Site visit</b>
Short-eared owl	<i>Asia flammeus</i>	BCC, SSC3, BOP	In region
Lewis's woodpecker	<i>Melanerpes lewis</i>	BCC	In region
Nuttall's woodpecker	<i>Picoides nuttallii</i>	BCC	Very close
American kestrel	<i>Falco sparverius</i>	BOP	<b>On site</b>
Merlin	<i>Falco columbarius</i>	WL, BOP	Very close
Peregrine falcon	<i>Falco peregrinus</i>	BOP	Nearby
Prairie falcon	<i>Falco mexicanus</i>	WL, BOP	Nearby
Olive-sided flycatcher	<i>Contopus cooperi</i>	BCC, SSC2	Nearby
Willow flycatcher	<i>Empidonax traillii</i>	CE	Nearby
Southwestern willow flycatcher	<i>Empidonax traillii extimus</i>	FE, CE	In region
Vermillion flycatcher	<i>Pyrocephalus rubinus</i>	SSC2	Nearby
Least Bell's vireo	<i>Vireo bellii pusillus</i>	FE, CE	In region
Gray vireo	<i>Vireo vicinior</i>	SSC2	In region
Loggerhead shrike	<i>Lanius ludovicianus</i>	SSC2	<b>Just off site</b>
Oak titmouse	<i>Baeolophus inornatus</i>	BCC	Very close
Verdin	<i>Auriparus flaviceps</i>	BCC	Very close
California horned lark	<i>Eremophila alpestris actia</i>	WL	<b>On site</b>
Bank swallow	<i>Riparia riparia</i>	CT	Nearby
Purple martin	<i>Progne subis</i>	SSC2	In region
Wrentit	<i>Chamaea fasciata</i>	BCC	In region
Black-tailed gnatcatcher	<i>Polioptila melanura</i>	WL	In region
California thrasher	<i>Toxostoma redivivum</i>	BCC	Nearby
LeConte's thrasher	<i>Toxostoma lecontei</i>	SSC1, BCC	In region
Cassin's finch	<i>Haemorhous cassinii</i>	BCC	Nearby
Lawrence's goldfinch	<i>Spinus lawrencei</i>	BCC	Very close
Black-chinned sparrow	<i>Spizella atrogularis</i>	BCC	In region
Gray-headed junco	<i>Junco hyemalis caniceps</i>	WL	In region
Bell's sparrow	<i>Amphispiza b. belli</i>	WL	In region
Oregon vesper sparrow	<i>Poocetes gramineus affinis</i>	SSC2	In range
Southern California rufous-crowned sparrow	<i>Aimophila ruficeps canescens</i>	WL	In region

Common name	Species name	Status <sup>1</sup>	Database records, Site visit
Yellow-breasted chat	<i>Icteria virens</i>	SSC3	Nearby
Yellow-headed blackbird	<i>Xanthocephalus xanthocephalus</i>	SSC3	Nearby
Bullock's oriole	<i>Icterus bullockii</i>	BCC	Nearby
Tricolored blackbird	<i>Agelaius tricolor</i>	CT, BCC, SSC1	In region
Lucy's warbler	<i>Leiothlypis luciae</i>	SSC3	In region
Virginia's warbler	<i>Leiothlypis virginiae</i>	WL, BCC	In region
Yellow warbler	<i>Setophaga petechia</i>	SSC2	Nearby
Summer tanager	<i>Piranga rubra</i>	SSC1	Nearby
California myotis	<i>Myotis californicus</i>	WBWG:L	In region
Small-footed myotis	<i>Myotis ciliolabrum</i>	WBWG: M	In range
Canyon bat	<i>Parastrellus hesperus</i>	WBWG: M	In region
Big brown bat	<i>Epistictus fuscus</i>	WBWG: L	In region
Silver-haired bat	<i>Lasionycteris noctivagans</i>	WBWG: M	In range
Hoary bat	<i>Lasiurus cinereus</i>	WBWG: M	In region
Spotted bat	<i>Euderma maculatum</i>	SSC, WBWG: H	In range
Townsend's big-eared bat	<i>Corynorhinus townsendii</i>	SSC, WBWG: H	In region
Pallid bat	<i>Antrozous pallidus</i>	SSC, WBWG: H	In range
Mexican free-tailed bat	<i>Tadarida brasiliensis</i>	WBWG: L	In region
Western mastiff bat	<i>Eumops perotis</i>	SSC, WBWG: H	In range
San Diego black-tailed jackrabbit	<i>Lepus californicus bennettii</i>	SSC	In region
Mohave ground squirrel	<i>Xerospermophilus mohavensis</i>	CT	In region
Pallid San Diego pocket mouse	<i>Chaetodipus fallax pallidus</i>	SSC	In range
Los Angeles pocket mouse	<i>Perognathus longimembris brevinasus</i>	SSC	In region
Southern grasshopper mouse	<i>Onychomys torridus ramona</i>	SSC	In range
American badger	<i>Taxidea taxus</i>	SSC	In region
Mountain lion	<i>Puma concolor</i>	CCT	Very close

<sup>1</sup> Listed on Special Animals List (<https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109406>) as FT or FE = federal threatened or endangered, FC = federal candidate for listing, CCT or CCE = Candidate California threatened or endangered, CFP = California Fully Protected (California Fish and Game Code 3511), SSC = California Species of Special Concern (see Shuford and Gardali 2008 for numbers indicating priority of concern), CT or CE = California threatened or endangered, 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, and SSC1, SSC2 and SSC3 = California Bird Species of Special Concern priorities 1, 2 and 3, respectively, per Shuford and Gardali 2008), WL = Taxa to Watch List, and WBWG = Western Bat Working Group with priority rankings, of low (L), moderate (M), and high (H); listed by U.S. Fish and Wildlife Service (<https://www.fws.gov/sites/default/files/documents/birds-of-concern-2021.pdf>) as BCC = Bird of Conservation Concern; or protected as BOP = Birds of Prey (California Fish and Game Code 3503.5, see <https://wildlife.ca.gov/Conservation/Birds/Raptors>).

At least a fair argument can be made for the need to prepare an EIR to accurately characterize the existing environmental setting that is needed to appropriately analyze impacts and formulate mitigation measures.

## **BIOLOGICAL IMPACTS ASSESSMENT**

Accurate characterization of the existing environmental setting is an essential foundation for analysis of potential project impacts, but other than for Joshua trees, the IS/MND provides no foundation for impacts analysis related to plants and wildlife. An impacts analysis should consider whether and how the proposed project would affect members of each potentially occurring special-status species. In the following, I analyze several types of impacts likely to result from the project, none of which is addressed in the IS/MND.

### **HABITAT LOSS AND HABITAT FRAGMENTATION**

The IS/MND does not attempt to estimate the numerical or productive capacities of the site for nesting birds, probably because the IS/MND concludes that birds do not nest on the site. This conclusion, however, is not credible. The site is proven to serve as habitat to at least 14 species of wildlife which Noriko observed on the site, but the number of avian nest sites remains unknown. Because Noriko's survey was only a reconnaissance survey therefore unsuitable for detecting all bird nests on the site, estimating total nest density of birds was not possible. Fortunately, we have performed such surveys at other sites to estimate total nest density.

Franzeb (1978) estimated a total nest density of 0.183 nests/ha in California's southeastern desert environments, and Kozma and Mathews (1997) estimated total nest densities of 0.26 nests/acre in arroyos and 0.109 nests/acre on the uplands in the Chihuahuan Desert of New Mexico. As part of an ongoing study, Noriko Smallwood estimated 3.8 nests/acre on a 3.16-acre site of grassland in Murrieta, 0.62 nests/acre on a 4.83-acre site, and 0.93 nests/acre on grassland of the San Joaquin Wildlife Area. The average of the above is 0.98 nests/acre. This density applied to the 5.22 acres of the project site would predict 5.1 nest sites per year. Assuming 1.39 broods per nest site based on a review of 322 North American bird species, which averaged 1.39 broods per year, then I estimate an average 7.1 nest attempts per year at the project site. Assuming Young's (1948) study site typifies bird productivity of 2.9 fledged birds per nest attempt, then I predict 20.6 fledglings/year at the project site.

The loss of 5.1 nest sites and 7.1 nest attempts and 20.6 fledglings per year would qualify as significant impacts that have not been analyzed in the IS/MND. But the impacts would not end with the immediate loss of nest sites. 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):  $\{(nests/year \times chicks/nest \times number\ of\ years) + (2\ adults/nest \times nests/year) \times (number\ of\ years \div years/generation)\} \div (number\ of\ years) = 23\ birds\ per\ year\ denied\ to\ California.$

The loss of 23 birds per year would be a loss of considerable productive capacity that is currently provided by the project site. Most if not all these birds are protected by the federal Migratory Bird Treaty Act and by California's Migratory Bird Protection Act, both of which most strongly protect breeding migratory birds. Therefore, at least a fair argument can be made for the need to prepare an EIR to appropriately analyze project impacts to birds in the form of lost productive capacity caused by habitat loss.

## **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 IS/MND provides no serious analysis of the potential for the project to interfere with wildlife movement in the region. The IS/MND (p. 34) merely states, "The site's utility as a habitat and a migration corridor is constrained by the presence of an adjacent roadways and the development that is present in the neighboring areas. *As a result, no impacts would occur.*" However, the IS/MND cites no evidence that adjacent roads or adjacent development constrain habitats or wildlife movement in any way. If there was any veracity to the reasoning in the IS/MND on this issue, then Noriko Smallwood should not have been able to see the wildlife that she did.

The City of Hesperia did not retain any wildlife ecologists to survey the project site or its surroundings, as is standard practice in support of CEQA review. There has been no program of observation to characterize how wildlife use the site for movement in the region, let alone any surveys to determine which species of wildlife occur on or around the site. Given this lack of diligence to the CEQA review process, the City merely speculates that roads preclude habitat and wildlife movement. If the existence of roads truly serve as barriers to wildlife movement, then the issue of roadkill wildlife would not exist, but as I discuss below, one of the largest – if not the largest -- anthropogenic sources of wildlife mortality is collisions of wildlife with automobiles.

At least a fair argument can be made for the need to prepare an EIR to appropriately analyze the project's potential impacts to volant wildlife and how those impacts to movement can be mitigated.

## **TRAFFIC IMPACTS TO WILDLIFE**

The IS/MND neglects to address one of the project's most obvious, substantial impacts to wildlife, and that is wildlife mortality and injuries caused by project-generated traffic. Project-generated traffic would endanger wildlife that must, for various reasons, cross roads used by the project's traffic (Photos 1–4), including along roads far from the project footprint but which would nevertheless be traversed by automobiles head to or from the project's building. 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 1.** *A white-tailed antelope squirrel runs across the road just in the Coachella Valley, 26 May 2022. Such road crossings are usually successful, but too often prove fatal to the animal.*



**Photo 2.** *A coyote uses the crosswalk to cross a road on 2 February 2023. Not all drivers stop, nor do all animals use the crosswalk. Too often, animals are injured or killed when they attempt to cross roads.*



**Photos 3 and 4.** *Raccoon killed*



*on Road 31 just east of Highway 505 in Solano County (left; photo taken on 10 November 2018), and mourning dove killed by vehicle on a California road (right; photo by Noriko Smallwood, 21 June 2020.)*

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 9,462 animals killed by traffic on the road. This fatality number projected over 1.25 years and 2.5 miles of road translates to 3,028 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 188,191 animals killed per 100 km of road per year, or 22 times that of Loss et al.'s (2014) upper bound estimate and 53 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, although it would be helpful to have the availability of more studies like that of Mendelsohn et al. (2009) at additional locations. My analysis of the Mendelsohn et al. (2009) data resulted in an estimated 3,028 animals killed per mile along a county road in Contra Costa County. The estimated numbers of fatalities were 1.75% birds, 26.4% mammals (many mice and pocket mice, but also ground squirrels, desert cottontails, striped skunks, American badgers, raccoons, and others), 67.4% 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 4.4% 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 IS/MND does not report a prediction of annual VMT that would be generated by the project. However, I have kept track of predicted annual VMT at other proposed warehouse projects, from which I can generate a mean annual VMT per square foot of floor space. Based on 33 other warehouse projects, the mean annual VMT/sf was 21.54. Applying this mean to the 79,778 sf of the proposed warehouse would predict 1,718,418 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  $\times 2.5 \text{ miles} \times 365 \text{ days/year} \times 1.25 \text{ years} = 22,242,187.5 \text{ vehicle miles per } 9,462 \text{ wildlife fatalities, or } 2,351 \text{ vehicle miles per fatality. This rate divided into the predicted annual VMT would predict } 731 \text{ vertebrate wildlife fatalities per year due to project-generated traffic.}$

Based on my analysis, the project-generated traffic would cause substantial, significant impacts to wildlife. The IS/MND 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.

At least a fair argument can be made for the need to prepare an EIR to appropriately analyze the impact of wildlife collision mortality resulting from project-generated traffic.

### **CUMULATIVE IMPACTS**

The cumulative impacts analysis is fundamentally flawed, as its premise of no wildlife occurring on the project site lacks foundation in evidence. According to the IS/MND (p. 89), "The proposed project *would not* have impacts that are individually limited, but cumulatively considerable. The environmental impacts will not lead to a cumulatively significant impact on any of the issues analyzed herein." This analysis is conclusory. A cumulative impacts analysis needs to be completed.

### **MITIGATION MEASURES**

The IS/MND requires no mitigation for potential project impacts to wildlife. The only mitigation required for biological resources is directed to the 34 Joshua trees determined to occupy the site. Below are my comments on the Joshua tree mitigation followed by recommendations for mitigation that should be considered in an EIR.

Before I comment specifically on mitigation, however, I will repeat myself that the formulation of appropriate mitigation can only follow an adequate survey effort for wildlife on and around the project site. The available protocol-level detection survey guidelines also need to be implemented for multiple special-status species.

**BIO Mitigation No. 1.** Mitigation for direct impacts to the western Joshua trees within the Project site will be fulfilled through attainment of a Western Joshua Tree Conservation Act (WJTCA) Incidental Take Permit and a payment of the elected fees as described in Section 1927.3 of the WJTCA. California Department of Fish and Wildlife (CDFW) determines the final fee. Alternatively, mitigation will occur through off-site conservation or through a CDFW approved mitigation bank, or as required by a Section 2081 Incidental Take Permit.

**Comment:** Attainment of an ITP is not assured, but the BIO Mitigation No. 1 includes no statement of uncertainty about acquiring an ITP. Furthermore, nothing is said of the

relocation guidelines, nor of effectiveness monitoring and reporting. The required mitigation for take of Joshua trees appears incomplete.

## RECOMMENDED MEASURES

**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 the building's windows and with automobiles traveling to and from the building.

Thank you for your consideration,



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Shawn Smallwood, Ph.D.

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## Kenneth Shawn Smallwood

### Curriculum Vitae

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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 based on 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 founts 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 interspersions 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>

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### **Comments on Environmental Documents (Year; pages)**

I was retained or commissioned to comment on environmental planning and review documents, including:

- Shirk & Riggin Industrial Park Application, Visalia (2022; 22);
- Duarte Industrial Application, Visalia (2022; 17);
- Amond World Cold Storage Warehouse IS/MND, Madera (2022; 23);
- Replies on Schulte Logistics Centre EIR, Tracy (2022; 28);
- Alta Cuvee Mixed Use Project Recirculated IS/MND, Ranch Cucamonga (2022; 8);
- Fourth visit, Veterans Affairs Site Plan Review No. 20-0102 MND, Bakersfield (2022; 9);
- Replies on 1242 20<sup>th</sup> Street Wellness Center Project FEIR, Santa Monica (2022; 5);
- 656 South San Vicente Medical Office Project EIR, Los Angeles (2022; 21);
- UCSF New Hospital at Parnassus Heights DEIR. San Francisco (2022; 40);
- DPR-21-021 Warehouse IS, Modesto (2022; 19);
- Ormat Brawley Solar Project DEIR, Brawley (2022; 37);
- Site visits to Heber 1 Geothermal Repower Project IS/MND (2022; 31);
- Heritage Industrial Center Design Review, Chula Vista (2022; 13);
- Temporary Outdoor Vehicle Storage DEIR, Port of Hueneme (2022; 29);
- CNU Medical Center and Innovation Park DEIR, Natomas (2022; 35);
- Beverly Boulevard Warehouse IS/MND, Pico Rivera (2021; 28);
- Hagemon Properties IS/MND Amendment, Bakersfield (2022; 23);
- Airport Distribution Center IS/MND, Redding (2021; 22);
- Orchard on Nevada Warehouse Staff Report, Redlands (2021; 24);
- Landings Logistics Center Exemption, Bakersfield (2021; 19);
- Replies on Hearn Veterans Village IS/MND, Santa Rosa (2021; 22);
- North Central Valley BESS Project IS/MND, Stockton (2021; 37);
- 2<sup>nd</sup> Replies on Heber 1 Geothermal Repower Project IS/MND (2022; 21);
- Stagecoach Solar DEIR, Barstow (2021; 24);
- Updated Sun Lakes Village North EIR Amendment 5, Banning, Riverside County (2021; 35);
- Freedom Circle Focus Area and Greystar General Plan Amendment Project EIR, San Jose (2021; 43);
- Operon HKI Warehouse IS/MND, Perris (2021; 26);
- Fairway Business Park Phase III IS/MND, Lake Elsinore (2021; 23);
- South Stockton Commerce Center IS/MND, Stockton (2021; 31);
- Starpoint Warehouse IS/MND, San Bernardino (2021; 24);
- Replies on Heber 1 Geothermal Repower Project IS/MND (2021; 15);
- Heber 1 Geothermal Repower Project IS/MND (2021; 11);

- Alviso Hotel Project IS/MND, San Jose (2021; 43);
- Replies on Easton Research Park West IS/MND, Rancho Cordova (2021; 3);
- Easton Research Park West IS/MND, Rancho Cordova (2021; 31);
- US Cold Storage DEIR, Hesperia (2021; 30);
- 1242 20<sup>th</sup> Street Wellness Center Project FEIR, Santa Monica (2021; 23);
- Third visit, Veterans Affairs Site Plan Review No. 20-0102 MND, Bakersfield (2021; 10);
- Roseland Creek Community Park Project IS/MND, Santa Rosa (2021; 23);
- Vista Mar Declaration of Irreparable Harm, Pacifica (2021; 3);
- LogistiCenter at Fairfield IS/MND (2021; 25);
- Alta Cuvee Mixed Use Project IS/MND, Ranch Cucamonga (2021; 29);
- Caligrows Architectural and Site Plan Review, Patterson (2021; 21);
- 1055 E. Sandhill Avenue Warehouse IS/MND, Carson (2021; 10);
- Chestnut & Tenth Street Commercial Project IS/MND, Gilroy (2021; 27);
- Libitzky Management Warehouse IS/MND, Modesto (2021; 20);
- 3rd Replies on Heber 2 Geothermal Repower Project IS/MND, El Centro (2021; 10);
- Medical Office Building DEIR, Santa Cruz (2021; 30);
- Scannell Warehouse DEIR, Richmond (2021; 24);
- Diamond Heights Application, San Francisco (2021; 24);
- Costa Azul Mixed-Use EIR Addendum, San Diego (2021; 25);
- Woodland Research Park DEIR (2021; 45);
- 2<sup>nd</sup> Replies on Diamond Street Industrial IS/MND, San Marcos (2021; 9);
- Replies on Diamond Street Industrial IS/MND, San Marcos (2021; 3);
- Diamond Street Industrial IS/MND, San Marcos (2021; 28);
- DHS 109 Industrial Park IS/MND, Desert Hot Springs (2021; 33);
- Jersey Industrial Complex Rancho Cucamonga (2022; 22);
- 1188 Champions Drive Parking Garage Staff Report, San Jose (2021; 5);
- San Pedro Mountain, Pacifica (2021; 22);
- Pixior Warehouse IS/MND, Hesperia (2021; 29);
- 2<sup>nd</sup> Replies on Heber 2 Geothermal Repower Project IS/MND, El Centro (2021; 9);
- Hearn Veterans Village IS/MND, Santa Rosa (2021; 23);
- Second visit, Veterans Affairs Site Plan Review No. 20-0102 MND, Bakersfield (2021; 11);
- Replies on Station East Residential/Mixed Use EIR, Union City (2021; 26);
- Schulte Logistics Centre EIR, Tracy (2021; 30);
- 4150 Point Eden Way Industrial Development EIR, Hayward (2021; 13);
- Airport Business Centre IS/MND, Manteca (2021; 27);
- Dual-branded Hotel IS/MND, Santa Clara (2021; 26);
- Legacy Highlands Specific Plan EIR, Beaumont (2021; 47);
- UC Berkeley LRDP and Housing Projects #1 and #2 EIR (2021; 27);
- Santa Maria Airport Business Park EIR, Santa Maria (2021; 27);
- Replies on Coachella Valley Arena EIR Addendum, Thousand Palms (2021; 20);
- Coachella Valley Arena EIR Addendum, Thousand Palms (2021; 35);
- Inland Harbor Warehouse NOD, Ontario (2021; 8);
- Alvarado Specific Plan DEIR, La Mesa (2021; 35);
- Harvill Avenue and Rider Street Terminal Project MND, Riverside (2021; 23);

- Gillespie Field EIR Addendum, El Cajon (2021; 28);
- Heritage Wind Energy Project section 94-c siting process, New York (2021: 99);
- Commercial Street Hotels project Site Plans, Oakland (2021; 19);
- Heber 1 Geothermal Repower Project MND, El Centro (2021; 11);
- Citrus-Slover Warehouse Project MND, Fontana (2021; 20);
- Scott Ranch Project RDEIR (Davidon Homes), Petaluma (2021; 31);
- Replies on StratosFuel Renewable H2 Project MND, Victorville (2021; 5);
- StratosFuel Renewable H2 Project MND, Victorville (2021; 25);
- Replies on PARS Global Storage MND, Murietta (2021; 22);
- Baldwin-Zacharias Master Plans EIR, Patterson (2021; 38);
- 1000 Gibraltar Drive EIR, Milpitas (2021; 20);
- Mango Avenue Industrial Warehouse Project, Fontana, MND (2021; 20);
- Veterans Affairs Site Plan Review No. 20-0102 MND, Bakersfield (2021; 25);
- Replies on UCSF Comprehensive Parnassus Heights Plan EIR (2021; 13);
- 14 Charles Hill Circle Design Review (2021; 11);
- SDG Commerce 217 Warehouse IS, American Canyon (2021; 26);
- Mulqueeney Ranch Wind Repowering Project DSEIR (2021; 98);
- Clawiter Road Industrial Project IS/MND, Hayward (2021; 18);
- Garnet Energy Center Stipulations, New York (2020);
- Heritage Wind Energy Project, New York (2020: 71);
- Ameresco Keller Canyon RNG Project IS/MND, Martinez (2020; 11);
- Cambria Hotel Project Staff Report, Dublin (2020; 19);
- Central Pointe Mixed-Use Staff Report, Santa Ana (2020; 20);
- Oak Valley Town Center EIR Addendum, Calimesa (2020; 23);
- Coachillin Specific Plan MND Amendment, Desert Hot Springs (2020; 26);
- Stockton Avenue Hotel and Condominiums Project Tiering to EIR, San Jose (2020; 19);
- Cityline Sub-block 3 South Staff Report, Sunnyvale (2020; 22);
- Station East Residential/Mixed Use EIR, Union City (2020; 21);
- Multi-Sport Complex & Southeast Industrial Annexation Suppl. EIR, Elk Grove (2020; 24);
- Sun Lakes Village North EIR Amendment 5, Banning, Riverside County (2020; 27);
- 2<sup>nd</sup> comments on 1296 Lawrence Station Road, Sunnyvale (2020; 4);
- 1296 Lawrence Station Road, Sunnyvale (2020; 16);
- Mesa Wind Project EA, Desert Hot Springs (2020; 31);
- 11th Street Development Project IS/MND, City of Upland (2020; 17);
- Vista Mar Project IS/MND, Pacifica (2020; 17);
- Emerson Creek Wind Project Application, Ohio (2020; 64);
- Replies on Wister Solar Energy Facility EIR, Imperial County (2020; 12);
- Wister Solar Energy Facility EIR, Imperial County (2020; 28);
- Crimson Solar EIS/EIR, Mojave Desert (2020, 35) not submitted;
- Sakioka Farms EIR tiering, Oxnard (2020; 14);
- 3440 Wilshire Project IS/MND, Los Angeles (2020; 19);
- Replies on 2400 Barranca Office Development Project EIR, Irvine (2020; 8);
- 2400 Barranca Office Development Project EIR, Irvine (2020; 25);
- Replies on Heber 2 Geothermal Repower Project IS/MND, El Centro (2020; 4);

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- Heber 2 Geothermal Repower Project IS/MND, El Centro (2020; 3);
- Lots 4-12 Oddstad Way Project IS/MND, Pacifica (2020; 16);
- Declaration on DDG Visalia Warehouse project (2020; 5);
- Terraces of Lafayette EIR Addendum (2020; 24);
- AMG Industrial Annex IS/MND, Los Banos (2020; 15);
- Replies to responses on Casmalia and Linden Warehouse, Rialto (2020; 15);
- Clover Project MND, Petaluma (2020; 27);
- Ruby Street Apartments Project Env. Checklist, Hayward (2020; 20);
- Replies to responses on 3721 Mt. Diablo Boulevard Staff Report (2020; 5);
- 3721 Mt. Diablo Boulevard Staff Report (2020; 9);
- Steeno Warehouse IS/MND, Hesperia (2020; 19);
- UCSF Comprehensive Parnassus Heights Plan EIR (2020; 24);
- North Pointe Business Center MND, Fresno (2020; 14);
- Casmalia and Linden Warehouse IS, Fontana (2020; 15);
- Rubidoux Commerce Center Project IS/MND, Jurupa Valley (2020; 27);
- Haun and Holland Mixed Use Center MND, Menifee (2020; 23);
- First Industrial Logistics Center II, Moreno Valley IS/MND (2020; 23);
- GLP Store Warehouse Project Staff Report (2020; 15);
- Replies on Beale WAPA Interconnection Project EA & CEQA checklist (2020; 29);
- 2<sup>nd</sup> comments on Beale WAPA Interconnection Project EA & CEQA checklist (2020; 34);
- Beale WAPA Interconnection Project EA & CEQA checklist (2020; 30);
- Levine-Fricke Softball Field Improvement Addendum, UC Berkeley (2020; 16);
- Greenlaw Partners Warehouse and Distribution Center Staff Report, Palmdale (2020; 14);
- Humboldt Wind Energy Project DEIR (2019; 25);
- Sand Hill Supplemental EIR, Altamont Pass (2019; 17);
- 1700 Dell Avenue Office Project, Campbell (2019, 28);
- 1180 Main Street Office Project MND, Redwood City (2019; 19);
- Summit Ridge Wind Farm Request for Amendment 4, Oregon (2019; 46);
- Shafter Warehouse Staff Report (2019; 4);
- Park & Broadway Design Review, San Diego (2019; 19);
- Pinnacle Pacific Heights Design Review, San Diego (2019; 19);
- Pinnacle Park & C Design Review, San Diego (2019; 19);
- Preserve at Torrey Highlands EIR, San Diego (2019; 24);
- Santana West Project EIR Addendum, San Jose (2019; 18);
- The Ranch at Eastvale EIR Addendum, Riverside County (2020; 19);
- Hageman Warehouse IS/MND, Bakersfield (2019; 13);
- Oakley Logistics Center EIR, Antioch (2019; 22);
- 27 South First Street IS, San Jose (2019; 23);
- 2<sup>nd</sup> replies on Times Mirror Square Project EIR, Los Angeles (2020; 11);
- Replies on Times Mirror Square Project EIR, Los Angeles (2020; 13);
- Times Mirror Square Project EIR, Los Angeles (2019; 18);
- East Monte Vista & Aviator General Plan Amend EIR Addendum, Vacaville (2019; 22);
- Hillcrest LRDP EIR, La Jolla (2019; 36);

- 555 Portola Road CUP, Portola Valley (2019; 11);
- Johnson Drive Economic Development Zone SEIR, Pleasanton (2019; 27);
- 1750 Broadway Project CEQA Exemption, Oakland (2019; 19);
- Mor Furniture Project MND, Murietta Hot Springs (2019; 27);
- Harbor View Project EIR, Redwood City (2019; 26);
- Visalia Logistics Center (2019; 13);
- Cordelia Industrial Buildings MND (2019; 14);
- Scheu Distribution Center IS/ND, Rancho Cucamonga (2019; 13);
- Mills Park Center Staff Report, San Bruno (2019; 22);
- Site visit to Desert Highway Farms IS/MND, Imperial County (2019; 9);
- Desert Highway Farms IS/MND, Imperial County (2019; 12);
- ExxonMobil Interim Trucking for Santa Ynez Unit Restart SEIR, Santa Barbara (2019; 9);
- Olympic Holdings Inland Center Warehouse Project MND, Rancho Cucamonga (2019; 14);
- Replies to responses on Lawrence Equipment Industrial Warehouse, Banning (2019; 19);
- PARS Global Storage MND, Murietta (2019; 13);
- Slover Warehouse EIR Addendum, Fontana (2019; 16);
- Seefried Warehouse Project IS/MND, Lathrop (2019; 19)
- World Logistics Center Site Visit, Moreno Valley (2019; 19);
- Merced Landfill Gas-To-Energy Project IS/MND (2019; 12);
- West Village Expansion FEIR, UC Davis (2019; 11);
- Site visit, Doheny Ocean Desalination EIR, Dana Point (2019; 11);
- Replies to responses on Avalon West Valley Expansion EIR, San Jose (2019; 10);
- Avalon West Valley Expansion EIR, San Jose (2019; 22);
- Sunroad – Otay 50 EIR Addendum, San Diego (2019; 26);
- Del Rey Pointe Residential Project IS/MND, Los Angeles (2019; 34);
- 1 AMD Redevelopment EIR, Sunnyvale (2019; 22);
- Lawrence Equipment Industrial Warehouse IS/MND, Banning (2019; 14);
- SDG Commerce 330 Warehouse IS, American Canyon (2019; 21);
- PAMA Business Center IS/MND, Moreno Valley (2019; 23);
- Cupertino Village Hotel IS (2019; 24);
- Lake House IS/ND, Lodi (2019; 33);
- Campo Wind Project DEIS, San Diego County (DEIS, (2019; 14);
- Stirling Warehouse MND site visit, Victorville (2019; 7);
- Green Valley II Mixed-Use Project EIR, Fairfield (2019; 36);
- We Be Jammin rezone MND, Fresno (2019; 14);
- Gray Whale Cove Pedestrian Crossing IS/ND, Pacifica (2019; 7);
- Visalia Logistics Center & DDG 697V Staff Report (2019; 9);
- Mather South Community Masterplan Project EIR (2019; 35);
- Del Hombre Apartments EIR, Walnut Creek (2019; 23);
- Otay Ranch Planning Area 12 EIR Addendum, Chula Vista (2019; 21);
- The Retreat at Sacramento IS/MND (2019; 26);
- Site visit to Sunroad – Centrum 6 EIR Addendum, San Diego (2019; 9);
- Sunroad – Centrum 6 EIR Addendum, San Diego (2018; 22);
- North First and Brokaw Corporate Campus Buildings EIR Addendum, San Jose (2018; 30);

- South Lake Solar IS, Fresno County (2018; 18);
- Galloo Island Wind Project Application, New York (not submitted) (2018; 44);
- Doheny Ocean Desalination EIR, Dana Point (2018; 15);
- Stirling Warehouse MND, Victorville (2018; 18);
- LDK Warehouse MND, Vacaville (2018; 30);
- Gateway Crossings FEIR, Santa Clara (2018; 23);
- South Hayward Development IS/MND (2018; 9);
- CBU Specific Plan Amendment, Riverside (2018; 27);
- 2<sup>nd</sup> replies to responses on Dove Hill Road Assisted Living Project MND (2018; 11);
- Replies to responses on Dove Hill Road Assisted Living Project MND (2018; 7);
- Dove Hill Road Assisted Living Project MND (2018; 12);
- Deer Ridge/Shadow Lakes Golf Course EIR, Brentwood (2018; 21);
- Pyramid Asphalt BLM Finding of No Significance, Imperial County (2018; 22);
- Amare Apartments IS/MND, Martinez (2018; 15);
- Petaluma Hill Road Cannabis MND, Santa Rosa (2018; 21);
- 2<sup>nd</sup> comments on Zeiss Innovation Center IS/MND, Dublin (2018; 12);
- Zeiss Innovation Center IS/MND, Dublin (2018; 32);
- City of Hope Campus Plan EIR, Duarte (2018; 21);
- Palo Verde Center IS/MND, Blythe (2018; 14);
- Logisticcenter at Vacaville MND (2018; 24);
- IKEA Retail Center SEIR, Dublin (2018; 17);
- Merge 56 EIR, San Diego (2018; 15);
- Natomas Crossroads Quad B Office Project P18-014 EIR, Sacramento (2018; 12);
- 2900 Harbor Bay Parkway Staff Report, Alameda (2018; 30);
- At Dublin EIR, Dublin (2018; 25);
- Fresno Industrial Rezone Amendment Application No. 3807 IS (2018; 10);
- Nova Business Park IS/MND, Napa (2018; 18);
- Updated Collision Risk Model Priors for Estimating Eagle Fatalities, USFWS (2018; 57);
- 750 Marlborough Avenue Warehouse MND, Riverside (2018; 14);
- Replies to responses on San Bernardino Logistics Center IS (2018; 12);
- San Bernardino Logistics Center IS (2018; 19);
- CUP2017-16, Costco IS/MND, Clovis (2018; 11);
- Desert Land Ventures Specific Plan EIR, Desert Hot Springs (2018; 18);
- Ventura Hilton IS/MND (2018; 30);
- North of California Street Master Plan Project IS, Mountain View (2018; 11);
- Tamarind Warehouse MND, Fontana (2018; 16);
- Lathrop Gateway Business Park EIR Addendum (2018; 23);
- Centerpointe Commerce Center IS, Moreno Valley (2019; 18);
- Amazon Warehouse Notice of Exemption, Bakersfield (2018; 13);
- CenterPoint Building 3 project Staff Report, Manteca (2018; 23);
- Cessna & Aviator Warehouse IS/MND, Vacaville (2018; 24);
- Napa Airport Corporate Center EIR, American Canyon (2018, 15);
- 800 Opal Warehouse Initial Study, Mentone, San Bernardino County (2018; 18);
- 2695 W. Winton Ave Industrial Project IS, Hayward (2018; 22);

- Trinity Cannabis Cultivation and Manufacturing Facility DEIR, Calexico (2018; 15);
- Shoe Palace Expansion IS/MND, Morgan Hill (2018; 21);
- Newark Warehouse at Morton Salt Plant Staff Report (2018; 15);
- Northlake Specific Plan FEIR “Peer Review”, Los Angeles County (2018; 9);
- Replies to responses on Northlake Specific Plan SEIR, Los Angeles County (2018; 13);
- Northlake Specific Plan SEIR, Los Angeles County (2017; 27);
- Bogle Wind Turbine DEIR, east Yolo County (2017; 48);
- Ferrante Apartments IS/MND, Los Angeles (2017; 14);
- The Villages of Lakeview EIR, Riverside (2017; 28);
- Data Needed for Assessing Trail Management Impacts on Northern Spotted Owl, Marin County (2017; 5);
- Notes on Proposed Study Options for Trail Impacts on Northern Spotted Owl (2017; 4);
- Pyramid Asphalt IS, Imperial County (Declaration) (2017; 5);
- San Geronio Crossings EIR, Riverside County (2017; 22);
- Replies to responses on Jupiter Project IS and MND, Apple Valley (2017; 12);
- Proposed World Logistics Center Mitigation Measures, Moreno Valley (2017, 2019; 12);
- MacArthur Transit Village Project Modified 2016 CEQA Analysis (2017; 12);
- PG&E Company Bay Area Operations and Maintenance HCP (2017; 45);
- Central SoMa Plan DEIR (2017; 14);
- Suggested mitigation for trail impacts on northern spotted owl, Marin County (2016; 5);
- Colony Commerce Center Specific Plan DEIR, Ontario (2016; 16);
- Fairway Trails Improvements MND, Marin County (2016; 13);
- Review of Avian-Solar Science Plan (2016; 28);
- Replies on Pyramid Asphalt IS, Imperial County (2016; 5);
- Pyramid Asphalt IS, Imperial County (2016; 4);
- Agua Mansa Distribution Warehouse Project Initial Study (2016; 14);
- Santa Anita Warehouse MND, Rancho Cucamonga (2016; 12);
- CapRock Distribution Center III DEIR, Rialto (2016; 12);
- Orange Show Logistics Center IS/MND, San Bernardino (2016; 9);
- City of Palmdale Oasis Medical Village Project IS/MND (2016; 7);
- Comments on proposed rule for incidental eagle take, USFWS (2016, 49);
- Replies on Grapevine Specific and Community Plan FEIR, Kern County (2016; 25);
- Grapevine Specific and Community Plan DEIR, Kern County (2016; 15);
- Clinton County Zoning Ordinance for Wind Turbine siting (2016);
- Hallmark at Shenandoah Warehouse Project Initial Study, San Bernardino (2016; 6);
- Tri-City Industrial Complex Initial Study, San Bernardino (2016; 5);
- Hidden Canyon Industrial Park Plot Plan 16-PP-02, Beaumont (2016; 12);
- Kimball Business Park DEIR (2016; 10);
- Jupiter Project IS and MND, Apple Valley, San Bernardino County (2016; 9);
- Revised Draft Giant Garter Snake Recovery Plan of 2015 (2016, 18);
- Palo Verde Mesa Solar Project EIR, Blythe (2016; 27);
- Reply on Fairview Wind Project Natural Heritage Assessment, Ontario, Canada (2016; 14);
- Fairview Wind Project Natural Heritage Assessment, Ontario, Canada (2016; 41);
- Reply on Amherst Island Wind Farm Natural Heritage Assessment, Ontario (2015, 38);

- Amherst Island Wind Farm Natural Heritage Assessment, Ontario (2015, 31);
- Second Reply on White Pines Wind Farm, Ontario (2015, 6);
- Reply on White Pines Wind Farm Natural Heritage Assessment, Ontario (2015, 10);
- White Pines Wind Farm Natural Heritage Assessment, Ontario (2015, 9);
- Proposed Section 24 Specific Plan Agua Caliente Band of Cahuilla Indians DEIS (2015, 9);
- Replies on 24 Specific Plan Agua Caliente Band of Cahuilla Indians FEIS (2015, 6);
- Sierra Lakes Commerce Center Project DEIR, Fontana (2015, 9);
- Columbia Business Center MND, Riverside (2015; 8);
- West Valley Logistics Center Specific Plan DEIR, Fontana (2015, 10);
- Willow Springs Solar Photovoltaic Project DEIR (2015, 28);
- Alameda Creek Bridge Replacement Project DEIR (2015, 10);
- World Logistic Center Specific Plan FEIR, Moreno Valley (2015, 12);
- Elkhorn Valley Wind Power Project Impacts, Oregon (2015; 143);
- Bay Delta Conservation Plan EIR/EIS, Sacramento (2014, 21);
- Addison Wind Energy Project DEIR, Mojave (2014, 32);
- Replies on the Addison Wind Energy Project DEIR, Mojave (2014, 15);
- Addison and Rising Tree Wind Energy Project FEIR, Mojave (2014, 12);
- Palen Solar Electric Generating System FSA (CEC), Blythe (2014, 20);
- Rebuttal testimony on Palen Solar Energy Generating System (2014, 9);
- Seven Mile Hill and Glenrock/Rolling Hills impacts + Addendum, Wyoming (2014; 105);
- Rising Tree Wind Energy Project DEIR, Mojave (2014, 32);
- Replies on the Rising Tree Wind Energy Project DEIR, Mojave (2014, 15);
- Soitec Solar Development Project PEIR, Boulevard, San Diego County (2014, 18);
- Oakland Zoo expansion on Alameda whipsnake and California red-legged frog (2014; 3);
- Alta East Wind Energy Project FEIS, Tehachapi Pass (2013, 23);
- Blythe Solar Power Project Staff Assessment, California Energy Commission (2013, 16);
- Clearwater and Yakima Solar Projects DEIR, Kern County (2013, 9);
- West Antelope Solar Energy Project IS/MND, Antelope Valley (2013, 18);
- Cuyama Solar Project DEIR, Carrizo Plain (2014, 19);
- Desert Renewable Energy Conservation Plan (DRECP) EIR/EIS (2015, 49);
- Kingbird Solar Photovoltaic Project EIR, Kern County (2013, 19);
- Lucerne Valley Solar Project IS/MND, San Bernardino County (2013, 12);
- Tule Wind project FEIR/FEIS (Declaration) (2013; 31);
- Sunlight Partners LANDPRO Solar Project MND (2013; 11);
- Declaration in opposition to BLM fracking (2013; 5);
- Blythe Energy Project (solar) CEC Staff Assessment (2013;16);
- Rosamond Solar Project EIR Addendum, Kern County (2013; 13);
- Pioneer Green Solar Project EIR, Bakersfield (2013; 13);
- Replies on Soccer Center Solar Project MND (2013; 6);
- Soccer Center Solar Project MND, Lancaster (2013; 10);
- Plainview Solar Works MND, Lancaster (2013; 10);
- Alamo Solar Project MND, Mojave Desert (2013; 15);
- Replies on Imperial Valley Solar Company 2 Project (2013; 10);
- Imperial Valley Solar Company 2 Project (2013; 13);

- FRV Orion Solar Project DEIR, Kern County (PP12232) (2013; 9);
- Casa Diablo IV Geothermal Development Project (2013; 6);
- Reply on Casa Diablo IV Geothermal Development Project (2013; 8);
- Alta East Wind Project FEIS, Tehachapi Pass (2013; 23);
- Metropolitan Air Park DEIR, City of San Diego (2013; );
- Davidson Homes Tentative Subdivision Rezoning Project DEIR, Petaluma (2013; 9);
- Oakland Zoo Expansion Impacts on Alameda Whipsnake (2013; 10);
- Campo Verde Solar project FEIR, Imperial Valley (2013; 11pp);
- Neg Dec comments on Davis Sewer Trunk Rehabilitation (2013; 8);
- North Steens Transmission Line FEIS, Oregon (Declaration) (2012; 62);
- Summer Solar and Springtime Solar Projects IS/MND Lancaster (2012; 8);
- J&J Ranch, 24 Adobe Lane Environmental Review, Orinda (2012; 14);
- Replies on Hudson Ranch Power II Geothermal Project and Simbol Calipatria Plant II (2012; 8);
- Hudson Ranch Power II Geothermal Project and Simbol Calipatria Plant II (2012; 9);
- Desert Harvest Solar Project EIS, near Joshua Tree (2012; 15);
- Solar Gen 2 Array Project DEIR, El Centro (2012; 16);
- Ocotillo Sol Project EIS, Imperial Valley (2012; 4);
- Beacon Photovoltaic Project DEIR, Kern County (2012; 5);
- Butte Water District 2012 Water Transfer Program IS/MND (2012; 11);
- Mount Signal and Callexico Solar Farm Projects DEIR (2011; 16);
- City of Elk Grove Sphere of Influence EIR (2011; 28);
- Sutter Landing Park Solar Photovoltaic Project MND, Sacramento (2011; 9);
- Rabik/Gudath Project, 22611 Coleman Valley Road, Bodega Bay (CPN 10-0002) (2011; 4);
- Ivanpah Solar Electric Generating System (ISEGS) (Declaration) (2011; 9);
- Draft Eagle Conservation Plan Guidance, USFWS (2011; 13);
- Niles Canyon Safety Improvement Project EIR/EA (2011; 16);
- Route 84 Safety Improvement Project (Declaration) (2011; 7);
- Rebuttal on Whistling Ridge Wind Energy Power DEIS, Skamania County, (2010; 6);
- Whistling Ridge Wind Energy Power DEIS, Skamania County, Washington (2010; 41);
- Klickitat County's Decisions on Windy Flats West Wind Energy Project (2010; 17);
- St. John's Church Project DEIR, Orinda (2010; 14);
- Results Radio Zone File #2009-001 IS/MND, Conaway site, Davis (2010; 20);
- Rio del Oro Specific Plan Project FEIR, Rancho Cordova (2010; 12);
- Results Radio Zone File #2009-001, Mace Blvd site, Davis (2009; 10);
- Answers to Questions on 33% RPS Implementation Analysis Preliminary Results Report (2009; 9);
- SEPA Determination of Non-significance regarding zoning adjustments for Skamania County, Washington (Second Declaration) (2008; 17);
- Draft 1A Summary Report to CAISO (2008; 10);
- Hilton Manor Project Categorical Exemption, County of Placer (2009; 9);
- Protest of CARE to Amendment to the Power Purchase and Sale Agreement for Procurement of Eligible Renewable Energy Resources Between Hatchet Ridge Wind LLC and PG&E (2009; 3);

- Tehachapi Renewable Transmission Project EIR/EIS (2009; 142);
- Delta Shores Project EIR, south Sacramento (2009; 11 + addendum 2);
- Declaration in Support of Care's Petition to Modify D.07-09-040 (2008; 3);
- The Public Utility Commission's Implementation Analysis December 16 Workshop for the Governor's Executive Order S-14-08 to implement a 33% Renewable Portfolio Standard by 2020 (2008; 9);
- The Public Utility Commission's Implementation Analysis Draft Work Plan for the Governor's Executive Order S-14-08 to implement a 33% Renewable Portfolio Standard by 2020 (2008; 11);
- Draft 1A Summary Report to California Independent System Operator for Planning Reserve Margins (PRM) Study (2008; 7.);
- SEPA Determination of Non-significance regarding zoning adjustments for Skamania County, Washington (Declaration) (2008; 16);
- Colusa Generating Station, California Energy Commission PSA (2007; 24);
- Rio del Oro Specific Plan Project Recirculated DEIR, Mather (2008; 66);
- Replies on Regional University Specific Plan EIR, Roseville (2008; 20);
- Regional University Specific Plan EIR, Roseville (2008; 33);
- Clark Precast, LLC's "Sugarland" project, ND, Woodland (2008; 15);
- Cape Wind Project DEIS, Nantucket (2008; 157);
- Yuba Highlands Specific Plan EIR, Spenceville, Yuba County (2006; 37);
- Replies to responses on North Table Mountain MND, Butte County (2006; 5);
- North Table Mountain MND, Butte County (2006; 15);
- Windy Point Wind Farm EIS (2006; 14 and Powerpoint slide replies);
- Shiloh I Wind Power Project EIR, Rio Vista (2005; 18);
- Buena Vista Wind Energy Project NOP, Byron (2004; 15);
- Callahan Estates Subdivision ND, Winters (2004; 11);
- Winters Highlands Subdivision IS/ND (2004; 9);
- Winters Highlands Subdivision IS/ND (2004; 13);
- Creekside Highlands Project, Tract 7270 ND (2004; 21);
- Petition to California Fish and Game Commission to list Burrowing Owl (2003; 10);
- Altamont Pass Wind Resource Area CUP renewals, Alameda County (2003; 41);
- UC Davis Long Range Development Plan: Neighborhood Master Plan (2003; 23);
- Anderson Marketplace Draft Environmental Impact Report (2003; 18);
- Negative Declaration of the proposed expansion of Temple B'nai Tikyah (2003; 6);
- Antonio Mountain Ranch Specific Plan Public Draft EIR (2002; 23);
- Replies on East Altamont Energy Center evidentiary hearing (2002; 9);
- Revised Draft Environmental Impact Report, The Promenade (2002; 7);
- Recirculated Initial Study for Calpine's proposed Pajaro Valley Energy Center (2002; 3);
- UC Merced -- Declaration (2002; 5);
- Replies on Atwood Ranch Unit III Subdivision FEIR (2003; 22);
- Atwood Ranch Unit III Subdivision EIR (2002; 19);
- California Energy Commission Staff Report on GWF Tracy Peaker Project (2002; 20);
- Silver Bend Apartments IS/MND, Placer County (2002; 13);
- UC Merced Long-range Development Plan DEIR and UC Merced Community Plan DEIR (2001; 26);

- Colusa County Power Plant IS, Maxwell (2001; 6);
- Dog Park at Catlin Park, Folsom, California (2001; 5);
- Calpine and Bechtel Corporations' Biological Resources Implementation and Monitoring Program (BRMIMP) for the Metcalf Energy Center (2000; 10);
- Metcalf Energy Center, California Energy Commission FSA (2000);
- US Fish and Wildlife Service Section 7 consultation with the California Energy Commission regarding Calpine and Bechtel Corporations' Metcalf Energy Center (2000; 4);
- California Energy Commission's Preliminary Staff Assessment of the proposed Metcalf Energy Center (2000: 11);
- Site-specific management plans for the Natomas Basin Conservancy's mitigation lands, prepared by Wildlands, Inc. (2000: 7);
- Affidavit of K. Shawn Smallwood in Spirit of the Sage Council, et al. (Plaintiffs) vs. Bruce Babbitt, Secretary, U.S. Department of the Interior, et al. (Defendants), Injuries caused by the No Surprises policy and final rule which codifies that policy (1999: 9).
- California Board of Forestry's proposed amended Forest Practices Rules (1999);
- Sunset Sky ranch Airport Use Permit IS/MND (1999);
- Ballona West Bluffs Project Environmental Impact Report (1999; oral presentation);
- Draft Recovery Plan for Giant Garter Snake (Fed. Reg. 64(176): 49497-49498) (1999; 8);
- Draft Recovery Plan for Arroyo Southwestern Toad (1998);
- Pacific Lumber Co. (Headwaters) HCP & EIR, Fortuna (1998; 28);
- Natomas Basin HCP Permit Amendment, Sacramento (1998);
- San Diego Multi-Species Conservation Program FEIS/FEIR (1997; 10);

#### **Comments on other Environmental Review Documents:**

- Proposed Regulation for California Fish and Game Code Section 3503.5 (2015: 12);
- Statement of Overriding Considerations related to extending Altamont Winds, Inc.'s Conditional Use Permit PLN2014-00028 (2015; 8);
- Covell Village PEIR, Davis (2005; 19);
- Bureau of Land Management Wind Energy Programmatic EIS Scoping (2003; 7.);
- NEPA Environmental Analysis for Biosafety Level 4 National Biocontainment Laboratory (NBL) at UC Davis (2003: 7);
- Notice of Preparation of UC Merced Community and Area Plan EIR, on behalf of The Wildlife Society—Western Section (2001: 8.);
- Preliminary Draft Yolo County Habitat Conservation Plan (2001; 2 letters totaling 35.);
- Merced County General Plan Revision, notice of Negative Declaration (2001: 2.);
- Notice of Preparation of Campus Parkway EIR/EIS (2001: 7.);
- Draft Recovery Plan for the bighorn sheep in the Peninsular Range (*Ovis candensis*) (2000);
- Draft Recovery Plan for the California Red-legged Frog (*Rana aurora draytonii*), on behalf of The Wildlife Society—Western Section (2000: 10.);
- Sierra Nevada Forest Plan Amendment Draft Environmental Impact Statement, on behalf of The Wildlife Society—Western Section (2000: 7.);
- State Water Project Supplemental Water Purchase Program, Draft Program EIR (1997);
- Davis General Plan Update EIR (2000);
- Turn of the Century EIR (1999: 10);

- Proposed termination of Critical Habitat Designation under the Endangered Species Act (Fed. Reg. 64(113): 31871-31874) (1999);
- NOA Draft Addendum to the Final Handbook for Habitat Conservation Planning and Incidental Take Permitting Process, termed the HCP 5-Point Policy Plan (Fed. Reg. 64(45): 11485 - 11490) (1999; 2 + attachments);
- Covell Center Project EIR and EIR Supplement (1997).

**Position Statements** I prepared the following position statements for the Western Section of The Wildlife Society, and one for nearly 200 scientists:

- Recommended that the California Department of Fish and Game prioritize the extermination of the introduced southern water snake in northern California. The Wildlife Society--Western Section (2001);
- Recommended that The Wildlife Society—Western Section appoint or recommend members of the independent scientific review panel for the UC Merced environmental review process (2001);
- Opposed the siting of the University of California's 10th campus on a sensitive vernal pool/grassland complex east of Merced. The Wildlife Society--Western Section (2000);
- Opposed the legalization of ferret ownership in California. The Wildlife Society--Western Section (2000);
- Opposed the Proposed "No Surprises," "Safe Harbor," and "Candidate Conservation Agreement" rules, including permit-shield protection provisions (Fed. Reg. Vol. 62, No. 103, pp. 29091-29098 and No. 113, pp. 32189-32194). This statement was signed by 188 scientists and went to the responsible federal agencies, as well as to the U.S. Senate and House of Representatives.

### **Posters at Professional Meetings**

Leyvas, E. and K. S. Smallwood. 2015. Rehabilitating injured animals to offset and rectify wind project impacts. Conference on Wind Energy and Wildlife Impacts, Berlin, Germany, 9-12 March 2015.

Smallwood, K. S., J. Mount, S. Standish, E. Leyvas, D. Bell, E. Walther, B. Karas. 2015. Integrated detection trials to improve the accuracy of fatality rate estimates at wind projects. Conference on Wind Energy and Wildlife Impacts, Berlin, Germany, 9-12 March 2015.

Smallwood, K. S. and C. G. Thelander. 2005. Lessons learned from five years of avian mortality research in the Altamont Pass WRA. AWEA conference, Denver, May 2005.

Neher, L., L. Wilder, J. Woo, L. Spiegel, D. Yen-Nakafugi, and K.S. Smallwood. 2005. Bird's eye view on California wind. AWEA conference, Denver, May 2005.

Smallwood, K. S., C. G. Thelander and L. Spiegel. 2003. Toward a predictive model of avian fatalities in the Altamont Pass Wind Resource Area. Windpower 2003 Conference and Convention, Austin, Texas.

Smallwood, K.S. and Eva Butler. 2002. Pocket Gopher Response to Yellow Star-thistle Eradication as part of Grassland Restoration at Decommissioned Mather Air Force Base, Sacramento County,

California. White Mountain Research Station Open House, Barcroft Station.

Smallwood, K.S. and Michael L. Morrison. 2002. Fresno kangaroo rat (*Dipodomys nitratoideus*) Conservation Research at Resources Management Area 5, Lemoore Naval Air Station. White Mountain Research Station Open House, Barcroft Station.

Smallwood, K.S. and E.L. Fitzhugh. 1989. Differentiating mountain lion and dog tracks. Third Mountain Lion Workshop, Prescott, AZ.

Smith, T. R. and K. S. Smallwood. 2000. Effects of study area size, location, season, and allometry on reported *Sorex* shrew densities. Annual Meeting of the Western Section of The Wildlife Society.

### **Presentations at Professional Meetings and Seminars**

Long-Term Population Trend of Burrowing Owls in the Altamont. Golden Gate Audubon, 21 October 2020.

Long-Term Population Trend of Burrowing Owls in the Altamont. East Bay Regional Park District 2020 Stewardship Seminar, Oakland, California, 18 November 2020.

Smallwood, K.S., D.A. Bell, and S. Standish. Dogs detect larger wind energy effects on bats and birds. The Wildlife Society, 28 September 2020.

Smallwood, K.S. and D.A. Bell. Effects of wind turbine curtailment on bird and bat fatalities in the Altamont Pass Wind Resource Area. The Wildlife Society, 28 September 2020.

Smallwood, K.S., D.A. Bell, and S. Standish. Dogs detect larger wind energy effects on bats and birds. The Wildlife Survey, 7 February 2020.

Smallwood, K.S. and D.A. Bell. Effects of wind turbine curtailment on bird and bat fatalities in the Altamont Pass Wind Resource Area. The Wildlife Survey, 7 February 2020.

Dog detections of bat and bird fatalities at wind farms in the Altamont Pass Wind Resource Area. East Bay Regional Park District 2019 Stewardship Seminar, Oakland, California, 13 November 2019.

Repowering the Altamont Pass. Altamont Symposium, The Wildlife Society – Western Section, 5 February 2017.

Developing methods to reduce bird mortality in the Altamont Pass Wind Resource Area, 1999-2007. Altamont Symposium, The Wildlife Society – Western Section, 5 February 2017.

Conservation and recovery of burrowing owls in Santa Clara Valley. Santa Clara Valley Habitat Agency, Newark, California, 3 February 2017.

Mitigation of Raptor Fatalities in the Altamont Pass Wind Resource Area. Raptor Research Foundation Meeting, Sacramento, California, 6 November 2015.

From burrows to behavior: Research and management for burrowing owls in a diverse landscape. California Burrowing Owl Consortium meeting, 24 October 2015, San Jose, California.

The Challenges of repowering. Keynote presentation at Conference on Wind Energy and Wildlife Impacts, Berlin, Germany, 10 March 2015.

Research Highlights Altamont Pass 2011-2015. Scientific Review Committee, Oakland, California, 8 July 2015.

Siting wind turbines to minimize raptor collisions: Altamont Pass Wind Resource Area. US Fish and Wildlife Service Golden Eagle Working Group, Sacramento, California, 8 January 2015.

Evaluation of nest boxes as a burrowing owl conservation strategy. Sacramento Chapter of the Western Section, The Wildlife Society. Sacramento, California, 26 August 2013.

Predicting collision hazard zones to guide repowering of the Altamont Pass. Conference on wind power and environmental impacts. Stockholm, Sweden, 5-7 February 2013.

Impacts of Wind Turbines on Wildlife. California Council for Wildlife Rehabilitators, Yosemite, California, 12 November 2012.

Impacts of Wind Turbines on Birds and Bats. Madrone Audubon Society, Santa Rosa, California, 20 February 2012.

Comparing Wind Turbine Impacts across North America. California Energy Commission Staff Workshop: Reducing the Impacts of Energy Infrastructure on Wildlife, 20 July 2011.

Siting Repowered Wind Turbines to Minimize Raptor Collisions. California Energy Commission Staff Workshop: Reducing the Impacts of Energy Infrastructure on Wildlife, 20 July 2011.

Siting Repowered Wind Turbines to Minimize Raptor Collisions. Alameda County Scientific Review Committee meeting, 17 February 2011

Comparing Wind Turbine Impacts across North America. Conference on Wind energy and Wildlife impacts, Trondheim, Norway, 3 May 2011.

Update on Wildlife Impacts in the Altamont Pass Wind Resource Area. Raptor Symposium, The Wildlife Society—Western Section, Riverside, California, February 2011.

Siting Repowered Wind Turbines to Minimize Raptor Collisions. Raptor Symposium, The Wildlife Society - Western Section, Riverside, California, February 2011.

Wildlife mortality caused by wind turbine collisions. Ecological Society of America, Pittsburgh, Pennsylvania, 6 August 2010.

Map-based repowering and reorganization of a wind farm to minimize burrowing owl fatalities. California burrowing Owl Consortium Meeting, Livermore, California, 6 February 2010.

Environmental barriers to wind power. Getting Real About Renewables: Economic and Environmental Barriers to Biofuels and Wind Energy. A symposium sponsored by the Environmental & Energy Law & Policy Journal, University of Houston Law Center, Houston, 23 February 2007.

Lessons learned about bird collisions with wind turbines in the Altamont Pass and other US wind farms. Meeting with Japan Ministry of the Environment and Japan Ministry of the Economy, Wild Bird Society of Japan, and other NGOs Tokyo, Japan, 9 November 2006.

Lessons learned about bird collisions with wind turbines in the Altamont Pass and other US wind farms. Symposium on bird collisions with wind turbines. Wild Bird Society of Japan, Tokyo, Japan, 4 November 2006.

Responses of Fresno kangaroo rats to habitat improvements in an adaptive management framework. California Society for Ecological Restoration (SERCAL) 13<sup>th</sup> Annual Conference, UC Santa Barbara, 27 October 2006.

Fatality associations as the basis for predictive models of fatalities in the Altamont Pass Wind Resource Area. EEI/APLIC/PIER Workshop, 2006 Biologist Task Force and Avian Interaction with Electric Facilities Meeting, Pleasanton, California, 28 April 2006.

Burrowing owl burrows and wind turbine collisions in the Altamont Pass Wind Resource Area. The Wildlife Society - Western Section Annual Meeting, Sacramento, California, February 8, 2006.

Mitigation at wind farms. Workshop: Understanding and resolving bird and bat impacts. American Wind Energy Association and Audubon Society. Los Angeles, CA. January 10 and 11, 2006.

Incorporating data from the California Wildlife Habitat Relationships (CWHR) system into an impact assessment tool for birds near wind farms. Shawn Smallwood, Kevin Hunting, Marcus Yee, Linda Spiegel, Monica Parisi. Workshop: Understanding and resolving bird and bat impacts. American Wind Energy Association and Audubon Society. Los Angeles, CA. January 10 and 11, 2006.

Toward indicating threats to birds by California's new wind farms. California Energy Commission, Sacramento, May 26, 2005.

Avian collisions in the Altamont Pass. California Energy Commission, Sacramento, May 26, 2005.

Ecological solutions for avian collisions with wind turbines in the Altamont Pass Wind Resource Area. EPRI Environmental Sector Council, Monterey, California, February 17, 2005.

Ecological solutions for avian collisions with wind turbines in the Altamont Pass Wind Resource Area. The Wildlife Society—Western Section Annual Meeting, Sacramento, California, January 19, 2005.

Associations between avian fatalities and attributes of electric distribution poles in California. The Wildlife Society - Western Section Annual Meeting, Sacramento, California, January 19, 2005.

Minimizing avian mortality in the Altamont Pass Wind Resources Area. UC Davis Wind Energy Collaborative Forum, Palm Springs, California, December 14, 2004.

Selecting electric distribution poles for priority retrofitting to reduce raptor mortality. Raptor Research Foundation Meeting, Bakersfield, California, November 10, 2004.

Responses of Fresno kangaroo rats to habitat improvements in an adaptive management framework. Annual Meeting of the Society for Ecological Restoration, South Lake Tahoe, California, October 16, 2004.

Lessons learned from five years of avian mortality research at the Altamont Pass Wind Resources Area in California. The Wildlife Society Annual Meeting, Calgary, Canada, September 2004.

The ecology and impacts of power generation at Altamont Pass. Sacramento Petroleum Association, Sacramento, California, August 18, 2004.

Burrowing owl mortality in the Altamont Pass Wind Resource Area. California Burrowing Owl Consortium meeting, Hayward, California, February 7, 2004.

Burrowing owl mortality in the Altamont Pass Wind Resource Area. California Burrowing Owl Symposium, Sacramento, November 2, 2003.

Raptor Mortality at the Altamont Pass Wind Resource Area. National Wind Coordinating Committee, Washington, D.C., November 17, 2003.

Raptor Behavior at the Altamont Pass Wind Resource Area. Annual Meeting of the Raptor Research Foundation, Anchorage, Alaska, September, 2003.

Raptor Mortality at the Altamont Pass Wind Resource Area. Annual Meeting of the Raptor Research Foundation, Anchorage, Alaska, September, 2003.

California mountain lions. Ecological & Environmental Issues Seminar, Department of Biology, California State University, Sacramento, November, 2000.

Intra- and inter-turbine string comparison of fatalities to animal burrow densities at Altamont Pass. National Wind Coordinating Committee, Carmel, California, May, 2000.

Using a Geographic Positioning System (GPS) to map wildlife and habitat. Annual Meeting of the Western Section of The Wildlife Society, Riverside, CA, January, 2000.

Suggested standards for science applied to conservation issues. Annual Meeting of the Western Section of The Wildlife Society, Riverside, CA, January, 2000.

The indicators framework applied to ecological restoration in Yolo County, California. Society for Ecological Restoration, September 25, 1999.

Ecological restoration in the context of animal social units and their habitat areas. Society for Ecological Restoration, September 24, 1999.

Relating Indicators of Ecological Health and Integrity to Assess Risks to Sustainable Agriculture and Native Biota. International Conference on Ecosystem Health, August 16, 1999.

A crosswalk from the Endangered Species Act to the HCP Handbook and real HCPs. Southern California Edison, Co. and California Energy Commission, March 4-5, 1999.

Mountain lion track counts in California: Implications for Management. Ecological & Environmental Issues Seminar, Department of Biological Sciences, California State University, Sacramento, November 4, 1998.

"No Surprises" -- Lack of science in the HCP process. California Native Plant Society Annual Conservation Conference, The Presidio, San Francisco, September 7, 1997.

In Your Interest. A half hour weekly show aired on Channel 10 Television, Sacramento. In this episode, I served on a panel of experts discussing problems with the implementation of the Endangered Species Act. Aired August 31, 1997.

Spatial scaling of pocket gopher (*Geomys*) density. Southwestern Association of Naturalists 44th Meeting, Fayetteville, Arkansas, April 10, 1997.

Estimating prairie dog and pocket gopher burrow volume. Southwestern Association of Naturalists 44th Meeting, Fayetteville, Arkansas, April 10, 1997.

Ten years of mountain lion track survey. Fifth Mountain Lion Workshop, San Diego, February 27, 1996.

Study and interpretive design effects on mountain lion density estimates. Fifth Mountain Lion Workshop, San Diego, February 27, 1996.

Small animal control. Session moderator and speaker at the California Farm Conference, Sacramento, California, Feb. 28, 1995.

Small animal control. Ecological Farming Conference, Asilomar, California, Jan. 28, 1995.

Habitat associations of the Swainson's Hawk in the Sacramento Valley's agricultural landscape. 1994 Raptor Research Foundation Meeting, Flagstaff, Arizona.

Alfalfa as wildlife habitat. Seed Industry Conference, Woodland, California, May 4, 1994.

Habitats and vertebrate pests: impacts and management. Managing Farmland to Bring Back Game Birds and Wildlife to the Central Valley. Yolo County Resource Conservation District, U.C. Davis, February 19, 1994.

Management of gophers and alfalfa as wildlife habitat. Orland Alfalfa Production Meeting and Sacramento Valley Alfalfa Production Meeting, February 1 and 2, 1994.

Patterns of wildlife movement in a farming landscape. Wildlife and Fisheries Biology Seminar

Series: Recent Advances in Wildlife, Fish, and Conservation Biology, U.C. Davis, Dec. 6, 1993.

Alfalfa as wildlife habitat. California Alfalfa Symposium, Fresno, California, Dec. 9, 1993.

Management of pocket gophers in Sacramento Valley alfalfa. California Alfalfa Symposium, Fresno, California, Dec. 8, 1993.

Association analysis of raptors in a farming landscape. Plenary speaker at Raptor Research Foundation Meeting, Charlotte, North Carolina, Nov. 6, 1993.

Landscape strategies for biological control and IPM. Plenary speaker, International Conference on Integrated Resource Management and Sustainable Agriculture, Beijing, China, Sept. 11, 1993.

Landscape Ecology Study of Pocket Gophers in Alfalfa. Alfalfa Field Day, U.C. Davis, July 1993.

Patterns of wildlife movement in a farming landscape. Spatial Data Analysis Colloquium, U.C. Davis, August 6, 1993.

Sound stewardship of wildlife. Veterinary Medicine Seminar: Ethics of Animal Use, U.C. Davis. May 1993.

Landscape ecology study of pocket gophers in alfalfa. Five County Grower's Meeting, Tracy, California. February 1993.

Turbulence and the community organizers: The role of invading species in ordering a turbulent system, and the factors for invasion success. Ecology Graduate Student Association Colloquium, U.C. Davis. May 1990.

Evaluation of exotic vertebrate pests. Fourteenth Vertebrate Pest Conference, Sacramento, California. March 1990.

Analytical methods for predicting success of mammal introductions to North America. The Western Section of the Wildlife Society, Hilo, Hawaii. February 1988.

A state-wide mountain lion track survey. Sacramento County Dept Parks and Recreation. April 1986.

The mountain lion in California. Davis Chapter of the Audubon Society. October 1985.

Ecology Graduate Student Seminars, U.C. Davis, 1985-1990: Social behavior of the mountain lion; Mountain lion control; Political status of the mountain lion in California.

#### **Other forms of Participation at Professional Meetings**

- Scientific Committee, Conference on Wind energy and Wildlife impacts, Berlin, Germany, March 2015.
- Scientific Committee, Conference on Wind energy and Wildlife impacts, Stockholm,

Sweden, February 2013.

- Workshop co-presenter at Birds & Wind Energy Specialist Group (BAWESG) Information sharing week, Bird specialist studies for proposed wind energy facilities in South Africa, Endangered Wildlife Trust, Darling, South Africa, 3-7 October 2011.
- Scientific Committee, Conference on Wind energy and Wildlife impacts, Trondheim, Norway, 2-5 May 2011.
- Chair of Animal Damage Management Session, The Wildlife Society, Annual Meeting, Reno, Nevada, September 26, 2001.
- Chair of Technical Session: Human communities and ecosystem health: Comparing perspectives and making connection. Managing for Ecosystem Health, International Congress on Ecosystem Health, Sacramento, CA August 15-20, 1999.
- Student Awards Committee, Annual Meeting of the Western Section of The Wildlife Society, Riverside, CA, January, 2000.
- Student Mentor, Annual Meeting of the Western Section of The Wildlife Society, Riverside, CA, January, 2000.

### **Printed Mass Media**

Smallwood, K.S., D. Mooney, and M. McGuinness. 2003. We must stop the UCD biolab now. Op-Ed to the Davis Enterprise.

Smallwood, K.S. 2002. Spring Lake threatens Davis. Op-Ed to the Davis Enterprise.

Smallwood, K.S. Summer, 2001. Mitigation of habitation. The Flatlander, Davis, California.

Entrikan, R.K. and K.S. Smallwood. 2000. Measure O: Flawed law would lock in new taxes. Op-Ed to the Davis Enterprise.

Smallwood, K.S. 2000. Davis delegation lobbies Congress for Wildlife conservation. Op-Ed to the Davis Enterprise.

Smallwood, K.S. 1998. Davis Visions. The Flatlander, Davis, California.

Smallwood, K.S. 1997. Last grab for Yolo's land and water. The Flatlander, Davis, California.

Smallwood, K.S. 1997. The Yolo County HCP. Op-Ed to the Davis Enterprise.

### **Radio/Television**

PBS News Hour,

FOX News, Energy in America: Dead Birds Unintended Consequence of Wind Power

Development, August 2011.

KXJZ Capital Public Radio -- Insight (Host Jeffrey Callison). Mountain lion attacks (with guest Professor Richard Coss). 23 April 2009;

KXJZ Capital Public Radio -- Insight (Host Jeffrey Callison). Wind farm Rio Vista Renewable Power. 4 September 2008;

KQED QUEST Episode #111. Bird collisions with wind turbines. 2007;

KDVS Speaking in Tongues (host Ron Glick), Yolo County HCP: 1 hour. December 27, 2001;

KDVS Speaking in Tongues (host Ron Glick), Yolo County HCP: 1 hour. May 3, 2001;

KDVS Speaking in Tongues (host Ron Glick), Yolo County HCP: 1 hour. February 8, 2001;

KDVS Speaking in Tongues (host Ron Glick & Shawn Smallwood), California Energy Crisis: 1 hour. Jan. 25, 2001;

KDVS Speaking in Tongues (host Ron Glick), Headwaters Forest HCP: 1 hour. 1998;

Davis Cable Channel (host Gerald Heffernon), Burrowing owls in Davis: half hour. June, 2000;

Davis Cable Channel (hosted by Davis League of Women Voters), Measure O debate: 1 hour. October, 2000;

KXTV 10, In Your Interest, The Endangered Species Act: half hour. 1997.

### **Committees**

- Scientific Review Committee, Alameda County, Altamont Pass Wind Resource Area
- Ph.D. Thesis Committee, Steve Anderson, University of California, Davis
- MS Thesis Committee, Marcus Yee, California State University, Sacramento

### **Other Professional Activities or Products**

Testified in Federal Court in Denver during 2005 over the fate of radio-nuclides in the soil at Rocky Flats Plant after exposure to burrowing animals. My clients won a judgment of \$553,000,000. I have also testified in many other cases of litigation under CEQA, NEPA, the Warren-Alquist Act, and other environmental laws. My clients won most of the cases for which I testified.

Testified before Environmental Review Tribunals in Ontario, Canada regarding proposed White Pines, Amherst Island, and Fairview Wind Energy projects.

Testified in Skamania County Hearing in 2009 on the potential impacts of zoning the County for development of wind farms and hazardous waste facilities.

Testified in deposition in 2007 in the case of O'Dell et al. vs. FPL Energy in Houston, Texas.

Testified in Klickitat County Hearing in 2006 on the potential impacts of the Windy Point Wind Farm.

**Memberships in Professional Societies**

The Wildlife Society  
Raptor Research Foundation

**Honors and Awards**

Fulbright Research Fellowship to Indonesia, 1987  
J.G. Boswell Full Academic Scholarship, 1981 college of choice  
Certificate of Appreciation, The Wildlife Society—Western Section, 2000, 2001  
Northern California Athletic Association Most Valuable Cross Country Runner, 1984  
American Legion Award, Corcoran High School, 1981, and John Muir Junior High, 1977  
CIF Section Champion, Cross Country in 1978  
CIF Section Champion, Track & Field 2 mile run in 1981  
National Junior Record, 20 kilometer run, 1982  
National Age Group Record, 1500 meter run, 1978

**Community Activities**

District 64 Little League Umpire, 2003-2007  
Dixon Little League Umpire, 2006-07  
Davis Little League Chief Umpire and Board member, 2004-2005  
Davis Little League Safety Officer, 2004-2005  
Davis Little League Certified Umpire, 2002-2004  
Davis Little League Scorekeeper, 2002  
Davis Visioning Group member  
Petitioner for Writ of Mandate under the California Environmental Quality Act against City of Woodland decision to approve the Spring Lake Specific Plan, 2002  
Served on campaign committees for City Council candidates

# EXHIBIT B

## Memorandum

**To:** Richard Drury, Lozeau Drury LLP  
**From:** Christopher Winchell  
Biologist, Rare Plant Ecologist  
**Date:** March 26, 2024  
**Re:** Bickmore Warehouse Site Visit and Response to ISMND

### Introduction

This memorandum documents the findings of the Bickmore Warehouse site visit in Hesperia, CA, including suitability determinations of special-status plants, western Joshua tree transplantation, identification of potentially regulated habitats, and incidental wildlife observations. This memorandum also provides an analysis of the Bickmore Warehouse ISMND relating to biological impacts.

### Methodology

Prior to the site visit, multiple sources of data were queried to identify recorded special-status plant species within the project and surrounding area, including published literature and public datasets. Special-status plant species include those that have Federal, State, local, or California Rare Plant Rank (CRPR) designations. This information was obtained from the following sources:

- Calflora
- California Department of Fish and Wildlife's (CDFW) California Natural Diversity Database
- California Native Plant Society's Online Inventory of Rare and Endangered Plants of California
- Consortium of California Herbaria (CCH2)
- U.S. Department of Agriculture's Natural Resources Conservation Service Soil Survey Geographic Database

The results of this search determined that at least 10 special-status plant species have potential to occur on the proposed project site. Determinations were based upon soils, vegetation alliances, and the proximity of existing records to the site.

- Booth's evening primrose (*Eremothera boothii* ssp. *boothii*), 2B.3
- Crowned muilla (*Muilla coronata*), CRPR 4.2
- Desert cymopteris (*Cymopteris deserticola*), CRPR 1B.2
- Indian breadroot (*Pediomelum castoreum*), CRPR 1B.2
- Mojave monardella (*Monardella exilis*), CRPR 4.2
- Mojave spineflower (*Chorizanthe spinosa*), CRPR 4.2
- Pygmy poppy (*Canbya candida*), CRPR 4.2
- Sagebrush loeflingia (*Loeflingia squarrosa* var. *artemisiarum*), CRPR 2B.2
- Short joint beavertail (*Opuntia basilaris* var. *brachyclada*), CRPR 1B.2
- Torrey's box thorn (*Lycium torreyi*), CRPR 4.2

The site visit was performed on March 14, 2025 by biologist Christopher Winchell to determine the site's suitability for special-status plant and animal species.

## Results

The site consists of anthropogenically disturbed Mohave desert scrub, with sandy to gravelly soils and a non-native herbaceous understory with a sparse shrub layer. The site is bordered by development and disturbed to intact Mohave desert scrub. A historic desert wash runs through the southern end of the project site and drains through a culvert under E Avenue; however, the wash appears to no longer have connectivity to the Mojave River due to development.

A total of seven living WJTs were detected within the project site boundary. WJTs were observed distributed throughout the site, with all but one in generally good health.

The site supports suitable conditions for the 10 special-status plant species identified as having potential to occur. However, none were confirmed to be present.

The site's vegetation structure, which can be characterized as open scrubland, was also found to be suitable for burrowing owl (*Athen cunicularia*), a CDFW Species of Special Concern. A potential kit fox den complex and suitably sized rodent burrows were observed along the perimeter of the site. Additionally, California ground squirrel (*Otospermophilus beechyi*), which dig suitable burrowing owl burrows, were observed in the vicinity of the site.

## Discussion

The seven living WJTs found on the proposed project site during the March 2025 site visit is consistent with the Rare Plant Preservation Plan completed in 2023 by RCA Associates, Inc. The RCA analysis indicated that three of the seven WJTs are suitable for transplantation. The factors for determining transplantation suitability outlined by the plan include damage, health, height, lean, proximity to other WJT, root exposure, and branching. Three WJTs were excluded from translocation due to height and excessive branching and/or lean. However, these trees were found to be suitable for transplantation during the March 2025 site visit based upon CDFW's Western Joshua Tree Relocation Guidelines and Protocols. The relocation guidelines do not exclude transplantation of trees based on height, branching, or lean, except in cases where trees exceed seven meters due to post transplantation stability concerns. The remaining WJT excluded for transplantation was rejected due to poor health. The CDFW guidelines and protocols also do not exclude WJT due to health, however, they do prioritize transplantation of trees where 60% or more of the branches are alive.

While the site has largely been anthropogenically disturbed, it was found to have potentially suitable conditions for the 10 special-status plant species identified as having potential to occur. Of these, five have a CRPR of 1B and 2B, ranks given to species that are rare, threatened, or endangered in California. Should any of these species occur on the site, implementation of the project would result in population reduction or loss and would require CEQA analysis to determine impact significance. The other five special-status plant species have a California Rare Plant Rank of 4, which is given to species of limited distribution, but are generally not considered to be rare, threatened, or endangered. However, when evaluating impacts to Rank 4 species, local rarity, regional distribution can provide rationale to consider CRPR 4 species occurrences as regionally rare and therefore CEQA analysis may be justified. Based upon existing information, the CRPR 4 species determined to have potential to occur onsite are also regionally uncommon to rare and may also require CEQA analysis should they be present onsite.

Suitable burrowing owl foraging and nesting habitat is present on and adjacent to the site. The open scrub habitat found onsite presents ideal foraging conditions for burrowing owl as it allows for greater

visibility and movement of foraging owls. The site also supports suitable habitat for desert kit fox and California ground squirrel, which dig burrows suitable for burrowing owl use, including those used for breeding. A number of potentially suitable burrows, including possible California ground squirrel and a desert kit fox den observed on the margins of the project site further indicate the site is suitable for burrowing owl use. Given the presence of suitable foraging habitat and potentially suitable burrows for burrowing owl use, protocol surveys may be necessary to determine if the project will result in significant impacts to the species or its habitat.

#### **Conclusion/Comment**

While the Bickmore Warehouse ISMND and the Rare Plant Preservation Plan do address western Joshua tree impacts, literature-based justification for determining transplantation suitability of western Joshua trees was not provided. The plan states that transplant suitability is “based on industry standards” and provides a bulleted list of the suitability criteria without citation or reference, resulting in the exclusion of four of the seven living western Joshua trees occurring on the project site. However, based upon CDFW’s Western Joshua Tree Relocation Guidelines and Protocols, all seven western Joshua trees are suitable for transplantation.

The project site may support suitable habitat for 10 special-status plant species, five of which meet the definition of being rare, threatened, or endangered in California, and five additional species that have a limited distribution but may also meet those criteria. Because suitable special-status plant habitat is present, surveys should be initiated to determine if any of these species occur on the site to evaluate if the project will result in significant impacts to any of these species.

The site and surrounding lands also support suitable burrowing owl foraging, denning, and nesting habitat. To determine presence and to minimize or prevent significant impacts to burrowing owl, protocol surveys should be implemented.

Based upon the findings of the site visit and literature review of the project and surrounding area, construction of the Bickmore Warehouse without CEQA review may result in significant impacts special-status plant species and burrowing owl.

Should you have any questions please contact me at (559) 907-6999 or [cjwinchell@gmail.com](mailto:cjwinchell@gmail.com).

Sincerely,

Christopher Winchell

# Christopher J. Winchell

PO Box 421, Prather CA, 93651 • cjwinchell@gmail.com • 559.907.6999

## PROFESSIONAL PROFILE

Mr. Winchell has been a professional biologist for over 20 years specializing in vegetation and rare plant surveys throughout California and has over 15 years of experience conducting wildlife surveys. Experienced with CEQA and NEPA document preparation and agency coordination and has led large scale field surveys and monitoring efforts for nearly 10 years.

### HIGHLIGHTS

- Special-status plant surveys
- Habitat mapping and assessments
- Nesting bird surveys and monitoring
- Wildlife surveys and monitoring
- Wetland delineations and monitoring
- Management of biological surveys and monitoring activities
- Management Plans
- CEQA/NEPA document preparation
- Client, Contractor, Field Team, and Agency communication

### EDUCATION

BS, Biology (Ecology and Evolution), Fresno State University

Wetland Delineation Certification from the Wetland Training Institute

### PUBLICATIONS

J. C. Stebbins, C. J. Winchell, and J. V. H. Constable. 2013. *Helianthus winteri* (Asteraceae), a new perennial species from the southern Sierra Nevada foothills, California. *Aliso* 31:19–24.

### MEMBERSHIPS/OTHER EXPERIENCE

### PROFESSIONAL EXPERIENCE

#### Senior Biologist, Imago Biological Consulting 2024–Present

- Rare plant surveys, taxonomy, assessments, habitat mapping
- Wildlife surveys and habitat assessments for a number of special-status species including Yosemite toad, California red-legged frog, California tiger salamander, foothill /Sierra Nevada yellow-legged frog, western pond turtle, valley elderberry longhorn beetle, and burrowing owl.
- Biological monitoring: lead construction monitor, nesting bird lead, wetland, plant, and wildlife.
- Large scale rare plant survey design and field management.
- Preparation of budgets and proposals.
- Agency coordination

#### Senior Biologist, Novaterra Biological Consulting

2021–Present

- Rare plant surveys, taxonomy, assessments, habitat mapping
- Wildlife surveys and habitat assessments for a number of special-status species including Yosemite toad, California red-legged frog, California tiger salamander, foothill /Sierra Nevada yellow-legged frog, western pond turtle, valley elderberry longhorn beetle, and burrowing owl.
- Biological monitoring: lead construction monitor, nesting bird lead, wetland, plant, and wildlife.
- Large scale rare plant survey design and field management.
- Preparation of budgets and proposals.
- Agency coordination

#### Senior Biologist, Colibri Ecological Consulting

2018–2021

- University of California, Berkley, Jepson Herbarium: workshop instructor.
- California Native Plant Society: Sequoia Chapter Rare Plant Chair; class and workshop instructor and coordinator.
- Sierra Foothill Conservancy: native plant instructor, and volunteer for 20 years.
- TWS: Led Carrizo Plain wildflower classes.
- Attended various workshops and rare plant treasure hunts. CRPR status reviewer for 4 regions.
- Maintains a personal herbarium with over 7,000 specimens
- Ongoing educational and biological collaborations with instructors at Fresno State University and Fresno City College.

- Rare plant surveys, taxonomy, assessments, habitat mapping, BA/BE preparation.
- Wetland delineations, LSAA and 401 permit preparation.
- Wildlife surveys and habitat assessments for Sierra Nevada red fox, pacific fisher, Yosemite toad, California red-legged frog, California tiger salamander, foothill / Sierra Nevada yellow-legged frog, western pond turtle, valley elderberry longhorn beetle, burrowing, great grey owl, and spotted owl.
- Biological monitoring: lead construction monitor, wetland, nesting bird, plant, and wildlife.
- Large scale rare plant survey design and field management.
- Agency coordination

#### **Ecologist II, H. T. Harvey & Associates**

*2008–2018*

- Rare plant surveys, taxonomy, vegetation assessments, and habitat mapping.
- Wetland delineations, LSAA and 401 permit preparation.
- Wildlife surveys and habitat assessments for giant kangaroo rat, Tipton kangaroo rat, San Joaquin antelope squirrel, San Joaquin kit fox, Sierra Nevada red fox, fisher, Yosemite toad, California red-legged frog, foothill /mountain yellow-legged frog, western pond turtle, valley elderberry longhorn beetle northern goshawk burrowing, great grey, and spotted owl. Blunt-nosed level II surveyor.
- Biological monitoring; lead construction monitor, wetland, nesting bird, plant, and wildlife.
- Preparation of CEQA and NEPA documents: EIR, BA/BE, IS, ND, MND, and other survey documents.
- Agency coordination
- Preparation of habitat management plans.
- Preparation of proposals and budgets.
- Small to large scale project plant and wildlife survey design and management.

#### **Associate Biologist, John Stebbins Biological Consulting**

*2002–2014*

- Rare and cultural plant surveys.
- Nesting bird surveys.
- Valley elderberry longhorn beetle surveys and monitoring.
- Wetland delineations.

#### **Botanist, Sierra National Forest**

*2004–2009*

- Rare plant surveys.
- Wetland delineations, montane fen mapping.
- Montane meadow evaluations.
- Yosemite toad, fisher, spotted owl, great grey owl, and northern goshawk surveys.
- Noxious weed surveys and eradication.
- Preparation of internal agency survey documents.
- Taxonomy and herbarium maintenance.

**Biologist, McCormick Biological**

*2004–2008*

- Blunt-nosed leopard lizard surveys.
- Rare plant surveys and habitat mapping.

**Biologist, Barbara Leitner Biological Consulting**

*2003–2006*

- Assisted mohave ground squirrel trapping at Naval Air Weapons Station China Lake.
- Vegetation surveys and noxious weed eradication at Naval Air Weapons Station China Lake.
- Habitat restoration and management.
- Rare plant surveys and habitat mapping

**RECENT PROJECT EXAMPLES**

- Lead botanist for rare plant surveys and vegetation mapping, burrowing owl protocol survey field lead for Southern California Edison's Lake Success Transmission and Distribution Project in Tulare County.
- Lead botanist for the Bullhead Solar project in Kern County.
- Designated Botanist and field lead for the Camino Solar Project Bakersfield cactus translocation project in Kern County
- Lead botanist for Southern California Edison's Canal Project in Riverside County.
- Construction lead monitor and Nesting Bird Lead for Southern California Edison's Big Creek System tower raising and reconductoring project, Lake Success Transmission and Distribution Project, and multiple CEMA Transmission Right of Way Projects. Conducted rare plant, wetland, and wildlife surveys and assessments in addition to lead monitor duties.
- Conducted rare plant and wildlife surveys for Southern California Edison's pole replacement program from Fresno to Kern County.
- Conducted rare plant and wildlife surveys, performed wetland delineations, weed assessments; drafted sections of the EIR, weed management plan, and habitat management plan; and monitored construction for the California Valley Solar Ranch

project in San Luis Obispo County. Played integral role, as a lead taxonomist, in identifying rare plants and assessing habitat for these species, implementing best management practices during construction near sensitive resources. Continuing long-term rare plant, vegetation study plots, and wetland monitoring of conservation lands. Designated Biologist for giant kangaroo rat, San Joaquin kit fox, and San Joaquin antelope squirrel.

- Conducted rare plant surveys, performed wetland delineations, drafted sections of the EIR and plant survey reports for the California Flats Solar Project in San Luis Obispo County. Lead taxonomist, designed and implemented intensive and adaptive survey protocols to compensate for drought conditions during the multi-year survey effort.
- Conducted rare plant surveys on conservation lands associated with the Panoche Valley Solar Farm project in Kings and Monterey Counties. Also conducted giant kangaroo precinct surveys for the following the large population expansion of the species throughout the proposed project site during construction. Lead crews, assisted with the development of survey methodology, managed data for this multi-month effort.
- Conducted and managed rare plant and blunt-nosed leopard lizard surveys, and drafted survey reports for the Alamo Spring Solar Project in Kings County. Lead surveyor for both the plant and blunt-nosed leopard lizard surveys; budget and schedule management, survey design and implementation.
- Conducted rare plant surveys, blunt-nosed leopard lizard surveys, wildlife surveys, performed wetland and nest monitoring, and drafted survey reports for a variety of Caltrans road projects in Fresno, Kings, and Kern Counties. Played a key role in survey design, budgeting, field crew management for rare plant and blunt-nosed leopard lizard surveys; conducted kit fox spotlight surveys, and performed multi-year nest and wetland monitoring for the Kings River Expressway project. Caltrans Designated Biologist for Swainson's hawk.
- Lead Construction Monitor for the Quinto Solar Project in Fresno County. Conducted surveys for rare plants. Monitored sensitive species and resources such as San Joaquin kit fox, badger, Swainson's hawk, rare plants, and wetlands; implemented BMP's, and maintained constant client communication.
- Conducted rare plant and weed surveys, drafted survey reports including BA/BE's, and provided weed management consultation for a variety of Ponderosa and Sierra Telephone projects from Fish Camp to Bass Lake.

- Conducted biological surveys and weed assessments in the Sierra Nevada Mountains for Southern California Edison's Deteriorated Pole Program and Pacific Gas and Electric's Operation Maintenance Program in Fresno, Madera, Mariposa, and Tulare Counties for 7 years.
- Conducted biological assessments, rare plant surveys, invasive species mapping, and drafted conservation baseline reports for conservation lands managed by Sierra Foothill Conservancy and Sequoia Riverlands Trust in the Sierra Nevada Mountains and Central Valley.
- Conducted rare plant and weed surveys, drafted survey reports, weed management plans for a variety of solar projects in the Central Valley including Pumpjack Solar, Wildwood Solar, and Westside solar.